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ground&water

Phase II Site Investigation Report

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY

On behalf of Alderbury Homes Limited

Report Reference: GWPR6594/SIR/July 2025 v1.01			Status: Final
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EXECUTIVE SUMMARY	
PROPOSED DEVELOPMENT	At the time of reporting, July 2025, the proposed development was understood to comprise the demolition of the existing structures and the construction of a terrace of two storey residential properties with associated soft landscaped areas and car parking.
GEOLOGY AND HYDROGEOLOGY	The British Geological Survey Solid and Drift Geology Map covering the Horton Heath area (Southampton Sheet No. 315) revealed that the site was underlain by bedrock deposits of the Wittering Formation classified as a Secondary A Aquifer. No superficial deposits or areas of Made Ground or Reworked Ground were noted within a 250m radius.
VOLUME CHANGE POTENTIAL	The cohesive soils of the Wittering Formation were shown to have a medium volume change potential in accordance with BRE240 and NHBC Standards Chapter 4.2 The granular soils of the wittering Formation were shown to have a volume change potential in accordance with BRE240 and no volume change potential in accordance with NHBC Standards Chapter 4.2.
FOUNDATION DESIGN	Foundations should be taken through any Topsoil or Made Ground and below any roots and found within the soils of the Wittering Formation at a depth of between 0.75 – 1.30m bgl. Foundations constructed on the Wittering Formation at the depths stated above can be designed based on a presumed allowable bearing capacity of 75kN/m^2. This is likely to increase to up to 100kN/m^2 at a depth of 1.30m bgl subject to confirmation of the soils encountered in the trial holes.
SUB-SURFACE CONCRETE	The sulphates fell into Class DS-1 and AC-1
CONTAMINATION	The comparison between the laboratory analysis and the assessment criteria indicates that there is an unacceptable risk to future receptors caused by exceedances of the following determinands: Arsenic; Benzo(a)pyrene; Benzo(b)fluoranthene; and Dibenzo(a,h)anthracene. Asbestos was identified within one sample during Phase I (TP9/0.70m) as chrysotile fibres within a fragment typical of asbestos cement. No quantification was undertaken at the time and therefore no quantification risk assessment could be carried out in accordance with the guidance within CIRIA 733.
GROUND GAS	Based upon the earlier investigation the site was classified as Characteristic Situation CS1 where no specific gas protection measures are required.
REMEDIATION	Based on the available information within this report it was proposed that the following remedial methodology should be undertaken around the two locations of contamination centred on trial holes TPA and TP9 with the area delineated by the holes excavated/drilled during the current investigation. In the vicinity of hotspot centred on TPA: • A reduce dig of 200mm in the vicinity of TPA to expose the natural soils; • Placement of 200mm certified clean capping of Subsoil and Topsoil; • Validation of the clean capping system by a suitably trained Ground and Water Limited engineer.

	In the vicinity of hotspot centred on TP9: • A reduce dig of 900mm to expose the natural soils; • Placement of 900mm certified clean capping of Subsoil and Topsoil; • Validation of the clean capping system by a suitably trained Ground and Water Limited Engineer.

1. INTRODUCTION

1.1. General

Ground and Water Limited were instructed by Alderbury Homes Limited (the Client), on 2nd August 2021, to conduct a Ground Investigation on the site at Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY (the Site). The scope of the investigation was detailed within the fee proposal GWQ6835 Rev2 dated 2nd August 2021.

Additional instructions were received for further investigation on 6th May 2025. The scope of the investigation was detailed within the fee proposal QU-1574, dated 1st May 2025.

1.2. Aims of the Investigation

The aim of this report was to supply the client and their designers with information regarding the ground conditions underlying the site to assist them in preparing an appropriate scheme for development.

The investigation was to be undertaken to provide parameters for the design of foundations by means of in-situ and laboratory geotechnical testing undertaken on soil samples recovered from trial holes.

A contamination assessment was to be undertaken following chemical laboratory testing on soil samples recovered from the site to enable recommendations for the safe redevelopment of the site and the protection of site workers, end-users and the public from any potential contamination identified. The assessment comprises a Tier 2 Generic Quantitative Risk Assessment, under Land Contamination Risk Management (LCRM), with the intention of discharging any relevant planning conditions.

This Site Investigation Report must be read in conjunction with the following reports:

- Lake Environmental Desk Study and Preliminary Assessment Report referenced DSPRA V1 July 2021;
- Ground and Water Limited Factual Contamination Report Ref.: GWPR4377/FCR/September 2021.

The techniques adopted for the investigation were chosen considering the requirements of the client, anticipated ground conditions, and bearing in mind the nature of the site, limitations to site access and other logistical limitations.

1.3. Conditions and Limitations

This report has been prepared based on the terms, conditions and limitations outlined within Appendix A.

This report includes reference to a previous Desk Study and Preliminary Risk Assessment Report produced by Lake Environmental (Ref.: DSPRA V1 July 2021). Ground and Water Limited cannot be held liable for any short comings of that report. The client will need to ensure that they have full reliance on the conclusions of the Desk study Report.

1.4. Technical Glossary

Generic technical terms and their description can be viewed within the glossary provided within Appendix B.

2. SITE SETTING

2.1. Site Location

The site comprised a ~22,940m^2 irregular-shaped plot of land, located along the western side of Knowle Lane. The site was located in the north-eastern portion of Horton Heath, north-east of Southampton.

The national grid reference for the centre of the site was approximately SU 49852 17641. A site location plan is given within Figure 1.

2.2. Site Description

The site was occupied by a long and narrow one-storey brick poultry house located along the eastern site boundary, with woodland and an embankment surrounding the building and occupying the centre and north-west of the site. The south and west of the site comprised an area of open field. Tarmac parking areas were located to the north and east of the building. The site was accessed off Knowle Lane through a metal gate.

2.3. Proposed Development

At the time of reporting, July 2025, the proposed development was understood to comprise the demolition of the existing structures and the construction of a terrace of two storey residential properties with associated soft landscaped areas and car parking.

2.4. Geology

The British Geological Survey Solid and Drift Geology Map for the Horton Heath area (Southampton Sheet No. 315) revealed that the site was underlain by bedrock deposits of the Wittering Formation. No superficial deposits were noted. No areas of Made Ground or Reworked Ground were noted within a 250m radius.

A BGS borehole (SU41NE231) located ~320m south-west of the site revealed a brown clay of the Wittering Formation (referenced as Bracklesham Group) to 18.20m bgl. No groundwater was noted. No other boreholes were available within the vicinity of the site.

2.5. Hydrogeology and Hydrology

A study of the aquifer maps on the DEFRA website revealed the site was underlain by a **Secondary (A) Aquifer** comprising bedrock deposits of the Wittering Formation. No designation was given for superficial deposits due to their likely absence.

From analysis of hydrogeological and topographical maps the actual groundwater table was anticipated to be encountered at shallow to moderate depth within the Wittering Formation. Some amounts of perched water however may be present at shallower depths within Made Ground. It was considered that groundwater was flowing in a south-westerly to westerly direction toward the River Itchen in line with local topography.

The nearest surface water feature was an unnamed stream which was located along the north-west boundary of the site, associated with Quobleigh Pond, ~500m west of the site. The stream was flowing in a south-west direction. No other surface water features were located within 250m of the site.

Examination of the Environment Agency records showed that the site was located within a Flood Zone 1, i.e. an area with a very low probability of flooding.

2.6. Radon

A review of the freely available Public Health England radon database, UK Radon, indicated that the site was located within a 1km grid square, where the maximum radon potential of <1% was recorded. The neighbouring 1km grid square was noted to have a maximum radon potential of 1 – 3%. Basic radon protection measures are required in areas where more than 3% of houses are at or above the Action Level.

The site was in an area where a risk assessment was not required.

2.7. Internet Search (Site Setting)

2.7.1. Available Unexploded Ordnance (UXO) Map Review

A review of the data available on www.zeticauxo.com/ revealed the site was located within a low -risk area associated with unexploded ordnance (UXO), as indicated by having <15 bombs dropped per 1000 acres. No strategic targets were located within 1000m of the site.

2.7.2. Historical Landfill Tool Review

A review of the data available on www.groundsure.io/ revealed no areas of Historical Landfilling within 250m of the site.

2.8. Previous Desk Study

The results of the previous Desk Study were reported in the Lake Environmental Desk Study and Preliminary Assessment Report referenced DSPRA V1 July 2021.

The main features of the site history were that the site remained open agricultural land until the development of the poultry house between 1957 and 1962 in the eastern portion of the site. This required a cut and fill exercise to create a level platform. The remainder of the site remained open agricultural land. The report concluded that as no development works were proposed in that area, no further consideration in terms of contaminated land was required in that part of the site. Should additional information become available, or should intrusive investigation works identify an area of potential concern within that area, then this would need to change.

During the Site Walkover undertaken on 9th April 2021, the main on-site contaminants of concern were:

- Asbestos and asbestos cement sheeting;
- Fuel tank, fuel lines and fuel filler point;
- Chemical stores;
- Former bonfire location;

As a result, the report focused on the use of the eastern half of the site for poultry farming and associated potential contaminants and this was likely to have left residual contamination in the form of chemical compounds (including fuel oil) and potential asbestos containing material within the near surface soils.

The report refers to an area of sand extraction noted ~700m to the north and the subsequent intrusive investigation report supplied by Eastleigh Council.

- Review of archival information The Fair Oak Landfill Complex. Bournemouth University, May 2005;

- Fair Oak Landfill Study final interpretative report revision 1. Card Geotechnics Limited, June 2012.

A review of the above reports relating to the area of complex quarrying and landfilling to the north of the site was undertaken as part of the Desk Study. This revealed that the majority of the landfilling was complete by the mid to late 1970s. The area in closest proximity to the site (some 600+m north) was identified as Area F in the Card Geotechnics report and that the area was '*quarried in the 1970s and was later restored with waste. Landfilling ceased and the surface levels were restored by the late 1980s.*' The report also stated that a gas management and extraction system has been incorporated within the landfill in this area. The intrusive investigation included the analysis of a groundwater (leachate) sample taken from within Area F, where '*inspection of the results indicated that the concentrations of dissolved contaminants within this area are below the corresponding EQS and DWV standards. Therefore, it is considered that the risk to controlled waters was minimal.*' Based on this information the Desk Study Report concluded that the landfill to the north of the site did not represent a potential risk to the site from mobile contaminants in gaseous or dissolved phase.

There were no other potential off-site sources of contamination that were considered to be significant.

2.9. Preliminary Risk Assessment

The tabulated Conceptual Site Model based upon the Lake Environmental Desk Study and Preliminary Assessment Report referenced DSPRA V1 July 2021 is outlined overleaf. For ease of reference and understanding, the risks have been classified within this risk assessment against four possible levels / categories, summarised in the table below. Any risk deemed to be negligible within the Preliminary Risk Assessment have been excluded from this report.

Risk Categories used in the Tabulated CSM	
Low Risk	Regarding this potential SPR linkage, the site is considered suitable for the proposed end-use and there is not considered to be an unacceptable risk to receptors. However, it is considered that further investigation to confirm this is recommended.
Moderate Risk	Regarding this potential SPR linkage, the site may not be suitable for the proposed end-use in its current condition and there may be an unacceptable risk to receptors. Further investigation is required to confirm this.
High Risk	Regarding this potential SPR linkage, the site is probably or certainly not suitable for proposed end-use and there is likely to be an unacceptable risk to receptors. Contaminants probably or certainly present and urgent action required in the short term.

Tabulated Conceptual Site Model – Pollutant Linkage Summary (On-Site Sources)			
Potential Sources	**Potential Absorption Pathways**	**Potential Receptors**	**Risk Classification**
Made Ground from construction & demolition activities; cut and fill operations; and former use as poultry farm on-site: • Metals and Semi-Metals, • Asbestos and ACMs, • PAHs, • TPHs, • BTEX, • VOCs • Sulphates, • Phenol, • Cyanide, and • Harmful pH.	• Direct ingestion of soil and soil derived dust • Dermal contact of soil and soil derived dust • Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Ingestion of home-grown produce, and soils attached • Direct ingestion of groundwater • Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents / Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Moderate**
	• Direct uptake of groundwater	**Flora and Fauna** • Vegetation within nearby soft landscaped areas • Ecological receptors (deciduous woodland) • Habitat networks	**Low**
	• Anthropogenic (man-made) pathways • Vertical and lateral migration in permeable strata • Surface water runoff	**Controlled Waters** • Secondary A Aquifers underlying the site (Wittering Formation) • Stream along north-west boundary	**Low**
Asbestos within the makeup of the buildings on-site • Asbestos and ACMs,	• Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Inhalation of volatile vapour (indoors and outdoors)	Human Health • End Users (Residents/Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Moderate**
Leaks and spillages associated with fuel storage shed/filler location: • PAH/TPH.	• Direct ingestion of soil and soil derived dust • Dermal contact of soil and soil derived dust • Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Ingestion of home-grown produce, and soils attached • Direct ingestion of groundwater • Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents / Future site visitors) • Construction workers during development • Site operatives during maintenance works Neighbours and public **Flora and Fauna** • Vegetation within nearby soft landscaped areas • Ecological receptors (deciduous woodland) Habitat networks	**Moderate**
	• Direct uptake of groundwater		**Low**

Tabulated Conceptual Site Model – Pollutant Linkage Summary		(On-Site Sources)	
Potential Sources	**Potential Absorption Pathways**	**Potential Receptors**	**Risk Classification**
	• Anthropogenic (man-made) pathways • Vertical and lateral migration in permeable strata • Surface water runoff	**Controlled Waters** • Aquifers underlying the site (Secondary A Aquifer) Stream along north-west boundary	**Low**
Asbestos within the makeup of the buildings on-site • Asbestos and ACMs,	• Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents/Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Moderate**
Aggressive ground conditions with Made Ground and natural ground on-site, including groundwater: • Sulphates, • pH	• Direct contact of with aggressive ground conditions	**Building Materials and Services** • Buried Concrete	**Moderate**
Aggressive ground conditions within Made Ground and natural ground on-site, including groundwater: • PAH/TPH.	• Direct contact of with aggressive ground conditions	**Building Materials and Services** • Underground services (water pipes)	**Moderate**
Ground gases generated by on-site Made Ground: • Methane, • Carbon Dioxide, • Hydrogen Sulphide • Carbon Monoxide.	• Migration through anthropogenic & natural pathways • Inhalation of Asphyxiating gases • Explosion (methane only)	**Human Health** • End Users (Residents /Future site visitors) • Construction workers during development (especially in confined spaces) • Site operatives during maintenance works in confined spaces • Neighbours and public	**Low**
	• Migration through anthropogenic & natural pathways • Explosion (methane only)	**Building Materials and Services** • Buildings • Confined spaces • Underground services	**Low**
UXO Risk	• Explosion	**Human Health** • Construction workers during development	**Negligible**

Tabulated Conceptual Site Model – Pollutant Linkage Summary (On-Site Sources)			
Potential Sources	**Potential Absorption Pathways**	**Potential Receptors**	**Risk Classification**
		Building Materials and Services • Buildings	**Negligible**
Radon risk	• Migration through anthropogenic & natural pathways	**Human Health** • End Users (Residents/Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Negligible**

3. SITE WORKS

3.1. Scope of Works

Site works were undertaken in two phases.

Phase I of the site works were undertaken on 10th and 12th August 2021 and comprised the hand-excavation of 20No. Trial Pits (TP1 – TP19, TPA) to depths of between 0.30 – 1.80m below ground level (bgl).

During Phase I, seven trial pits were targeted at areas of concern identified in the Desk Study as tabulated below. One trial pit was targeted at an area where a bonfire had been lit. The remainder of the trial holes were randomly spread across the site.

Trial Hole Location Synopsis			
Phase	**Trial Hole/Final Depth**	**Sampling Strategy**	**Proposed End-Use**
Phase I	TP1/1.00m	Targeted – Fuel filler location	Soft Landscaping
	TP2/0.95m	Targeted – Fuel storage shed	Soft Landscaping
	TP3/0.80m	Targeted – Base of poultry shed	Footprint of Proposed Building
	TP4/1.00m	Targeted – Base of poultry shed	Footprint of Proposed Building
	TP5/1.10m	Targeted – Ground fuel line	Footprint of Proposed Building
	TP6/1.80m	Targeted – Potential area of manure disposal	Soft Landscaping
	TP7/1.50m	Targeted – Area of disturbed ground	Soft Landscaping
	TPA/Bonfire / 0.10m	Targeted – Location of historic bonfire	Soft Landscaping

Phase II of the site works were undertaken on 19th May 2025 and comprised the machine excavation of 5No. Trial Pits (TP1 – TP5) to a depth of between 1.20 and 2.00m bgl to attempt to delineate the contamination identified during Phase I as tabulated below. Infiltration tests were undertaken in TP1, TP2 and TP4 at depths of between 1.20 and 1.50m bgl.

Trial Hole Location Synopsis			
Phase	**Trial Hole/Final Depth**	**Sampling Strategy**	**Proposed End-Use**
Phase I	TP1/1.50m	Targeted at proposed balancing pond	Soft Landscaping
	TP2/1.50m	Targeted at TP9 asbestos and PAH hotspot	Soft Landscaping
	TP3/2.00m	Targeted at TPA arsenic hotspot	Soft Landscaping
	TP4/1.20m	Targeted at TP9 asbestos and PAH hotspot	Soft Landscaping
	TP5/2.00m	Targeted at TPA arsenic hotspot	Soft Landscaping

The location of the trial hole locations can be seen within Figure 3.

Prior to commencing the ground investigation, a walkover survey was carried out to identify the presence of underground services and drainage. Where underground services/drainage were suspected and/or positively identified, the exploratory position was relocated away from these areas.

As a further precautionary measure, the borehole was hand excavated to 1.20m below the local ground level (bgl) and scanned with a Cable Avoidance Tool (CAT scanner) and Signal Generator (Genny) to minimise the risk to services.

Upon completion of the drilling works, the trial holes were backfilled and made good, in relation to the surrounding area.

3.2. Sampling Procedures

Small disturbed samples and environmental samples were recovered from the trial holes at the depths shown on the trial hole records. Soil samples were generally retrieved from each change of strata and/or at specific areas of concern. Samples were also taken at approximately 0.50m intervals during broad homogenous soil horizons.

A selection of samples were despatched to accredited laboratories for both geotechnical and chemical testing purposes.

4. ENCOUNTERED GROUND CONDITIONS

4.1. Soil Conditions

The trial holes were logged by a Ground and Water Limited representative, generally in accordance with BS EN 14688 'Geotechnical Investigation and Testing – Identification and Classification of Soil'.

The ground conditions encountered within the trial holes constructed on the site did generally conform to that anticipated from examination of the geology map. A capping of Topsoil and Made Ground were noted to overlie the bedrock Wittering Formation.

The succession of conditions and description of soils encountered in the trial holes in descending order during Phase I is tabulated below.

Summary of Strata Encountered			
Strata	**Top Depth (m bgl)**	**Base Depth (m bgl)**	**Thickness (m)**
MADE GROUND: Ash. *(TPA)*	0.00	0.02	0.02
MADE GROUND: Concrete. (*TP1, TP3 – TP5, TP15)*	0.00	0.05 – 0.12	0.05 – 0.12
TOPSOIL: Generally comprised a brown gravelly clayey fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint. *(TP2, TP6, TP8, TP10, TP16, TP18 – TP19)*	0.00	0.15 – 0.50	0.15 – 0.50
MADE GROUND: An orangish brown and light grey to dark brown slightly gravelly clayey fine to medium SAND. Gravel is angular to rounded fine to coarse flint, brick, clinker, chalk, cement. Reworked natural soils with large scraps of metal, plastic, wires and pipe noted within TP7 and TP11. *(TP7, TP9, TP11 – TP15, TP17)*	0.00 – 0.15	0.20 – >1.50	0.18 – >1.35
MADE GROUND: A grey and blackish brown sandy gravelly CLAY. Sand was fine to coarse. Gravel was angular to sub-rounded fine to coarse flint. *(TP1, TP13)*	0.05 – 0.60	0.20 – 0.75	0.15
MADE GROUND: Sub-base: A white and brown sandy sub-angular to sub-rounded fine to coarse GRAVEL of chalk and flint. Sand was fine to coarse. *(TP3 – TP5)*	0.07 – 0.09	0.20	0.11 – 0.13
WITTERING FORMATION: An orangish brown and light grey gravelly clayey fine to coarse SAND. Gravel was angular to rounded fine to coarse flint. An orangish brown to dark brown sandy CLAY. Sand was fine to coarse. *(All trial holes except TP7)*	0.15 – 1.20	>0.30 – >1.80	>0.10 – >0.95

The succession of conditions and description of soils encountered in the trial holes in descending order during Phase II is tabulated below.

Summary of Strata Encountered – TP1 – TP5			
Strata	**Top Depth (m bgl)**	**Base Depth (m bgl)**	**Thickness (m)**
MADE GROUND (TP2 only): Concrete.	GL	0.10m	0.10m
MADE GROUND (TP2 only): Type I material.	0.10m	0.20m	0.10m
MADE GROUND (TP2 only): Dark brown gravelly fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint, brick and concrete.	0.20m	1.30m	1.10m

TOPSOIL (TP1 and TP3 – TP5 only): Orange slightly gravelly SAND. The sand was fine to medium and the gravel was fine to medium, sub-angular to sub-rounded flint.	GL	0.20 – 0.50m	0.20 – 0.50m
WITTERING FORMATION: Variable deposits ranging from a grey and orangish brown slightly sandy CLAY to a greyish brown and orangish brown, locally clayey, fine to medium SAND	0.20 – 1.30m	1.20 – 2.00m	>0.20 – >1.80m

For details of the composition of the soils encountered at particular points, reference must be made to the individual trial hole logs within Appendix C of this report. A trial hole location plan can also be viewed within Figure 3.

4.2. Roots Encountered

Live roots were noted to depths of between 0.40 – 1.60m bgl within ten of the trial holes during Phase I and two of the trial pits during Phase II as tabulated below.

Decayed roots were noted to 1.00m bgl within TP16 during phase I. These roots were interpreted as being decayed/dead and were therefore not likely to be up taking moisture from the soils on-site; therefore these roots were not anticipated to cause the shrinking/swelling of soils of volume change potential and did not pose a risk to the serviceability of foundations.

A summary of the depth of root penetration can be viewed below.

Phase	Trial Hole	Fresh Root Penetration (m bgl)	Decayed Root Penetration (m bgl)
Phase I	TP2	0.60	-
	TP6	1.60	-
	TP7	0.70	-
	TP8	0.50	-
	TP10	0.40	-
	TP11	0.50	-
	TP14	0.80	-
	TP15	0.75	-
	TP16	0.50	1.00
	TP17	1.60	-
Phase II	TP2	1.00	-
	TP3	1.00	-

It must be noted that the chance of determining actual depth of root penetration through a narrow diameter borehole is low. Roots may be found to greater depths at other locations on the site, particularly close to trees and/or trees that have been removed both within the site and its close environs.

4.3. Groundwater Conditions

During Phase I, groundwater strikes were noted only within TP7 and TP13 at a depth of 1.20m and 1.00m bgl respectively. No groundwater was encountered during Phase II. It should be noted that groundwater strikes may be obscured by the excavation process.

Changes in groundwater level occur for a number of reasons including seasonal effects and variations in drainage. The investigation was undertaken in August 2020 and May 2025 when groundwater levels

are likely to be approaching their annual minimum (lowest elevation). Exact groundwater levels may only be determined through long term measurements from monitoring wells installed on-site.

4.4. Obstructions

No artificial or natural sub-surface obstructions were noted during construction of the trial holes.

5. GEOTECHNICAL LABORATORY TESTING

5.1. Geotechnical Laboratory Testing

A programme of geotechnical laboratory testing, scheduled by Ground and Water Limited and carried out by an accredited geotechnical testing laboratory was undertaken on samples recovered during Phase II. Details of the specific tests used in each case are given below.

Standard Methodology for Laboratory Geotechnical Testing		
Test	**Standard**	**Number of Tests**
Atterberg Limit Tests	BS1377:2016:Part 2:Clauses 3.2, 4.3 & 5	3
Particle Size Distribution Tests	BS1377:2016:Part 2:Clause 9	4
Water Soluble Sulphate and pH Test	BS1377:2018:Part 3:Clause 5	1
BRE Special Digest 1 Tests	BRE Special Digest 1 "Concrete in Aggressive Ground (BRE, 2005).	2

5.1.1. Atterberg Limit Testing

A précis of Atterberg limit testing undertaken can be seen tabulated below. The test results are presented within Appendix D.

Atterberg Limit Tests Results Summary							
Stratum	**Moisture Content (%)**	**Passing 425 µm sieve (%)**	**Modified PI (%)**	**Soil Class**	**Consistency Index (Ic)**	**Volume Change Potential**	
						BRE	**NHBC**
Wittering Formation	19.7 – 23.8	92 – 100	25.8 – 33	CI – CI/CH	Stiff - Very Stiff	Medium	Medium
• **NP – Non-plastic** • **BRE Volume Change Potential refers to BRE Digest 240 (based on Atterberg results)** • **Soil Classification based on British Soil Classification System.** • **Consistency Index (Ic) based on BS EN IS0 14688-2:2018.**							

5.1.2. Moisture Deficit Assessment

The results of the Atterberg Limit tests were analysed to determine the Liquidity Index of the samples, to give an indication as to whether the samples recovered showed a moisture deficit as well assessing their degree of consolidation. Liquid Limit analyses was undertaken to assess whether there were any potentially significant moisture deficits within the samples tested.

A potential moisture deficit, caused by lithology was noted within TP1 at 0.80m bgl.

5.1.3. Particle Size Distribution Testing

The results of particle size distribution (PSD) testing undertaken show that the soils of the Wittering Formation have volume change potential in accordance with BRE240 and but no volume change potential in accordance with NHBC Standards Chapter 4.2. The results of the PSD testing can be viewed within Appendix D and summarised below.

Particle Size Distribution Results Summary			
Stratum	Range Passing 63µm Sieve (%)	Volume Change Potential	
		BRE	NHBC
Wittering Formation	23 – 28	Yes	No

- **Volume Change Potential refers to BRE Digest 240 (based on Grading test results).**
- **Shrinkability refers to NHBC Standards Chapter 4.2 (based on Grading test results).**
- **BRE 240 states that a soil has a volume change potential when the clay fraction exceeds 15%. Only the silt and clay combined fraction are determined by sieving therefore the volume change potential is estimated from the percentage passing the 63µm sieve.**
- **NHBC Standards Chapter 4.2 states that a soil is shrinkable if the percentage of silt and clay passing the 63µm sieve is greater than 35% and the Plasticity Index is greater than 10%.**

6. ENGINEERING CONSIDERATIONS

6.1. Soil Characteristics and Foundation Considerations

A summary of the soil characteristics following the intrusive site investigation and laboratory testing and the relevant foundation considerations has been provided below. The following information from the ground investigation was considered pertinent to the design of foundations.

- Foundations should be taken through any Made Ground/Topsoil and either into, or onto the underlying Wittering Formation.
- Foundations should be designed in accordance with soils of high volume change potential.
- Given the presence of cohesive soils at shallow depth, special foundation precautions may be required to prevent possible future shrinkage/swelling of the soils affecting the integrity of the faces of foundations (underfloor void diameter/compressible material/void formers etc.). A compressible layer must be provided to accommodate potential seasonal movement, based on NHBC guidance.
- The loads of proposed foundations should not exceed the allowable bearing capacity of the soils they are founding upon.
- Foundations must not be placed within fresh root penetrated and/or desiccated soils with volume change potential. It is recommended that foundations are taken at least 300mm into non-fresh root penetrated strata if the soils have volume change potential, or into soils of no volume change potential.
- The influence of trees on or surrounding the site will need to be taken into account in final design (NHBC Standards Chapter 4. 2) (tree rings).
- Any water ingress must be prevented from entering foundation trenches and excavations must be kept dry and either concreted or blinded as soon after excavation as possible. If water were allowed to accumulate within the excavation for even a short period of time, an increase in heave occur. The shear strength will also be reduced, resulting in lower bearing capacities, resulting in increased settlements. Instability issues may arise within the foundation trenches, in case of perched water being present.

6.2. Shallow Foundations

Based on the previous section, foundations should bypass any Made Ground/Topsoil before extending 300mm below the proved depth of root penetration. Foundations would therefore be constructed on competent, moisture stable soils of the Wittering Formation.

Foundations should be taken through any Topsoil or Made Ground and below any roots and found within the soils of the Wittering Formation at a depth of between 0.75 – 1.30m bgl.

Foundations constructed on the Wittering Formation at the depths stated above can be designed based on a presumed allowable bearing capacity of 75kN/m^2. This is likely to increase up to 100kN/m^2 at a depth of 1.30m bgl subject to confirmation of the soils encountered in the trial holes.

This is based on trial hole records, the results of an inspection of samples recovered, and based on a 5m long by 1m wide foundation and a maximum settlement of 25mm. Settlements on loading are likely to be moderate.

Additional Comments
A number of comments and recommendations has been provided below.

- It is prudent to avoid having a foundation spanning across materials of different consistency and density, like clay and gravel, in order to avoid potential differential settlements. If unavoidable, foundations must be reinforced to allow for such potential differential movement. It should be noted that differential settlement may also occur between strip and isolated pad foundations.
- Foundation excavations must be carefully bottomed out and any loose soil or soft spots removed prior to the foundation concrete or blinding being placed. Failure to ensure that foundation excavations are suitably bottomed out could result in additional settlements.
- Inspection of foundation excavations, prior to concreting, must be made by a competent and suitably qualified person to check for soft spots and to check for the presence of roots.
- Foundations must not be cast over foundations of former structures and/or other hard spots.
- Given soils of volume change potential were encountered and Topsoil/Made Ground was noted to be deeper than 0.60m bgl, a suspended slab should be considered.
- Isolated Pad Foundations must be at least 1.5 times the width of the widest pad apart to keep to the anticipated settlements.
- Final designs for the foundations should be carried out by a suitably qualified Engineer based on the findings of this investigation and with reference to the anticipated loadings, serviceability requirements for the structure and the developments proximity to former, present, and proposed trees. Where trees are mentioned in the text this means existing trees, recently removed trees (approximately 15 years to full recovery on cohesive soils) and those planned as part of the site landscaping.

6.3. Piled Foundations

Based on the results of the intrusive investigation, a piled foundation scheme was unlikely to be required.

6.4. Excavations and Stability

Shallow excavations in the Made Ground and Wittering Formation are likely to be marginally stable at best. Long, deep excavations, through these strata and into the underlying Wittering Formation are likely to become unstable.

Unsupported earth faces formed during excavation may be liable to collapse without warning and suitable safety precautions should therefore be taken to ensure that such earth faces are adequately supported before excavations are entered by personnel.

6.5. Sub-Surface Concrete Design

Concrete to be placed in contact with soil or groundwater must be designed in accordance with the recommendations of Building Research Establishment Special Digest 1, 2005, *'Concrete in Aggressive Ground'* considering the pH of the soils. For the classification given below, the "mobile" and "natural" land use case was adopted given the geology encountered and the residential use of the site. This

assessment was based on the results of laboratory testing summarised within Section 5, specifically relating to sulphates, pH and other water soluble chemicals.

Topsoil/Made Ground
The water-soluble sulphates in the Topsoil/Made Ground were noted to be <4 - 108mg/l, with a pH of 5.5 – 8.3, from chemical laboratory testing.

Wittering Formation
According to Box C6 of BRE Special Digest 1, 2005, 'Concrete in Aggressive Ground' the Wittering Formation fell within a list of UK geological formations known to contain pyrite. Consequently, it was not required to consider the levels of total potential sulphate in the classification process.

The water-soluble sulphates in the Wittering Formation were noted to be <4 - 419mg/l, with a pH of 5.4 – 9.3, from chemical laboratory testing.

According to BRE Special Digest 1, 2005, 'Concrete in Aggressive Ground' a Sulphate Design Class of DS-1 should be used for sub-surface concrete in contact with the Wittering Formation. Table C1 of the Digest indicated an ACEC (Aggressive Chemical Environment for Concrete) classification of AC-1.

6.6. Roads and Hardstanding Design
This section provides information relating to the construction of roads and hardstanding, for each strata encountered.

6.6.1. Anticipated CBR Values and Frost Susceptibility
Topsoil
Roads and hardstanding should bypass Topsoil given the likely low strength, high compressibility and general variability.

Made Ground
Where roads and hardstanding are to be founded on Made Ground, a CBR value of 1% should be adopted, as a result of the variable nature of Made Ground in terms of consistency, strength and compressibility.

Wittering Formation - cohesive
Roads and hardstanding constructed on the cohesive Wittering Formation should be designed based on a CBR value of 4.0%. This is based on reference to Table C1 of TRL1132 and average construction conditions. Based on wet conditions a CBR of 2.5% should be adopted, with dry conditions a CBR of 4.5% being applicable.

These clay-based soils (poorly drained) with plasticity indexes generally greater 20% are likely to be non-frost susceptible. Due to their granular content however, they should be treated as frost susceptible in design.

Wittering Formation - granular

Roads and hardstanding constructed on the granular Wittering Formation should be designed based on a CBR value of 20%. This is based on reference to Table C1 of TRL1132 and average construction conditions. Based on wet conditions a CBR of 2.5% should be adopted, with dry conditions a CBR of 20% being applicable.

These granular soils that are poorly drained and have a >10% passing the 150µm sieves are therefore are likely to be frost susceptible.

All formation levels for roads and hardstanding should be proof rolled to highlight any soft areas which should then be dug out and replaced with selected granular material compacted in thin layers to a suitable specification.

6.7. Surface Water Disposal

During Phase II, soakaway tests were undertaken in the base of TP1, TP2 and TP4 at a depth of between 1.20 – 1.50m bgl within granular Made Ground (TP2 only) and soils of the Wittering Formation.

The infiltration rates recorded within the remaining trial pits can be seen tabulated below.

Soakage Testing Results						
Trial Hole	**Test Number**	**Depth (m bgl)**	**Start Depth (m bgl)**	**Finish Depth (m bgl)**	**Time Taken (mins)**	**Infiltration Rate (m/sec)**
TP1	1	1.50	1.03	Dry	1,260 *	2.92×10^{-6}
TP2	1	1.50	0.98	1.03	1,874 +	1.28×10^{-7}
TP3	1	2.00	0.80	1.04	1,332 +	1.19×10^{-6}

*It should be noted that test TP1 drained overnight and the final measurements were taken the next day, indicating that the actual infiltration rate could be faster.

+It should be noted that tests in TP2 and TP4 did not reach 75% water level and was therefore not BRE365 compliant.

Based upon the results of the infiltration tests, it was considered that the soils of the Wittering Formation encountered across most of the site may provide a suitable medium for soakaway installation.

Submission of a Sustainable Urban Drainage Scheme (SUDS) is likely to be required for this site should the proposed development increase the amounts of hardstanding.

Consultation with the Environment Agency must be sought regarding any use that may have an impact on groundwater resources, abstractions and surface water features/watercourses.

7. CONTAMINATION RISK ASSESSMENT

7.1. Results of the Preliminary Risk Assessment

The tabulated Conceptual Site Model (CSM) developed by Lake Environmental Desk Study and Preliminary Assessment Report referenced DSPRA V1 July 2021 is reproduced in section 2.9. For the complete information please see the Desk Study report.

No additional source of contamination, pathway or receptor was identified between the desk study and the ground investigation and as such, it was not necessary to modify the CSM.

In the UK, the assessment of risk from contamination follows the source-pathway-receptor (SPR) approach. For a risk to be present there must be a source of contamination, a receptor or receptors, and a pathway for contaminants to migrate or be absorbed. If there is a linkage between any given source and receptor, then a quantitative risk assessment is used to assess the significance or impact of the pollutant linkage.

7.2. Sampling Locations

The synopsis for the trial hole locations and their final depth can be seen tabulated below. A trial hole location plan is provided within Figure 3. The table also indicates whether any locations targeted a source of contamination as well as the proposed end-use. The proposed development can be seen in Figure 2.

Trial Hole Location Synopsis			
Phase	**Trial Hole/Final Depth**	**Sampling Strategy**	**Proposed End-Use**
Phase I	TP1/1.00m	Targeted – Fuel filler location	Soft Landscaping
	TP2/0.95m	Targeted – Fuel storage shed	Soft Landscaping
	TP3/0.80m	Targeted – Base of poultry shed	Footprint of Proposed Building
	TP4/1.00m	Targeted – Base of poultry shed	Footprint of Proposed Building
	TP5/1.10m	Targeted – Ground fuel line	Footprint of Proposed Building
	TP6/1.80m	Targeted – Potential area of manure disposal	Soft Landscaping
	TP7/1.50m	Targeted – Area of disturbed ground	Soft Landscaping
	TP8/0.70m	Random	Soft Landscaping
	TP9/1.00m	Random	Soft Landscaping
	TP10/0.85m	Random	Soft Landscaping
	TP11/0.70m	Random	Soft Landscaping
	TP12/1.10m	Random	Soft Landscaping
	TP13/1.10m	Random	Soft Landscaping
	TP14/0.90m	Random	Soft Landscaping
	TP15/1.10m	Random	Soft Landscaping
	TP16/1.00m	Random	Soft Landscaping
	TP17/1.80m	Random	Soft Landscaping
	TP18/0.60m	Random	Soft Landscaping
	TP19/0.70m	Random	Soft Landscaping
	TPA/Bonfire / 0.10m	Targeted – Location of historic bonfire	Soft Landscaping
Phase II	TP1/1.50m	Targeted at proposed balancing pond	Soft Landscaping

	TP2/1.50m	Targeted at TP9 asbestos and PAH hotspot	Soft Landscaping
	TP3/2.00m	Targeted at TPA arsenic hotspot	Soft Landscaping
	TP4/1.20m	Targeted at TP9 asbestos and PAH hotspot	Soft Landscaping
	TP5/2.00m	Targeted at TPA arsenic hotspot	Soft Landscaping

The investigation area totals approximately 22,940m^2 and with twenty five sampling locations, given an unknown hotspot shape, the sampling density means that a hotspot with an area of approximately 1,375m^2 and a radius of approximately 20.9m would be encountered (CLR 4).

7.3. Soil Risk Assessment

Sampling depths were chosen to reflect the receptor of concern (e.g. human health, controlled waters and vegetation). Selected samples from Phase I and all samples from Phase II underwent targeted scheduling. The remaining samples were scheduled under a random strategy. The receptors relevant to the sampling depths are tabulated below.

Summary of Receptors per Sample Depth	
Depth	**Receptors**
Shallow Samples (< 0.75m bgl)	• End Users (Residents/Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public • Vegetation within soft landscaped areas (shallow rooted) • Secondary A Aquifer (Wittering Formation) • Buried Concrete • Receiving landfill
Moderate Samples (0.75 – 1.50m bgl)	• Construction workers during development • Site operatives during maintenance works • Vegetation within soft landscaped areas (deep rooted) • Secondary A Aquifer (Wittering Formation) • Buried Concrete • Receiving landfill • Underground services (water pipes)

Chemical laboratory testing, scheduled by Ground and Water Limited, and carried out by ALS Laboratories UK Limited during Phase I and i2 Environmental Limited during Phase II, was undertaken on samples of the Topsoil and Made Ground. The samples were subjected to a combination of analysis that comprised:

- Asbestos screen;
- Semi-metals and heavy metals incl. Arsenic, Cadmium, Chromium (incl. Hexavalent Chromium), Copper, Lead, Mercury, Nickel, Selenium, Vanadium, Zinc (Phase I only);
- Arsenic only (Phase II only),
- Polycyclic Aromatic Hydrocarbons (PAH's) incl. Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(ghi)perylene (Phase I only);
- Speciated TPH including full aliphatic/aromatic split (Phase I only); and

- BTEX compounds (Benzene, Toluene, Ethylbenzene, Xylene) and MTBE – used as marker compounds for Volatile Organic Compounds (VOCs) (Phase I only).

A breakdown of the number of tests undertaken for each determinand is discussed in further sections. The chemical laboratory results are presented in Appendix E.

7.3.1. Soil Assessment Criteria and Results

At the time of reporting, July 2025, the proposed development was understood to comprise the demolition of the existing structures and the construction of a terrace of two storey residential properties with associated soft landscaped areas and car parking. Proposed site plans are provided as Figure 2.

Based on the proposed development, the results of the chemical laboratory testing were compared to the Generic Assessment Criteria (GAC) for a ***'Residential with homegrown produce'*** land-use scenario, as this was considered the most appropriate land-use scenario.

Where a contaminant of concern's GAC varies according to the Soil's Organic Matter (SOM), the SOM recorded for each uncontaminated soil type was used to derive the appropriate GAC for each soil type. A SOM value of 1%, the most conservative value, was utilised.

A summary of the analytical results and the comparison to the determinands adopted screening value are presented in the table below and overleaf.

Soil Contamination Test Results and Screening Values					
Determinand	**Number of Samples**	**Minimum Concentration (mg/kg)**	**Maximum Concentration (mg/kg)**	**Adopted Screening Value (mg/kg)**	**Was the adopted screening value exceeded for relevant land-use scenario?**
INORGANICS					
Asbestos	23	ND	ND	ND	**Yes – Chrysotile, TP9 0.70m bgl**
Cyanide (total)	19	<1	1.33	24	No
Phenols	19	<0.035	<0.035	280	No
METALS					
Arsenic	23	2.49	50.9	37	**Yes – TPA/0.10m bgl**
Boron	19	<1	1.47	290	No
Cadmium	19	0.0911	1.66	11	No
Chromium (III)	19	3.9	37.8	910	No
Chromium (Hexavalent)	19	<0.6	<0.6	6	No
Copper	19	2.8	196	2,400	No
Lead	19	2.9	120	200	No
Mercury	19	<0.1	<0.1	1.2	No
Nickel	19	2.34	54.1	130	No
Selenium	19	<1	<1	250	No
Vanadium	19	15.6	376	410	No
Zinc	19	0.0911	1.66	3,700	No
TOTAL PETROLEUM HYDROCARBONS (TPHs)					
Aliphatic >C5 - C6	14	<0.01	<0.01	42	No
Aliphatic >C6 - C8	14	<0.01	0.029	100	No

Aliphatic >C8 - C10	14	<0.01	0.0951	27	No
Aliphatic >C10 - C12	14	<1	<1	130	No
Aliphatic >C12 - C16	14	<1	7.81	1,100	No
Aliphatic >C16 - C21	14	<1	69.1	65,000	No
Aliphatic >C21 - C35	14	<5	59	65,000	No
Aromatic >C5 - C7	14	<0.01	<0.01	70	No
Aromatic >C7 - C8	14	<0.01	<0.01	130	No
Aromatic >C8 - C10	14	<0.01	0.0638	34	No
Aromatic >C10 - C12	14	<1	<1	74	No
Aromatic >C12 - C16	14	<1	<1	140	No
Aromatic >C16 - C21	14	<1	8.59	260	No
Aromatic >C21 - C35	14	<1	79.2	1,100	No
Benzene	14	<0.009	<0.009	0.087	No
Toluene	14	<0.007	<0.007	130	No
Ethylbenzene	14	<0.004	<0.004	47	No
m,p-Xylene	14	<0.01	<0.01	56	No
o-Xylene	14	<0.01	<0.01	60	No
POLYCYCLIC-AROMATIC HYDROCARBONS					
Acenapthene	23	<0.008	0.161	210	No
Acenapthylene	23	<0.012	0.144	170	No
Anthracene	23	<0.016	0.755	2,400	No
Benzo(a)anthracene	23	<0.014	6.41	7.2	No
Benzo(a)pyrene	23	<0.015	9.95	2.2	**Yes – TP9/0.50m bgl**
Benzo(b)fluoranthene	23	<0.015	14	2.6	**Yes – TP9/0.50m bgl**
Benzo(ghi)perylene	23	<0.024	8.96	320	No
Benzo(k)fluoranthene	23	<0.014	4.39	77	No
Chrysene	23	<0.01	6.84	15	No
Dibenzo(a,h)anthracene	23	<0.023	1.19	0.24	**Yes – TP9/0.50m bgl**
Fluoranthene	23	<0.017	8.83	280	No
Fluorene	23	<0.01	0.12	170	No
Indeno(1,2,3-cd)pyrene	23	<0.018	9.71	27	No
Naphthalene	23	<0.009	0.0136	2.3	No
Phenanthrene	23	<0.015	1.87	95	No
Pyrene	23	<0.015	8.39	620	No
MARKER FOR VOLATILE ORGANIC COMPOUND					
Methyl tert-butyl ether (MTBE)	2	< 0.01	< 0.20	49	No
The derivation of the Soil Assessment Criteria used within this report can be seen within Appendix F. The soil concentrations were typically compared to the LQM/CIEH Suitable for Use Levels (S4UL) (2014), based upon the assumption of 1% soil organic matter. A screening value for Lead is based on the Category 4 Screening Levels (C4SLs). Where no S4UL or C4SL is available for Cyanide, a SoBRA acute GAC is assigned. Where no S4UL or C4SL is available for MTBE, a CL:AIRE 2010 GAC is assigned. Where exceedances are noted, the trial hole and depth of sample is recorded.					

The proposed development includes areas of soft-landscaping, where shallow rooted vegetation may be exposed to aggressive ground conditions. The previous table compares the results of the laboratory analysis to GAC that is protective of Human Health and therefore different GAC is required for vegetation.

Soil Contamination Test Results and Screening Value					
Determinand	**Number of Samples**	**Minimum Concentration (mg/kg)**	**Maximum Concentration (mg/kg)**	**Adopted Screening Value (mg/kg)**	**Was the adopted screening value exceeded for relevant land-use scenario?**
Copper	19	2.8	196	250	No
Nickel	19	2.34	54.1	60	No
Zinc	19	0.0911	1.66	1,000	No
The derivation of the Soil Assessment Criteria used within this report can be seen within Appendix F. The soil concentrations were compared to BS3882:2015 *Specification for Topsoil* and based on differing pH. For the purpose of conservatism, the pH of the soils have been assumed to be below 6 within this table. Where exceedances are noted, the trial hole and depth of sample is recorded.					

7.3.2. Soil Assessment

The comparison between the laboratory analysis and the assessment criteria indicates that there is an unacceptable risk to future receptors caused by exceedances of the following determinands: Arsenic; Benzo(a)pyrene; Benzo(b)fluoranthene; and Dibenzo(a,h)anthracene. The remaining determinands were identified at below the adopted screening value and are not considered to represent an unacceptable risk to future receptors. Where an unacceptable risk to future receptors remains, mitigation is required.

Double Plot ratio analysis was carried out for the PAHs in the samples tested from Phase I and Phase II and it was concluded that the source was more associated with carbonization / combustion, together with urban background signatures, rather than petroleum products.

Asbestos

Asbestos was identified within one sample during Phase I (TP9/0.70m) as chrysotile fibres within a fragment typical of asbestos cement. No quantification was undertaken at the time and therefore no quantification risk assessment could be carried out in accordance with the guidance within CIRIA 733.

An **Asbestos Management Strategy** should be put in place so that any potentially asbestos containing materials are identified and removed from site in a suitable manner to prevent cross-contamination.

7.3.3. Water Supply Pipe Risk Assessment

As part of the proposed development it is expected that new water supply pipes will be installed at the site. Water supply pipes have the potential to be exposed to contaminants in the ground that can lead to unacceptable concentrations within the drinking water. If a risk is identified, specialist pipes that are protective of the drinking water are required.

A pipe selection risk assessment should be submitted to the water supply company as part of the development based on the supplier's assessment criteria. An indication of whether there is likely to be a risk can be seen tabulated below, where the PE pipe thresholds are based on *UKWIR Contaminated Land Assessment Guidance, 2014*.

Pipe Selection Risk Assessment			
Determinand	**PE Pipe Threshold (mg/kg)**	**Laboratory Analysis Range (mg/kg)**	**Was the Threshold Exceeded?**
Total BTEX and MTBE	0.1	LOD	No
Total VOCs	0.5	Markers at LOD	No
Total SVOCs	2	Markers at LOD	No
Phenols	2	LOD	No
TPH EC5 – EC10 (aliphatics and aromatics)	2	LOD	No
TPH EC10 – EC16 (aliphatics and aromatics)	10	LOD	No
TPH EC16 – EC40 (aliphatics and aromatics)	500	LOD – 153	No
Naphthalene	5	< 0.05 – 0.0136	No

The results indicate that no determinands were above the threshold for the use of a PE pipe at the site.

7.4. Groundwater Risk Assessment

In the UK, the water environment is protected under a number of regulatory regimes, mainly governed by the Environment Agency. The Environment Agency is consulted when there may be a risk to Controlled Waters, or where a pollution incident has occurred historically. The Water Framework Directive is implemented in various guises covering groundwater, surface water and drinking water supply.

A study of the aquifer maps on the DEFRA website revealed the site was underlain by a **Secondary (A) Aquifer** comprising bedrock deposits of the Wittering Formation. No designation was given for superficial deposits due to their likely absence.

From analysis of hydrogeological and topographical maps the actual groundwater table was anticipated to be encountered at shallow to moderate depth within the Wittering Formation. Some amounts of perched water however may be present at shallower depths within Made Ground. It was considered that groundwater was flowing in a south-westerly to westerly direction toward the River Itchen in line with local topography.

The nearest surface water feature was an unnamed stream which was located along the north-west boundary of the site, associated with Quobleigh Pond, ~500m west of the site. The stream was flowing in a south-west direction. No other surface water features were located within 250m of the site.

During the site investigation, Made Ground was encountered to a maximum depth of between 1.20 - >1.50m bgl, overlying sandy clay and gravelly clayey sand of the Wittering Formation to the base of the trial holes (a maximum of 2.00m bgl). During Phase I, groundwater strikes were noted only within TP7 and TP13 at a depth of 1.20m and 1.00m bgl respectively. No groundwater was encountered during Phase II.

Given anticipated low mobility of the contaminants found and no excessive exceedances, the general absence of groundwater and the conceptual site model showing the nearest surface water receptor was a stream along the north-west boundary the site, it is not expected that the soils on-site represent an unacceptable risk to controlled water receptors. No further action is considered necessary.

The findings of this risk assessment should be agreed with the Environment Agency.

7.5. Ground Gas Risk Assessment

The previous Desk Study were reported in the Lake Environmental Desk Study and Preliminary Assessment Report referenced DSPRA V1 July 2021 refers to an area of sand extraction noted ~700m to the north and the subsequent intrusive investigation report supplied by Eastleigh Council.

- Review of archival information The Fair Oak Landfill Complex. Bournemouth University, May 2005;

- Fair Oak Landfill Study final interpretative report revision 1. Card Geotechnics Limited, June 2012.

A review of the above reports relating to the area of complex quarrying and landfilling to the north of the site was undertaken as part of the Desk Study. This revealed that the majority of the landfilling was complete by the mid to late 1970s. The area in closest proximity to the site (some 600+m north) was identified as Area F in the Card Geotechnics report and that the area was '*quarried in the 1970s and was later restored with waste. Landfilling ceased and the surface levels were restored by the late 1980s.*' The report also stated that a gas management and extraction system has been incorporated within the landfill in this area. The intrusive investigation included the analysis of a groundwater (leachate) sample taken from within Area F, where '*inspection of the results indicated that the concentrations of dissolved contaminants within this area are below the corresponding EQS and DWV standards. Therefore, it is considered that the risk to controlled waters was minimal.*' Based on this information the Desk Study Report concluded that the landfill to the north of the site did not represent a potential risk to the site from mobile contaminants in gaseous or dissolved phase.

A review of freely available information prior to site works, including historical mapping and landfill registers / Phase I Desk Study, did not identify any other potential sources of ground gas on-site or within influencing distance of the site that warranted investigation through ground gas monitoring. The only source of ground gases was anticipated to be limited Made Ground and therefore classified as 'Low risk', where the pragmatic approach to ground gas risk assessment presented within the CL:AIRE research bulletin RB17 and included within Annex D of BS8485:2015+A1:2019 can be considered.

7.5.1. Pragmatic Approach

The alternative approach to ground gas risk assessment considers the uncertainty from the measurement of ground gas concentrations and flow rates in monitoring wells for low-risk sites and removes the need for monitoring. Low risk sites typically comprise:

- Natural soils with high carbonate content (e.g. chalk);
- Natural soils that can produce gases (e.g. alluvium, peat etc.);
- Made Ground between 1.00m to 5.00m, with low organic content; and
- Areas of flooded mine workings, unless a building is to be within 20m of shaft or adit.

The method considers the gas generation potential of the soils from data that is not subject to external influences, for example atmospheric pressure can change the recorded flow and concentrations of ground gas during spot monitoring, or a rising groundwater level can displace ground gases in pore spaces. Determination of the characteristic situation is based on the total organic carbon (TOC) of the soils, coupled with any organic-rich material identified within the borehole logs, such as wood gravels. TOC is easily analysed by the laboratory and can also be calculated by the equation outlined below.

Total Organic Carbon (TOC) = 0.58 x Soil Organic Matter (SOM) = 1.33 x Degradable Organic Carbon (DOC)

As part of the ground investigation works, nineteen samples were submitted to the laboratory for analysis, which identified TOC to vary between 0.97 and 2.45% in the Topsoil, 0.226 and 1.06% in the Made Ground and between <0.2% and 2.99% in the Wittering formation. The trial hole logs identified the gravels within the Made Ground to comprise; flint, brick, clinker, chalk and concrete. Made Ground was identified to a maximum depth between 1.20m and >1.50m bgl.

7.5.2. Data Quality

A review was made of the quality of the available data for the site, which can be viewed in the table below. CIRIA Report C665 (2007), BS 8485:2015+A1:2019 and BS 8576:2013 stress the need for risk assessments to be based on good quality data and give guidance as to best practice in this respect.

Review of Data Quality			
Data Type	**Current Understanding**	**UK Practice**	**Recommendation**
Geological and hydro-geological conditions	The CSM identified the site to be located on limited Made Ground (<0.50m), overlying both permeable and impermeable strata of the Wittering Formation. Groundwater has been encountered at shallow depth during drilling.	CIRA C665 & C659, Wilson and Card (1999) and BS 8485 recommend that geology and hydrogeology be fully understood.	The geological and hydrogeological model is understood to a standard that will not comprise the findings of the risk assessment. **No further action required.**
Soil Laboratory Analysis	A dataset of soil analysis from 19No. samples have identified a range of TOC concentrations between <0.2% and 2.45%. The Wittering Formation strata had the lowest TOC concentrations.	CL:AIRE RB17 outlines an approach to ground gas risk assessment away from the influences that directly affect ground gas monitoring. It should typically be used on sites with limited sources identified in the CSM and Made Ground with average thickness <3m and maximum thickness <5m. TOC should be < 4/6%.	The TOC concentrations are below the limit of 6% in order to use the soil derived approach for the risk assessment. **No further action required.**

7.5.3. Risk Assessment

The intrusive investigation has revealed a maximum thickness of Made Ground of >1.50m overlying the Wittering Formation comprising cohesive and granular soils. Site has undergone a previous phase of construction and limited degradable material has been identified. The introduction of oxygen to the Made Ground through redevelopment may lead to an initial increase of ground gas generation as degradable material within the soils present on-site may act as source of ground gas. The soils at the site are considered to be of variable permeability (low to high) in nature and pathways for ground gas migration will be present.

Using the soil derived method, it is considered that a TOC value of <1% within soil is unlikely to pose an unacceptable risk from ground gases and the site can be characterised as Characteristic Situation CS1. Any value between 3 and 6% warrants classification as a Characteristic Situation CS3. Any value over 4% requires investigation through ground gas monitoring. Any site with Made Ground <1.00m bgl will have a limited gas generation potential from the organic carbon present and consideration should be given to this thickness within the risk assessment.

An alternative approach for ground gas risk assessment (CL:AIRE RB17) can be considered utilising measured concentrations from soil parameters that are independent of influencing factors such as atmospheric pressure and groundwater level. Total Organic Carbon (TOC) was tested on 19No. samples with the analytical results ranging between <0.2 and 2.45%. Furthermore, it is considered that a thickness of generally <1.00m in thickness would not generate sufficient ground gas to pose an unacceptable risk.

Based on the soil derived method outlined and the maximum TOC concentration encountered, the soils from site would warrant classification as **Characteristic Situation CS1**. It should be noted that this only represents the assessment from an on-site source.

7.6. Vapour Risk Assessment

The CSM identified very limited sources of contamination that may pose an unacceptable risk to receptors through vapours. BTEX/MTBE were at LOD as well.

7.7. Updated Conceptual Site Model

Following completion of the Phase 2 Site Investigation, the CSM, inclusive of associated risk, within Section 2.8 of this report was re-evaluated.

For ease of reference and understanding, the risks have been re-assigned within this risk assessment against three possible levels / categories, summarised in the table below.

Risk Categories used in the Tabulated CSM	
Low Risk	Regarding this potential SPR linkage, the site is considered suitable for the proposed end-use and there is not considered to be an unacceptable risk to receptors.
Moderate Risk	Regarding this potential SPR linkage, the site is suitable for the proposed end-use however remediation and/or further investigation is required.
High Risk	Regarding this potential SPR linkage, the site is not suitable for proposed end-use and there is an unacceptable risk to receptors. Urgent action required in the short term.

Tabulated Conceptual Site Model – Pollutant Linkage Summary (On-Site Sources)			
Potential Sources	**Potential Absorption Pathways**	**Potential Receptors**	**Risk Classification**
Made Ground from construction & demolition activities; cut and fill operations; and former use as poultry farm on-site: • Metals and Semi-Metals, • Asbestos and ACMs, • PAHs, • TPHs, • BTEX, • VOCs • Sulphates, • Phenol, • Cyanide, and • Harmful pH.	• Direct ingestion of soil and soil derived dust • Dermal contact of soil and soil derived dust • Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Ingestion of home-grown produce, and soils attached • Direct ingestion of groundwater • Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents / Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Moderate** Exceedances of arsenic, PAHs and chrysotile asbestos have been identified. Remediation is required.
	• Direct uptake of groundwater	**Flora and Fauna** • Vegetation within nearby soft landscaped areas • Ecological receptors (deciduous woodland) • Habitat networks	**Low**
	• Anthropogenic (man-made) pathways • Vertical and lateral migration in permeable strata • Surface water runoff	**Controlled Waters** • Secondary A Aquifers underlying the site (Wittering Formation) • Stream along north-west boundary	**Low**
Asbestos within the makeup of the buildings on-site • Asbestos and ACMs, An Asbestos Management Strategy should be put in place so that any potentially asbestos containing materials are identified and removed from site in a suitable manner to prevent cross-contamination.	• Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Inhalation of volatile vapour (indoors and outdoors)	Human Health • End Users (Residents/Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Moderate** Chrysotile asbestos has been identified. Remediation is required.
Leaks and spillages associated with fuel storage shed/filler location: • PAH/TPH.	• Direct ingestion of soil and soil derived dust • Dermal contact of soil and soil derived dust • Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Ingestion of home-grown produce, and soils attached	**Human Health** • End Users (Residents / Future site visitors) • Construction workers during development • Site operatives during maintenance works Neighbours and public	**Moderate**

Tabulated Conceptual Site Model – Pollutant Linkage Summary (On-Site Sources)			
Potential Sources	**Potential Absorption Pathways**	**Potential Receptors**	**Risk Classification**
	• Direct ingestion of groundwater • Inhalation of volatile vapour (indoors and outdoors)	**Flora and Fauna** • Vegetation within nearby soft landscaped areas • Ecological receptors (deciduous woodland) Habitat networks	
	• Direct uptake of groundwater		**Low**
	• Anthropogenic (man-made) pathways • Vertical and lateral migration in permeable strata • Surface water runoff	**Controlled Waters** • Aquifers underlying the site (Secondary A Aquifer) Stream along north-west boundary	**Low**
Asbestos within the makeup of the buildings on-site • Asbestos and ACMs,	• Inhalation of dust (indoors and outdoors) with elevated concentration of determinands • Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents/Future site visitors) • Construction workers during development • Site operatives during maintenance works • Neighbours and public	**Moderate**
Aggressive ground conditions with Made Ground and natural ground on-site, including groundwater: • Sulphates, • pH	• Direct contact of with aggressive ground conditions	**Building Materials and Services** • Buried Concrete	**Low** The sulphates fell into Class DS-1 and AC-1
Aggressive ground conditions within Made Ground and natural ground on-site, including groundwater: • PAH/TPH.	• Direct contact of with aggressive ground conditions	**Building Materials and Services** • Underground services (water pipes)	**Low**
Ground gases generated by on-site Made Ground: • Methane, • Carbon Dioxide, • Hydrogen Sulphide • Carbon Monoxide.	• Migration through anthropogenic & natural pathways • Inhalation of Asphyxiating gases • Explosion (methane only)	**Human Health** • End Users (Residents /Future site visitors) • Construction workers during development (especially in confined spaces) • Site operatives during maintenance works in confined spaces • Neighbours and public	**Low**
	• Migration through anthropogenic & natural pathways • Explosion (methane only)	**Building Materials and Services** • Buildings	**Low**

Tabulated Conceptual Site Model – Pollutant Linkage Summary		(On-Site Sources)	
Potential Sources	**Potential Absorption Pathways**	**Potential Receptors**	**Risk Classification**
		• Confined spaces • Underground services	

8. CONTAMINATION RECOMMENDATIONS AND REMEDIATION STRATEGY

Based on the results of the intrusive works, chemical analyses and risk assessments undertaken, the following has been identified that requires further action:

- One contaminant (arsenic) was found at an unacceptable concentration that required remediation (TPA/0.10m bgl). Two trial pits (TP3 and TP5) were targeted at delineating where the elevated concentration of arsenic was identified in the previous investigation. The results of the targeted testing indicated that the location (TPA) can be treated as a localised hotspot.
- Three contaminants (Benzo(a)pyrene, Benzo(b)fluoranthene, and Dibenzo(a,h)anthracene) have been found at unacceptable concentrations that required remediation (TP9/0.50m bgl). Chrysotile asbestos was also identified in TP9 (TP9/0.70m bgl). Two trial pits (TP2 and TP4) were targeted at delineating where the elevated concentrations of PAHs and chrysotile asbestos was identified in the previous investigation. The results of the targeted testing indicated that the location (TP9) can be treated as a localised hotspot.
- Based upon the earlier investigation the site was classified as Characteristic Situation CS1 where no specific gas protection measures are required.

An Asbestos Management Strategy should be put in place so that any potentially asbestos containing materials are identified and removed from site in a suitable manner to prevent cross-contamination.

8.1. Soils

Based on the available information within this report it was proposed that the following remedial methodology should be undertaken around the three locations of contamination centred on trial holes TPA and TP9 with the area delineated by the holes excavated/drilled during the current investigation.

In the vicinity of hotspot centred on TPA:

- A reduce dig of 200mm in the vicinity of TPA to expose the natural soils;
- Placement of 200mm certified clean capping of Subsoil and Topsoil;
- Validation of the clean capping system by a suitably trained Ground and Water Limited engineer.

In the vicinity of hotspot centred on TP9:

- A reduce dig of 900mm to expose the natural soils;
- Placement of 900mm certified clean capping of Subsoil and Topsoil;
- Validation of the clean capping system by a suitably trained Ground and Water Limited Engineer.

8.1.1. Reduce Dig

Based upon the findings of the investigation, Made Ground and Topsoil should be removed to the minimum depth for the relevant hotspot in a 5m radius centred on the relevant trial hole location to allow for the placement of clean soils. Samples must be taken from the base and walls of the excavation and tested for arsenic in the case of TPA or PAHs and asbestos in the case of TP9 to enable validation that the unacceptable concentrations have been removed. Should these samples indicate unacceptable concentrations, further removal is required.

Materials should be removed and stockpiled on an impermeable liner with raised edges and covered at all times. This contamination stockpile destined for removal from site should be stored away from imported soils to avoid cross-contamination. Materials to be removed off-site must be classified by carrying out Waste Acceptance Criteria (WAC) testing. A registered contractor must undertake the removal of waste. Consignment notes for the removal of waste must be obtained and kept for inclusion within the final validation Report.

8.1.2. Clean Capping of Soil

The resulting void should be backfilled with clean certified soils. It is recommended that at least the top 150mm of the clean capping should comprise suitable Topsoil for use as a growing medium. It is a requirement that this should be no less than 100mm thick.

All subsoil and Topsoil must be fit for purpose to ensure that the receptors cannot come into contact with determinands that could be detrimental to their health, see 'Imported Material' Section 8.6.

8.1.3. Validation

The remediation works outlined above will need to be inspected and independently validated by a Ground and Water Limited Engineer. All excavations will need to be inspected, documented and photographed.

The remediation works should be validated through a site visit, sampled and photographed by a suitably trained Ground and Water Limited Engineer following the reduce dig, and after placement of the clean soils.

Validation samples of the backfill material should be taken at a ratio of 1 sample per 50m^3 soil.

8.2. Water Supply Pipes

The Water Supply pipe risk assessment indicated that the use of PE pipes is appropriate at the site and no further measures are required.

8.3. Groundwater

No risk to controlled waters was considered to be present from the site.

8.4. Ground Gas and Vapours

Based on the monitoring previously undertaken, the site warrants classification as **Characteristic Situation CS1**, where no precautions to prevent the ingress of ground-gas are needed

With regards to the risk from vapours, BTEX-MTBE analysis did not show elevated levels that may indicate further testing may be needed.

8.5. Discovery Strategy

There may be areas of contamination that have not been identified during the course of the intrusive investigation (e.g. underground storage tanks). Such occurrences may be discovered during the construction phases for the redevelopment of the site.

Groundworkers should be instructed to report to the Site Manager any evidence for such contamination; this may comprise visual indicators, such as fibrous materials within the soil, discolouration, or odours and emission. Upon discovery advice must be taken from a suitably qualified person and then the Local Authority will need to be informed.

8.6. Imported Material

It is required that clean soils will be brought onto site as part of the validation works. Any soil which is to be imported onto the site must undergo chemical analysis to prove that it is suitable for the purpose for which it is intended.

The soil must be fit for purpose and must either be supplied with traceable chemical laboratory test certificates or be tested, prior to placing (ideally) and after placing, to ensure that the future receptors (human health and vegetation) cannot come into contact with compounds that could be detrimental to their health. The compounds that are to be tested for are those given in the Generic Assessment Criteria, which can be viewed in Appendix E of this report.

8.7. Waste Disposal

The excavation of foundations and other soils is likely to produce waste which will require classification and then recycling or removal from site.

Under the Landfill (England and Wales) Regulations 2002 (as amended), prior to disposal, all waste must be classified as either: Inert; Non-hazardous; or Hazardous.

The Environment Agency's Hazardous Waste Technical Guidance (WM3) document outlines the methodology for classifying wastes. Once classified the waste can be removed to the appropriately licensed facilities, with some waste requiring pre-treatments prior to disposal.

Following the investigation, twenty four samples were submitted to the analytical laboratory to undergo a suite of testing for contamination testing, as discussed in the previous sections. Sampling depths were chosen to reflect the receptor of concern, human health, and typically comprised a surface or near surface sample and periodically to 1.00m bgl. Any horizon where olfactory or visual evidence of contamination was present was also sampled.

Based on a risk phase analysis of the chemical laboratory test results, in accordance with EC Hazardous Waste Directive and undertaken by Ground and Water Limited, all soil samples of Topsoil, Made Ground and Wittering Formation encountered on-site were NON-HAZARDOUS. The results of the assessment are given within Appendix H.

Soils containing asbestos are considered HAZARDOUS if the level of asbestos in the Made Ground is above the threshold of 0.1% or visual fragments can be observed. Since no quantification of the asbestos in the sample recovered as chrysotile fibres within a fragment typical of asbestos cement was undertaken, it is not possible to classify the sample further with respect to waste classification. As a result, following removal of the soils from the hotspot centred on TP9, samples of the soils excavated should be screened for asbestos and quantifications undertaken on any positive identifications.

It is important to note that whilst we consider our in-house assessment tool to be an accurate interpretation of the requirements of WM3, therefore producing an initial classification in accordance with the guidance, this method classifies soils as either non-hazardous or hazardous and landfill operators have their own assessment tools and can often come to different conclusions. As a result, some landfill operators could refuse to take apparently suitable waste. It is recommended that the receiving landfill views the results of this assessment and the chemical laboratory results to determine their own classification.

Where contaminated soils are to be removed, they should be placed on an impermeable membrane (visqueen or similar) to ensure that no cross-contamination of soils occurs.

8.8. Duty of Care

Groundworkers must maintain a good standard of personal hygiene including the wearing of overalls, boots, gloves and eye protectors and the use of dust masks during periods of dry weather.

To prevent exposure to airborne dust by both the general public and construction personnel the site should be kept damp during dry weather and at other times when dust would be generated as a result of construction activities.

The site should be securely fenced at all times to prevent unauthorised access. Washing facilities should be provided and eating restricted to mess huts.

FIGURES

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
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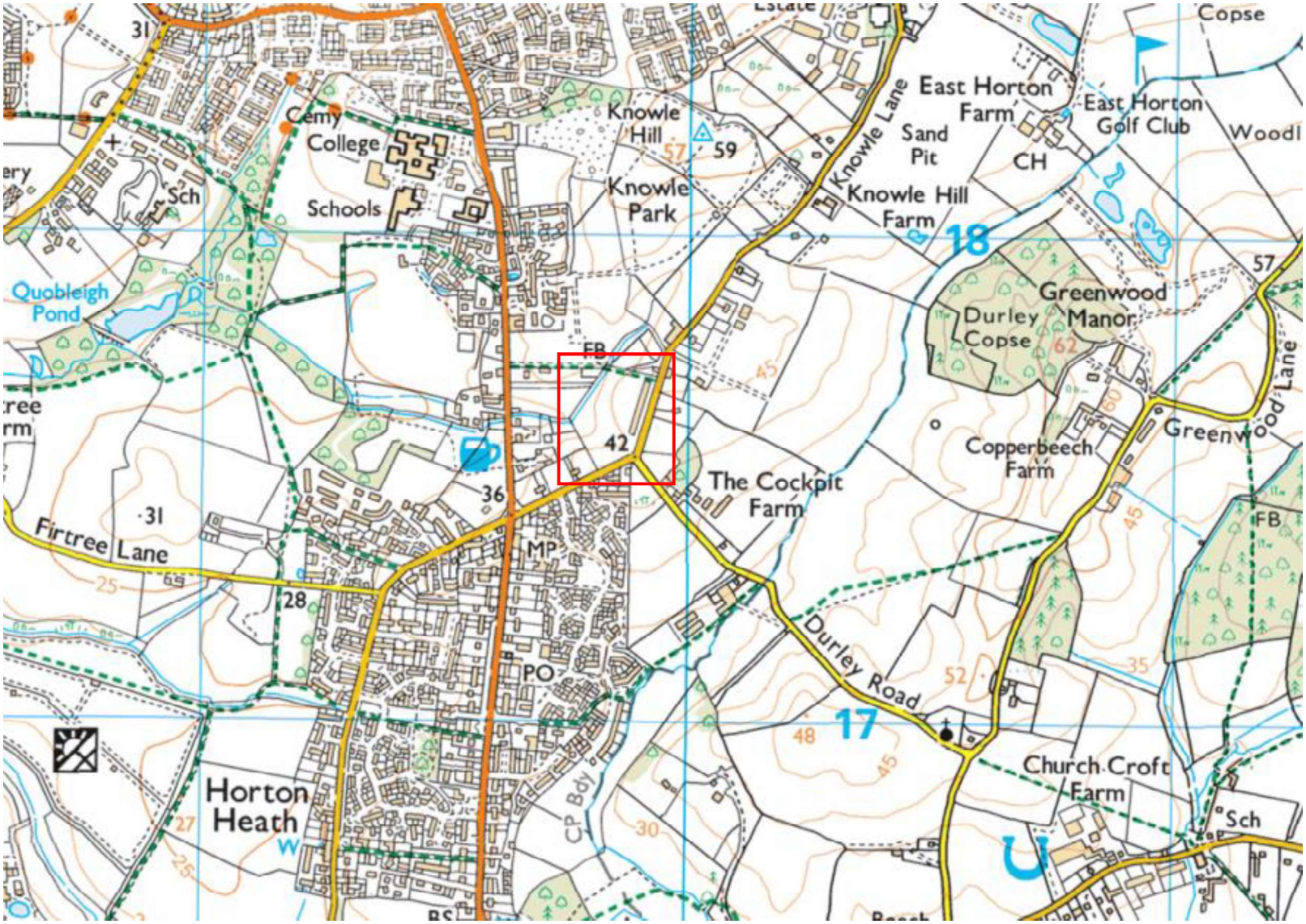
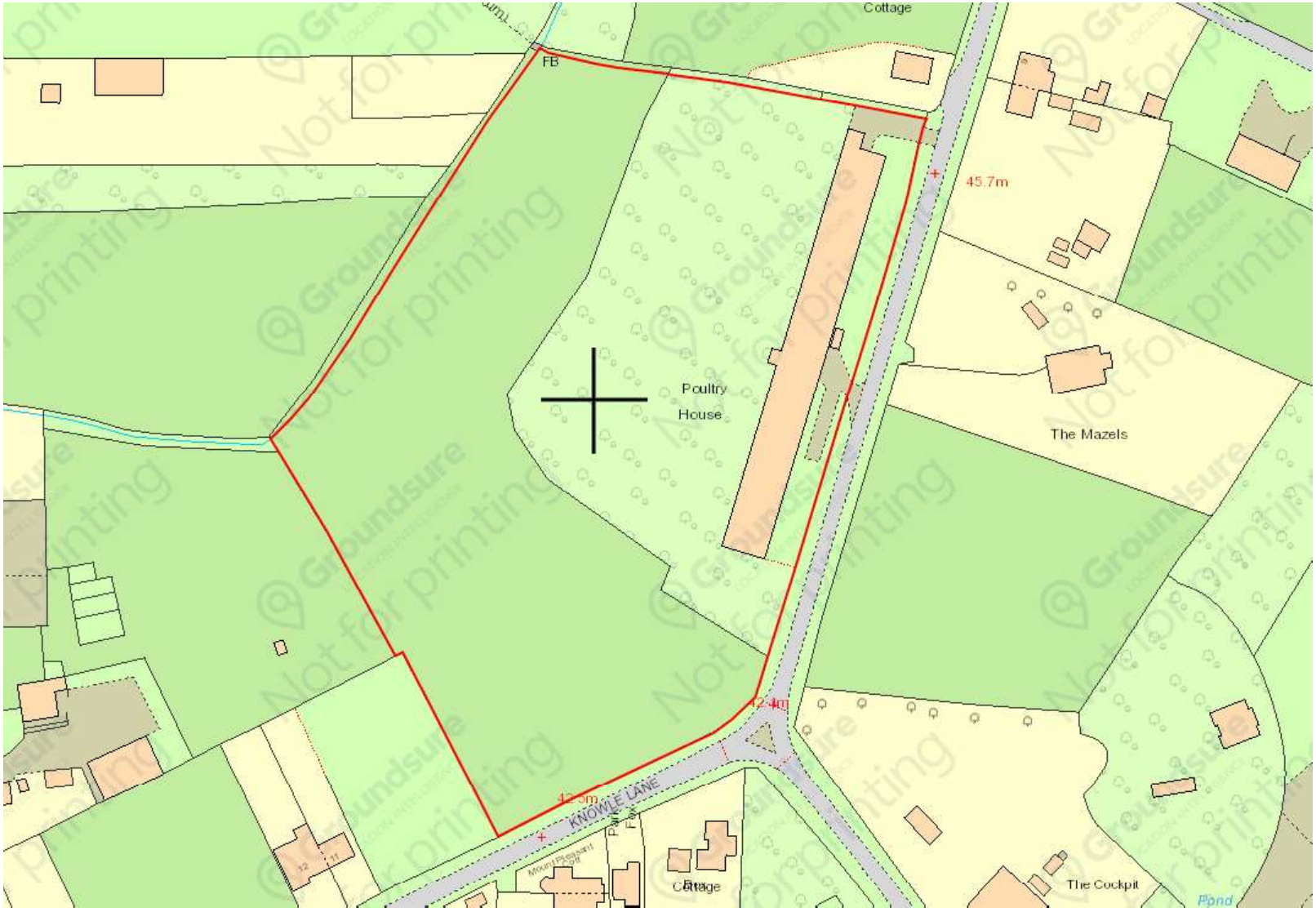


Figure 2 – Site Development Area

Approximately 250m

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY	
Alderbury Homes Ltd	**July 2025**
Figure 1 – Site Location Plan	**GWPR6594**

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Site Boundary

Approximately 40m

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY	
Alderbury Homes Ltd	**July 2025**
Figure 2 – Site Development Area	**GWPR6594**

ground&water



Site Boundary

Approximately 40m

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY	
Alderbury Homes Ltd	**July 2025**
Figure 3 – Aerial View of the Site	**GWPR6594**

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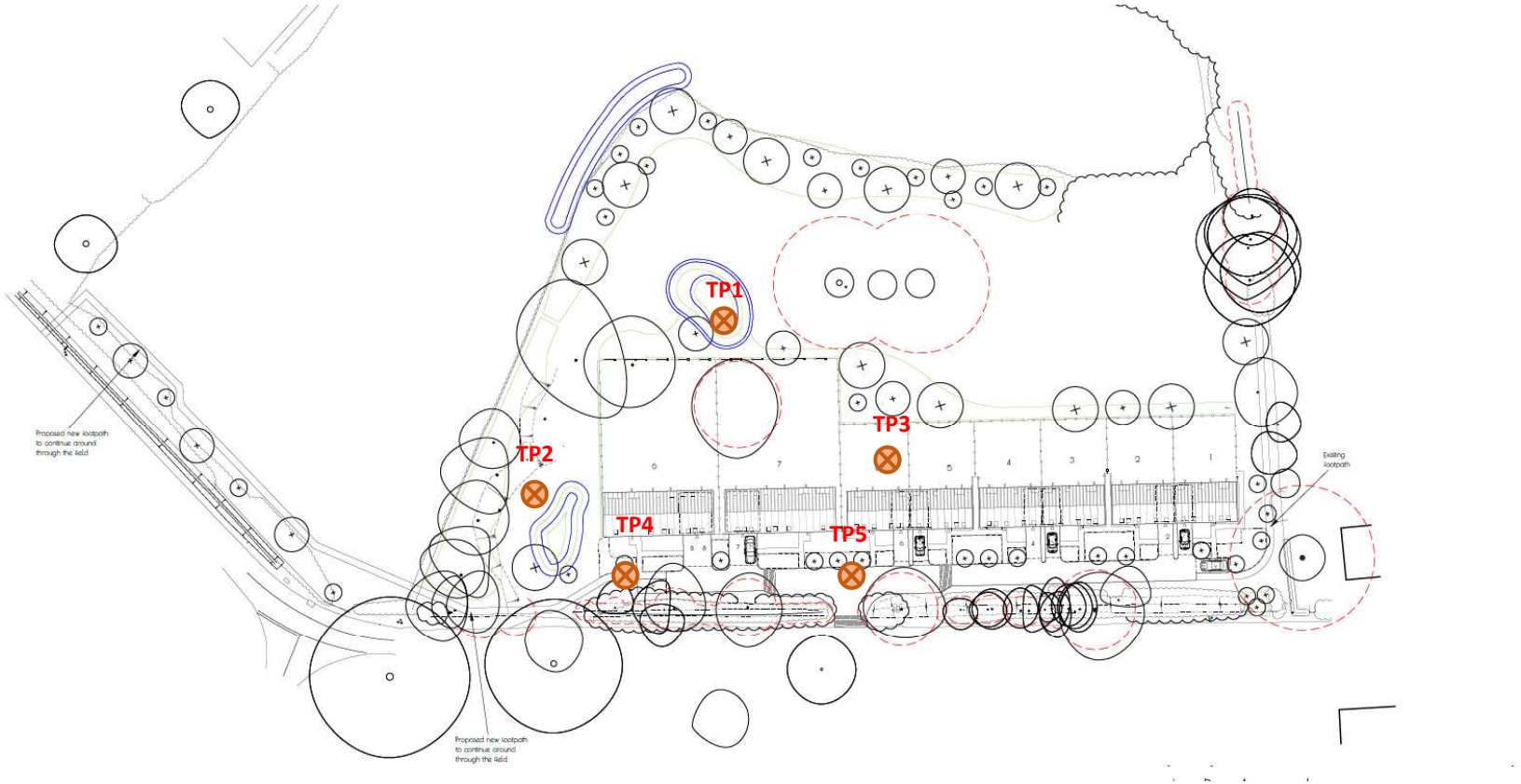
Site Boundary

Machine Excavated Trial Pit (TP1 – TP19 and TPA)

Approximately 40m

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY	
Alderbury Homes Ltd	**July 2025**
Figure 4 – Trial Hole Location Plan – Phase I	**GWPR6594**

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Site Boundary

Machine Excavated Trial Pit

Approximately 40m

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY	
Alderbury Homes Ltd	**July 2025**
Figure 5 – Trial Hole Location Plan – Phase II	**GWPR6594**

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APPENDIX A: Conditions and Limitations

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The ground is a product of continuing natural and artificial processes. As a result, the ground will exhibit a variety of characteristics that vary from place to place across a site, and also with time. Whilst a ground investigation will mitigate to a greater or lesser degree against the resulting risk from variation, the risks cannot be eliminated.

The report has been prepared on the basis of information, data and materials which were available at the time of writing. Accordingly, any conclusions, opinions or judgements made in the report should not be regarded as definitive or relied upon to the exclusion of other information, opinions and judgements.

The investigation, interpretations, and recommendations given in this report were prepared for the sole benefit of the client in accordance with their brief; as such these do not necessarily address all aspects of ground behaviour at the site. No liability is accepted for any reliance placed on it by others unless specifically agreed in writing.

Any decisions made by you, or by any organisation, agency or person who has read, received or been provided with information contained in the report ("you" or "the Recipient") are decisions of the Recipient and we will not make, or be deemed to make, any decisions on behalf of any Recipient. We will not be liable for the consequences of any such decisions.

Current regulations and good practice were used in the preparation of this report. An appropriately qualified person must review the recommendations given in this report at the time of preparation of the scheme design to ensure that any recommendations given remain valid in light of changes in regulation and practice, or additional information obtained regarding the site.

Any Recipient must take into account any other factors apart from the Report of which they and their experts and advisers are or should be aware. The information, data, conclusions, opinions and judgements set out in the report may relate to certain contexts and may not be suitable in other contexts. It is your responsibility to ensure that you do not use the information we provide in the wrong context.

This report is based on readily available geological records, the recorded physical investigation, the strata observed in the works, together with the results of completed site and laboratory tests. Whilst skill and care has been taken to interpret these conditions likely between or below investigation points, the possibility of other characteristics not revealed cannot be discounted, for which no liability can be accepted. The impact of our assessment on other aspects of the development required evaluation by other involved parties.

The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous in ground activities. The ground conditions have been sampled or monitored in recorded locations and tests for some of the more common chemicals generally expected. Other concentrations of types of chemicals may exist.

The conclusions and recommendations relate to Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY.

Trial hole is a generic term used to describe a method of direct investigation. The term trial pit, borehole or window sampler borehole implies the specific technique used to produce a trial hole.

The depth to roots and/or of desiccation may vary from that found during the investigation. The client is responsible for establishing the depth to roots and/or of desiccation on a plot-by-plot basis prior to the construction of foundations. Where trees are mentioned in the text this means existing trees, recently removed trees (approximately 15 years to full recovery on cohesive soils) and those planned as part of the site landscaping.

Ownership of copyright of all printed material including reports, laboratory test results, trial pit and borehole log sheets, including drillers log sheets, remain with Ground and Water Limited. Licence is for the sole use of the client and may not be assigned, transferred or given to a third party.

Only our client may rely on this report and should this report or any information contained in it be provided to any third party we accept no responsibility to the third party for the contents of this report save to the extent expressly outlined by us in writing in a reliance letter addressed from us to the third party.

Recipients are not permitted to publish this report outside of their organisation without our express written consent.

APPENDIX B: Technical Glossary

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TECHNICAL GLOSSARY

The list of possible definitions within the report may be seen below. Please note that some definitions may not be relevant to this report.

HYDROGEOLOGY:

A **Principal Aquifer** is a layer of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

Secondary aquifers include a wide range of drift deposits with an equally wide range of water permeability and storage capacities.

Secondary (A) Aquifers consist of deposits with permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as Minor Aquifers.

Secondary (B) Aquifers consist of deposits with predominantly lower permeability layers with may stoke and yield limited amounts of groundwater due to localised features such as fissures, think permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

Secondary Aquifers (Undifferentiated) are assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both a minor aquifer and non-aquifer in different locations due to the variable characteristics of the rock type.

Unproductive Strata are rock layers with low permeability that have negligible significance for water supply or river base flow. These were formerly classified as non-aquifers.

FLOOD ZONES:

Environment Agency Flood Zone 2, defined as; land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.

Environment Agency Flood Zone 3 shows the extent of a river flood with a 1 in 100 (1%0 or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year.

Environment Agency Flood Zone 3 area that benefits from flood defences, defined as; land and property in this flood zone would have a high probability of flooding without the local flood defences. These protect the area against a river flood with a 1% chance of happening each year, or a flood from the sea with a 0.5% chance of happening each year.

GROUNDWATER SOURCE PROTECTION ZONES (SPZS):

Inner zone (SPZ1): This zone is 50 day travel time of pollutant to source with a 50 metres default minimum radius.

Outer zone (SPZ2): This zone is 400 day travel time of pollutant to source. This has a 250 or 500 metres minimum radius around the source depending on the amount of water taken.

Total catchment (SPZ3): This is the area around a supply source within which all the groundwater ends up at the abstraction point. This is the point from where the water is taken. This could extend some distance from the source point.

Zone of special interest (SPZ4): This zone is where local conditions require additional protection.

IN-SITU STRENGTH GEOTECHNICAL TESTING:

Windowless Sample and/or Cable Percussion and/or Rotary Boreholes provide samples of the ground for assessment but they do not give any engineering data. The standard penetration test (SPT) is an in-situ dynamic penetration test designed to provide information on the geotechnical engineering properties of soil. The test uses a thick-walled sample tube, with an outside diameter of 50mm and an inside diameter of 35mm, and a length of around 650mm. This is driven into the ground at the bottom of a borehole by blows from a slide hammer with a weight of 63.5kg falling through a distance of 760mm. The sample tube is driven 150mm into the ground and then the number of blows needed for the tube to penetrate each 75mm up to a depth of 450mm is recorded. The sum of the number of blows is termed the "standard penetration resistance" or the "N-value".

Dynamic Probing involves the driving of a metal cone into the ground via a series of steel rods. These rods are driven from the surface by a hammer system that lifts and drops a 63.5kg (SHDP) hammer onto the top of the rods through a set height, thus ensuring a consistent energy input. The number of hammer blows that are required to drive the cone down by each 100mm increment are recorded. These blow counts then provide a comparative assessment from which correlations have been published, based on dynamic energy, which permits engineering parameters to be generated. (The Dynamic Probe 'Super Heavy' (SHDP) Tests were conducted in accordance with BS 1377; 1990; Part 9, Clause 3.2).

APPENDIX C: Trial Hole Logs

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
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Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 12/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP1	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05			MADE GROUND: Concrete.
		0.20	D		0.20			MADE GROUND: Grey and blackish brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to sub-rounded fine to coarse flint. *Slight hydrocarbon odour noted at 0.07 - 0.20m bgl.*
		0.50	D					Orangish brown and light grey clayey fine to coarse SAND. (WITTERING FORMATION)
		0.80	D					
		1.00	D		1.00			End of Borehole at 1.000m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///vest.overheat.painted

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP2	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.15			TOPSOIL: Brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint.
		0.50	D					Orangish brown and light grey slighlty gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint. (WITTERING FORMATION)
		0.80	D		0.95			End of Borehole at 0.950m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 0.60m bgl. No groundwater encountered. What3Words: ///chief.untruth.sparkles

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 12/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP3	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.07			MADE GROUND: Concrete.
		0.20	D		0.20			MADE GROUND: Sub-base: White and brown sandy sub-angular to sub-rounded fine to coarse GRAVEL of chalk (90%) and flint (10%). Sand is fine to coarse.
		0.50	D					Dark brown sandy CLAY. Sand is fine to coarse. (WITTERING FORMATION)
		0.80	D		0.80			End of Borehole at 0.800m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///massaged.sleep.delay

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 12/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP4	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.09			MADE GROUND: Concrete.
		0.20	D		0.20			MADE GROUND: Sub-base: White and brown sandy sub-angular to sub-rounded fine to coarse GRAVEL of chalk (90%) and flint (10%). Sand is fine to coarse.
		0.50	D					Orangish brown and light grey clayey fine to coarse SAND. (WITTERING FORMATION)
		0.80	D					
		1.00	D		1.00			End of Borehole at 1.000m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///roaming.liked.ideals

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 12/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP5	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.07			MADE GROUND: Concrete.
		0.20	D		0.20			MADE GROUND: Sub-base: White and brown sandy sub-angular to sub-rounded fine to coarse GRAVEL of chalk (80%) and flint (20%). Sand is fine to coarse.
		0.50	D					Orangish brown and light grey clayey fine to coarse SAND. (WITTERING FORMATION)
		0.80	D					
		1.00	D					
					1.10			End of Borehole at 1.100m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///sharpened.trinkets.released

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP6	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					TOPSOIL: Brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to medium flint. *Topsoil as part of a built-up bank.*
		0.50	D					
		0.80	D					
		1.00	D					
					1.10			Orangish brown and light grey slighlty gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint. (WITTERING FORMATION)
		1.50	D					
					1.80			End of Borehole at 1.800m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 1.60m bgl. No groundwater encountered. What3Words: ///tests.elsewhere.final

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP7	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.15			MADE GROUND: Dark brown slightly gravelly clayey fine to coarse SAND. Gravel is angular to rounded fine to coarse flint.
		0.50	D					MADE GROUND: Orangish brown and light grey slightly gravelly clayey fine to medium SAND. Gravel is angular to rounded fine to coarse flint.
		0.80	D					*Large scraps of metal, plastic, wires and general infill noted within the reworked natural soils from 0.50m bgl.*
		1.00	D					
		1.50	D		1.50			End of Borehole at 1.500m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Roots noted to 0.70m bgl. Perched water noted at 1.20m bgl. What3Words: ///crops.sized.among

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP8	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					TOPSOIL: Brown slightly gravelly clayey fine to coarse SAND. Gravel is sub-angular to rounded fine to coarse flint.
		0.50	D		0.50			Orangish brown and grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to rounded fine to coarse flint. (WITTERING FORMATION)
					0.70			End of Borehole at 0.700m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Roots noted to 0.50m bgl. No groundwater encountered. What3Words: ///town.mows.distilled

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP9	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					MADE GROUND: Brownish grey gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint (50%) brick (30%) and clinker (10%) chalk (5%) cement (5%).
		0.50	D					
		0.80	D					
		1.00	D		0.90 1.00			Orangish brown and grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to rounded fine to coarse flint. (WITTERING FORMATION) End of Borehole at 1.000m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///tent.grant.screaming

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP10	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.15			TOPSOIL: Brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to medium flint.
		0.50	D					Orangish brown and light grey slighlty gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint. (WITTERING FORMATION)
		0.80	D		0.85			End of Borehole at 0.850m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 0.40m bgl. No groundwater encountered. What3Words: ///snug.crass.chain

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP11	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					MADE GROUND: Brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to medium flint. *Plastic sheeting and corrugated pipe noted within the reworked natural soils to 0.35m bgl.*
		0.50	D		0.35			Orangish brown clayey fine to coarse SAND. (WITTERING FORMATION)
					0.70			End of Borehole at 0.700m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Roots noted to 0.50m bgl. No groundwater encountered. What3Words: ///ballpoint.stutter.headache

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP12	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.15			MADE GROUND: Brown slightly gravelly clayey fine to coarse SAND. Gravel is sub-angular to rounded fine to coarse flint (80%) chalk (10%) and metal (10%).
		0.50	D					Orangish brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse flint. (WITTERING FORMATION)
		0.80	D					
		1.00	D		1.10			End of Borehole at 1.100m

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Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///beaters.blogs.dates

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP13	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					MADE GROUND: Light brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint.
		0.50	D					
					0.60			MADE GROUND: Grey very gravelly CLAY. Gravel is sub-angular to sub-rounded fine to coarse flint.
		0.80	D		0.75			Orangish brown and light grey sandy gravelly CLAY. Sand is fine to coarse. Gravel angular to sub-rounded fine to coarse flint. (WITTERING FORMATION)
		1.00	D					
					1.10			End of Borehole at 1.100m

1 2 3 4 5

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. Perched water noted at 1.00m bgl. What3Words: ///nappy.locating.capillary

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP14	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.30			MADE GROUND: Brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint (80%) and brick (20%).
		0.50	D					Orangish brown and light grey clayey fine to coarse SAND. (WITTERING FORMATION)
		0.80	D		0.90			End of Borehole at 0.900m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 0.80m bgl. No groundwater encountered. What3Words: ///kitchen.overdone.activates

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP15	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.12			MADE GROUND: Concrete.
		0.20	D					MADE GROUND: Brownish grey gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to coarse flint (60%) brick (20%) and concrete (20%).
		0.50	D		0.40			Orangish brown and light grey clayey fine to medium SAND. (WITTERING FORMATION)
		0.80	D					
		1.00	D					
					1.10			End of Borehole at 1.100m

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Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 0.75m bgl. No groundwater encountered. What3Words: ///narrates.regret.nodded

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2000
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP16	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					TOPSOIL: Brown slightly gravelly clayey fine to coarse SAND. Gravel is angular to sub-rounded fine to medium flint.
					0.35			
		0.50	D					Orangish brown and light grey clayey fine to medium SAND. (WITTERING FORMATION)
		0.80	D					
		1.00	D		1.00			End of Borehole at 1.000m

1 2 3 4 5

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 0.50m bgl. Decaying roots noted to 1.00m bgl. Perched water noted at 1.00m bgl. What3Words: /// functions.blurred.bucked

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP17	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					MADE GROUND: Brown slightly gravelly clayey fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse flint (95%) and brick (5%). *Made Ground as part of a built-up bank.*
		0.50	D					
		0.80	D					
		1.00	D					
					1.20			Orangish brown and light grey clayey fine to medium SAND. (WITTERING FORMATION)
		1.50	D					
					1.80			End of Borehole at 1.800m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Live roots noted to 1.60m bgl. No gronudwater encountered. What3Words: ///speeches.dined.unafraid

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP18	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.30			TOPSOIL: Brown slightly gravelly clayey fine to coarse SAND. Gravel is sub-angular to rounded fine to coarse flint.
		0.50	D		0.60			Orangish brown and grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to rounded fine to coarse flint. (WITTERING FORMATION)
								End of Borehole at 0.600m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///card.green.skin

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP19	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					TOPSOIL: Brown slightly gravelly clayey fine to coarse SAND. Gravel is sub-angular to rounded fine to coarse flint.
		0.50	D		0.45			Orangish brown and grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to rounded fine to coarse flint. (WITTERING FORMATION)
					0.70			End of Borehole at 0.700m

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Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3Words: ///tiger.into.cuts

Trial Pit Log

Project Name: Cockpit Barn, Knowle Lane	Client: Alderbury Homes Ltd	Date: 10/08/2021
Location: Horton Heath SO50 7DY	Contractor: G&W	
Project No. : GWPR4377	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TPA	TP		RR	1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.02			MADE GROUND: Ash.
		0.15	D		0.20			MADE GROUND: Blackish brown gravelly clayey fine to coarse SAND. Gravel is angular to sub-angular fine to coarse ash (70%) metal (20%) and glass (10%).
		0.30	D		0.30			Orangish brown clayey fine to coarse SAND. (WITTERING FORMATION)
								End of Borehole at 0.300m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

No roots noted. No groundwater encountered. What3words: ///shipwreck.pace.lightbulb

Trial Pit Log

Project Name: Cockpit Barn	Client: Alderbury Ho,es Limited	Date: 19/05/2025
Location: Knowle Lane Horton Heath SO50 7DY	Contractor: G and W	
Project No. : GWPR6594	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP1	TP			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D					Brown gravelly, clayey fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint. (TOPSOIL).
		0.50	D		0.50			Grey and orangish brown slightly sandy CLAY. Sand is fine to medium. (WITTERING FORMATION).
		0.80	D					
		1.00	D					
					1.30			Greyish brown and orangish brown fine to medium SAND. (WITTERING FORMATION).
		1.50	D		1.50			End of Borehole at 1.500m

1
2
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4
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Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Groundwater was not encountered. No roots were noted.

Trial Pit Log

Project Name: Cockpit Barn	Client: Alderbury Ho,es Limited	Date: 19/05/2025
Location: Knowle Lane Horton Heath SO50 7DY	Contractor: G and W	
Project No. : GWPR6594	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP2	TP			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10			Concrete. (MADE GROUND).
		0.20	D		0.20			Type I material. (MADE GROUND).
		0.50	D					Dark brown gravelly fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint, brick and concrete. (MADE GROUND).
		0.80	D					
		1.00	D					
					1.30			Dark greyish brown slightly sandy CLAY. Sand is fine to medium. (WITTERING FORMATION).
		1.50	D		1.50			End of Borehole at 1.500m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Groundwater was not encountered. Roots were noted to 1.00m bgl.

Trial Pit Log

Project Name: Cockpit Barn	Client: Alderbury Ho,es Limited	Date: 19/05/2025
Location: Knowle Lane Horton Heath SO50 7DY	Contractor: G and W	
Project No. : GWPR6594	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP3	TP			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.20			Brown gravelly, clayey fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint. (TOPSOIL).
		0.50	D					Orangish brown slightly clayey fine to medium SAND. (WITTERING FORMATION).
		0.80	D					
		1.00	D					
		1.50	D					
		2.00	D		2.00			End of Borehole at 2.000m

1 2 3 4 5

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Groundwater was not encountered. Roots were noted to 1.00m bgl.

Trial Pit Log

Project Name: Cockpit Barn	Client: Alderbury Ho,es Limited	Date: 19/05/2025
Location: Knowle Lane Horton Heath SO50 7DY	Contractor: G and W	
Project No. : GWPR6594	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP4	TP			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.30			Brown gravelly, clayey fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint. (TOPSOIL).
		0.50	D					Brown gravelly fine to coarse SAND. Gravel was angular to sub-rounded fine flint. (WITTERING FORMATION).
		0.80	D					
		1.00	D		1.00			Dark greyish brown slightly sandy CLAY. Sand is fine to medium. (WITTERING FORMATION).
					1.20			End of Borehole at 1.200m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Groundwater was not encountered. No roots were noted.

Trial Pit Log

Project Name: Cockpit Barn	Client: Alderbury Ho,es Limited	Date: 19/05/2025
Location: Knowle Lane Horton Heath SO50 7DY	Contractor: G and W	
Project No. : GWPR6594	Crew Name:	Equipment:

Location Number	Location Type	Level	Logged By	Scale	Page Number
TP5	TP			1:25	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20	D		0.20			Brown gravelly, clayey fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint. (TOPSOIL).
		0.50	D					Greyish brown and orangish brown fine to medium SAND. (WITTERING FORMATION).
		0.80	D					
		1.00	D					
		1.50	D					
		2.00	D		2.00			End of Borehole at 2.000m

1
2
3
4
5

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Groundwater was not encountered. No roots were noted.

APPENDIX D: Geotechnical Laboratory Testing

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
0333 600 1221 enquiries@groundandwater.co.uk **groundandwater.co.uk**

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Laboratory Report

UKAS TESTING 2788

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES A PHENNA GROUP COMPANY

Contract Number: 78842

Client Ref: **GWPR6594**
Client PO: **GWPR6594**

Date Received: **23-05-2025**
Date Completed: **09-06-2025**
Report Date: **09-06-2025**

Client: **Ground and Water Limited**

Contract Title: **Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY**
For the attention of: **Roger Foord**

This report has been checked and approved by:

Shaun Jones
Laboratory manager

Description	Qty
Determination of water content BS EN ISO 17892-1:2014 - @ Non Accredited Test	3
1 point Liquid & Plastic Limit.. BS EN ISO 17892-12 - * UKAS	3
Particle Size Distribution BS EN ISO 17892-4 : 5.1 - * UKAS	4

Notes: **Observations and Interpretations are outside the UKAS Accreditation**
*** - denotes test included in laboratory scope of accreditation**
- denotes test carried out by approved contractor
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This test report/certificate shall not be reproduced except in full, without the approval of GEO Site & Testing Services Ltd. Any opinions or interpretations stated - within this report/certificate are excluded from the laboratories UKAS accreditation.

Approved Signatories:
Brendan Evans (Senior Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)
Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)
Wayne Honey (HR & HSE Manager)

GEO Site & Testing Services Ltd
Unit 3-4 Heol Aur, Dafen Ind Est, Llanelli, Carmarthenshire SA14 8QN
Tel: 01554 784 040 Fax: 01554 784 040 info@gstl.co.uk https://gstl.co.uk

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	**WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX** **BS EN ISO 17892-12:2018+A2:2022 1 Point Liquid Limit** **BS EN ISO 17892-1:2014+A1:2022 Determination of Water Content**	
Contract Number	78842	
Project Name	Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY	
Date Tested	06/06/2025	
	DESCRIPTIONS	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
TP1		B	0.80	-		Brown silty CLAY
TP2		B	1.50	-		Brown fine to medium gravelly silty CLAY
TP4		B	1.00	-		Brown silty sandy CLAY
				-		
				-		
				-		
				-		
				-		
				-		
				-		
				-		
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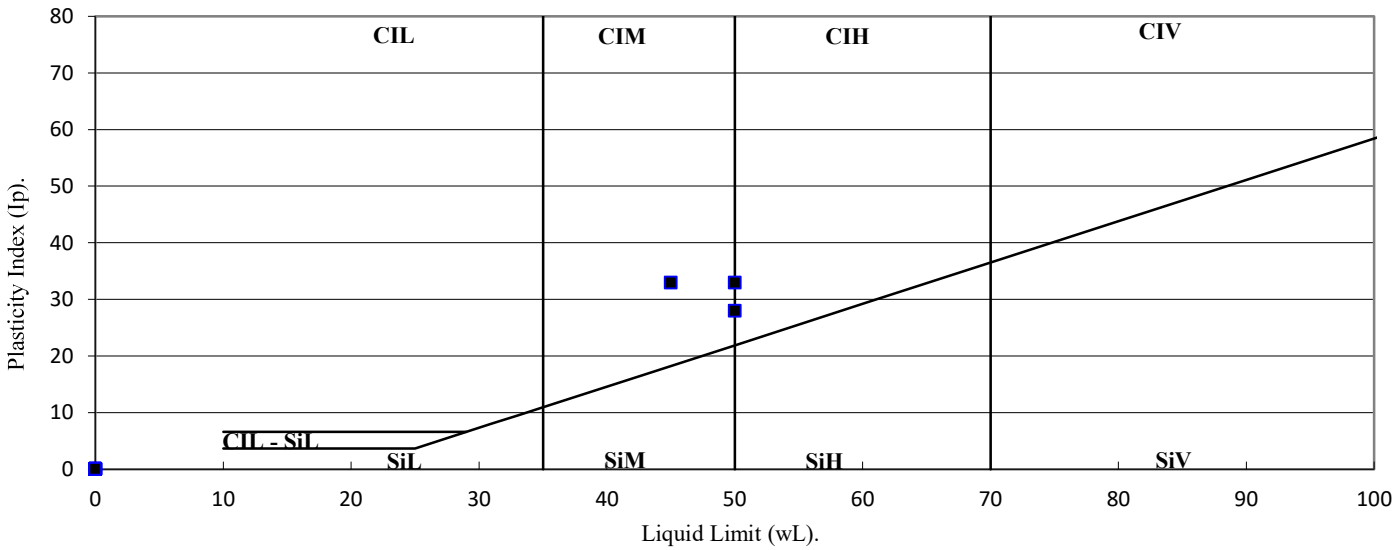
Operator
Clayton Jenkins

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX BS EN ISO 17892-12:2018+A2:2022 1 Point Liquid Limit BS EN ISO 17892-1:2014+A1:2022 Determination of Water Content	
Contract Number	78842	
Project Name	Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY	
Date Tested	06/06/2025	
Test Comments	80g/30° Fall cone used	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Water Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Factor Applied	Remarks
TP1		B	0.80	-		18.7	50	17	33	100	0.991	CI/H Inter/High Plasticity
TP2		B	1.50	-		23.6	50	22	28	92	0.991	CI/H Inter/High Plasticity
TP4		B	1.00	-		18.4	45	12	33	100	1.009	CI Intermediate Plasticity
				-								
				-								
				-								
				-								
				-								
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SYMBOLS : NP = Non Plastic **NB: All liquid limits are 4 point and wet sieved**

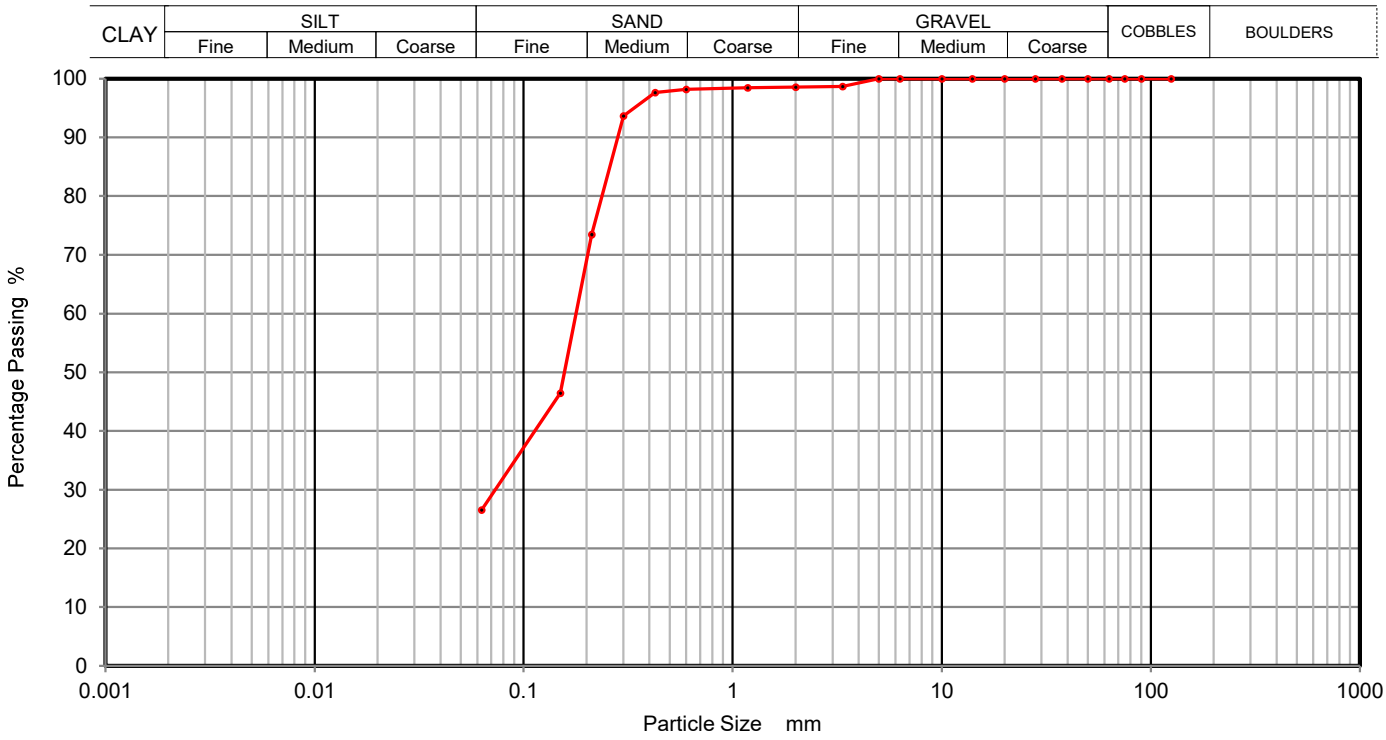
PLASTICITY CHART
BS EN ISO 14688-2:2018 Clause 4.4



***For sample descriptions please see sample descriptions sheet**

Operator
Clayton Jenkins

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	PARTICLE SIZE DISTRIBUTION BS EN ISO 17892-4:2016 Wet Sieve, Clause 5.2	Contract Number	78842
		Borehole/Pit No.	TP1
Project Name	Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY	Sample No.	
Sample Description	Brown slightly gravelly silty/ clayey fine to coarse SAND	Depth Top	1.50
		Depth Base	
Date Tested	30/05/2025	Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	99		
2	99		
1.18	98		
0.63	98		
0.425	98		
0.30	94		
0.20	74		
0.15	46		
0.063	27		

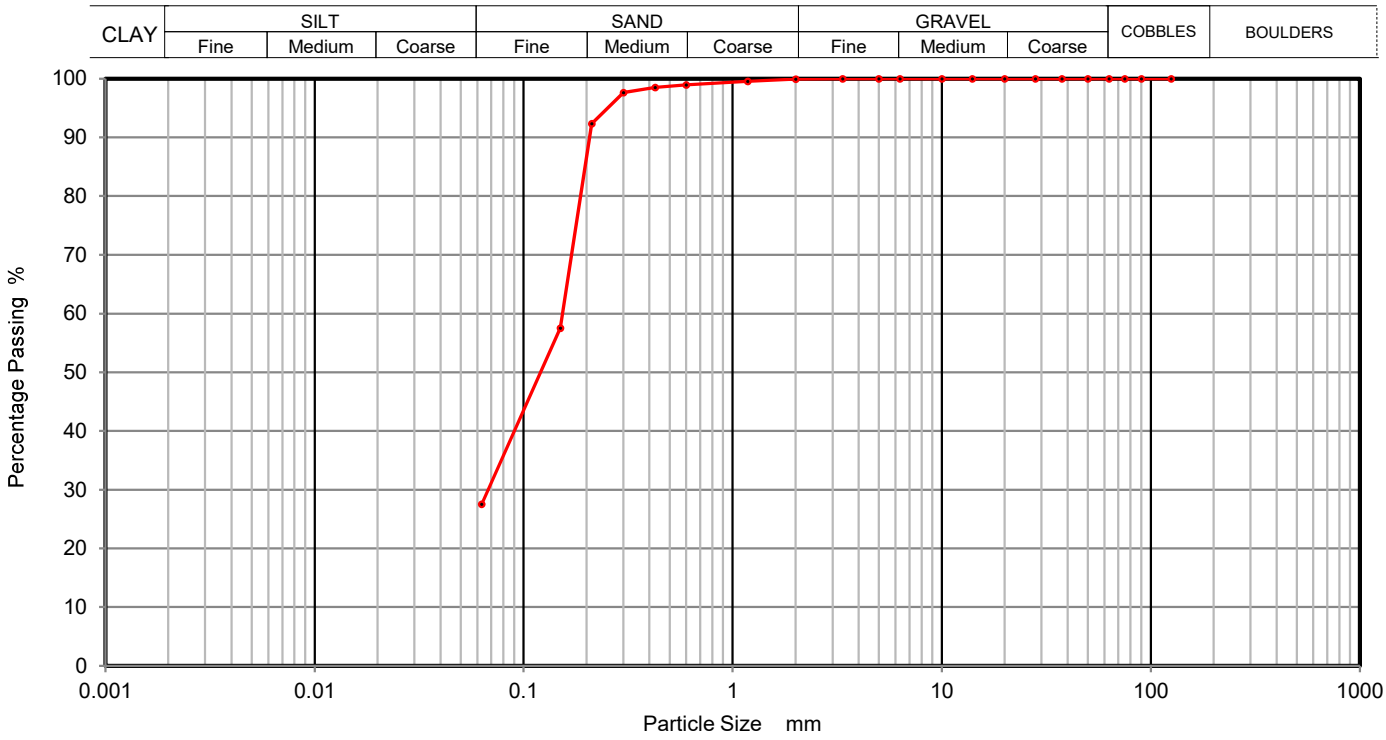
Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	72
Silt and Clay	27

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron. T

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	PARTICLE SIZE DISTRIBUTION BS EN ISO 17892-4:2016 Wet Sieve, Clause 5.2	Contract Number	78842
		Borehole/Pit No.	TP3
Project Name	Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY	Sample No.	
Sample Description	Brown silty/ clayey fine to coarse SAND	Depth Top	1.00
		Depth Base	
Date Tested	30/05/2025	Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.63	99		
0.425	99		
0.30	98		
0.20	92		
0.15	58		
0.063	28		

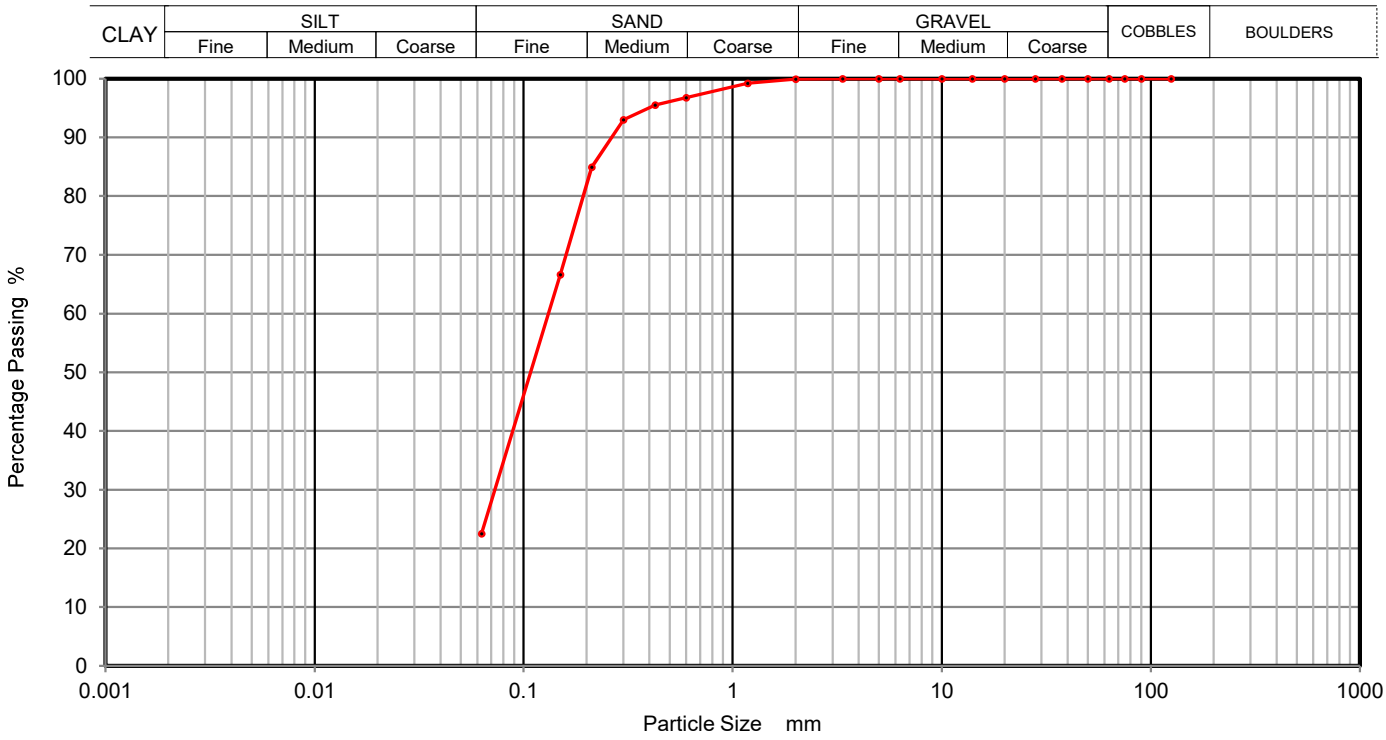
Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	72
Silt and Clay	28

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron. T

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	PARTICLE SIZE DISTRIBUTION BS EN ISO 17892-4:2016 Wet Sieve, Clause 5.2	Contract Number	78842
		Borehole/Pit No.	TP5
Project Name	Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY	Sample No.	
Sample Description	Brown silty/ clayey fine to coarse SAND	Depth Top	1.00
		Depth Base	
Date Tested	30/05/2025	Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	99		
0.63	97		
0.425	96		
0.30	93		
0.20	85		
0.15	67		
0.063	23		

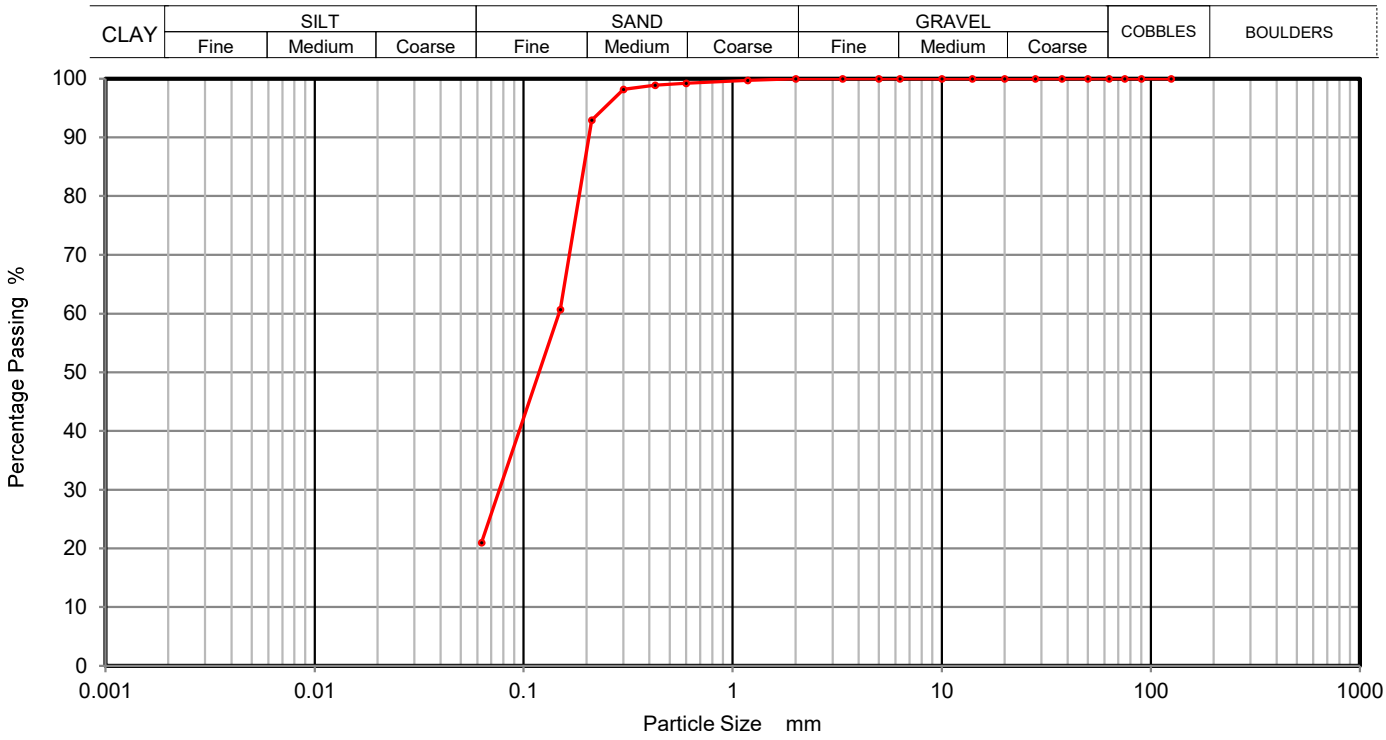
Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	77
Silt and Clay	23

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron. T

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	PARTICLE SIZE DISTRIBUTION BS EN ISO 17892-4:2016 Wet Sieve, Clause 5.2	Contract Number	78842
		Borehole/Pit No.	TP5
Project Name	Cockpit Barn, Knowle Lane, Horton Heath, SO50 7DY	Sample No.	
Sample Description	Brown silty/ clayey fine to coarse SAND	Depth Top	2.00
		Depth Base	
Date Tested	30/05/2025	Sample Type	B



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	100		
1.18	100		
0.63	99		
0.425	99		
0.30	98		
0.20	93		
0.15	61		
0.063	21		

Sample Proportions	% dry mass
Cobbles	0
Gravel	0
Sand	79
Silt and Clay	21

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator
Cameron. T

APPENDIX E: Chemical Laboratory Testing

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
0333 600 1221 enquiries@groundandwater.co.uk **groundandwater.co.uk**

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Ground and Water Ltd
Head Office
2 The Long Barn
Norton Farm, Selborne Road
Alton
Hampshire
GU34 3NB

Attention: Emily Sillence

CERTIFICATE OF ANALYSIS

Date of report Generation:	06 September 2021
Customer:	Ground and Water Ltd
Sample Delivery Group (SDG):	210818-91
Your Reference:	GWPR4377
Location:	Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY
Report No:	611836

This report has been revised and directly supersedes 610490 in its entirety.

We received 21 samples on Wednesday August 18, 2021 and 20 of these samples were scheduled for analysis which was completed on Wednesday August 25, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

[redacted]

Sonia McWhan

Operations Manager

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
24825924	NO SAMPLE ID	A		
24825931	TP1		0.20	12/08/2021
24826006	TP2		0.60	12/08/2021
24826021	TP3		0.20	12/08/2021
24826031	TP4		0.20	12/08/2021
24826041	TP5		0.50	12/08/2021
24826051	TP6		0.20	12/08/2021
24826064	TP7		0.90	12/08/2021
24826071	TP8		0.20	12/08/2021
24826084	TP9		0.50	12/08/2021
24826017	TP9		0.70	12/08/2021
24825937	TP10		0.15	12/08/2021
24825944	TP12		0.10	12/08/2021
24825949	TP13		0.60 - 0.75	12/08/2021
24825956	TP14		0.50	12/08/2021
24825961	TP15		0.20	12/08/2021
24825974	TP16		0.20	12/08/2021
24825978	TP17		0.70	12/08/2021
24825985	TP18		0.50	12/08/2021
24825994	TP19		0.20	12/08/2021
24825997	TPA/Bonfire		0.10	12/08/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type
			24825931	TP1		0.20	1kg Cardboard Container	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			24826006	TP2		0.60	1kg Cardboard Container	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			24826021	TP3		0.20	1kg Cardboard Container	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			24826031	TP4		0.20	1kg Cardboard Container	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			24826041	TP5		0.50	1kg Cardboard Container	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			24826051	TP6		0.20	1kg Cardboard Container	S
							250g Amber Jar (ALE210)	S
							60g VOC (ALE215)	S
			24826064	TP7		0.90	1kg Cardboard Container	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 19		X				
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 19	X			X		
Asbestos Identification	All	NDPs: 0 Tests: 1						
Boron Water Soluble	All	NDPs: 0 Tests: 19		X				
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 19		X				
EPH CWG GC (S)	All	NDPs: 0 Tests: 14		X				
GRO by GC-FID (S)	All	NDPs: 0 Tests: 14			X			
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 19		X				
Metals in solid samples by OES	All	NDPs: 0 Tests: 19		X				
PAH by GCMS	All	NDPs: 0 Tests: 19		X				
pH	All	NDPs: 0 Tests: 19		X				
Phenols by HPLC (S)	All	NDPs: 0 Tests: 19		X				
Sample description	All	NDPs: 0 Tests: 14		X				
Total Organic Carbon	All	NDPs: 0 Tests: 19		X				
TPH CWG GC (S)	All	NDPs: 0 Tests: 14		X				

24825961	TP15		0.20	60g VOC (ALE215)	S									X											
				250g Amber Jar (ALE210)	S		X				X		X		X			X		X		X		X		X
				1kg Cardboard Container	S			X																		
24825956	TP14		0.50	250g Amber Jar (ALE210)	S		X				X		X					X		X		X		X		X	
				1kg Cardboard Container	S			X																		
24825949	TP13		0.60 - 0.75	60g VOC (ALE215)	S									X											
				250g Amber Jar (ALE210)	S		X				X		X		X			X		X		X		X		X
				1kg Cardboard Container	S			X																		
24825944	TP12		0.10	60g VOC (ALE215)	S									X											
				250g Amber Jar (ALE210)	S		X				X		X		X			X		X		X		X		X
				1kg Cardboard Container	S			X																		
24825937	TP10		0.15	250g Amber Jar (ALE210)	S		X				X		X					X		X		X		X		X	
				1kg Cardboard Container	S			X																		
24826017	TP9		0.70	1kg Cardboard Container	S				X																
24826084	TP9		0.50	60g VOC (ALE215)	S									X											
				250g Amber Jar (ALE210)	S		X				X		X		X			X		X		X		X		X
				1kg Cardboard Container	S			X																		
24826071	TP8		0.20	60g VOC (ALE215)	S									X											
				250g Amber Jar (ALE210)	S		X				X		X		X			X		X		X		X		X
				1kg Cardboard Container	S			X																		
24826064	TP7		0.90	250g Amber Jar (ALE210)	S		X				X		X			X		X		X		X		X		

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend

- X — Test
- N — No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)	Customer Sample Reference	AGS Reference	Depth (m)	Container	Sample Type	VOC MS (S) — All — NDPs: 0 Tests: 14
24825931	TP1		0.20	1kg Cardboard Container	S	
				250g Amber Jar (ALE210)	S	
				60g VOC (ALE215)	S	X
24826006	TP2		0.60	1kg Cardboard Container	S	
				250g Amber Jar (ALE210)	S	
				60g VOC (ALE215)	S	X
24826021	TP3		0.20	1kg Cardboard Container	S	
				250g Amber Jar (ALE210)	S	
				60g VOC (ALE215)	S	X
24826031	TP4		0.20	1kg Cardboard Container	S	
				250g Amber Jar (ALE210)	S	
				60g VOC (ALE215)	S	X
24826041	TP5		0.50	1kg Cardboard Container	S	
				250g Amber Jar (ALE210)	S	
				60g VOC (ALE215)	S	X
24826051	TP6		0.20	1kg Cardboard Container	S	
				250g Amber Jar (ALE210)	S	
				60g VOC (ALE215)	S	X
24826064	TP7		0.90	1kg Cardboard Container	S	

24825961	TP15		0.20	60g VOC (ALE215)	S		x
				250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24825956	TP14		0.50	250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24825949	TP13		0.60 - 0.75	60g VOC (ALE215)	S		x
				250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24825944	TP12		0.10	60g VOC (ALE215)	S		x
				250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24825937	TP10		0.15	250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24826017	TP9		0.70	1kg Cardboard Container	S		
24826084	TP9		0.50	60g VOC (ALE215)	S		x
				250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24826071	TP8		0.20	60g VOC (ALE215)	S		x
				250g Amber Jar (ALE210)	S		
				1kg Cardboard Container	S		
24826064	TP7		0.90	250g Amber Jar (ALE210)	S		

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend

- X Test
- N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			24825974		24825978			24825985			24825994		24825997		
Customer Sample Reference			TP16		TP17			TP18			TP19		TPA/Bonfire		
AGS Reference															
Depth (m)			0.20		0.70			0.50			0.20		0.10		
Container			1kg Cardboard Container	250g Amber Jar (ALE210)	1kg Cardboard Container	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg Cardboard Container	250g Amber Jar (ALE210)	60g VOC (ALE215)	1kg Cardboard Container	250g Amber Jar (ALE210)	1kg Cardboard Container	250g Amber Jar (ALE210)	60g VOC (ALE215)
Sample Type			S	S	S	S	S	S	S	S	S	S	S	S	S
Anions by Kone (soil)	All	NDPs: 0 Tests: 19		X		X			X			X		X	
Asbestos ID in Solid Samples	All	NDPs: 0 Tests: 19	X		X			X			X		X		
Boron Water Soluble	All	NDPs: 0 Tests: 19		X		X			X			X		X	
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 19		X		X			X			X		X	
EPH CWG GC (S)	All	NDPs: 0 Tests: 14				X			X					X	
GRO by GC-FID (S)	All	NDPs: 0 Tests: 14					X			X					X
Hexavalent Chromium (s)	All	NDPs: 0 Tests: 19		X		X			X			X		X	
Metals in solid samples by OES	All	NDPs: 0 Tests: 19		X		X			X			X		X	
PAH by GCMS	All	NDPs: 0 Tests: 19		X		X			X			X		X	
pH	All	NDPs: 0 Tests: 19		X		X			X			X		X	
Phenols by HPLC (S)	All	NDPs: 0 Tests: 19		X		X			X			X		X	
Sample description	All	NDPs: 0 Tests: 14		X		X			X			X		X	
Total Organic Carbon	All	NDPs: 0 Tests: 19		X		X			X			X		X	
TPH CWG GC (S)	All	NDPs: 0 Tests: 14				X			X					X	
VOC MS (S)	All	NDPs: 0 Tests: 14					X			X					X

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Sample Descriptions

Grain Sizes

very fine	<0.063mm	fine	0.063mm - 0.1mm	medium	0.1mm - 2mm	coarse	2mm - 10mm	very coarse	>10mm

Lab Sample No(s)	Customer Sample Ref.	Depth (m)	Colour	Description	Inclusions	Inclusions 2
24825931	TP1	0.20	Dark Brown	Sandy Clay Loam	None	None
24826006	TP2	0.60	Light Brown	Sandy Clay Loam	None	None
24826021	TP3	0.20	Dark Brown	Sandy Loam	N/A	N/A
24826031	TP4	0.20	Light Brown	Clay Loam	N/A	N/A
24826041	TP5	0.50	Dark Brown	Sandy Clay Loam	Stones	None
24826051	TP6	0.20	Dark Brown	Sandy Loam	Stones	Vegetation
24826064	TP7	0.90	Dark Brown	Sandy Clay Loam	Stones	Vegetation
24826071	TP8	0.20	Dark Brown	Sandy Loam	Stones	Vegetation
24826084	TP9	0.50	Dark Brown	Sand	Vegetation	Crushed Brick
24825937	TP10	0.15	Dark Brown	Sandy Clay Loam	Stones	Vegetation
24825944	TP12	0.10	Dark Brown	Sandy Loam	Vegetation	Stones
24825949	TP13	0.60 - 0.75	Dark Brown	Sandy Loam	Stones	None
24825956	TP14	0.50	Light Brown	Sandy Loam	Vegetation	None
24825961	TP15	0.20	Dark Brown	Loamy Sand	Vegetation	Brick
24825974	TP16	0.20	Dark Brown	Sandy Clay Loam	Vegetation	None
24825978	TP17	0.70	Dark Brown	Sandy Loam	Stones	Vegetation
24825985	TP18	0.50	Light Brown	Clay	Vegetation	None
24825994	TP19	0.20	Dark Brown	Sandy Clay Loam	Stones	Vegetation
24825997	TPA/Bonfire	0.10	Dark Brown	Sandy Clay Loam	Vegetation	None

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6
			Depth (m)	0.20	0.60	0.20	0.20	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825931	24826006	24826021	24826031	24826041	24826051
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		23	18	17	18	20	14
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Organic Carbon, Total	<0.2 %	TM132		0.316 M	<0.2 M	0.226 M	0.251 M	0.271 M	0.97 M
Soil Organic Matter (SOM)	<0.35 %	TM132		0.545 #	<0.35 #	0.39 #	0.433 #	0.467 #	1.67 #
pH	1 pH Units	TM133		7.71 M	7.41 M	9.26 M	8.35 M	7.9 M	6.37 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		14.4 M	9.2 M	3.93 M	2.49 M	12.7 M	6.04 M
Cadmium	<0.02 mg/kg	TM181		0.152 M	0.29 M	0.407 M	0.364 M	0.145 M	0.118 M
Chromium	<0.9 mg/kg	TM181		15.1 M	22.2 M	3.9 M	4.61 M	18.4 M	13.2 M
Copper	<1.4 mg/kg	TM181		3.35 M	3.8 M	5.16 M	7.23 M	5.25 M	13 M
Lead	<0.7 mg/kg	TM181		12 M	11.3 M	4.15 M	2.9 M	8.62 M	22.6 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		3.3 M	3.94 M	2.59 M	2.34 M	5.62 M	3.8 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vanadium	<0.2 mg/kg	TM181		43.1 #	52 #	8.38 #	8.69 #	52 #	28.4 #
Zinc	<1.9 mg/kg	TM181		193 M	45.1 M	32.5 M	52 M	31.9 M	28.7 M
Boron, water soluble	<1 mg/kg	TM222		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		<0.004 M	<0.004 M	0.419 M	0.113 M	0.0625 M	<0.004 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP7	TP8	TP9	TP10	TP12	TP13
			Depth (m)	0.90	0.20	0.50	0.15	0.10	0.60 - 0.75
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24826064	24826071	24826084	24825937	24825944	24825949
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		18	19	5.6	29	20	15
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	0.014 M	<0.01 M	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Organic Carbon, Total	<0.2 %	TM132		0.492 M	1.93 M	1 M	2.45 M	1.06 M	0.784 M
Soil Organic Matter (SOM)	<0.35 %	TM132		0.848 #	3.33 #	1.72 #	4.22 #	1.83 #	1.35 #
pH	1 pH Units	TM133		6.75 M	5.62 M	8.33 M	6.27 M	8.12 M	8.34 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<3 #	<0.6 #	<0.6 #	<3 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		6.22 M	6.15 M	4.38 M	9.06 M	7.43 M	5.58 M
Cadmium	<0.02 mg/kg	TM181		0.484 M	0.149 M	0.215 M	0.321 M	0.399 M	1.66 M
Chromium	<0.9 mg/kg	TM181		20 M	13 M	4.66 M	20.6 M	12.2 M	8.79 M
Copper	<1.4 mg/kg	TM181		11 M	11.6 M	4.6 M	10.5 M	9.75 M	17.9 M
Lead	<0.7 mg/kg	TM181		14.3 M	24.5 M	66.6 M	18.4 M	16.8 M	30.9 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		9.7 M	4.56 M	3.15 M	4.72 M	3.83 M	4.41 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vanadium	<0.2 mg/kg	TM181		35 #	28.8 #	12.6 #	39.1 #	26.7 #	19 #
Zinc	<1.9 mg/kg	TM181		237 M	37.6 M	94.2 M	166 M	88.5 M	108 M
Boron, water soluble	<1 mg/kg	TM222		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		0.0226 M	<0.004 M	<0.004 M	0.0165 M	0.0719 M	0.108 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP14	TP15	TP16	TP17	TP18	TP19
			Depth (m)	0.50	0.20	0.20	0.70	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825956	24825961	24825974	24825978	24825985	24825994
			AGS Reference						
Moisture Content Ratio (% of as received sample)	%	PM024		15	13	24	14	23	22
Phenol	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	0.0128 M
Xylenols	<0.015 mg/kg	TM062 (S)		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)		<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M	<0.035 M
Organic Carbon, Total	<0.2 %	TM132		<0.2 M	0.633 M	2.18 M	0.731 M	0.299 M	2.02 M
Soil Organic Matter (SOM)	<0.35 %	TM132		<0.35 #	1.09 #	3.76 #	1.26 #	0.515 #	3.48 #
pH	1 pH Units	TM133		5.39 M	8.09 M	6.12 M	6.55 M	6.57 M	6.55 M
Chromium, Hexavalent	<0.6 mg/kg	TM151		<0.6 #	<0.6 #	<3 #	<0.6 #	<0.6 #	<0.6 #
Cyanide, Total	<1 mg/kg	TM153		<1 M	<1 M	<1 M	<1 M	<1 M	<1 M
Arsenic	<0.6 mg/kg	TM181		5.66 M	8.87 M	5.81 M	6.84 M	10.9 M	7.98 M
Cadmium	<0.02 mg/kg	TM181		0.0911 M	0.237 M	0.152 M	0.137 M	0.434 M	0.214 M
Chromium	<0.9 mg/kg	TM181		19.3 M	12.8 M	13.8 M	12.4 M	25.8 M	16.9 M
Copper	<1.4 mg/kg	TM181		2.8 M	10.1 M	8.46 M	8.84 M	14.4 M	11.6 M
Lead	<0.7 mg/kg	TM181		6.89 M	15.5 M	16.7 M	15.8 M	16.2 M	30.7 M
Mercury	<0.1 mg/kg	TM181		<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M	<0.1 M
Nickel	<0.2 mg/kg	TM181		2.94 M	9.51 M	3.31 M	3.1 M	13.4 M	8.63 M
Selenium	<1 mg/kg	TM181		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vanadium	<0.2 mg/kg	TM181		31.1 #	27.4 #	26.5 #	29.6 #	48.1 #	34.2 #
Zinc	<1.9 mg/kg	TM181		15.6 M	41.2 M	33.7 M	33.1 M	56.8 M	46.3 M
Boron, water soluble	<1 mg/kg	TM222		<1 M	<1 M	<1 M	<1 M	1.25 M	<1 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243		<0.004 M	0.0352 M	<0.004 M	<0.004 M	0.0958 M	<0.004 M

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Customer Sample Ref.			TPA/Bonfire
Depth (m)			0.10
Sample Type			Soil/Solid (S)
Date Sampled			12/08/2021
Sample Time			-
Date Received			18/08/2021
SDG Ref			210818-91
Lab Sample No.(s)			24825997
AGS Reference			
Component	**LOD/Units**	**Method**	
Moisture Content Ratio (% of as received sample)	%	PM024	33
Phenol	<0.01 mg/kg	TM062 (S)	<0.01 M
Cresols	<0.01 mg/kg	TM062 (S)	<0.01 M
Xylenols	<0.015 mg/kg	TM062 (S)	<0.015 M
Phenols, Total Detected monohydric	<0.035 mg/kg	TM062 (S)	<0.035 M
Organic Carbon, Total	<0.2 %	TM132	4.88 M
Soil Organic Matter (SOM)	<0.35 %	TM132	8.41 #
pH	1 pH Units	TM133	5.53 M
Chromium, Hexavalent	<0.6 mg/kg	TM151	<0.6 #
Cyanide, Total	<1 mg/kg	TM153	1.33 M
Arsenic	<0.6 mg/kg	TM181	50.9 M
Cadmium	<0.02 mg/kg	TM181	1.64 M
Chromium	<0.9 mg/kg	TM181	37.8 M
Copper	<1.4 mg/kg	TM181	196 M
Lead	<0.7 mg/kg	TM181	120 M
Mercury	<0.1 mg/kg	TM181	<1 M
Nickel	<0.2 mg/kg	TM181	54.1 M
Selenium	<1 mg/kg	TM181	<10 #
Vanadium	<0.2 mg/kg	TM181	59.7 #
Zinc	<1.9 mg/kg	TM181	376 M
Boron, water soluble	<1 mg/kg	TM222	1.47 M
Water Soluble Sulphate as SO4 2:1 Extract	<0.004 g/l	TM243	0.0683 M

Validated

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6
			Depth (m)	0.20	0.60	0.20	0.20	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825931	24826006	24826021	24826031	24826041	24826051
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		87	85.3	84.6	85.2	83.3	90.6
Acenaphthene-d10 % recovery**	%	TM218		86.4	85.6	85.2	82.4	81.9	91.1
Phenanthrene-d10 % recovery**	%	TM218		90	84.8	88.4	83.3	85.1	92.6
Chrysene-d12 % recovery**	%	TM218		89.7	82.5	82.4	80.4	84.6	85.9
Perylene-d12 % recovery**	%	TM218		92.7	79.5	82.7	82.3	85.6	86.9
Naphthalene	<0.009 mg/kg	TM218		<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M
Acenaphthylene	<0.012 mg/kg	TM218		<0.012 M	<0.012 M	<0.012 M	<0.012 M	<0.012 M	<0.012 M
Acenaphthene	<0.008 mg/kg	TM218		<0.008 M	<0.008 M	<0.008 M	<0.008 M	<0.008 M	<0.008 M
Fluorene	<0.01 mg/kg	TM218		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Phenanthrene	<0.015 mg/kg	TM218		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.0202 M
Anthracene	<0.016 mg/kg	TM218		<0.016 M	<0.016 M	<0.016 M	<0.016 M	<0.016 M	<0.016 M
Fluoranthene	<0.017 mg/kg	TM218		<0.017 M	<0.017 M	<0.017 M	<0.017 M	<0.017 M	0.0483 M
Pyrene	<0.015 mg/kg	TM218		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.0431 M
Benz(a)anthracene	<0.014 mg/kg	TM218		<0.014 M	<0.014 M	<0.014 M	<0.014 M	<0.014 M	0.0245 M
Chrysene	<0.01 mg/kg	TM218		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	0.0326 M
Benzo(b)fluoranthene	<0.015 mg/kg	TM218		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.0545 M
Benzo(k)fluoranthene	<0.014 mg/kg	TM218		<0.014 M	<0.014 M	<0.014 M	<0.014 M	<0.014 M	0.0164 M
Benzo(a)pyrene	<0.015 mg/kg	TM218		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.0315 M
Indeno(1,2,3-cd)pyrene	<0.018 mg/kg	TM218		<0.018 M	<0.018 M	<0.018 M	<0.018 M	<0.018 M	0.032 M
Dibenzo(a,h)anthracene	<0.023 mg/kg	TM218		<0.023 M	<0.023 M	<0.023 M	<0.023 M	<0.023 M	<0.023 M
Benzo(g,h,i)perylene	<0.024 mg/kg	TM218		<0.024 M	<0.024 M	<0.024 M	<0.024 M	<0.024 M	<0.024 M
PAH, Total Detected USEPA 16	<0.118 mg/kg	TM218		<0.118	<0.118	<0.118	<0.118	<0.118	0.303

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP7	TP8	TP9	TP10	TP12	TP13
			Depth (m)	0.90	0.20	0.50	0.15	0.10	0.60 - 0.75
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24826064	24826071	24826084	24825937	24825944	24825949
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		84.5	83	93.8	83.5	84.8	88.3
Acenaphthene-d10 % recovery**	%	TM218		82.5	86	89.2	82.9	85.9	89.4
Phenanthrene-d10 % recovery**	%	TM218		80.6	85.8	93.4	83.8	86.9	91.9
Chrysene-d12 % recovery**	%	TM218		78.1	77.9	99.5	83.6	77.2	84.3
Perylene-d12 % recovery**	%	TM218		74.4	78.6	103	85.9	76.6	85.6
Naphthalene	<0.009 mg/kg	TM218		<0.009 M	<0.009 M	<0.09 M	<0.009 M	<0.009 M	<0.009 M
Acenaphthylene	<0.012 mg/kg	TM218		<0.012 M	<0.012 M	0.144 M	<0.012 M	<0.012 M	<0.012 M
Acenaphthene	<0.008 mg/kg	TM218		<0.008 M	<0.008 M	0.161 M	<0.008 M	<0.008 M	<0.008 M
Fluorene	<0.01 mg/kg	TM218		<0.01 M	<0.01 M	0.12 M	<0.01 M	<0.01 M	<0.01 M
Phenanthrene	<0.015 mg/kg	TM218		<0.015 M	0.0232 M	1.87 M	<0.015 M	0.0211 M	<0.015 M
Anthracene	<0.016 mg/kg	TM218		<0.016 M	<0.016 M	0.755 M	<0.016 M	<0.016 M	<0.016 M
Fluoranthene	<0.017 mg/kg	TM218		<0.017 M	0.0576 M	8.83 M	<0.017 M	0.0487 M	0.0299 M
Pyrene	<0.015 mg/kg	TM218		<0.015 M	0.0508 M	8.39 M	<0.015 M	0.0439 M	0.0291 M
Benz(a)anthracene	<0.014 mg/kg	TM218		<0.014 M	0.0279 M	6.41 M	<0.014 M	0.0238 M	<0.014 M
Chrysene	<0.01 mg/kg	TM218		<0.01 M	0.0366 M	6.84 M	<0.01 M	0.03 M	0.0189 M
Benzo(b)fluoranthene	<0.015 mg/kg	TM218		<0.015 M	0.0567 M	14 M	<0.015 M	0.043 M	0.0267 M
Benzo(k)fluoranthene	<0.014 mg/kg	TM218		<0.014 M	<0.014 M	4.39 M	<0.014 M	<0.014 M	<0.014 M
Benzo(a)pyrene	<0.015 mg/kg	TM218		<0.015 M	0.0332 M	9.95 M	<0.015 M	0.0253 M	<0.015 M
Indeno(1,2,3-cd)pyrene	<0.018 mg/kg	TM218		<0.018 M	0.0324 M	9.71 M	<0.018 M	<0.018 M	<0.018 M
Dibenzo(a,h)anthracene	<0.023 mg/kg	TM218		<0.023 M	<0.023 M	1.19 M	<0.023 M	<0.023 M	<0.023 M
Benzo(g,h,i)perylene	<0.024 mg/kg	TM218		<0.024 M	<0.024 M	8.96 M	<0.024 M	<0.024 M	<0.024 M
PAH, Total Detected USEPA 16	<0.118 mg/kg	TM218		<0.118	0.318	81.7	<0.118	0.236	<0.118

Validated

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP14	TP15	TP16	TP17	TP18	TP19
			Depth (m)	0.50	0.20	0.20	0.70	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825956	24825961	24825974	24825978	24825985	24825994
			AGS Reference						
Naphthalene-d8 % recovery**	%	TM218		87.4	84.9	88.8	89.2	85.8	77.1
Acenaphthene-d10 % recovery**	%	TM218		86.9	88.4	87	88	88.6	78.5
Phenanthrene-d10 % recovery**	%	TM218		88.4	93.1	89.2	86.5	90.8	81
Chrysene-d12 % recovery**	%	TM218		80.4	90.2	88.2	84.8	81.6	73.5
Perylene-d12 % recovery**	%	TM218		76.5	88.4	91.6	82	78.4	71.9
Naphthalene	<0.009 mg/kg	TM218		<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M
Acenaphthylene	<0.012 mg/kg	TM218		<0.012 M	<0.012 M	<0.012 M	<0.012 M	<0.012 M	<0.012 M
Acenaphthene	<0.008 mg/kg	TM218		<0.008 M	<0.008 M	<0.008 M	<0.008 M	<0.008 M	<0.008 M
Fluorene	<0.01 mg/kg	TM218		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Phenanthrene	<0.015 mg/kg	TM218		<0.015 M	<0.015 M	<0.015 M	<0.015 M	<0.015 M	0.0205 M
Anthracene	<0.016 mg/kg	TM218		<0.016 M	<0.016 M	<0.016 M	<0.016 M	<0.016 M	<0.016 M
Fluoranthene	<0.017 mg/kg	TM218		<0.017 M	0.0361 M	0.0272 M	0.0264 M	<0.017 M	0.057 M
Pyrene	<0.015 mg/kg	TM218		<0.015 M	0.0367 M	0.0238 M	0.0227 M	<0.015 M	0.0508 M
Benz(a)anthracene	<0.014 mg/kg	TM218		<0.014 M	0.0233 M	<0.014 M	<0.014 M	<0.014 M	0.0273 M
Chrysene	<0.01 mg/kg	TM218		<0.01 M	0.0226 M	0.0168 M	0.0163 M	<0.01 M	0.0345 M
Benzo(b)fluoranthene	<0.015 mg/kg	TM218		<0.015 M	0.0488 M	0.025 M	0.0285 M	<0.015 M	0.0499 M
Benzo(k)fluoranthene	<0.014 mg/kg	TM218		<0.014 M	<0.014 M	<0.014 M	<0.014 M	<0.014 M	0.0192 M
Benzo(a)pyrene	<0.015 mg/kg	TM218		<0.015 M	0.0307 M	<0.015 M	<0.015 M	<0.015 M	0.0318 M
Indeno(1,2,3-cd)pyrene	<0.018 mg/kg	TM218		<0.018 M	0.0299 M	<0.018 M	<0.018 M	<0.018 M	0.0282 M
Dibenzo(a,h)anthracene	<0.023 mg/kg	TM218		<0.023 M	<0.023 M	<0.023 M	<0.023 M	<0.023 M	<0.023 M
Benzo(g,h,i)perylene	<0.024 mg/kg	TM218		<0.024 M	<0.024 M	<0.024 M	<0.024 M	<0.024 M	<0.024 M
PAH, Total Detected USEPA 16	<0.118 mg/kg	TM218		<0.118	0.228	<0.118	<0.118	<0.118	0.319

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

PAH by GCMS

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Customer Sample Ref.	TPA/Bonfire
Depth (m)	0.10
Sample Type	Soil/Solid (S)
Date Sampled	12/08/2021
Sample Time	-
Date Received	18/08/2021
SDG Ref	210818-91
Lab Sample No.(s)	24825997
AGS Reference	

Component	LOD/Units	Method	
Naphthalene-d8 % recovery**	%	TM218	92.3
Acenaphthene-d10 % recovery**	%	TM218	92.2
Phenanthrene-d10 % recovery**	%	TM218	94.7
Chrysene-d12 % recovery**	%	TM218	93.4
Perylene-d12 % recovery**	%	TM218	95.1
Naphthalene	<0.009 mg/kg	TM218	0.0136 M
Acenaphthylene	<0.012 mg/kg	TM218	0.0857 M
Acenaphthene	<0.008 mg/kg	TM218	<0.008 M
Fluorene	<0.01 mg/kg	TM218	<0.01 M
Phenanthrene	<0.015 mg/kg	TM218	0.0449 M
Anthracene	<0.016 mg/kg	TM218	0.0789 M
Fluoranthene	<0.017 mg/kg	TM218	0.171 M
Pyrene	<0.015 mg/kg	TM218	0.197 M
Benz(a)anthracene	<0.014 mg/kg	TM218	0.0794 M
Chrysene	<0.01 mg/kg	TM218	0.118 M
Benzo(b)fluoranthene	<0.015 mg/kg	TM218	0.862 M
Benzo(k)fluoranthene	<0.014 mg/kg	TM218	0.191 M
Benzo(a)pyrene	<0.015 mg/kg	TM218	0.223 M
Indeno(1,2,3-cd)pyrene	<0.018 mg/kg	TM218	0.389 M
Dibenzo(a,h)anthracene	<0.023 mg/kg	TM218	0.0719 M
Benzo(g,h,i)perylene	<0.024 mg/kg	TM218	0.309 M
PAH, Total Detected USEPA 16	<0.118 mg/kg	TM218	2.83

Validated

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6
			Depth (m)	0.20	0.60	0.20	0.20	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825931	24826006	24826021	24826031	24826041	24826051
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		90.3	129	97.2	108	87.8	95.1
Aliphatics >C5-C6	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C6-C8	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C8-C10	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C10-C12	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aliphatics >C12-C16	<1 mg/kg	TM414		7.81 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aliphatics >C16-C21	<1 mg/kg	TM414		69.1 #	<1 #	10.6 #	1.04 #	<1 #	<1 #
Aliphatics >C21-C35	<1 mg/kg	TM414		20.8 #	<1 #	17.4 #	7.3 #	<1 #	7.61 #
Aliphatics >C35-C44	<1 mg/kg	TM414		<1	<1	<1	<1	<1	<1
Total Aliphatics >C10-C44	<5 mg/kg	TM414		97.7	<5	28.1	8.34	<5	7.94
Total Aliphatics & Aromatics >C10-C44	<10 mg/kg	TM414		107	<10	32.7	12.6	<10	12.3
Aromatics >EC5-EC7	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >EC7-EC8	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >EC8-EC10	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics > EC10-EC12	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aromatics > EC12-EC16	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aromatics > EC16-EC21	<1 mg/kg	TM414		1.21 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aromatics > EC21-EC35	<1 mg/kg	TM414		6.24 #	<1 #	2.93 #	3.09 #	<1 #	3.14 #
Aromatics >EC35-EC44	<1 mg/kg	TM414		<1	<1	<1	<1	<1	<1
Aromatics > EC40-EC44	<1 mg/kg	TM414		<1	<1	<1	<1	<1	<1
Total Aromatics > EC10-EC44	<5 mg/kg	TM414		8.91	<5	<5	<5	<5	<5
Total Aliphatics & Aromatics >C5-C44	<10 mg/kg	TM414		107	<10	28.1	<10	<10	<10
Total Aliphatics >C5-C10	<0.05 mg/kg	TM089		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Aromatics >EC5-EC10	<0.05 mg/kg	TM089		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GRO >C5-C10	<0.02 mg/kg	TM089		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Validated

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

TPH CWG (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP8	TP9	TP12	TP13	TP15	TP17
			Depth (m)	0.20	0.50	0.10	0.60 - 0.75	0.20	0.70
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24826071	24826084	24825944	24825949	24825961	24825978
			AGS Reference						
GRO Surrogate % recovery**	%	TM089		88	94.3	83.3	128	124	108
Aliphatics >C5-C6	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C6-C8	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	0.029
Aliphatics >C8-C10	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	0.0951
Aliphatics >C10-C12	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aliphatics >C12-C16	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aliphatics >C16-C21	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aliphatics >C21-C35	<1 mg/kg	TM414		15.4 #	3.48 #	6.17 #	4.79 #	3.12 #	5.42 #
Aliphatics >C35-C44	<1 mg/kg	TM414		1.24	<1	<1	<1	<1	<1
Total Aliphatics >C10-C44	<5 mg/kg	TM414		16.8	<5	6.5	<5	<5	5.55
Total Aliphatics & Aromatics >C10-C44	<10 mg/kg	TM414		24	112	11.2	<10	<10	<10
Aromatics >EC5-EC7	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >EC7-EC8	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >EC8-EC10	<0.01 mg/kg	TM089		<0.01	<0.01	<0.01	<0.01	<0.01	0.0638
Aromatics > EC10-EC12	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aromatics > EC12-EC16	<1 mg/kg	TM414		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Aromatics > EC16-EC21	<1 mg/kg	TM414		<1 #	8.59 #	<1 #	<1 #	<1 #	<1 #
Aromatics > EC21-EC35	<1 mg/kg	TM414		4.87 #	79.2 #	3.36 #	<1 #	2.42 #	<1 #
Aromatics >EC35-EC44	<1 mg/kg	TM414		<1	20	<1	<1	<1	<1
Aromatics > EC40-EC44	<1 mg/kg	TM414		<1	1.61	<1	<1	<1	<1
Total Aromatics > EC10-EC44	<5 mg/kg	TM414		7.19	108	<5	<5	<5	<5
Total Aliphatics & Aromatics >C5-C44	<10 mg/kg	TM414		24	108	<10	<10	<10	<10
Total Aliphatics >C5-C10	<0.05 mg/kg	TM089		<0.05	<0.05	<0.05	<0.05	<0.05	0.124
Total Aromatics >EC5-EC10	<0.05 mg/kg	TM089		<0.05	<0.05	<0.05	<0.05	<0.05	0.0638
GRO >C5-C10	<0.02 mg/kg	TM089		<0.02	<0.02	<0.02	<0.02	<0.02	0.188

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

TPH CWG (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP18	TPA/Bonfire
			Depth (m)	0.50	0.10
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021
			Sample Time	-	-
			Date Received	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91
			Lab Sample No.(s)	24825985	24825997
			AGS Reference		
GRO Surrogate % recovery**	%	TM089		119	85.2
Aliphatics >C5-C6	<0.01 mg/kg	TM089		<0.01	<0.01
Aliphatics >C6-C8	<0.01 mg/kg	TM089		<0.01	<0.01
Aliphatics >C8-C10	<0.01 mg/kg	TM089		<0.01	<0.01
Aliphatics >C10-C12	<1 mg/kg	TM414		<1 #	<1 #
Aliphatics >C12-C16	<1 mg/kg	TM414		<1 #	3.18 #
Aliphatics >C16-C21	<1 mg/kg	TM414		<1 #	31.3 #
Aliphatics >C21-C35	<1 mg/kg	TM414		<1 #	59 #
Aliphatics >C35-C44	<1 mg/kg	TM414		<1	2.89
Total Aliphatics >C10-C44	<5 mg/kg	TM414		<5	96.4
Total Aliphatics & Aromatics >C10-C44	<10 mg/kg	TM414		<10	153
Aromatics >EC5-EC7	<0.01 mg/kg	TM089		<0.01	<0.01
Aromatics >EC7-EC8	<0.01 mg/kg	TM089		<0.01	<0.01
Aromatics >EC8-EC10	<0.01 mg/kg	TM089		<0.01	<0.01
Aromatics > EC10-EC12	<1 mg/kg	TM414		<1 #	<1 #
Aromatics > EC12-EC16	<1 mg/kg	TM414		<1 #	<1 #
Aromatics > EC16-EC21	<1 mg/kg	TM414		<1 #	3.45 #
Aromatics > EC21-EC35	<1 mg/kg	TM414		<1 #	43.5 #
Aromatics >EC35-EC44	<1 mg/kg	TM414		<1	9.33
Aromatics > EC40-EC44	<1 mg/kg	TM414		<1	1.33
Total Aromatics > EC10-EC44	<5 mg/kg	TM414		<5	56.3
Total Aliphatics & Aromatics >C5-C44	<10 mg/kg	TM414		<10	153
Total Aliphatics >C5-C10	<0.05 mg/kg	TM089		<0.05	<0.05
Total Aromatics >EC5-EC10	<0.05 mg/kg	TM089		<0.05	<0.05
GRO >C5-C10	<0.02 mg/kg	TM089		<0.02	<0.02

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6
			Depth (m)	0.20	0.60	0.20	0.20	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825931	24826006	24826021	24826031	24826041	24826051
			AGS Reference						
Dibromofluoromethane**	%	TM116		104	98.4	107	111	111	101
Toluene-d8**	%	TM116		102	102	102	102	101	97.1
4-Bromofluorobenzene**	%	TM116		84.4	102	90.4	89.8	89	78.7
Dichlorodifluoromethane	<0.006 mg/kg	TM116		<0.006 M	<0.006 M	<0.006 M		<0.006 M	<0.006 M
Chloromethane	<0.007 mg/kg	TM116		<0.007 #	<0.007 #	<0.007 #		<0.007 #	<0.007 #
Vinyl Chloride	<0.006 mg/kg	TM116		<0.006 @ M	<0.006 @ M	<0.006 @ M		<0.006 @ M	<0.006 @ M
Bromomethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Chloroethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Trichlorofluorormethane	<0.006 mg/kg	TM116		<0.006 M	<0.006 M	<0.006 M		<0.006 M	<0.006 M
1,1-Dichloroethene	<0.01 mg/kg	TM116		<0.01 #	<0.01 #	<0.01 #		<0.01 #	<0.01 #
Carbon Disulphide	<0.007 mg/kg	TM116		<0.007 M	<0.007 M	<0.007 M		<0.007 M	<0.007 M
Dichloromethane	<0.01 mg/kg	TM116		<0.01 #	<0.01 #	<0.01 #		<0.01 #	<0.01 #
Methyl Tertiary Butyl Ether	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
trans-1,2-Dichloroethene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
1,1-Dichloroethane	<0.008 mg/kg	TM116		<0.008 M	<0.008 M	<0.008 M		<0.008 M	<0.008 M
cis-1,2-Dichloroethene	<0.006 mg/kg	TM116		<0.006 M	<0.006 M	<0.006 M		<0.006 M	<0.006 M
2,2-Dichloropropane	<0.01 mg/kg	TM116		<0.01	<0.01	<0.01		<0.01	<0.01
Bromochloromethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Chloroform	<0.008 mg/kg	TM116		<0.008 M	<0.008 M	<0.008 M		<0.008 M	<0.008 M
1,1,1-Trichloroethane	<0.007 mg/kg	TM116		<0.007 M	<0.007 M	<0.007 M		<0.007 M	<0.007 M
1,1-Dichloropropene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Carbontetrachloride	<0.01 mg/kg	TM116		<0.01 3 M	<0.01 M	<0.01 3 M		<0.01 3 M	<0.01 M
1,2-Dichloroethane	<0.005 mg/kg	TM116		<0.005 M	<0.005 M	<0.005 M		<0.005 M	<0.005 M
Benzene	<0.009 mg/kg	TM116		<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M
Trichloroethene	<0.009 mg/kg	TM116		<0.009 #	<0.009 #	<0.009 #		<0.009 #	<0.009 #
1,2-Dichloropropane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Dibromomethane	<0.009 mg/kg	TM116		<0.009 M	<0.009 M	<0.009 M		<0.009 M	<0.009 M
Bromodichloromethane	<0.007 mg/kg	TM116		<0.007 M	<0.007 M	<0.007 M		<0.007 M	<0.007 M
cis-1,3-Dichloropropene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Toluene	<0.007 mg/kg	TM116		<0.007 M	<0.007 M	<0.007 M	<0.007 M	<0.007 M	<0.007 M
trans-1,3-Dichloropropene	<0.01 mg/kg	TM116		<0.01	<0.01	<0.01		<0.01	<0.01
1,1,2-Trichloroethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
1,3-Dichloropropane	<0.007 mg/kg	TM116		<0.007 M	<0.007 M	<0.007 M		<0.007 M	<0.007 M

Validated

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6
			Depth (m)	0.20	0.60	0.20	0.20	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825931	24826006	24826021	24826031	24826041	24826051
			AGS Reference						
Tetrachloroethene	<0.005 mg/kg	TM116		<0.005 M	<0.005 M	<0.005 M		<0.005 M	<0.005 M
Dibromochloromethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
1,2-Dibromoethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Chlorobenzene	<0.005 mg/kg	TM116		<0.005 M	<0.005 M	<0.005 M		<0.005 M	<0.005 M
1,1,1,2-Tetrachloroethane	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Ethylbenzene	<0.004 mg/kg	TM116		<0.004 M	<0.004 M	<0.004 M	<0.004 M	<0.004 M	<0.004 M
p/m-Xylene	<0.01 mg/kg	TM116		<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
o-Xylene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Styrene	<0.01 mg/kg	TM116		<0.01 @#	<0.01 @#	<0.01 @#		<0.01 @#	<0.01 @#
Bromoform	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Isopropylbenzene	<0.005 mg/kg	TM116		<0.005 #	<0.005 #	<0.005 #		<0.005 #	<0.005 #
1,1,2,2-Tetrachloroethane	<0.01 mg/kg	TM116		<0.01 #	<0.01 #	<0.01 #		<0.01 #	<0.01 #
1,2,3-Trichloropropane	<0.016 mg/kg	TM116		<0.016 M	<0.016 M	<0.016 M		<0.016 M	<0.016 M
Bromobenzene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
Propylbenzene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
2-Chlorotoluene	<0.009 mg/kg	TM116		<0.009 M	<0.009 M	<0.009 M		<0.009 M	<0.009 M
1,3,5-Trimethylbenzene	<0.008 mg/kg	TM116		<0.008 M	<0.008 M	<0.008 M		<0.008 M	<0.008 M
4-Chlorotoluene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
tert-Butylbenzene	<0.014 mg/kg	TM116		<0.014 M	<0.014 M	<0.014 M		<0.014 M	<0.014 M
1,2,4-Trimethylbenzene	<0.009 mg/kg	TM116		<0.009 #	<0.009 #	<0.009 #		<0.009 #	<0.009 #
sec-Butylbenzene	<0.01 mg/kg	TM116		<0.01	<0.01	<0.01		<0.01	<0.01
4-Isopropyltoluene	<0.01 mg/kg	TM116		<0.01	<0.01	<0.01		<0.01	<0.01
1,3-Dichlorobenzene	<0.008 mg/kg	TM116		<0.008 M	<0.008 M	<0.008 M		<0.008 M	<0.008 M
1,4-Dichlorobenzene	<0.005 mg/kg	TM116		<0.005 M	<0.005 M	<0.005 M		<0.005 M	<0.005 M
n-Butylbenzene	<0.011 mg/kg	TM116		<0.011	<0.011	<0.011		<0.011	<0.011
1,2-Dichlorobenzene	<0.01 mg/kg	TM116		<0.01 M	<0.01 M	<0.01 M		<0.01 M	<0.01 M
1,2-Dibromo-3-chloropropane	<0.014 mg/kg	TM116		<0.014 M	<0.014 M	<0.014 M		<0.014 M	<0.014 M
Tert-amyl methyl ether	<0.01 mg/kg	TM116		<0.01 #	<0.01 #	<0.01 #		<0.01 #	<0.01 #
1,2,4-Trichlorobenzene	<0.02 mg/kg	TM116		<0.02	<0.02	<0.02		<0.02	<0.02
Hexachlorobutadiene	<0.02 mg/kg	TM116		<0.02	<0.02	<0.02		<0.02	<0.02
Naphthalene	<0.013 mg/kg	TM116		<0.013 M	<0.013 M	<0.013 M		<0.013 M	<0.013 M
1,2,3-Trichlorobenzene	<0.02 mg/kg	TM116		<0.02 #	<0.02 #	<0.02 #		<0.02 #	<0.02 #
1,3,5-Trichlorobenzene	<0.02 mg/kg	TM116		<0.02	<0.02	<0.02		<0.02	<0.02

Validated

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6
			Depth (m)	0.20	0.60	0.20	0.20	0.50	0.20
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24825931	24826006	24826021	24826031	24826041	24826051
			AGS Reference						
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Sum of BTEX	<0.04 mg/kg	TM116		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

VOC MS (S)

Results Legend	
#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP8	TP9	TP12	TP13	TP15	TP17
			Depth (m)	0.20	0.50	0.10	0.60 - 0.75	0.20	0.70
			Sample Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021	12/08/2021
			Sample Time	.	.	.	.	.	.
			Date Received	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91	210818-91	210818-91	210818-91	210818-91
			Lab Sample No.(s)	24826071	24826084	24825944	24825949	24825961	24825978
			AGS Reference						
Dibromofluoromethane**	%	TM116		103	114	100	115	113	104
Toluene-d8**	%	TM116		98.9	96.7	102	103	102	101
4-Bromofluorobenzene**	%	TM116		96.4	77.3	84.4	85.3	87.8	86
Methyl Tertiary Butyl Ether	<0.01 mg/kg	TM116		<0.2 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Benzene	<0.009 mg/kg	TM116		<0.18 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M	<0.009 M
Toluene	<0.007 mg/kg	TM116		<0.14 M	<0.007 M	<0.007 M	<0.007 M	<0.007 M	<0.007 M
Ethylbenzene	<0.004 mg/kg	TM116		<0.08 M	<0.004 M	<0.004 M	<0.004 M	<0.004 M	<0.004 M
p/m-Xylene	<0.01 mg/kg	TM116		<0.2 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #	<0.01 #
o-Xylene	<0.01 mg/kg	TM116		<0.2 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M	<0.01 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.4	<0.02	<0.02	<0.02	<0.02	<0.02
Sum of BTEX	<0.04 mg/kg	TM116		<0.8	<0.04	<0.04	<0.04	<0.04	<0.04

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

VOC MS (S)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	TP18	TPA/Bonfire
			Depth (m)	0.50	0.10
			Sample Type	Soil/Solid (S)	Soil/Solid (S)
			Date Sampled	12/08/2021	12/08/2021
			Sample Time	-	-
			Date Received	18/08/2021	18/08/2021
			SDG Ref	210818-91	210818-91
			Lab Sample No.(s)	24825985	24825997
			AGS Reference		
Dibromofluoromethane**	%	TM116		108	102
Toluene-d8**	%	TM116		102	96.4
4-Bromofluorobenzene**	%	TM116		89.5	85.9
Methyl Tertiary Butyl Ether	<0.01 mg/kg	TM116		<0.01 M	<0.2 M
Benzene	<0.009 mg/kg	TM116		<0.009 M	<0.18 M
Toluene	<0.007 mg/kg	TM116		<0.007 M	<0.14 M
Ethylbenzene	<0.004 mg/kg	TM116		<0.004 M	<0.08 M
p/m-Xylene	<0.01 mg/kg	TM116		<0.01 #	<0.2 #
o-Xylene	<0.01 mg/kg	TM116		<0.01 M	<0.2 M
Sum of Detected Xylenes	<0.02 mg/kg	TM116		<0.02	<0.4
Sum of BTEX	<0.04 mg/kg	TM116		<0.04	<0.8

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Asbestos Identification - Bulk

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed by	Comments	Actinolite, Fibrous	Anthophyllite, Fibrous	Asbestos, Amosite (brown)	Asbestos, Chrysotile (white)	Asbestos, Crocidolite (blue)	Non-asbestos fibre	Tremolite, Fibrous
Cust. Sample Ref.	TP9	25/08/21	Paul Poynton	Material typical of asbestos cement	Not Detected (#)	Not Detected (#)	Not Detected (#)	Detected (#)	Not Detected (#)	Not Detected	Not Detected (#)
Depth (m)	0.70										
Sample Type	SOLID										
Date Sampled	12/08/2021 00:00:00										
Date Received	18/08/2021 05:00:00										
SDG	210818-91										
Original Sample	24826017										
Method Number	TM048										

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Asbestos Identification - Solid Samples

Results Legend

#	ISO17025 accredited.
M	*m*CERTS accredited.
*	Subcontracted test.
(F)	Trigger breach confirmed
1-5&♦$@	Sample deviation (see appendix)

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP1 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825931 TM048	23/08/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP2 0.60 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826006 TM048	23/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP3 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826021 TM048	23.08.21	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP4 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826031 TM048	23/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP5 0.50 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826041 TM048	23/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP6 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826051 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP7 0.90 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826064 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP8 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826071 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP9 0.50 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24826084 TM048	24.08.21	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP10 0.15 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825937 TM048	24.08.21	Emily Anderton	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP12 0.10 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825944 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP13 0.60 - 0.75 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825949 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP14 0.50 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825956 TM048	23/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP15 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825961 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP16 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825974 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP17 0.70 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825978 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP18 0.50 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825985 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

Validated

CERTIFICATE OF ANALYSIS

SDG: 210818-91 **Client Reference:** GWPR4377 **Report Number:** 611836
Location: Cockpit Barn, Knowle Lane, **Order Number:** GWPR4377 **Superseded Report:** 610490

		Date of Analysis	Analysed By	Comments	Amosite (Brown) Asbestos	Chrysotile (White) Asbestos	Crocidolite (Blue) Asbestos	Fibrous Actinolite	Fibrous Anthophyllite	Fibrous Tremolite	Non-Asbestos Fibre
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TP19 0.20 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825994 TM048	24/08/2021	Paul Poynton	N/A	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected
Cust. Sample Ref. Depth (m) Sample Type Date Sampled Date Received SDG Original Sample Method Number	TPA/Bonfire 0.10 SOLID 12/08/2021 00:00:00 18/08/2021 05:00:00 210818-91 24825997 TM048	23/08/2021	James Richards	-	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected (#)	Not Detected

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Table of Results - Appendix

Method No	Reference	Description
PM024	Modified BS 1377	Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material
TM048	HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures	Identification of Asbestos in Bulk Material
TM062 (S)	National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9	Determination of Phenols in Soils by HPLC
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12)
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS
TM132	In - house Method	ELTRA CS800 Operators Guide
TM133	BS 1377: Part 3 1990;BS 6068-2.5	Determination of pH in Soil and Water using the GLpH pH Meter
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser
TM181	US EPA Method 6010B	Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES
TM218	Shaker extraction - EPA method 3546.	The determination of PAH in soil samples by GC-MS
TM222	In-House Method	Determination of Hot Water Soluble Boron in Soils (10:1 Water:Soil) by ICP OES.
TM243		Mixed Anions In Soils By Kone
TM414	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210818-91	**Client Reference:**	GWPR4377	**Report Number:**	611836
Location:	Cockpit Barn, Knowle Lane,	**Order Number:**	GWPR4377	**Superseded Report:**	610490

Test Completion Dates

Lab Sample No(s)	24825931	24826006	24826021	24826031	24826041	24826051	24826064	24826071	24826017	24826084
Customer Sample Ref.	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP9	TP9
AGS Ref.										
Depth	0.20	0.60	0.20	0.20	0.50	0.20	0.90	0.20	0.70	0.50
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	24-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021		23-Aug-2021
Asbestos ID in Solid Samples	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021		24-Aug-2021
Asbestos Identification									25-Aug-2021	
Boron Water Soluble	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021		24-Aug-2021
Cyanide Comp/Free/Total/Thiocyanate	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021		23-Aug-2021
EPH CWG GC (S)	24-Aug-2021	23-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021		20-Aug-2021		23-Aug-2021
GRO by GC-FID (S)	24-Aug-2021	24-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	24-Aug-2021		23-Aug-2021		23-Aug-2021
Hexavalent Chromium (s)	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	25-Aug-2021	25-Aug-2021		23-Aug-2021
Metals in solid samples by OES	24-Aug-2021	25-Aug-2021	24-Aug-2021	24-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021	24-Aug-2021		25-Aug-2021
PAH by GCMS	24-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	23-Aug-2021	24-Aug-2021		24-Aug-2021
pH	25-Aug-2021	25-Aug-2021	20-Aug-2021	20-Aug-2021	25-Aug-2021	25-Aug-2021	20-Aug-2021	20-Aug-2021		25-Aug-2021
Phenols by HPLC (S)	20-Aug-2021	23-Aug-2021	20-Aug-2021	20-Aug-2021	23-Aug-2021	20-Aug-2021	23-Aug-2021	20-Aug-2021		23-Aug-2021
Sample description	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021		19-Aug-2021
Total Organic Carbon	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021	24-Aug-2021		25-Aug-2021
TPH CWG GC (S)	24-Aug-2021	24-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	24-Aug-2021		23-Aug-2021		23-Aug-2021
VOC MS (S)	20-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021		23-Aug-2021		20-Aug-2021

Lab Sample No(s)	24825937	24825944	24825949	24825956	24825961	24825974	24825978	24825985	24825994	24825997
Customer Sample Ref.	TP10	TP12	TP13	TP14	TP15	TP16	TP17	TP18	TP19	TPA/Bonfire
AGS Ref.										
Depth	0.15	0.10	0.60 - 0.75	0.50	0.20	0.20	0.70	0.50	0.20	0.10
Type	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)	Soil/Solid (S)
Anions by Kone (soil)	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021
Asbestos ID in Solid Samples	24-Aug-2021	24-Aug-2021	24-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	23-Aug-2021
Boron Water Soluble	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021
Cyanide Comp/Free/Total/Thiocyanate	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021
EPH CWG GC (S)		24-Aug-2021	20-Aug-2021		20-Aug-2021		24-Aug-2021	23-Aug-2021		20-Aug-2021
GRO by GC-FID (S)		24-Aug-2021	24-Aug-2021		23-Aug-2021		24-Aug-2021	23-Aug-2021		24-Aug-2021
Hexavalent Chromium (s)	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	24-Aug-2021
Metals in solid samples by OES	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	24-Aug-2021
PAH by GCMS	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	23-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021	24-Aug-2021
pH	20-Aug-2021	20-Aug-2021	20-Aug-2021	25-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021	20-Aug-2021	25-Aug-2021
Phenols by HPLC (S)	23-Aug-2021	23-Aug-2021	23-Aug-2021	20-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	23-Aug-2021	20-Aug-2021	20-Aug-2021
Sample description	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021	18-Aug-2021
Total Organic Carbon	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021	25-Aug-2021	25-Aug-2021	25-Aug-2021	24-Aug-2021	25-Aug-2021
TPH CWG GC (S)		24-Aug-2021	24-Aug-2021		23-Aug-2021		24-Aug-2021	23-Aug-2021		24-Aug-2021
VOC MS (S)		20-Aug-2021	20-Aug-2021		20-Aug-2021		20-Aug-2021	20-Aug-2021		23-Aug-2021

Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as "mixed hydrocarbons". Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as "Not detected". If no asbestos fibre types are found all will be reported as "Not detected" and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.

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Analytical Report Number : 25-027450

Project / Site name:	GWPR6594 Cockpit Barn Knowle Lane Horton	**Samples received on:**	27/05/2025
Your job number:	GWPR6594	**Samples instructed on/ Analysis started on:**	27/05/2025
Your order number:	GWPR6594	**Analysis completed by:**	03/06/2025
Report Issue Number:	1	**Report issued on:**	03/06/2025
Samples Analysed:	7 soil samples		

Si [redacted]

Adan Cazas Garcia
Key Account Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton
Your Order No: GWPR6594

Lab Sample Number				559819	559820	559821	559822	559823
Sample Reference				TP2	TP3	TP4	TP5	TP3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.2	0.2	0.2	0.2	1.5
Date Sampled				19/05/2025	19/05/2025	19/05/2025	19/05/2025	19/05/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Stone Content	%	0.1	NONE	30.8	11.4	29.7	17.6	< 0.1
Moisture Content	%	0.01	NONE	11	7.1	10	10	14
Total mass of sample received	kg	0.1	NONE	1.2	1.2	1.2	1.1	1.7
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	DOC	DOC	DOC	DOC	-
Analysis completed	N/A	N/A	N/A	02/06/2025	02/06/2025	02/06/2025	02/06/2025	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	-	-	-	-	7.7
Total Sulphate as SO_4	%	0.005	MCERTS	-	-	-	-	0.015
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	-	-	-	-	57
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	28.7
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	-	-	1.6
Total Sulphur	mg/kg	50	MCERTS	-	-	-	-	82
Total Sulphur	%	0.005	MCERTS	-	-	-	-	0.008
Ammoniacal Nitrogen as NH_4^+	mg/kg	0.5	MCERTS	-	-	-	-	< 0.5
Ammonium as NH_4^+ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	-	-	< 0.05
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	-	-	-	-	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	-	-	-	-	< 5.0

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

Analytical Report Number: 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton
Your Order No: GWPR6594

Lab Sample Number				559819	559820	559821	559822	559823
Sample Reference				TP2	TP3	TP4	TP5	TP3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A	N/A
Depth (m)				0.2	0.2	0.2	0.2	1.5
Date Sampled				19/05/2025	19/05/2025	19/05/2025	19/05/2025	19/05/2025
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	0.1	0.1	0.27	0.05	-
Pyrene	mg/kg	0.05	MCERTS	0.09	0.08	0.24	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	0.05	0.07	0.15	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.08	0.15	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.07	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.06	0.11	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	< 0.05	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	1.32	< 0.80	-
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	9.2	9.7	9	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	-	-	2.8
Magnesium (water soluble)	mg/kg	5	NONE	-	-	-	-	5.6

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

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

Analytical Report Number: 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton
Your Order No: GWPR6594

Lab Sample Number				559824	559825
Sample Reference				TP4	TP5
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				1	0.8
Date Sampled				19/05/2025	19/05/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	15
Total mass of sample received	kg	0.1	NONE	0.8	1.4

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	-
Asbestos Analyst ID	N/A	N/A	N/A	-	-
Analysis completed	N/A	N/A	N/A	-	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.1	7.3
Total Sulphate as SO_4	%	0.005	MCERTS	-	0.019
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	43	38
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	21.6	18.7
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	1.1
Total Sulphur	mg/kg	50	MCERTS	-	69
Total Sulphur	%	0.005	MCERTS	-	0.007
Ammoniacal Nitrogen as NH_4^+	mg/kg	0.5	MCERTS	-	< 0.5
Ammonium as NH_4^+ (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	< 0.05
Water Soluble Nitrate (2:1) as NO_3	mg/kg	2	NONE	-	< 2.0
Water Soluble Nitrate (2:1) as NO_3 (leachate equivalent)	mg/l	5	NONE	-	< 5.0

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Analytical Report Number: 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton
Your Order No: GWPR6594

Lab Sample Number				559824	559825
Sample Reference				TP4	TP5
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				1	0.8
Date Sampled				19/05/2025	19/05/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	-
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	< 2.5
Magnesium (water soluble)	mg/kg	5	NONE	-	< 5.0

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

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

Analytical Report Number : 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
559819	TP2	None Supplied	0.2	Brown loam and sand with vegetation and stones
559820	TP3	None Supplied	0.2	Brown loam with vegetation and stones
559821	TP4	None Supplied	0.2	Brown loam and clay with vegetation and stones
559822	TP5	None Supplied	0.2	Brown loam with vegetation and stones
559823	TP3	None Supplied	1.5	Brown clay and sand with gravel
559824	TP4	None Supplied	1	Brown clay and sand with gravel
559825	TP5	None Supplied	0.8	Brown clay and sand with gravel

Analytical Report Number : 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES	In-house method based on TRL 447	L038B	D	NONE
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Water Soluble Nitrate (leachate equivalent)	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE
Nitrate, water soluble, in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction	L078-PL	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser	In-house method	L082B	D	MCERTS

Analytical Report Number : 25-027450
Project / Site name: GWPR6594 Cockpit Barn Knowle Lane Horton

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082B	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

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

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

APPENDIX F:
Soil Assessment Criteria

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Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Ground and Water Limited

Soil Guideline Values and Generic Assessment Criteria

The Contaminated Land Regime reflects the UK Government's stated objectives of achieving sustainable development through the 'suitable for use approach'. At preliminary risk assessment stage, risks are evaluated qualitatively. As the site investigation progresses to a generic or detailed quantitative risk assessment, data is collected and assessment criteria are utilised to evaluate whether the contaminants represent an unacceptable risk to the identified receptors.

1. Contaminated Land Exposure Assessment Model (CLEA)

Current United Kingdom risk assessment practice is based on the Contaminated Land Exposure Assessment Model (CLEA).

The CLEA Guidance comprises the following documents:

1) EA Science Report SC050021/SR2: Human health toxicological assessment of contaminants in soil.
2) EA Science Report SC050021/SR3: Updated technical background to the CLEA model.
3) EA CLEA Bulletin (2009).
4) CLEA software version 1.07 (2015)
5) Toxicological reports and SGV technical notes.

The CLEA guidance and tools:

- Do not cover other types of risk to humans, such as fire, suffocation or explosion, or short-term and acute exposures;
- Do not cover risks to the environment, such as groundwater, ecosystems or buildings;
- Do not provide a definitive test for telling when human health risks are significant; and
- Are not a legal requirement in assessing land contamination risks. They are not part of the legal regime for Part 2A of the Environmental Protection Act 1990.

The CLEA guidance derives soil concentrations of contaminants above which (in the opinion of the EA) there may be a concern that warrants further investigation. It does not provide a definitive test for establishing that the risk is significant.

1.1. Land-use Scenarios

The CLEA model uses a range of standard land-use scenarios to develop conceptual exposure models outlined in the following sections.

1.1.1. Residential (with home grown produce) (RwHP)

Generic scenario assumes a typical two-storey house built on a ground bearing slab with a private garden having a lawn, flowerbeds and a small fruit and vegetable patch.

- Critical receptor is a young female child (zero to six years old)
- Exposure duration is six years.
- Exposure pathways include direct soil and indoor dust ingestion, consumption of homegrown produce and any adhering soil, skin contact with soils and indoor dust and inhalation of indoor and outdoor dust and vapours.
- Building type is a two-storey small-terraced house.

A sub-set of this land-use is residential apartments with communal landscaped gardens where the consumption of home grown vegetables will not occur. (Residential without homegrown produce (RwoHP)).

1.1.2. Allotments

Provision of open space (about 250sq.m) commonly made available to tenants by the local authority to grow fruit and vegetable for their own consumption. Typically, there are a number of plots to a site which may have a total area of up to 1 hectare. The tenants are assumed to be adults and that young children make occasional accompanied visits.

Although some allotment holders may choose to keep animals including rabbits, hens, and ducks, potential exposure to contaminated meat and eggs is not considered.

- Critical receptor is a young female child (zero to six years old)
- Exposure duration is six years.
- Exposure pathways include direct soil ingestion, consumption of homegrown produce and any adhering soil, skin contact with soils and inhalation of outdoor dust and vapours.
- There is no building.

1.1.3. Commercial/Industrial

The generic scenario assumes a typical commercial or light industrial property comprising a three-storey building at which employees spend most time indoors and are involved in office-based or relatively light physical work.

- Critical receptor is a working female adult (aged 16 to 65 years old).
- Exposure duration is a working lifetime of 49 years.
- Exposure pathways include direct soil and indoor dust ingestion, skin contact with soils and dusts and inhalation of dust and vapours.
- Building type is a three-storey office (pre 1970).

2. LQM/CIEH Suitable 4 Use Levels (S4UL)

For derivation of these S4UL reference must be made to:

Nathanial, P., McCaffrey, C., Gillet, A., Ogden, R., Nathanial, J., *The LQM/CIEH S4UL's for Human Health Risk Assessment*. **Land Quality Press**. 2015

2.1. S4UL Background

The Land Quality Management/Chartered Institute of Environmental Health (LQM/CIEH) S4UL for a given land use is the concentration of the contaminant in soil at which the predicted daily exposure,

as calculated by the CLEA software, equals the Health Criteria Value. The S4ULs have been derived for substances based on various generic land use and soil organic matter contents.

The final output for each contaminant represents a synthesis of new toxicological (and fate and transport) reviews published since the preparation of the 2nd edition LQM/CIEH GAC's (Nathanial et al., 2009).

In the derivation of LQM/CIEH S4UL's the principles of 'minimal' or 'tolerable' risk enshrined in SR2, which has not been withdrawn, has been maintained.

2.2. S4UL Land-use

S4UL's have been derived for the basic CLEA land-uses, as described in section 1.2, and for two new land uses:

- Public Open Spaces near Residential Housing (POSresi).
- Public Park (POSpark).

2.2.1. Public Open Spaces near Residential Housing (POSresi)

Includes the predominantly grassed areas adjacent to high density housing, the central green area on many 1930's – 1970's housing estates, and smaller areas commonly incorporated in newer developments as informal grassed areas or more formal landscaped areas with a mixture of open space and covered soils with planting. It is assumed that the close proximity to the place of residence will allow tracking back of soil to occur.

2.2.2. Public Park (POSpark)

An area of open space, usually owned and maintained by the local authority, provided for recreational uses including family visists and picnics, children's play area, informal sporting activities (not a dedicated sports pitch), and dog walking. It is assumed that tracking back of soils into places of residence will be negligible.

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3. Category 4 Screening Levels (C4SLs)

In the case of Lead, no SGV or GAC has been published to date. This is likely to be due to the toxicity review that is currently being undertaken by the Environment Agency. In the absence of updated toxicity information the SGV derived using CLEA 1.07 methodology and related toxicity will be used.

The overall objective of the C4SLs research project was to assist the provision of technical guidance in support of Defra's revised Statutory Guidance (SG) for Part 2A of the Environmental Protection Act 1990 (Part 2A) (Defra, 2012a). Specifically, the project aimed to deliver:

- A methodology for deriving C4SLs for four generic land-uses comprising residential, commercial, allotments and public open space; and
- A demonstration of the methodology, via the derivation of C4SLs for six substances – arsenic, benzene, benzo(a)pyrene, cadmium, chromium (VI) and lead.

To help achieve a more targeted approach to identifying and managing contaminated land in relation to the risk (or possibility) of harm to human health, the revised SG presented a new four category

system for considering land under Part 2A, ranging from Category 4, where there is no risk that land poses a significant possibility of significant harm (SPOSH), or the level of risk is low, to Category 1, where the risk that land poses a significant possibility of significant harm (SPOSH) is unacceptably high. More specific guidance on what type of land should be considered as Category 4 (Human Health) is provided in Paragraphs 4.21 and 4.22 of the revised SG, as follows:

> *"4.21 The local authority should consider that the following types of land should be placed into Category 4: Human Health:*
> *(a) Land where no relevant contaminant linkage has been established.*
> *(b) Land where there are only normal levels of contaminants in soil, as explained in Section 3 of this Guidance.*
> *(c) Land that has been excluded from the need for further inspection and assessment because contaminant levels do not exceed relevant generic assessment criteria in accordance with Section 3 of this Guidance, or relevant technical tools or advice that may be developed in accordance with paragraph 3.30 of this Guidance.*
> *(d) Land where estimated levels of exposure to contaminants in soil are likely to form only a small proportion of what a receptor might be exposed to anyway through other sources of environmental exposure (e.g. in relation to average estimated national levels of exposure to substances commonly found in the environment, to which receptors are likely to be exposed in the normal course of their lives).*
>
> *4.22 The local authority may consider that land other than the types described in paragraph 4.21 should be placed into Category 4: Human Health if following a detailed quantitative risk assessment it is satisfied that the level of risk posed is sufficiently low."*

The C4SLs are intended as "relevant technical tools" (in relation to Paragraph 4.21(c)) to help local authorities and others when deciding to stop further assessment of a site, on the grounds that it falls within Category 4 (Human Health).

The Impact Assessment (IA), which accompanied the revised SG (Defra, 2012b) provides further information on the nature and potential role of the C4SLs. Paragraph 47(h) of the IA states that:

> *"The new statutory guidance will bring about a situation where the current SGVs/GACs are replaced with more pragmatic (but still strongly precautionary) Category 4 screening levels (C4SLs) which will provide a higher simple test for deciding that land is suitable for use and definitely not contaminated land."*

A key distinction between the Soil Guideline Values (SGVs) and the C4SLs is the level of risk that they describe. As described by the Environment Agency (2009a):

> *"SGVs are guidelines on the level of long-term human exposure to individual chemicals in soil that, unless stated otherwise, are tolerable or pose a minimal risk to human health."*

The implication of Paragraph 47(h) of the IA is that minimal risk is well within Category 4 and that the C4SLs should describe a higher level of risk which, whilst not minimal, can still be considered low enough to allow a judgement to be made that land containing substances at, or below, the C4SLs would typically fall within Category 4. This reflects Paragraph 4.20 of the revised SG, which states:

> *"4.20 The local authority should not assume that land poses a significant possibility of significant harm if it considers that there is no risk or that the level of risk posed is low. For the purposes of this Guidance, such land is referred to as a "Category 4: Human Health" case. The authority may decide that the land is a Category 4: Human Health case as soon as it considers it has evidence to this effect, and this may happen at any stage during risk assessment including the early stages."*

C4SLs, therefore, should not be viewed as "SPOSH levels" and they should not be used as a legal trigger for the determination of land under Part 2A.

The generic screening values referred to before usually take the form of risk-based Soil Guideline Values (SGVs) or other Generic Assessment Criteria (GACs) that are most typically derived using the Environment Agency's Contaminated Land Exposure Assessment (CLEA) model, as described in the Environment Agency's SR2, SR3 and SR7 reports (EA, 2009b & c; EA, 2008). It is anticipated that C4SLs will be used in a similar manner; as generic screening criteria that can be used within a GQRA, albeit describing a higher level of risk than the SGVs.

The suggested approach to the development of C4SLs consists of the retention and use of the CLEA framework, modified according to considerations of the underlying science within the context of Defra's policy objectives relating to the revised SG. Within this context, it is suggested that the development of C4SLs may be achieved in one of three ways, namely:

- By modifying the toxicological parameters used within CLEA (while maintaining current exposure parameters);
- By modifying the exposure parameters embedded within CLEA (while maintaining current toxicological "minimal risk" interpretations); and
- By modifying both toxicological and exposure parameters.

There is also a suggested check on "other considerations" (e.g., background levels, epidemiological data, sources of uncertainty) within the approach, applicable to all three options.

It is suggested that a new term is defined for the toxicological guidance values associated with the derivation of C4SLs – a Low Level of Toxicological Concern (LLTC). A LLTC should represent an intake of low concern that remains suitably protective of health, and definitely does not approach an intake level that could be defined as SPOSH.

4. CL:AIRE Generic Assessment Criteria (GAC)

For derivation of the CL:AIRE Generic Assessment Criteria (GAC) reference should be made to the following report:

> CL:AIRE, *The Soil Generic Assessment Criteria for Human Health Risk Assessment.* **Contaminated Land: Applications in the Real Environment**. 2009.

Within this report, Contaminated Land: Applications in Real Environments (CL:AIRE) provided Generic Assessment Criteria (GAC) in accordance with the CLEA software and the principles outlined previously for a further 35 contaminants sometimes encountered on land affected by contamination.

5. SoBRA Acute GAC

The Society of Brownfield Risk Assessment (SoBRA) identified that most human health risk assessments focus on the chronic risks arising from long-term exposure to specific substances. As chronic risks often occur at lower doses than acute risks, they are often the key drivers, however, in some instances the acute dose may also be an important consideration within risk assessments.

The methodology for deriving the acute GAC were related to two distinct receptor groups:

- Members of the public, where the 'critical' receptor for this group will typically be a female child, which is consistent with CLEA residential and Public Open Space/allotments land-uses;
- Workers involved with excavations. The critical receptor for this group is assumed to be a female working adult, without the use of PPE.

The acute GACs relate to short term exposure of high concentrations of a substance that lead to acute effects. They are not considered to be average exposures across a specific / defined area. As a result, the GACs should be normally be compared with the maximum likely concentration that the individual may be exposed to, and not the average concentration within a specific area.

The SoBRA acute GAC will primarily be used for contaminants that do not currently have any GAC, most notably Cyanide.

6. Detailed Quantitative Risk Assessments (DQRA)

Where the adoption of a GAC is not appropriate, for instance when the intended land-use is at variance the CLEA standard land-uses, then a DQRA may be undertaken to develop site specific values for relevant soil contaminants.

- Establishing the plausibility that generic exposure pathways exist in practice by measurement and observation.
- Developing more accurate parameters using site data.

7. Phytotoxicity

CLEA guidance only addresses human health toxicity; assessment of plant toxicity (phytotoxicity) is based on threshold trigger values obtained from the following source:

- BS3882:2015 – *Specification for Topsoil*

The trigger values are relevant only to those contaminants, where present in excess, have the potential to inhibit plant growth, or kill plants (Cu, Ni and Zn). The criteria have been based on a wide range of planting that are common within a multi-purpose topsoil.

8. Statistical Tests

DEFRA R&D Publication CLR 7 (DOE 1994) addressed the statistical treatment of test results and their comparison to Soil Guideline Values.

Consideration must be given to the appropriate area of land to be considered termed the critical averaging area.

For a communal open space or commercial land-use, the critical averaging area will depend on the proposed layout. For a residential use with private gardens the averaging area is the individual plot.

It may be appropriate to compare the upper 95th percentile concentration with the Soil Guideline Value, subject to applying a statistical test to establish that the range of concentrations are reasonably consistent and belonging to the same underlying distribution of data.

CL:AIRE published guidance in 2020, *Guidance in comparing soil contamination data with a critical concentration,* superseding the CL:AIRE/CIEH 2008 report of the same name. The guidance provides ways to assist land contamination stakeholders to apply statistical methods to their data to enable decisions under the legislative framework; either planning system or Part 2A of the Environmental Protection Act 1990.

The use of the statistical tests should only be applied if the following statements are valid for the datasets:

- Averaging areas, as well as the smallest area of concern have been identified on the basis of the CSM, including the desk study and/or the site walkover;
- The sample locations were chosen using a simple random, stratified random or stratified systematic (square, herringbone or triangular grid) sampling pattern, rather than being targeted to locations suspected of being contaminated;
- The sample locations are relatively evenly spread across the area and are not clustered, to avoid giving undue weight to some parts of the site over others in the calculated statistics;
- The analyses do not suggest a hotspot or outlier of contamination that should be treated as a separate zone. This has been established by a histogram and/or a names statistical test;
- The sample locations are all taken from one population (i.e. the same material);
- Where an averaging zone encompasses several averaging areas, analyses do not show a spatial trend or other spatial pattern across that zone; and
- The number of samples has been shown to be sufficient for a statistical analysis.

Any included statistical spreadsheet is based on an in-house method of statistical analysis, in line with those outlined within the CL:AIRE guidance (2020).

Treatment of Hot-Spots

- A statistical test is applied to establish whether the data is a part of a single set, or whether data outliers are present.
- Provided that the data is based on random sampling and no distinct contamination source was present at the sampling location, the hot-spot(s) may be excluded and the mean of the remaining data assessed.

9. Ground and Water Limited Soil Assessment Criteria

The Soil Assessment Criteria used in the preparation of the Generic Quantitative Risk Assessment are tabulated in the following pages, where the source of each has been outlined in the previous sections.

9.1. Inorganics

SoBRA – Acute Generic Assessment Criteria						
Determinand	**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Cyanide	24	24	24	1400	24	24

9.2. Metals

C4SL Low Level of Toxicological Concern						
Determinand	**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Lead	< 200	< 310	< 80	< 2300	< 630	< 1300

LQM/CIEH Suitable 4 Use Levels – Metals and Semi-metals						
Determinand	**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Arsenic	37	40	43	640	79	170
Beryllium	1.7	1.7	35	12	2.2	63
Boron	290	11000	45	240000	21000	46000
Cadmium	11	85	1.9	190	120	532
Chromium (III)	910	910	18000	8600	1500	33000
Chromium (VI)	6	6	1.8	33	7.7	220
Copper	2400	7100	520	68000	12000	44000
Elemental Mercury	1.2	1.2	21	58	16	30
Inorganic Mercury	40	56	19	1100	120	240
Methylmercury	11	15	6	320	40	68
Nickel	130	180	53	980	230	800
Selenium	250	430	88	12000	1100	1800
Vanadium	410	1200	91	9000	2000	5000
Zinc	3700	40000	620	730000	81000	170000

Phytotoxicity (Harmful to Plants) Threshold Trigger Values			
Determinand	**Soil pH < 6.0 (mg/kg)**	**Soil pH 6.0 – 7.0 (mg/kg)**	**Soil pH > 7.0 (mg/kg)**
Copper	100	135	200
Nickel	60	75	110
Zinc	200	200	300
Notes: BS3882:2015 – *Specification for Topsoil*. Based on a wide range of common plants that will be exposed to multi-purpose topsoil. Toxicity of contaminant may also be impacted by pH of soils. Site observation of plant vitality may give additional guidance.			

CL:AIRE Soil Generic Assessment Criteria				
Determinand	**Residential (mg/kg)**	**Residential without plant uptake (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**
Antimony	ND	550	ND	7500
Barium	ND	1300	ND	22000
Molybdenum	ND	670	ND	17000
ND – Not derived				

9.3. Total Petroleum Hydrocarbons (TPHs)

9.3.1. BTEX Compounds

LQM/CIEH Suitable 4 Use Levels – BTEX Compounds							
Determinand	**Soil Organic Matter**	**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Benzene	1.0% SOM	0.087	0.38	0.017	27	72	90
	2.5% SOM	0.170	0.70	0.034	47	72	100
	6.0% SOM	0.370	1.40	0.075	90	73	110
Toluene	1.0% SOM	130	880	22	56000	56000	87000
	2.5% SOM	290	1900	51	110000	56000	95000
	6.0% SOM	660	3900	120	180000	56000	100000
Ethylbenzene	1.0% SOM	47	83	16	5700	24000	17000
	2.5% SOM	110	190	39	13000	24000	22000
	6.0% SOM	260	440	91	27000	25000	27000
o-Xylene	1.0% SOM	60	88	28	6600	41000	17000
	2.5% SOM	140	210	67	15000	42000	24000
	6.0% SOM	330	480	160	33000	43000	33000
m-Xylene	1.0% SOM	59	82	31	6200	41000	17000
	2.5% SOM	140	190	74	14000	42000	24000
	6.0% SOM	320	450	170	31000	43000	33000
p-Xylene	1.0% SOM	56	79	29	5900	41000	17000
	2.5% SOM	130	180	69	14000	42000	23000
	6.0% SOM	310	430	160	30000	43000	31000
SOM = Soil Organic Matter Content (%)							

9.3.2. Total Petroleum Hydrocarbons – Aliphatic

LQM/CIEH Suitable 4 Use Levels For TPH							
Aliphatic		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
EC 5-6	1.0% SOM	42	42	730	3,200 (304) [sol]	570,000 (304) [sol]	95,000 (304) [sol]
	2.5% SOM	78	78	1,700	5,900 (558) [sol]	590,000	130,000 (558) [sol]
	6.0% SOM	160	160	3,900	12,000 (1150) [sol]	600,000 (1150)[sol]	180,000 (1150) [sol]
EC >6-8	1.0% SOM	100	100	2,300	7,800 (144) [sol]	600,000	150,000 (144) [sol]
	2.5% SOM	230	230	5,600	17,000 (322) [sol]	610,000	220,000 (322) [sol]
	6.0% SOM	530	530	13,000	40,000 (736) [sol]	620,000	320,000 (736) [sol]
EC >8-10	1.0% SOM	27	27	320	2,000 (78) [sol]	13,000	14,000 (78) [sol]
	2.5% SOM	65	65	770	4,800 (118) [vap]	13,000	18,000 (118) [vap]
	6.0% SOM	150	150	1,700	11,000 (451) [vap]	13,000	21,000 (451) [vap]
EC >10-12	1.0% SOM	130 (48) [vap]	130 (48) [vap]	2,200	9,700 (48) [sol]	13,000	21,000 (48) [sol]
	2.5% SOM	330 (118) [vap]	330 (118) [vap]	4,400	23,000 (118) [vap]	13,000	23,000 (118) [vap]
	6.0% SOM	760 (283) [vap]	760 (283) [vap]	7,300	47,000 (283) [vap]	13,000	24,000 (283) [vap]
EC >12-16	1.0% SOM	1,100 (24) [sol]	1,100 (24) [sol]	11,000	59,000 (24) [sol]	13,000	25,000 (24) [sol]
	2.5% SOM	2,400 (59) [sol]	2,400 (59) [sol]	13,000	82,000 (59) [sol]	13,000	25,000 (59) [sol]
	6.0% SOM	4,300 (142) [sol]	4,400 (142) [sol]	13,000	90,000 (142) [sol]	13,000	26,000 (142) [sol]
EC >16-35	1.0% SOM	65,000 (8.48) [sol]	65,000 (8.48) [sol]	260,000	1,600,000	250,000	450,000
	2.5% SOM	92,000 (21) [sol]	92,000 (21) [sol]	270,000	1,700,000	250,000	480,000
	6.0% SOM	110,000	110,000	270,000	1,800,000	250,000	490,000
EC >35-44	1.0% SOM	65,000 (8.48) [sol]	65,000 (8.48) [sol]	260,000	1,600,000	250,000	450,000
	2.5% SOM	92,000 (21) [sol]	92,000 (21) [sol]	270,000	1,700,000	250,000	480,000
	6.0% SOM	110,000	110,000	270,000	1,800,000	250,000	490,000

SOM = Soil Organic Matter Content (%)

[vap] – GAC presented exceeds the vapour saturation limit, which is presented in brackets.

[sol] – GAC presented exceeds the soil saturation limit, which is presented in brackets.

9.3.3. Total Petroleum Hydrocarbons – Aromatic

LQM/CIEH Suitable 4 Use Levels For TPH							
Aromatic		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
EC 5-7 (Benzene)	1.0% SOM	70	370	13	26,000 (1220) [sol]	56,000	76,000 (1220 [sol]
	2.5% SOM	140	690	27	46,000 (2260) [sol]	56,000	84,000 (2260) [sol]
	6.0% SOM	300	1,400	57	86,000 (4710) [sol]	56,000	92,000 (4710) [sol]
EC >7-8 (Toluene)	1.0% SOM	130	860	22	56,000 (869) [vap]	56,000	87,000 (869) [sol]
	2.5% SOM	290	1,800	51	110,000 (1920) [sol]	56,000	95,000 (1920) [sol]
	6.0% SOM	660	3,900	120	180,000 (4360) [vap]	56,000	100,000 (4360) [vap]
EC >8-10	1.0% SOM	34	47	8.6	3,500 (613) [vap]	5,000	7,200 (613) [vap]
	2.5% SOM	83	110	21	8,100 (1500) [vap]	5,000	8,500 (1500) [vap]
	6.0% SOM	190	270	51	17,000 (3850) [vap]	5,000	9,300 (3580) [vap]
EC >10-12	1.0% SOM	74	250	13	16,000 (364) [sol]	5,000	9,200 (364) [sol]
	2.5% SOM	180	590	31	28,000 (899) [sol]	5,000	9,700 (889) [sol]
	6.0% SOM	380	1,200	74	34,000 (2150) [sol]	5,000	10,000
EC >12-16	1.0% SOM	140	1,800	23	36,000 (169) [sol]	5,100	10,000
	2.5% SOM	330	2,300 (419) [sol]	57	37,000	5,100	10,000
	6.0% SOM	660	2,500	130	38,000	5,000	10,000
EC >16-21	1.0% SOM	260	1,900	46	28,000	3,800	7,600
	2.5% SOM	540	1,900	110	28,000	3,800	7,700
	6.0% SOM	930	1,900	260	28,000	3,800	7,800
EC >21-35	1.0% SOM	1,100	1,900	370	28,000	3,800	7,800
	2.5% SOM	1,500	1,900	820	28,000	3,800	7,800
	6.0% SOM	1,700	1,900	1,600	28,000	3,800	7,900
EC >35-44	1.0% SOM	1,100	1,900	370	28,000	3,800	7,800
	2.5% SOM	1,500	1,900	820	28,000	3,800	7,800
	6.0% SOM	1,700	1,900	1,600	28,000	3,800	7,900
EC >44-70	1.0% SOM	1,600	1,900	1,200	28,000	3,800	7,800
	2.5% SOM	1,800	1,900	2,100	28,000	3,800	7,800
	6.0% SOM	1,900	1,900	3,000	28,000	3,800	7,900

SOM = Soil Organic Matter Content (%)

[vap] – GAC presented exceeds the vapour saturation limit, which is presented in brackets.

[sol] – GAC presented exceeds the soil saturation limit, which is presented in brackets.

9.4. Polycyclic Aromatic Hydrocarbons (PAHs)

LQM/CIEH Suitable 4 Use Levels For Polycyclic Aromatic Hydrocarbons (PAHs)							
Determinands		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Acenapthene	1.0% SOM	210	3,000 (57.0) [sol]	34	84,000(57.0) [sol]	15,000	29,000
	2.5% SOM	510	4,700(141) [sol]	85	97,000(141) [sol]	15,000	30,000
	6.0% SOM	1100	6,000(336) [sol]	200	100,000	15,000	30,000
Acenapthylene	1.0% SOM	170	2,900(86.1) [sol]	28	83,000(86.1) [sol]	15,000	29,000
	2.5% SOM	420	4,600(212) [sol]	69	97,000(212) [sol]	15,000	30,000
	6.0% SOM	920	6,000(506) [sol]	160	100,000	15,000	30,000
Anthracene	1.0% SOM	2,400	31,000(1.17) [vap]	380	520,000	74,000	150,000
	2.5% SOM	5,400	35,000	950	540,000	74,000	150,000
	6.0% SOM	11,000	37,000	2,200	540,000	74,000	150,000
Benzo(a)anthracene	1.0% SOM	7.20	11	2.90	170	29	49
	2.5% SOM	11	14	6.50	170	29	56
	6.0% SOM	13	15	13	180	29	62
Benzo(a)pyrene	1.0% SOM	2.20	3.20	0.97	35	5.70	11
	2.5% SOM	2.70	3.20	2.00	35	5.70	12
	6.0% SOM	3.00	3.20	3.50	36	5.70	13
Benzo(b)flouranthene	1.0% SOM	2.60	3.90	0.99	44	7.10	13
	2.5% SOM	3.30	4.00	2.10	44	7.20	15
	6.0% SOM	3.70	4.00	3.90	45	7.20	16
Benzo(ghi)perylene	1.0% SOM	320	360	290	3,900	640	1,400
	2.5% SOM	340	360	470	4,000	640	1,500
	6.0% SOM	350	360	640	4,000	640	1,600
Benzo(k)flouranthene	1.0% SOM	77	110	37	1,200	190	370
	2.5% SOM	93	110	75	1,200	190	410
	6.0% SOM	100	110	130	1,200	190	440
Chrysene	1.0% SOM	15	30	4.10	350	57	93
	2.5% SOM	22	31	9.40	350	57	110
	6.0% SOM	27	32	19	350	57	120
Dibenzo(ah)anthracene	1.0% SOM	0.24	0.31	0.14	3.50	0.57	1.10
	2.5% SOM	0.28	0.32	0.27	3.50	0.57	1.30
	6.0% SOM	0.30	0.32	0.43	3.60	0.58	1.40
Flouranthene	1.0% SOM	280	1,500	52	23,000	3,100	6,300
	2.5% SOM	560	1,600	130	23,000	3,100	6,300
	6.0% SOM	890	1,600	290	23,000	3,100	6,300
Flourene	1.0% SOM	170	2,800 (30.9) [sol]	27	63,000(30.9) [sol]	9,900	20,000
	2.5% SOM	400	3,800(76.5) [sol]	67	68,000	9,900	20,000
	6.0% SOM	860	4,500(183) [sol]	160	71,000	9,900	20,000
Indeno(123-cd)pyrene	1.0% SOM	27	45	9.50	500	82	150
	2.5% SOM	36	46	21	510	82	170
	6.0% SOM	41	46	39	510	82	180
Napthalene	1.0% SOM	15	36	65	1,600	11,000	800
	2.5% SOM	36	36	130	3,700	15,000	1,200
	6.0% SOM	85	85	200	8,400	17,000	1,900
Phenanthrene	1.0% SOM	95	1,300(183) [sol]	15	22,000	3,100	6,200
	2.5% SOM	220	1,500	38	22,000	3,100	6,200
	6.0% SOM	440	1,500	90	23,000	3,100	6,300
Pyrene	1.0% SOM	620	3,700	110	54,000	7,400	15,000
	2.5% SOM	1200	3,800	270	54,000	7,400	15,000
	6.0% SOM	2000	3,800	620	54,000	7,400	15,000
Coal Tar (Benzo(a)pyrene used as marker compound)	1.0% SOM	0.79	1.2	0.32	15	2.20	4.40
	2.5% SOM	0.98	1.2	0.67	15	2.20	4.70
	6.0% SOM	1.10	1.2	1.20	15	2.20	4.80

SOM = Soil Organic Matter Content (%)

[vap] – GAC presented exceeds the vapour saturation limit, which is presented in brackets.

[sol] – GAC presented exceeds the soil saturation limit, which is presented in brackets.

9.5. Volatile and Semi-volatile Organic Compounds

LQM CIEH General Assessment Criteria: Volatile and Semi-Volatile Organic Compounds							
Determinands		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Chloroalkanes & alkenes							
1,2 Dichloroethane	1.0% SOM	0.0071	0.0092	0.0046	0.67	29	21
	2.5% SOM	0.011	0.013	0.0083	0.97	29	24
	6.0% SOM	0.019	0.023	0.016	1.70	29	28
1,1,2,2 Tetrachloroethane	1.0% SOM	1.60	3.90	0.41	270	1,400	1,800
	2.5% SOM	3.40	8.00	0.89	550	1,400	2,100
	6.0% SOM	7.50	17	2.00	1,100	1,400	2,300
1,1,1,2 Tetrachloroethane	1.0% SOM	1.20	1.50	0.79	110	1,400	1,500
	2.5% SOM	2.80	3.50	1.90	250	1,400	1,800
	6.0% SOM	6.40	8.20	4.40	560	1,400	2,100
Tetrachloroethene	1.0% SOM	0.18	0.18	0.65	19	1,400	810 [sol](424)
	2.5% SOM	0.39	0.40	1.50	42	1,400	1,100 [sol](951)
	6.0% SOM	0.90	0.92	3.60	95	1,400	1,500
1,1,1 Trichloroethane	1.0% SOM	8.80	9.00	48	660	140,000	57,000 [vap](1425)
	2.5% SOM	18	18	110	1,300	140,000	76,000 [vap](2915)
	6.0% SOM	39	40	240	3,000	140,000	100,000 [vap] (6392)
Tetrachloromethene	1.0% SOM	0.026	0.026	0.45	2.90	890	190
	2.5% SOM	0.056	0.056	1.00	6.30	920	270
	6.0% SOM	0.130	0.130	2.40	14	950	400
Trichloroethene	1.0% SOM	0.016	0.017	0.041	1.20	120	70
	2.5% SOM	0.034	0.036	0.091	2.60	120	91
	6.0% SOM	0.075	0.080	0.210	5.70	120	120
Trichloromethane	1.0% SOM	0.91	1.20	0.42	99	2,500	2,600
	2.5% SOM	1.70	2.10	0.83	170	2,500	2,800
	6.0% SOM	3.40	4.20	1.70	350	2,500	3,100
Vinyl Chloride	1.0% SOM	0.00064	0.00077	0.00055	0.059	3.50	4.80
	2.5% SOM	0.00087	0.00100	0.00100	0.077	3.50	5.00
	6.0% SOM	0.00014	0.00150	0.00180	0.120	3.50	5.40
Explosives							
2,4,6 Trinitrotoluene	1.0% SOM	1.60	65	0.24	1,000	130	260
	2.5% SOM	3.70	66	0.58	1,000	130	270
	6.0% SOM	8.10	66	1.40	1,000	130	270
RDX (Hexogen/Cyclonite/1,3,5-trinitro-1,3,5-triazacyclohexane)	1.0% SOM	120	13,000	17	210,000	26,000	49,000(18.7)[sol]
	2.5% SOM	250	13,000	38	210,000	26,000	51,000
	6.0% SOM	540	13,000	85	210,000	27,000	53,000
HMX (Octogen/1,3,5,7-tetrenitro-1,3,5,7-tetrazacyclo-octane)	1.0% SOM	5.70	67,00	0.86	110,000	13,000	23,000(0.35)[vap]
	2.5% SOM	13	67,00	1.90	110,000	13,000	23,000(0.39)[vap]
	6.0% SOM	26	67,00	3.90	110,000	13,000	24,000(0.48)[vap]
Atrazine	1.0% SOM	3.30	610	0.50	9,300	1,200	2,300
	2.5% SOM	7.60	620	1.20	9,400	1,200	2,400
	6.0% SOM	17.40	620	2.70	9,400	1,200	2,400

[vap] – GAC presented exceeds the vapour saturation limit, which is presented in brackets.
[sol] – GAC presented exceeds the soil saturation limit, which is presented in brackets.

VOC and SVOC table continued overleaf

VOC and SVOC table continued from previous page

LQM CIEH General Assessment Criteria: Volatile and Semi-Volatile Organic Compounds							
Determinands		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Pesticides							
Aldrin	1.0% SOM	5.70	7.30	3.20	170	18	30
	2.5% SOM	6.60	7.40	6.10	170	18	31
	6.0% SOM	7.10	7.50	9.60	170	18	31
Dieldrin	1.0% SOM	0.97	7.00	0.17	170	18	30
	2.5% SOM	2.00	7.30	0.41	170	18	30
	6.0% SOM	3.50	7.40	0.96	170	18	31
Dichlorvos	1.0% SOM	0.032	6.40	0.0049	140	16	26
	2.5% SOM	0.066	6.50	0.0100	140	16	26
	6.0% SOM	0.140	6.60	0.0220	140	16	27
Alpha - Endosulfan	1.0% SOM	7.40	160(0.003)[vap]	1.20	5,600(0.003)[vap]	1,200	2,400
	2.5% SOM	18	280(0.007)[vap]	2.90	7,400(0.007)[vap]	1,200	2,400
	6.0% SOM	41	410(0.016)[vap]	6.80	8,400(0.016)[vap]	1,200	2,400
Beta - Endosulfan	1.0% SOM	7.00	190(0.00007)[vap]	1.10	6,300(0.00007)[vap]	1,200	2,400
	2.5% SOM	17	320(0.0002)[vap]	2.70	7,800(0.0002)[vap]	1,200	2,400
	6.0% SOM	39	440(0.0004)[vap]	6.40	8700	1,200	2,500
Alpha - Hexachlorocyclohexanes	1.0% SOM	0.23	6.90	0.035	170	24	47
	2.5% SOM	0.55	9.20	0.087	180	24	48
	6.0% SOM	1.20	11	0.210	180	24	48
Beta - Hexachlorocyclohexanes	1.0% SOM	0.085	3.70	0.013	65	8.10	15
	2.5% SOM	0.200	3.80	0.032	65	8.10	15
	6.0% SOM	0.460	3.80	0.077	65	8.10	16
Gamma - Hexachlorocyclohexanes	1.0% SOM	0.06	2.90	0.0092	67	8.2	14
	2.5% SOM	0.14	3.30	0.0230	69	8.2	15
	6.0% SOM	0.33	3.50	0.0540	70	8.2	15
Chlorobenzenes							
Chlorobenzene	1.0% SOM	0.46	0.46	5.90	56	11,000	1,300(675)[sol]
	2.5% SOM	1.00	1.00	14	130	13,000	2,000(1520)[sol]
	6.0% SOM	2.40	2.40	32	290	14,000	2,900
1,2-Dichlorobenzene	1.0% SOM	23	24	94	2,000 (571) [sol]	90,000	24,000(571)[sol]
	2.5% SOM	55	57	230	4,800 (1370) [sol]	95,000	36,000(1370)[sol]
	6.0% SOM	130	130	540	11,000 (3240) [sol]	98,000	51,000(3240)[sol]
1,3-Dichlorobenzene	1.0% SOM	0.40	0.44	0.25	30	300	390
	2.5% SOM	1.00	1.10	0.60	73	300	440
	6.0% SOM	2.30	2.50	1.50	170	300	470
1,4-Dichlorobenzene	1.0% SOM	61	61	15	4,400 (224)[vap]	17,000[g]	36,000 (224)[vap]
	2.5% SOM	150	150	37	10,000 (540)[vap]	17,000[g]	36,000 (540)[vap]
	6.0% SOM	350	350	88[g]	25,000 (1280)[vap]	17,000[g]	36,000 (1280)[vap]
1,2,3,-Trichlorobenzene	1.0% SOM	1.50	1.50	4.70	102	1,800	770(134)[vap]
	2.5% SOM	3.60	3.70	12	250	1,800	1,100(330)[vap]
	6.0% SOM	8.60	8.80	28	590	1,800	1,600(789)[vap]
1,2,4,-Trichlorobenzene	1.0% SOM	2.60	2.60	55	220	15,000	1,700(318)[vap]
	2.5% SOM	6.40	6.40	140	530	17,000	2,600(786)[vap]
	6.0% SOM	15	15	320	1,300	19,000	4,000(1880)[vap]
1,3,5,-Trichlorobenzene	1.0% SOM	0.33	0.33	4.70	23	1,700	380(36.7)[vap]
	2.5% SOM	0.81	0.81	12	55	1,700	590(90.8)[vap]
	6.0% SOM	1.90	1.90	140	130	1,800	860(217)[vap]

[vap] – GAC presented exceeds the vapour saturation limit, which is presented in brackets.
[sol] – GAC presented exceeds the soil saturation limit, which is presented in brackets.

VOC and SVOC table continued overleaf

VOC and SVOC table continued from previous page

LQM CIEH General Assessment Criteria: Volatile and Semi-Volatile Organic Compounds							
Determinands		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**	**POSresi (mg/kg)**	**POSpark (mg/kg)**
Chlorobenzenes (cont.)							
1,2,3,4,-Tetrachlorobenzene	1.0% SOM	15	24	4.40	1,700(122)^{vap}	830	1,500(122)^{vap}
	2.5% SOM	36	56	11	3,080(304)^{vap}	830	1,600
	6.0% SOM	78	120	26	4,400(728)^{vap}	830	1,600
1,2,3,5,-Tetrachlobenzene	1.0% SOM	0.66	0.75	0.38	49(39.4)^{vap}	78	110(39)^{vap}
	2.5% SOM	1.60	1.90	0.90	120(98.1)^{vap}	79	120
	6.0% SOM	3.70	4.30	2.20	240(235)^{vap}	79	130
1,2,4, 5,-Tetrachlobenzene	1.0% SOM	0.33	0.73	0.06	42(19.7)^{sol}	13	25
	2.5% SOM	0.77	1.70	0.16	72(49.1)^{sol}	13	26
	6.0% SOM	1.60	3.50	0.37	96	13	26
Pentachlrobenzene	1.0% SOM	5.80	19	1.20	640(43.0)^{sol}	100	190
	2.5% SOM	12	30	3.10	770(107)^{sol}	100	190
	6.0% SOM	22	38	7.00	830	100	190
Hexachlorobenzene	1.0% SOM	1.80(0.20)^{vap}	4.10 (0.20)^{vap}	0.47	110(0.20)^{vap}	16	30
	2.5% SOM	3.30(0.50)^{vap}	5.70 (0.50)^{vap}	1.10	120	16	30
	6.0% SOM	4.90	6.70 (1.2)^{vap}	2.50	120	16	30
Phenols & Chlorophenols							
BTEX	1.0% SOM	280	750	66	760^{dir}(31,000)	760^{dir}(11,000)	760^{dir}(8,600)
	2.5% SOM	550	1,300	140	1,500^{dir}(35,000)	1,500^{dir}(11,000)	1,500^{dir}(9,700)
	6.0% SOM	1100	2,300	280	3,200^{dir}(37,000)	3,200^{dir}(11,000)	3,200^{dir}(11,000)
Chlorophenols (4 Congeners)	1.0% SOM	0.87	94	0.13	3,500	620	1,100
	2.5% SOM	2.00	150	0.30	4,000	620	1,100
	6.0% SOM	4.50	210	0.70	4,300	620	1,100
Pentachlorophenols	1.0% SOM	0.22	27(16.4)^{vap}	0.03	400	60	110
	2.5% SOM	0.52	29	0.08	400	60	120
	6.0% SOM	1.20	31	0.19	400	60	120
Others							
Carbon Disulphide	1.0% SOM	0.14	0.14	4.80	11	11,000	1,300
	2.5% SOM	0.29	0.29	10	22	11,000	1,900
	6.0% SOM	0.62	0.62	23	47	12,000	2,700
Hexachloro-1,3-Butadiene	1.0% SOM	0.29	0.32	0.25	31	25	48
	2.5% SOM	0.70	0.78	0.61	68	25	50
	6.0% SOM	1.60	1.80	1.40	120	25	51

^{vap} – GAC presented exceeds the vapour saturation limit, which is presented in brackets.
^{sol} – GAC presented exceeds the soil saturation limit, which is presented in brackets.

VOC and SVOC table continued overleaf

VOC and SVOC table continued from previous page

CL:AIRE General Assessment Criteria: Volatile and Semi-Volatile Organic Compounds					
Determinands		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**
1,1,2 Trichloroethane	1.0% SOM	0.60	0.88	0.28	94
	2.5% SOM	1.20	1.8	0.61	190
	6.0% SOM	2.70	3.9	1.40	400
1,1-Dichloroethane	1.0% SOM	2.40	2.50	9.20	280
	2.5% SOM	3.90	4.10	17	450
	6.0% SOM	7.40	7.70	35	850
1,1-Dichloroethene	1.0% SOM	0.23	0.23	2.80	26
	2.5% SOM	0.40	0.41	5.60	46
	6.0% SOM	0.82	0.82	12	92
1,2,4-Trimethylbenzene	1.0% SOM	0.35	0.41	0.38	42
	2.5% SOM	0.85	0.99	0.93	99
	6.0% SOM	2.00	2.30	2.20	220
1,2-Dichloropropane	1.0% SOM	0.024	0.024	0.62	3.3
	2.5% SOM	0.042	0.042	1.20	5.9
	6.0% SOM	0.084	0.085	2.60	12
2,4-Dimethylphenol	1.0% SOM	19	210	3.10	16000*
	2.5% SOM	43	410	7.20	24000*
	6.0% SOM	97	730	17	30000*
2,4-Dinitrotoluene	1.0% SOM	1.50	170*	0.22	3700*
	2.5% SOM	3.20	170	0.49	3700*
	6.0% SOM	7.20	170	1.10	3800*
2,6-Dinitrotoluene	1.0% SOM	0.78	78	0.12	1900*
	2.5% SOM	1.70	84	0.27	1900*
	6.0% SOM	3.90	87	0.61	1900*
2-Chloronapthalene	1.0% SOM	3.70	3.80	40	390*
	2.5% SOM	9.20	9.30	98	960*
	6.0% SOM	22	22	230	2200*
Biphenyl	1.0% SOM	66*	220*	14	18000*
	2.5% SOM	160	500*	35	33000*
	6.0% SOM	360	980*	83	48000*
Bis (2-ethylhexyl) phthalate	1.0% SOM	280*	2700*	47*	85000*
	2.5% SOM	610*	2800*	120*	86000*
	6.0% SOM	1100*	2800*	280*	86000*
Bromobenzene	1.0% SOM	0.87	0.91	3.2	97
	2.5% SOM	2.0	2.1	7.6	220
	6.0% SOM	4.7	4.9	18	520
Bromodichloromethane	1.0% SOM	0.016	0.019	0.016	2.1
	2.5% SOM	0.030	0.034	0.032	3.7
	6.0% SOM	0.061	0.070	0.068	7.6
Bromoform	1.0% SOM	2.8	5.2	0.95	760
	2.5% SOM	5.9	11	2.1	1500
	6.0% SOM	13	23	4.6	3100
Butyl benzyl phthalate	1.0% SOM	1400*	42000*	220*	940000*
	2.5% SOM	3300*	44000*	550*	940000*
	6.0% SOM	7200*	44000*	1300*	950000*

*soil concentration above saturation limit

VOC and SVOC table continued overleaf

VOC and SVOC table continued from previous page

CL:AIRE General Assessment Criteria: Volatile and Semi-Volatile Organic Compounds					
Determinands		**RwHP (mg/kg)**	**RwoHP (mg/kg)**	**Allotment (mg/kg)**	**Commercial (mg/kg)**
Chloroethane	1.0% SOM	8.3	8.4	110	960
	2.5% SOM	11	11	200	1300
	6.0% SOM	18	18	380	2100
Chloromethane	1.0% SOM	0.0083	0.0085	0.066	1.0
	2.5% SOM	0.0098	0.0099	0.13	1.2
	6.0% SOM	0.013	0.013	0.23	1.6
***Cis* 1,2 Dichloroethene**	1.0% SOM	0.11	0.12	0.26	14
	2.5% SOM	0.19	0.20	0.50	24
	6.0% SOM	0.37	0.39	1.0	47
Dichloromethane	1.0% SOM	0.58	2.10	0.10	270
	2.5% SOM	0.98	2.80	0.19	360
	6.0% SOM	1.70	4.50	0.34	560
Diethyl Phthalate	1.0% SOM	120*	1800*	19*	150000*
	2.5% SOM	260*	3500*	41*	220000*
	6.0% SOM	570*	6300*	94*	290000*
Di-*n*-butyl phthalate	1.0% SOM	13*	450*	2.00	15000*
	2.5% SOM	31*	450*	5.00	15000*
	6.0% SOM	67*	450*	12	15000*
Di-*n*-octyl phthalate	1.0% SOM	2300*	3400*	940*	89000*
	2.5% SOM	2800*	3400*	2100*	89000*
	6.0% SOM	3100*	3400*	3900*	89000*
Hexachloroethane	1.0% SOM	0.20	0.22	0.27	22*
	2.5% SOM	0.48	0.54	0.67	53*
	6.0% SOM	1.10	1.30	1.60	120*
Isopropylbenzene	1.0% SOM	11	12	32	1400*
	2.5% SOM	27	28	79	3300*
	6.0% SOM	64	67	190	7700*
Methyl *tert*-butyl ether (MTBE)	1.0% SOM	49	73	23	7900
	2.5% SOM	84	120	44	13000
	6.0% SOM	160	220	90	24000
Propylbenzene	1.0% SOM	34	40	34	4100*
	2.5% SOM	82	97	83	9700*
	6.0% SOM	190	230	200	21000*
Styrene	1.0% SOM	8.10	35	1.60	3300*
	2.5% SOM	19	78	3.70	6500*
	6.0% SOM	43	170	8.70	11000*
Total Cresols (2-, 3-, and 4-methylphenol)	1.0% SOM	80	3700	12	160000
	2.5% SOM	180	5400	27	180000*
	6.0% SOM	400	6900	63	180000*
***Trans* 1,2 Dichloroethene**	1.0% SOM	0.19	0.19	0.93	22
	2.5% SOM	0.34	0.35	1.90	40
	6.0% SOM	0.70	0.71	0.24	81
Tributyl tin oxide	1.0% SOM	0.25	1.40	0.042	130*
	2.5% SOM	0.59	3.10	0.100	180*
	6.0% SOM	1.30	5.70	0.240	200*

*soil concentration above saturation limit

C4SL Low Level of Toxicological Concern							
Determinands		RwHP (mg/kg)	RwoHP (mg/kg)	Allotment (mg/kg)	Commercial (mg/kg)	POSresi (mg/kg)	POSpark (mg/kg)
1,2-Dichloroethane (Ethylene Dichloride)	1.0% SOM	0.11	0.16	0.054	12	300	300
	2.5% SOM	0.18	0.24	0.10	17	310	330
	6.0% SOM	0.31	0.41	0.19	29	310	380
Cis-1,2-Dichloroethene	1.0% SOM	0.46	0.50	0.89	38	3,800	2,000
	2.5% SOM	0.78	0.84	1.7	64	3,800	2,400
	6.0% SOM	1.5	1.6	3.6	120	3,900	3,100
Tetrachloroethene (PCE)	1.0% SOM	0.31	0.32	2	24	3,200	1,400
	2.5% SOM	0.70	0.71	4.8	55	3,300	1,900
	6.0% SOM	1.60	1.60	11	130	3,400	2,500
Trans-1,2-Dichloroethene	1.0% SOM	0.90	0.93	3.70	69	13,000	5,600
	2.5% SOM	1.60	1.70	7.50	120	13,000	7,000
	6.0% SOM	3.30	3.40	16	260	13,000	9,100
Trichloroethene (TCE)	1.0% SOM	0.0093	0.0097	0.032	0.73	76	41
	2.5% SOM	0.020	0.020	0.072	1.5	78	54
	6.0% SOM	0.043	0.045	0.16	3.4	79	69
Vinyl Chloride (Chloroethene)	1.0% SOM	0.0064	0.015	0.0017	1.1	7.8	18
	2.5% SOM	0.010	0.019	0.0031	1.4	7.8	19
	6.0% SOM	0.017	0.029	0.0058	2.2	7.8	19

9.6. Per- and Polyfluoroalkyl Substances (PFAS)

Interim C4SLs for PFOA, PFNA, PFHxS and PFOS						
Determinand	RwHP (mg/kg)	RwoHP (mg/kg)	Allotment (mg/kg)	Commercial (mg/kg)	POSresi (mg/kg)	POSpark (mg/kg)
PFOA	0.076	0.041	0.0014	0.60	0.079	0.17
PFOS	0.013	0.041	0.0027	0.60	0.079	0.17
PFHxS	0.0081	0.041	0.0015	0.60	0.079	0.17
PFNA	0.0073	0.041	0.0013	0.60	0.079	0.17

9.7. Asbestos

No asbestos or asbestos containing materials (ACM's) are considered acceptable on-site from a human health perspective. Therefore the GAC for asbestos & ACM's within any imported material should be none detected (ND).

APPENDIX G: Waste Hazard Assessment

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
0333 600 1221 enquiries@groundandwater.co.uk **groundandwater.co.uk**

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Waste Classification Report

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

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

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

Q2UWJ-APUNQ-KOF0J

Report is invalid if pages are removed.

Job name

GWPR6594 Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY[2]

Description/Comments

Project

GWPR6594

Site

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY

Classified by

Name:
Roger Foord
Date:
15 Jul 2025 11:16 GMT
Telephone:
0333 600 1221

Company:
Ground and Water
2 The Long Barn, Norton Farm
Selborne Road
Alton
GU34 3NB

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

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Purpose of classification

2 - Material Characterisation

Address of the waste

Cockpit Barn, Knowle Lane, Horton Heath **Post Code** SO50 7DY

SIC for the process giving rise to the waste

41202 Construction of domestic buildings

Description of industry/producer giving rise to the waste

Redevelopment of barn

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

Waste created during foundation excavation

Description of the waste

Made Ground comprising an orangish brown and light grey to dark brown slightly gravelly clayey fine to medium SAND. Gravel is angular to rounded fine to coarse flint, brick, clinker, chalk, cement. Reworked natural soils with large scraps of metal, plastic, wires and pipe

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP1-120821--0.20		Non Hazardous		3
2	TP10-120821--0.15		Non Hazardous		8
3	TP12-120821--0.10		Non Hazardous		10
4	TP13-120821-0.75-0.60		Non Hazardous		12
5	TP14-120821--0.50		Non Hazardous		14
6	TP15-120821--0.20		Non Hazardous		16
7	TP16-120821--0.20		Non Hazardous		18
8	TP17-120821--0.70		Non Hazardous		20
9	TP18-120821--0.50		Non Hazardous		22
10	TP19-120821--0.20		Non Hazardous		24
11	TP2-120821--0.60		Non Hazardous		26
12	TP3-120821--0.20		Non Hazardous		30
13	TP4-120821--0.20		Non Hazardous		35
14	TP5-120821--0.50		Non Hazardous		37
15	TP6-120821--0.20		Non Hazardous		41
16	TP7-120821--0.90		Non Hazardous		45
17	TP8-120821--0.20		Non Hazardous		47
18	TP9-120821--0.50		Non Hazardous		50
19	TPA/Bonfire-120821--0.10		Non Hazardous		53

Related documents

#	Name	Description
1	210818-91.hwol	ALS Hawarden .hwol file used to populate the Job

Report

Created by: Roger Foord

Created date: 15 Jul 2025 11:16 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	56
Appendix B: Rationale for selection of metal species	58
Appendix C: Version	59

Classification of sample: TP1-120821--0.20

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

Sample details

Sample name:
TP1-120821--0.20
Moisture content:
23%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		107 mg/kg		107 mg/kg	0.0107 %		
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		14.4 mg/kg	1.32	14.64 mg/kg	0.00146 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.152 mg/kg	1.285	0.15 mg/kg	0.0000117 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3.35 mg/kg	1.126	2.904 mg/kg	0.00029 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	12 mg/kg	1.56	14.413 mg/kg	0.000924 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.3 mg/kg	1.579	4.014 mg/kg	0.000401 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		43.1 mg/kg	1.785	59.245 mg/kg	0.00592 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		193 mg/kg	2.774	412.266 mg/kg	0.0412 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
			205-912-4	206-44-0									
21		pyrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			204-927-3	129-00-0									
22		benzo[a]anthracene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				7.71	pH		7.71	pH	7.71 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		dichlorodifluoromethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
			200-893-9	75-71-8									
33		chloromethane; methyl chloride				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
34		vinyl chloride; chloroethylene				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
35		bromomethane; methylbromide				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
36		chloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
37		trichlorofluoromethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
			200-892-3	75-69-4									
38		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
39		carbon disulphide				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		006-003-00-3	200-843-6	75-15-0									
40		dichloromethane; methylene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-004-00-3	200-838-9	75-09-2									
41		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
42		1,1-dichloroethane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
43		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
44		bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									

#		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									
45		chloroform; trichloromethane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
46		1,1,1-trichloroethane; methyl chloroform				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
47		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
48		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
49		1,2-dichloroethane; ethylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
50		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
51		trichloroethylene; trichloroethene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
52		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
53		dibromomethane				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
54		bromodichloromethane				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
			200-856-7	75-27-4									
55		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
56		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
57		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6									
58		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
59		1,3-dichloropropane				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
			205-531-3	142-28-9									
60		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
61		dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
62		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
63		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
64		1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
65		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
66		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
67		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
68		cumene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8									
69		1,1,2,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-015-00-3	201-197-8	79-34-5									
70		1,2,3-trichloropropane				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
71		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
72		propylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-097-00-8	203-132-9	103-65-1									
73		mesitylene; 1,3,5-trimethylbenzene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		601-025-00-5	203-604-4	108-67-8									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
74		tert-butylbenzene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
			202-632-4	98-06-6									
75		1,2,4-trimethylbenzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
76		sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
77		1-isopropyl-4-methylbenzene; p-cymene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-094-00-1	202-796-7	99-87-6									
78		1,3-dichlorbenzene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
79		1,4-dichlorobenzene; p-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
80		n-butylbenzene				<0.011	mg/kg		<0.011	mg/kg	<0.0000011 %		<LOD
			203-209-7	104-51-8									
81		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
82		1,2-dibromo-3-chloropropane				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
83		2-methoxy-2-methylbutane; tert-amyl methyl ether				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-213-00-2	213-611-4	994-05-8									
84		1,2,4-trichlorobenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
85		hexachlorobutadiene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-765-5	87-68-3									
86		1,2,3-trichlorobenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-757-1	87-61-6									
87		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
88		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
89		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.019	mg/kg		<0.019	mg/kg	<0.0000019 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
90		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				15.1	mg/kg	1.462	16.994	mg/kg	0.0017 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0626 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 100000 mg/kg (10%) because: Heavy end hydrocarbons unlikely to be flammable at the concentrations noted

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0107%)

Classification of sample: TP10-120821--0.15

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

Sample details

Sample name:
TP10-120821--0.15
Moisture content:
29%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 29% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.06 mg/kg	1.32	8.493 mg/kg	0.000849 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.321 mg/kg	1.285	0.293 mg/kg	0.0000228 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10.5 mg/kg	1.126	8.393 mg/kg	0.000839 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	18.4 mg/kg	1.56	20.377 mg/kg	0.00131 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		4.72 mg/kg	1.579	5.293 mg/kg	0.000529 %	✓	
10	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
11	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		39.1 mg/kg	1.785	49.559 mg/kg	0.00496 %	✓	
12	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		166 mg/kg	2.774	326.961 mg/kg	0.0327 %	✓	
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<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									
16		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
17		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
			201-581-5	85-01-8									
18		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		**<LOD**
			204-371-1	120-12-7									
19		fluoranthene				<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		**<LOD**
			205-912-4	206-44-0									
20		pyrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
			204-927-3	129-00-0									
21		benzo[a]anthracene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		**<LOD**
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		**<LOD**
			205-883-8	191-24-2									
29		pH				6.27	pH		6.27	pH	6.27 pH		
				PH									
30		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				20.6	mg/kg	1.462	21.377	mg/kg	0.00214 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0433 %		

Key

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

Classification of sample: TP12-120821--0.10

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

Sample details

Sample name:
TP12-120821--0.10
Moisture content:
20%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 20% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<3 mg/kg	1.923	<5.769 mg/kg	<0.000577 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7.43 mg/kg	1.32	7.848 mg/kg	0.000785 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.399 mg/kg	1.285	0.41 mg/kg	0.0000319 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.75 mg/kg	1.126	8.782 mg/kg	0.000878 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	16.8 mg/kg	1.56	20.964 mg/kg	0.00134 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.83 mg/kg	1.579	4.84 mg/kg	0.000484 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		26.7 mg/kg	1.785	38.132 mg/kg	0.00381 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		88.5 mg/kg	2.774	196.41 mg/kg	0.0196 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16		acenaphthene		201-469-6	83-32-9		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
17		fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		phenanthrene		201-581-5	85-01-8		0.0211	mg/kg		0.0169	mg/kg	0.00000169 %	✓	
19		anthracene		204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
20		fluoranthene		205-912-4	206-44-0		0.0487	mg/kg		0.039	mg/kg	0.0000039 %	✓	
21		pyrene		204-927-3	129-00-0		0.0439	mg/kg		0.0351	mg/kg	0.00000351 %	✓	
22		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.0238	mg/kg		0.019	mg/kg	0.0000019 %	✓	
23		chrysene	601-048-00-0	205-923-4	218-01-9		0.03	mg/kg		0.024	mg/kg	0.0000024 %	✓	
24		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.043	mg/kg		0.0344	mg/kg	0.00000344 %	✓	
25		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
26		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.0253	mg/kg		0.0202	mg/kg	0.00000202 %	✓	
27		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
28		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
29		benzo[ghi]perylene		205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
30		pH			PH		8.12	pH		8.12	pH	8.12 pH		
31		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
33		benzene	601-020-00-8	200-753-7	71-43-2		<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
34		toluene	601-021-00-3	203-625-9	108-88-3		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
35		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
36		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12.2	mg/kg	1.462	14.265	mg/kg	0.00143 %	✓	
											Total:	0.0284 %		

Key

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

Classification of sample: TP13-120821-0.75-0.60

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

Sample details

Sample name:
TP13-120821-0.75-0.60
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.58 mg/kg	1.32	6.262 mg/kg	0.000626 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1.66 mg/kg	1.285	1.813 mg/kg	0.000141 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17.9 mg/kg	1.126	17.13 mg/kg	0.00171 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	30.9 mg/kg	1.56	40.969 mg/kg	0.00263 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		4.41 mg/kg	1.579	5.921 mg/kg	0.000592 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		19 mg/kg	1.785	28.831 mg/kg	0.00288 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		108 mg/kg	2.774	254.667 mg/kg	0.0255 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				0.0299	mg/kg		0.0254	mg/kg	0.00000254 %	✓	
			205-912-4	206-44-0									
21		pyrene				0.0291	mg/kg		0.0247	mg/kg	0.00000247 %	✓	
			204-927-3	129-00-0									
22		benzo[a]anthracene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				0.0189	mg/kg		0.0161	mg/kg	0.00000161 %	✓	
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				0.0267	mg/kg		0.0227	mg/kg	0.00000227 %	✓	
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				8.34	pH		8.34	pH	8.34 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
33		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
34		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
35		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
36		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				8.79	mg/kg	1.462	10.92	mg/kg	0.00109 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0351 %		

Key

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

Classification of sample: TP14-120821--0.50

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

Sample details

Sample name:
TP14-120821--0.50
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.66 mg/kg	1.32	6.352 mg/kg	0.000635 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.0911 mg/kg	1.285	0.0995 mg/kg	0.00000774 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2.8 mg/kg	1.126	2.68 mg/kg	0.000268 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	6.89 mg/kg	1.56	9.135 mg/kg	0.000586 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		2.94 mg/kg	1.579	3.947 mg/kg	0.000395 %	✓	
10	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
11	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		31.1 mg/kg	1.785	47.191 mg/kg	0.00472 %	✓	
12	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		15.6 mg/kg	2.774	36.785 mg/kg	0.00368 %	✓	
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<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									
16		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
17		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
			201-581-5	85-01-8									
18		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		**<LOD**
			204-371-1	120-12-7									
19		fluoranthene				<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		**<LOD**
			205-912-4	206-44-0									
20		pyrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
			204-927-3	129-00-0									
21		benzo[a]anthracene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		**<LOD**
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		**<LOD**
			205-883-8	191-24-2									
29		pH				5.39	pH		5.39	pH	5.39 pH		
				PH									
30		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				19.3	mg/kg	1.462	23.977	mg/kg	0.0024 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0127 %		

Key

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

Classification of sample: TP15-120821--0.20

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

Sample details

Sample name:
TP15-120821--0.20
Moisture content:
13%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.87 mg/kg	1.32	10.189 mg/kg	0.00102 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.237 mg/kg	1.285	0.265 mg/kg	0.0000206 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10.1 mg/kg	1.126	9.893 mg/kg	0.000989 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	15.5 mg/kg	1.56	21.034 mg/kg	0.00135 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9.51 mg/kg	1.579	13.068 mg/kg	0.00131 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		27.4 mg/kg	1.785	42.555 mg/kg	0.00426 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		41.2 mg/kg	2.774	99.437 mg/kg	0.00994 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				0.0361	mg/kg		0.0314	mg/kg	0.00000314 %	✓	
			205-912-4	206-44-0									
21		pyrene				0.0367	mg/kg		0.0319	mg/kg	0.00000319 %	✓	
			204-927-3	129-00-0									
22		benzo[a]anthracene				0.0233	mg/kg		0.0203	mg/kg	0.00000203 %	✓	
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				0.0226	mg/kg		0.0197	mg/kg	0.00000197 %	✓	
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				0.0488	mg/kg		0.0425	mg/kg	0.00000425 %	✓	
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				0.0307	mg/kg		0.0267	mg/kg	0.00000267 %	✓	
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				0.0299	mg/kg		0.026	mg/kg	0.0000026 %	✓	
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				8.09	pH		8.09	pH	8.09 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
33		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
34		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
35		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
36		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				12.8	mg/kg	1.462	16.276	mg/kg	0.00163 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0205 %		

Key

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

Classification of sample: TP16-120821--0.20

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

Sample details

Sample name:
TP16-120821--0.20
Moisture content:
24%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 24% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<3 mg/kg	1.923	<5.769 mg/kg	<0.000577 %		<LOD
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.81 mg/kg	1.32	5.83 mg/kg	0.000583 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.152 mg/kg	1.285	0.148 mg/kg	0.0000116 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8.46 mg/kg	1.126	7.239 mg/kg	0.000724 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	16.7 mg/kg	1.56	19.797 mg/kg	0.00127 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.31 mg/kg	1.579	3.973 mg/kg	0.000397 %	✓	
10	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
11	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		26.5 mg/kg	1.785	35.954 mg/kg	0.0036 %	✓	
12	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		33.7 mg/kg	2.774	71.051 mg/kg	0.00711 %	✓	
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<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									
16		fluorene											
			201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
17		phenanthrene											
			201-581-5	85-01-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
18		anthracene											
			204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		**<LOD**
19		fluoranthene											
			205-912-4	206-44-0		0.0272	mg/kg		0.0207	mg/kg	0.00000207 %	✓	
20		pyrene											
			204-927-3	129-00-0		0.0238	mg/kg		0.0181	mg/kg	0.00000181 %	✓	
21		benzo[a]anthracene											
		601-033-00-9	200-280-6	56-55-3		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		**<LOD**
22		chrysene											
		601-048-00-0	205-923-4	218-01-9		0.0168	mg/kg		0.0128	mg/kg	0.00000128 %	✓	
23		benzo[b]fluoranthene											
		601-034-00-4	205-911-9	205-99-2		0.025	mg/kg		0.019	mg/kg	0.0000019 %	✓	
24		benzo[k]fluoranthene											
		601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		**<LOD**
25		benzo[a]pyrene; benzo[def]chrysene											
		601-032-00-3	200-028-5	50-32-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		**<LOD**
26		indeno[123-cd]pyrene											
			205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		**<LOD**
27		dibenz[a,h]anthracene											
		601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		**<LOD**
28		benzo[ghi]perylene											
			205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		**<LOD**
29		pH											
				PH		6.12	pH		6.12	pH	6.12 pH		
30		phenol											
		604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }											
			215-160-9	1308-38-9		13.8	mg/kg	1.462	15.329	mg/kg	0.00153 %	✓	
										Total:	0.0152 %		

Key

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

Classification of sample: TP17-120821--0.70

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

Sample details

Sample name:
TP17-120821--0.70
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.84 mg/kg	1.32	7.767 mg/kg	0.000777 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.137 mg/kg	1.285	0.151 mg/kg	0.0000118 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8.84 mg/kg	1.126	8.559 mg/kg	0.000856 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	15.8 mg/kg	1.56	21.195 mg/kg	0.00136 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.1 mg/kg	1.579	4.211 mg/kg	0.000421 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		29.6 mg/kg	1.785	45.444 mg/kg	0.00454 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		33.1 mg/kg	2.774	78.969 mg/kg	0.0079 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16		acenaphthene		201-469-6	83-32-9		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
17		fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		phenanthrene		201-581-5	85-01-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
19		anthracene		204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
20		fluoranthene		205-912-4	206-44-0		0.0264	mg/kg		0.0227	mg/kg	0.00000227 %	✓	
21		pyrene		204-927-3	129-00-0		0.0227	mg/kg		0.0195	mg/kg	0.00000195 %	✓	
22		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
23		chrysene	601-048-00-0	205-923-4	218-01-9		0.0163	mg/kg		0.014	mg/kg	0.0000014 %	✓	
24		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.0285	mg/kg		0.0245	mg/kg	0.00000245 %	✓	
25		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
26		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
27		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
28		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
29		benzo[ghi]perylene		205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
30		pH			PH		6.55	pH		6.55	pH	6.55 pH		
31		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
33		benzene	601-020-00-8	200-753-7	71-43-2		<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
34		toluene	601-021-00-3	203-625-9	108-88-3		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
35		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
36		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12.4	mg/kg	1.462	15.586	mg/kg	0.00156 %	✓	
											Total:	0.0174 %		

Key

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

Classification of sample: TP18-120821--0.50

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

Sample details

Sample name:
TP18-120821--0.50
Moisture content:
23%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 23% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		1.25 mg/kg	23.173	22.304 mg/kg	0.00223 %	✓	
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		10.9 mg/kg	1.32	11.081 mg/kg	0.00111 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.434 mg/kg	1.285	0.43 mg/kg	0.0000334 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14.4 mg/kg	1.126	12.484 mg/kg	0.00125 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	16.2 mg/kg	1.56	19.457 mg/kg	0.00125 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13.4 mg/kg	1.579	16.297 mg/kg	0.00163 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		48.1 mg/kg	1.785	66.118 mg/kg	0.00661 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		56.8 mg/kg	2.774	121.33 mg/kg	0.0121 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16		acenaphthene		201-469-6	83-32-9		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
17		fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		phenanthrene		201-581-5	85-01-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
19		anthracene		204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
20		fluoranthene		205-912-4	206-44-0		<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
21		pyrene		204-927-3	129-00-0		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
22		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
23		chrysene	601-048-00-0	205-923-4	218-01-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
24		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
25		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
26		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
27		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
28		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
29		benzo[ghi]perylene		205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
30		pH			PH		6.57	pH		6.57	pH	6.57 pH		
31		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
33		benzene	601-020-00-8	200-753-7	71-43-2		<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
34		toluene	601-021-00-3	203-625-9	108-88-3		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
35		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
36		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		25.8	mg/kg	1.462	29.035	mg/kg	0.0029 %	✓	
											Total:	0.0291 %		

Key

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

Classification of sample: TP19-120821--0.20

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

Sample details

Sample name:
TP19-120821--0.20
Moisture content:
22%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 22% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7.98 mg/kg	1.32	8.218 mg/kg	0.000822 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.214 mg/kg	1.285	0.215 mg/kg	0.0000167 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11.6 mg/kg	1.126	10.187 mg/kg	0.00102 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	30.7 mg/kg	1.56	37.351 mg/kg	0.00239 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		8.63 mg/kg	1.579	10.632 mg/kg	0.00106 %	✓	
10	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
11	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		34.2 mg/kg	1.785	47.622 mg/kg	0.00476 %	✓	
12	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		46.3 mg/kg	2.774	100.186 mg/kg	0.01 %	✓	
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
14	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<LOD
15	acenaphthene		201-469-6	83-32-9		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<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									
16		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
17		phenanthrene				0.0205	mg/kg		0.016	mg/kg	0.0000016 %	✓	
			201-581-5	85-01-8									
18		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		**<LOD**
			204-371-1	120-12-7									
19		fluoranthene				0.057	mg/kg		0.0445	mg/kg	0.00000445 %	✓	
			205-912-4	206-44-0									
20		pyrene				0.0508	mg/kg		0.0396	mg/kg	0.00000396 %	✓	
			204-927-3	129-00-0									
21		benzo[a]anthracene				0.0273	mg/kg		0.0213	mg/kg	0.00000213 %	✓	
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				0.0345	mg/kg		0.0269	mg/kg	0.00000269 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				0.0499	mg/kg		0.0389	mg/kg	0.00000389 %	✓	
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				0.0192	mg/kg		0.015	mg/kg	0.0000015 %	✓	
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				0.0318	mg/kg		0.0248	mg/kg	0.00000248 %	✓	
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				0.0282	mg/kg		0.022	mg/kg	0.0000022 %	✓	
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		**<LOD**
			205-883-8	191-24-2									
29		pH				6.55	pH		6.55	pH	6.55 pH		
				PH									
30		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				16.9	mg/kg	1.462	19.266	mg/kg	0.00193 %	✓	
			215-160-9	1308-38-9									
										Total:	0.022 %		

Key

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

Classification of sample: TP2-120821--0.60

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

Sample details

Sample name:
TP2-120821--0.60
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.2 mg/kg	1.32	9.961 mg/kg	0.000996 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.29 mg/kg	1.285	0.306 mg/kg	0.0000238 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3.8 mg/kg	1.126	3.508 mg/kg	0.000351 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	11.3 mg/kg	1.56	14.453 mg/kg	0.000927 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.94 mg/kg	1.579	5.103 mg/kg	0.00051 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		52 mg/kg	1.785	76.12 mg/kg	0.00761 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		45.1 mg/kg	2.774	102.593 mg/kg	0.0103 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene											
			201-469-6	83-32-9		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
17		fluorene											
			201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		phenanthrene											
			201-581-5	85-01-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
19		anthracene											
			204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
20		fluoranthene											
			205-912-4	206-44-0		<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
21		pyrene											
			204-927-3	129-00-0		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
22		benzo[a]anthracene											
		601-033-00-9	200-280-6	56-55-3		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
23		chrysene											
		601-048-00-0	205-923-4	218-01-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
24		benzo[b]fluoranthene											
		601-034-00-4	205-911-9	205-99-2		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
25		benzo[k]fluoranthene											
		601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
26		benzo[a]pyrene; benzo[def]chrysene											
		601-032-00-3	200-028-5	50-32-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
27		indeno[123-cd]pyrene											
			205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
28		dibenz[a,h]anthracene											
		601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
29		benzo[ghi]perylene											
			205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
30		pH											
				PH		7.41	pH		7.41	pH	7.41 pH		
31		phenol											
		604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
32		dichlorodifluoromethane											
			200-893-9	75-71-8		<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
33		chloromethane; methyl chloride											
		602-001-00-7	200-817-4	74-87-3		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
34		vinyl chloride; chloroethylene											
		602-023-00-7	200-831-0	75-01-4		<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
35		bromomethane; methylbromide											
		602-002-00-2	200-813-2	74-83-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
36		chloroethane											
		602-009-00-0	200-830-5	75-00-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
37		trichlorofluoromethane											
			200-892-3	75-69-4		<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
38		1,1-dichloroethylene; vinylidene chloride											
		602-025-00-8	200-864-0	75-35-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
39		carbon disulphide											
		006-003-00-3	200-843-6	75-15-0		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
40		dichloromethane; methylene chloride											
		602-004-00-3	200-838-9	75-09-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
41		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane											
		603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
42		1,1-dichloroethane											
		602-011-00-1	200-863-5	75-34-3		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
43		2,2-dichloropropane											
			209-832-0	594-20-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
44		bromochloromethane											
			200-826-3	74-97-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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							
45		chloroform; trichloromethane				<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
		602-006-00-4	200-663-8	67-66-3							
46		1,1,1-trichloroethane; methyl chloroform				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		602-013-00-2	200-756-3	71-55-6							
47		1,1-dichloropropene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6							
48		carbon tetrachloride; tetrachloromethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5							
49		1,2-dichloroethane; ethylene dichloride				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2							
50		benzene				<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
51		trichloroethylene; trichloroethene				<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
		602-027-00-9	201-167-4	79-01-6							
52		1,2-dichloropropane; propylene dichloride				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5							
53		dibromomethane				<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
		602-003-00-8	200-824-2	74-95-3							
54		bromodichloromethane				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
			200-856-7	75-27-4							
55		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
56		toluene				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
57		trans-1,3-dichloropropene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6							
58		1,1,2-trichloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5							
59		1,3-dichloropropane				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
			205-531-3	142-28-9							
60		tetrachloroethylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4							
61		dibromochloromethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1							
62		1,2-dibromoethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4							
63		chlorobenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7							
64		1,1,1,2-tetrachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6							
65		ethylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
66		styrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5							
67		bromoform; tribromomethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2							
68		cumene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8							
69		1,1,2,2-tetrachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-015-00-3	201-197-8	79-34-5							
70		1,2,3-trichloropropane				<0.016 mg/kg		<0.016 mg/kg	<0.0000016 %		<LOD
		602-062-00-X	202-486-1	96-18-4							
71		bromobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1							
72		propylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-097-00-8	203-132-9	103-65-1							
73		mesitylene; 1,3,5-trimethylbenzene				<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
		601-025-00-5	203-604-4	108-67-8							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
74		tert-butylbenzene											
			202-632-4	98-06-6		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
75		1,2,4-trimethylbenzene											
		601-043-00-3	202-436-9	95-63-6		<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
76		sec-butylbenzene											
			205-227-0	135-98-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
77		1-isopropyl-4-methylbenzene; p-cymene											
		601-094-00-1	202-796-7	99-87-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
78		1,3-dichlorbenzene											
		602-067-00-7	208-792-1	541-73-1		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
79		1,4-dichlorobenzene; p-dichlorobenzene											
		602-035-00-2	203-400-5	106-46-7		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
80		n-butylbenzene											
			203-209-7	104-51-8		<0.011	mg/kg		<0.011	mg/kg	<0.0000011 %		<LOD
81		1,2-dichlorobenzene; o-dichlorobenzene											
		602-034-00-7	202-425-9	95-50-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
82		1,2-dibromo-3-chloropropane											
		602-021-00-6	202-479-3	96-12-8		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
83		2-methoxy-2-methylbutane; tert-amyl methyl ether											
		603-213-00-2	213-611-4	994-05-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
84		1,2,4-trichlorobenzene											
		602-087-00-6	204-428-0	120-82-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
85		hexachlorobutadiene											
			201-765-5	87-68-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
86		1,2,3-trichlorobenzene											
			201-757-1	87-61-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
87		xylene											
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
88		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]											
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
89		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]											
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]		<0.019	mg/kg		<0.019	mg/kg	<0.0000019 %		<LOD
90		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }											
			215-160-9	1308-38-9		22.2	mg/kg	1.462	26.606	mg/kg	0.00266 %	✓	
										Total:	0.0233 %		

Key

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

Classification of sample: TP3-120821--0.20

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

Sample details

Sample name:
TP3-120821--0.20
Moisture content:
17%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		28.1 mg/kg		28.1 mg/kg	0.00281 %		
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3.93 mg/kg	1.32	4.307 mg/kg	0.000431 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.407 mg/kg	1.285	0.434 mg/kg	0.0000338 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5.16 mg/kg	1.126	4.822 mg/kg	0.000482 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	4.15 mg/kg	1.56	5.373 mg/kg	0.000344 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		2.59 mg/kg	1.579	3.395 mg/kg	0.00034 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		8.38 mg/kg	1.785	12.417 mg/kg	0.00124 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		32.5 mg/kg	2.774	74.833 mg/kg	0.00748 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene											
			201-469-6	83-32-9		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
17		fluorene											
			201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
18		phenanthrene											
			201-581-5	85-01-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
19		anthracene											
			204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
20		fluoranthene											
			205-912-4	206-44-0		<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
21		pyrene											
			204-927-3	129-00-0		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
22		benzo[a]anthracene											
		601-033-00-9	200-280-6	56-55-3		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
23		chrysene											
		601-048-00-0	205-923-4	218-01-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
24		benzo[b]fluoranthene											
		601-034-00-4	205-911-9	205-99-2		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
25		benzo[k]fluoranthene											
		601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
26		benzo[a]pyrene; benzo[def]chrysene											
		601-032-00-3	200-028-5	50-32-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
27		indeno[123-cd]pyrene											
			205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
28		dibenz[a,h]anthracene											
		601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
29		benzo[ghi]perylene											
			205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
30		pH											
				PH		9.26	pH		9.26	pH	9.26 pH		
31		phenol											
		604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
32		dichlorodifluoromethane											
			200-893-9	75-71-8		<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
33		chloromethane; methyl chloride											
		602-001-00-7	200-817-4	74-87-3		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
34		vinyl chloride; chloroethylene											
		602-023-00-7	200-831-0	75-01-4		<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
35		bromomethane; methylbromide											
		602-002-00-2	200-813-2	74-83-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
36		chloroethane											
		602-009-00-0	200-830-5	75-00-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
37		trichlorofluoromethane											
			200-892-3	75-69-4		<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
38		1,1-dichloroethylene; vinylidene chloride											
		602-025-00-8	200-864-0	75-35-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
39		carbon disulphide											
		006-003-00-3	200-843-6	75-15-0		<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
40		dichloromethane; methylene chloride											
		602-004-00-3	200-838-9	75-09-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
41		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane											
		603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
42		1,1-dichloroethane											
		602-011-00-1	200-863-5	75-34-3		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
43		2,2-dichloropropane											
			209-832-0	594-20-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
44		bromochloromethane											
			200-826-3	74-97-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<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							
45		chloroform; trichloromethane				<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
		602-006-00-4	200-663-8	67-66-3							
46		1,1,1-trichloroethane; methyl chloroform				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		602-013-00-2	200-756-3	71-55-6							
47		1,1-dichloropropene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6							
48		carbon tetrachloride; tetrachloromethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5							
49		1,2-dichloroethane; ethylene dichloride				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2							
50		benzene				<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2							
51		trichloroethylene; trichloroethene				<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
		602-027-00-9	201-167-4	79-01-6							
52		1,2-dichloropropane; propylene dichloride				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5							
53		dibromomethane				<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
		602-003-00-8	200-824-2	74-95-3							
54		bromodichloromethane				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
			200-856-7	75-27-4							
55		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
56		toluene				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3							
57		trans-1,3-dichloropropene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6							
58		1,1,2-trichloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5							
59		1,3-dichloropropane				<0.007 mg/kg		<0.007 mg/kg	<0.0000007 %		<LOD
			205-531-3	142-28-9							
60		tetrachloroethylene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4							
61		dibromochloromethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1							
62		1,2-dibromoethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4							
63		chlorobenzene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7							
64		1,1,1,2-tetrachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6							
65		ethylbenzene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4							
66		styrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5							
67		bromoform; tribromomethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2							
68		cumene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8							
69		1,1,2,2-tetrachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-015-00-3	201-197-8	79-34-5							
70		1,2,3-trichloropropane				<0.016 mg/kg		<0.016 mg/kg	<0.0000016 %		<LOD
		602-062-00-X	202-486-1	96-18-4							
71		bromobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1							
72		propylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-097-00-8	203-132-9	103-65-1							
73		mesitylene; 1,3,5-trimethylbenzene				<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		<LOD
		601-025-00-5	203-604-4	108-67-8							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
74		tert-butylbenzene											
			202-632-4	98-06-6		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
75		1,2,4-trimethylbenzene											
		601-043-00-3	202-436-9	95-63-6		<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
76		sec-butylbenzene											
			205-227-0	135-98-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
77		1-isopropyl-4-methylbenzene; p-cymene											
		601-094-00-1	202-796-7	99-87-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
78		1,3-dichlorbenzene											
		602-067-00-7	208-792-1	541-73-1		<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
79		1,4-dichlorobenzene; p-dichlorobenzene											
		602-035-00-2	203-400-5	106-46-7		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
80		n-butylbenzene											
			203-209-7	104-51-8		<0.011	mg/kg		<0.011	mg/kg	<0.0000011 %		<LOD
81		1,2-dichlorobenzene; o-dichlorobenzene											
		602-034-00-7	202-425-9	95-50-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
82		1,2-dibromo-3-chloropropane											
		602-021-00-6	202-479-3	96-12-8		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
83		2-methoxy-2-methylbutane; tert-amyl methyl ether											
		603-213-00-2	213-611-4	994-05-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
84		1,2,4-trichlorobenzene											
		602-087-00-6	204-428-0	120-82-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
85		hexachlorobutadiene											
			201-765-5	87-68-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
86		1,2,3-trichlorobenzene											
			201-757-1	87-61-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
87		xylene											
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
88		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]											
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
89		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]											
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]		<0.019	mg/kg		<0.019	mg/kg	<0.0000019 %		<LOD
90		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }											
			215-160-9	1308-38-9		3.9	mg/kg	1.462	4.731	mg/kg	0.000473 %	✓	
										Total:	0.0136 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 100000 mg/kg (10%) because: Heavy end hydrocarbons unlikely to be flammable at the concentrations noted

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00281%)

Classification of sample: TP4-120821--0.20

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

Sample details

Sample name:
TP4-120821--0.20
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2.49 mg/kg	1.32	2.696 mg/kg	0.00027 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.364 mg/kg	1.285	0.384 mg/kg	0.0000298 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7.23 mg/kg	1.126	6.675 mg/kg	0.000667 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	2.9 mg/kg	1.56	3.709 mg/kg	0.000238 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		2.34 mg/kg	1.579	3.031 mg/kg	0.000303 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		8.69 mg/kg	1.785	12.721 mg/kg	0.00127 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		52 mg/kg	2.774	118.29 mg/kg	0.0118 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
			205-912-4	206-44-0									
21		pyrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			204-927-3	129-00-0									
22		benzo[a]anthracene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				8.35	pH		8.35	pH	8.35 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
33		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
34		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
35		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
36		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				4.61	mg/kg	1.462	5.525	mg/kg	0.000552 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0152 %		

Key

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

Classification of sample: TP5-120821--0.50

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

Sample details

Sample name:
TP5-120821--0.50
Moisture content:
20%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 20% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12.7 mg/kg	1.32	13.415 mg/kg	0.00134 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.145 mg/kg	1.285	0.149 mg/kg	0.0000116 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5.25 mg/kg	1.126	4.729 mg/kg	0.000473 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	8.62 mg/kg	1.56	10.756 mg/kg	0.00069 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		5.62 mg/kg	1.579	7.101 mg/kg	0.00071 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		52 mg/kg	1.785	74.264 mg/kg	0.00743 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		31.9 mg/kg	2.774	70.796 mg/kg	0.00708 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
			205-912-4	206-44-0									
21		pyrene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
			204-927-3	129-00-0									
22		benzo[a]anthracene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		dichlorodifluoromethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
			200-893-9	75-71-8									
33		chloromethane; methyl chloride				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
34		vinyl chloride; chloroethylene				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
35		bromomethane; methylbromide				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
36		chloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
37		trichlorofluoromethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
			200-892-3	75-69-4									
38		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
39		carbon disulphide				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		006-003-00-3	200-843-6	75-15-0									
40		dichloromethane; methylene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-004-00-3	200-838-9	75-09-2									
41		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
42		1,1-dichloroethane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
43		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
44		bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									

#		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									
45		chloroform; trichloromethane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
46		1,1,1-trichloroethane; methyl chloroform				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
47		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
48		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
49		1,2-dichloroethane; ethylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
50		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
51		trichloroethylene; trichloroethene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
52		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
53		dibromomethane				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
54		bromodichloromethane				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
			200-856-7	75-27-4									
55		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
56		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
57		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6									
58		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
59		1,3-dichloropropane				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
			205-531-3	142-28-9									
60		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
61		dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
62		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
63		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
64		1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
65		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
66		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
67		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
68		cumene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8									
69		1,1,2,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-015-00-3	201-197-8	79-34-5									
70		1,2,3-trichloropropane				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
71		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
72		propylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-097-00-8	203-132-9	103-65-1									
73		mesitylene; 1,3,5-trimethylbenzene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		601-025-00-5	203-604-4	108-67-8									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
74		tert-butylbenzene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
			202-632-4	98-06-6									
75		1,2,4-trimethylbenzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
76		sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
77		1-isopropyl-4-methylbenzene; p-cymene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-094-00-1	202-796-7	99-87-6									
78		1,3-dichlorbenzene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
79		1,4-dichlorobenzene; p-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
80		n-butylbenzene				<0.011	mg/kg		<0.011	mg/kg	<0.0000011 %		<LOD
			203-209-7	104-51-8									
81		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
82		1,2-dibromo-3-chloropropane				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
83		2-methoxy-2-methylbutane; tert-amyl methyl ether				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-213-00-2	213-611-4	994-05-8									
84		1,2,4-trichlorobenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
85		hexachlorobutadiene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-765-5	87-68-3									
86		1,2,3-trichlorobenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-757-1	87-61-6									
87		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
88		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
89		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.019	mg/kg		<0.019	mg/kg	<0.0000019 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
90		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				18.4	mg/kg	1.462	21.514	mg/kg	0.00215 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0199 %		

Key

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

Classification of sample: TP6-120821--0.20

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

Sample details

Sample name:
TP6-120821--0.20
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.04 mg/kg	1.32	6.858 mg/kg	0.000686 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.118 mg/kg	1.285	0.13 mg/kg	0.0000101 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13 mg/kg	1.126	12.587 mg/kg	0.00126 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	22.6 mg/kg	1.56	30.317 mg/kg	0.00194 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.8 mg/kg	1.579	5.162 mg/kg	0.000516 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		28.4 mg/kg	1.785	43.601 mg/kg	0.00436 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		28.7 mg/kg	2.774	68.471 mg/kg	0.00685 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				0.0202	mg/kg		0.0174	mg/kg	0.00000174 %	✓	
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				0.0483	mg/kg		0.0415	mg/kg	0.00000415 %	✓	
			205-912-4	206-44-0									
21		pyrene				0.0431	mg/kg		0.0371	mg/kg	0.00000371 %	✓	
			204-927-3	129-00-0									
22		benzo[a]anthracene				0.0245	mg/kg		0.0211	mg/kg	0.00000211 %	✓	
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				0.0326	mg/kg		0.028	mg/kg	0.0000028 %	✓	
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				0.0545	mg/kg		0.0469	mg/kg	0.00000469 %	✓	
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.0164	mg/kg		0.0141	mg/kg	0.00000141 %	✓	
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				0.0315	mg/kg		0.0271	mg/kg	0.00000271 %	✓	
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				0.032	mg/kg		0.0275	mg/kg	0.00000275 %	✓	
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				6.37	pH		6.37	pH	6.37 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		dichlorodifluoromethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
			200-893-9	75-71-8									
33		chloromethane; methyl chloride				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-001-00-7	200-817-4	74-87-3									
34		vinyl chloride; chloroethylene				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
35		bromomethane; methylbromide				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-002-00-2	200-813-2	74-83-9									
36		chloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-009-00-0	200-830-5	75-00-3									
37		trichlorofluoromethane				<0.006	mg/kg		<0.006	mg/kg	<0.0000006 %		<LOD
			200-892-3	75-69-4									
38		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
39		carbon disulphide				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		006-003-00-3	200-843-6	75-15-0									
40		dichloromethane; methylene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-004-00-3	200-838-9	75-09-2									
41		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
42		1,1-dichloroethane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-011-00-1	200-863-5	75-34-3									
43		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
44		bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									

#		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									
45		chloroform; trichloromethane				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
46		1,1,1-trichloroethane; methyl chloroform				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
47		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
48		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
49		1,2-dichloroethane; ethylene dichloride				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-012-00-7	203-458-1	107-06-2									
50		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
51		trichloroethylene; trichloroethene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
52		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
53		dibromomethane				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
54		bromodichloromethane				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
			200-856-7	75-27-4									
55		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
56		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
57		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6									
58		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
59		1,3-dichloropropane				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
			205-531-3	142-28-9									
60		tetrachloroethylene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
61		dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
62		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
63		chlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
64		1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
65		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
66		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
67		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
68		cumene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		601-024-00-X	202-704-5	98-82-8									
69		1,1,2,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-015-00-3	201-197-8	79-34-5									
70		1,2,3-trichloropropane				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
71		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
72		propylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-097-00-8	203-132-9	103-65-1									
73		mesitylene; 1,3,5-trimethylbenzene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		601-025-00-5	203-604-4	108-67-8									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
74		tert-butylbenzene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
			202-632-4	98-06-6									
75		1,2,4-trimethylbenzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
76		sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
77		1-isopropyl-4-methylbenzene; p-cymene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-094-00-1	202-796-7	99-87-6									
78		1,3-dichlorbenzene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
79		1,4-dichlorobenzene; p-dichlorobenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
80		n-butylbenzene				<0.011	mg/kg		<0.011	mg/kg	<0.0000011 %		<LOD
			203-209-7	104-51-8									
81		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
82		1,2-dibromo-3-chloropropane				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
83		2-methoxy-2-methylbutane; tert-amyl methyl ether				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-213-00-2	213-611-4	994-05-8									
84		1,2,4-trichlorobenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
85		hexachlorobutadiene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-765-5	87-68-3									
86		1,2,3-trichlorobenzene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-757-1	87-61-6									
87		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
88		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
89		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.019	mg/kg		<0.019	mg/kg	<0.0000019 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
90		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				13.2	mg/kg	1.462	16.592	mg/kg	0.00166 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0173 %		

Key

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

Classification of sample: TP7-120821--0.90

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

Sample details

Sample name:
TP7-120821--0.90
Moisture content:
18%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		**<LOD**
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		**<LOD**
3	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		**<LOD**
4	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.22 mg/kg	1.32	6.734 mg/kg	0.000673 %	✓	
5	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.484 mg/kg	1.285	0.51 mg/kg	0.0000397 %	✓	
6	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11 mg/kg	1.126	10.156 mg/kg	0.00102 %	✓	
7	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	14.3 mg/kg	1.56	18.29 mg/kg	0.00117 %	✓	
8	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		**<LOD**
9	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9.7 mg/kg	1.579	12.563 mg/kg	0.00126 %	✓	
10	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**
11	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		35 mg/kg	1.785	51.235 mg/kg	0.00512 %	✓	
12	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		237 mg/kg	2.774	539.128 mg/kg	0.0539 %	✓	
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		**<LOD**
14	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		**<LOD**
15	acenaphthene		201-469-6	83-32-9		<0.008 mg/kg		<0.008 mg/kg	<0.0000008 %		**<LOD**

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
16		fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
17		phenanthrene		201-581-5	85-01-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
18		anthracene		204-371-1	120-12-7		<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
19		fluoranthene		205-912-4	206-44-0		<0.017	mg/kg		<0.017	mg/kg	<0.0000017 %		<LOD
20		pyrene		204-927-3	129-00-0		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
21		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
22		chrysene	601-048-00-0	205-923-4	218-01-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
23		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
24		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
25		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.015	mg/kg		<0.015	mg/kg	<0.0000015 %		<LOD
26		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.018	mg/kg		<0.018	mg/kg	<0.0000018 %		<LOD
27		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
28		benzo[ghi]perylene		205-883-8	191-24-2		<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
29		pH			PH		6.75	pH		6.75	pH	6.75 pH		
30		phenol	604-001-00-2	203-632-7	108-95-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20	mg/kg	1.462	23.97	mg/kg	0.0024 %	✓	
											Total:	0.0656 %		

Key

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

Classification of sample: TP8-120821--0.20

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

Sample details

Sample name:
TP8-120821--0.20
Moisture content:
19%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 19% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<3 mg/kg	1.923	<5.769 mg/kg	<0.000577 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		24 mg/kg		24 mg/kg	0.0024 %		
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.15 mg/kg	1.32	6.577 mg/kg	0.000658 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.149 mg/kg	1.285	0.155 mg/kg	0.0000121 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		11.6 mg/kg	1.126	10.579 mg/kg	0.00106 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	24.5 mg/kg	1.56	30.955 mg/kg	0.00198 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		4.56 mg/kg	1.579	5.834 mg/kg	0.000583 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		28.8 mg/kg	1.785	41.645 mg/kg	0.00416 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		37.6 mg/kg	2.774	84.489 mg/kg	0.00845 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.009 mg/kg		<0.009 mg/kg	<0.0000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		<0.012 mg/kg		<0.012 mg/kg	<0.0000012 %		<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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				0.0232	mg/kg		0.0188	mg/kg	0.00000188 %	✓	
			201-581-5	85-01-8									
19		anthracene				<0.016	mg/kg		<0.016	mg/kg	<0.0000016 %		<LOD
			204-371-1	120-12-7									
20		fluoranthene				0.0576	mg/kg		0.0467	mg/kg	0.00000467 %	✓	
			205-912-4	206-44-0									
21		pyrene				0.0508	mg/kg		0.0411	mg/kg	0.00000411 %	✓	
			204-927-3	129-00-0									
22		benzo[a]anthracene				0.0279	mg/kg		0.0226	mg/kg	0.00000226 %	✓	
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				0.0366	mg/kg		0.0296	mg/kg	0.00000296 %	✓	
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				0.0567	mg/kg		0.0459	mg/kg	0.00000459 %	✓	
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				<0.014	mg/kg		<0.014	mg/kg	<0.0000014 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				0.0332	mg/kg		0.0269	mg/kg	0.00000269 %	✓	
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				0.0324	mg/kg		0.0262	mg/kg	0.00000262 %	✓	
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				<0.023	mg/kg		<0.023	mg/kg	<0.0000023 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				<0.024	mg/kg		<0.024	mg/kg	<0.0000024 %		<LOD
			205-883-8	191-24-2									
30		pH				5.62	pH		5.62	pH	5.62 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
33		benzene				<0.18	mg/kg		<0.18	mg/kg	<0.000018 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
34		toluene				<0.14	mg/kg		<0.14	mg/kg	<0.000014 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
35		ethylbenzene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
36		xylene				<0.4	mg/kg		<0.4	mg/kg	<0.00004 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				13	mg/kg	1.462	15.39	mg/kg	0.00154 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0209 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 100000 mg/kg (10%) because: Heavy end hydrocarbons unlikely to be flammable at the concentrations noted

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0024%)

Classification of sample: TP9-120821--0.50

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

Sample details

Sample name:
TP9-120821--0.50
Moisture content:
5.6%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 5.6% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		<1 mg/kg	23.173	<23.173 mg/kg	<0.00232 %		<LOD
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		108 mg/kg		108 mg/kg	0.0108 %		
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.38 mg/kg	1.32	5.459 mg/kg	0.000546 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.215 mg/kg	1.285	0.261 mg/kg	0.0000203 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4.6 mg/kg	1.126	4.889 mg/kg	0.000489 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	66.6 mg/kg	1.56	98.066 mg/kg	0.00629 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.1 mg/kg	1.353	<0.135 mg/kg	<0.0000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		3.15 mg/kg	1.579	4.697 mg/kg	0.00047 %	✓	
11	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
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		12.6 mg/kg	1.785	21.234 mg/kg	0.00212 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		94.2 mg/kg	2.774	246.69 mg/kg	0.0247 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.09 mg/kg		<0.09 mg/kg	<0.000009 %		<LOD
15	acenaphthylene		205-917-1	208-96-8		0.144 mg/kg		0.136 mg/kg	0.0000136 %	✓	

#		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									
16		acenaphthene				0.161	mg/kg		0.152	mg/kg	0.0000152 %	✓	
			201-469-6	83-32-9									
17		fluorene				0.12	mg/kg		0.113	mg/kg	0.0000113 %	✓	
			201-695-5	86-73-7									
18		phenanthrene				1.87	mg/kg		1.765	mg/kg	0.000177 %	✓	
			201-581-5	85-01-8									
19		anthracene				0.755	mg/kg		0.713	mg/kg	0.0000713 %	✓	
			204-371-1	120-12-7									
20		fluoranthene				8.83	mg/kg		8.336	mg/kg	0.000834 %	✓	
			205-912-4	206-44-0									
21		pyrene				8.39	mg/kg		7.92	mg/kg	0.000792 %	✓	
			204-927-3	129-00-0									
22		benzo[a]anthracene				6.41	mg/kg		6.051	mg/kg	0.000605 %	✓	
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				6.84	mg/kg		6.457	mg/kg	0.000646 %	✓	
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				14	mg/kg		13.216	mg/kg	0.00132 %	✓	
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				4.39	mg/kg		4.144	mg/kg	0.000414 %	✓	
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				9.95	mg/kg		9.393	mg/kg	0.000939 %	✓	
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				9.71	mg/kg		9.166	mg/kg	0.000917 %	✓	
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				1.19	mg/kg		1.123	mg/kg	0.000112 %	✓	
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				8.96	mg/kg		8.458	mg/kg	0.000846 %	✓	
			205-883-8	191-24-2									
30		pH				8.33	pH		8.33	pH	8.33 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
33		benzene				<0.009	mg/kg		<0.009	mg/kg	<0.0000009 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
34		toluene				<0.007	mg/kg		<0.007	mg/kg	<0.0000007 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
35		ethylbenzene				<0.004	mg/kg		<0.004	mg/kg	<0.0000004 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
36		xylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				4.66	mg/kg	1.462	6.429	mg/kg	0.000643 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0538 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 100000 mg/kg (10%) because: Heavy end hydrocarbons unlikely to be flammable at the concentrations noted

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0108%)

Classification of sample: TPA/Bonfire-120821--0.10

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

Sample details

Sample name:
TPA/Bonfire-120821--0.10
Moisture content:
33%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 33% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	boron { boron tribromide }	005-003-00-0	233-657-9	10294-33-4		1.47 mg/kg	23.173	22.823 mg/kg	0.00228 %	✓	
2	chromium in Cr(VI) compounds { chromium(VI) oxide }	024-001-00-0	215-607-8	1333-82-0		<0.6 mg/kg	1.923	<1.154 mg/kg	<0.000115 %		<LOD
3	TPH (C6 to C40) petroleum group			TPH		153 mg/kg		153 mg/kg	0.0153 %		
4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				1.33 mg/kg	1.884	1.679 mg/kg	0.000168 %	✓	
5	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		50.9 mg/kg	1.32	45.027 mg/kg	0.0045 %	✓	
6	cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1.64 mg/kg	1.285	1.412 mg/kg	0.00011 %	✓	
7	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		196 mg/kg	1.126	147.852 mg/kg	0.0148 %	✓	
8	lead { lead chromate }	082-004-00-2	231-846-0	7758-97-6	1	120 mg/kg	1.56	125.409 mg/kg	0.00804 %	✓	
9	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
10	nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		54.1 mg/kg	1.579	57.252 mg/kg	0.00573 %	✓	
11	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<10 mg/kg	1.405	<14.05 mg/kg	<0.00141 %		<LOD
12	vanadium { divanadium pentaoxide; vanadium pentoxide }	023-001-00-8	215-239-8	1314-62-1		59.7 mg/kg	1.785	71.406 mg/kg	0.00714 %	✓	
13	zinc { zinc chromate }	024-007-00-3	236-878-9	13530-65-9		376 mg/kg	2.774	698.863 mg/kg	0.0699 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		0.0136 mg/kg		0.0091 mg/kg	0.000000911 %	✓	
15	acenaphthylene		205-917-1	208-96-8		0.0857 mg/kg		0.0574 mg/kg	0.00000574 %	✓	

#		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									
16		acenaphthene				<0.008	mg/kg		<0.008	mg/kg	<0.0000008 %		<LOD
			201-469-6	83-32-9									
17		fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-695-5	86-73-7									
18		phenanthrene				0.0449	mg/kg		0.0301	mg/kg	0.00000301 %	✓	
			201-581-5	85-01-8									
19		anthracene				0.0789	mg/kg		0.0529	mg/kg	0.00000529 %	✓	
			204-371-1	120-12-7									
20		fluoranthene				0.171	mg/kg		0.115	mg/kg	0.0000115 %	✓	
			205-912-4	206-44-0									
21		pyrene				0.197	mg/kg		0.132	mg/kg	0.0000132 %	✓	
			204-927-3	129-00-0									
22		benzo[a]anthracene				0.0794	mg/kg		0.0532	mg/kg	0.00000532 %	✓	
		601-033-00-9	200-280-6	56-55-3									
23		chrysene				0.118	mg/kg		0.0791	mg/kg	0.00000791 %	✓	
		601-048-00-0	205-923-4	218-01-9									
24		benzo[b]fluoranthene				0.862	mg/kg		0.578	mg/kg	0.0000578 %	✓	
		601-034-00-4	205-911-9	205-99-2									
25		benzo[k]fluoranthene				0.191	mg/kg		0.128	mg/kg	0.0000128 %	✓	
		601-036-00-5	205-916-6	207-08-9									
26		benzo[a]pyrene; benzo[def]chrysene				0.223	mg/kg		0.149	mg/kg	0.0000149 %	✓	
		601-032-00-3	200-028-5	50-32-8									
27		indeno[123-cd]pyrene				0.389	mg/kg		0.261	mg/kg	0.0000261 %	✓	
			205-893-2	193-39-5									
28		dibenz[a,h]anthracene				0.0719	mg/kg		0.0482	mg/kg	0.00000482 %	✓	
		601-041-00-2	200-181-8	53-70-3									
29		benzo[ghi]perylene				0.309	mg/kg		0.207	mg/kg	0.0000207 %	✓	
			205-883-8	191-24-2									
30		pH				5.53	pH		5.53	pH	5.53 pH		
				PH									
31		phenol				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
32		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
33		benzene				<0.18	mg/kg		<0.18	mg/kg	<0.000018 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
34		toluene				<0.14	mg/kg		<0.14	mg/kg	<0.000014 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
35		ethylbenzene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
36		xylene				<0.4	mg/kg		<0.4	mg/kg	<0.00004 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
37		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				37.8	mg/kg	1.462	37.015	mg/kg	0.0037 %	✓	
			215-160-9	1308-38-9									
										Total:	0.132 %		

Key

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

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 100000 mg/kg (10%) because: Heavy end hydrocarbons unlikely to be flammable at the concentrations noted

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0153%)

Appendix A: Classifier defined and non GB MCL determinands

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

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

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

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

pH (CAS Number: PH)

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

dichlorodifluoromethane (EC Number: 200-893-9, CAS Number: 75-71-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Aquatic Chronic 3; H412 , Ozone 1; H420 , Press. Gas; H280

trichlorofluoromethane (EC Number: 200-892-3, CAS Number: 75-69-4)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H312 , Ozone 1; H420

2,2-dichloropropane (EC Number: 209-832-0, CAS Number: 594-20-7)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Acute Tox. 4; H312 , Eye Irrit. 2; H319

bromochloromethane (EC Number: 200-826-3, CAS Number: 74-97-5)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H312 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Ozone 1; H420

bromodichloromethane (EC Number: 200-856-7, CAS Number: 75-27-4)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 1A; H360

trans-1,3-dichloropropene (EC Number: 431-460-4, CAS Number: 10061-02-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Acute Tox. 3; H301 , Asp. Tox. 1; H304 , Acute Tox. 3; H311 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , Aquatic Chronic 1; H410

1,3-dichloropropane (EC Number: 205-531-3, CAS Number: 142-28-9)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335

dibromochloromethane (EC Number: 204-704-0, CAS Number: 124-48-1)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT SE 3; H336 , Muta. 2; H341 , Aquatic Chronic 2; H411

1,1,1,2-tetrachloroethane (EC Number: 211-135-1, CAS Number: 630-20-6)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Carc. 2; H351 , Acute Tox. 4; H312 , Aquatic Chronic 3; H412 , Skin Irrit. 2; H315

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

tert-butylbenzene (EC Number: 202-632-4, CAS Number: 98-06-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Acute Tox. 4; H332 , STOT SE 3; H335 , Asp. Tox. 1; H304 , Aquatic Chronic 2; H411

sec-butylbenzene (EC Number: 205-227-0, CAS Number: 135-98-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Chronic 2; H411

n-butylbenzene (EC Number: 203-209-7, CAS Number: 104-51-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

hexachlorobutadiene (EC Number: 201-765-5, CAS Number: 87-68-3)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 2; H310 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 2; H330 , Carc. 2; H351 , Repr. 2; H361 , STOT SE 2; H371 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

1,2,3-trichlorobenzene (EC Number: 201-757-1, CAS Number: 87-61-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 3; H410

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

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

Appendix B: Rationale for selection of metal species

boron {boron tribromide}

worst-case

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

Most likely worst-case

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

Most likely worst-case

arsenic {arsenic trioxide}

Most likely worst-case

cadmium {cadmium sulfide}

Most likely worst-case

copper {dicopper oxide; copper (I) oxide}

Most likely worst-case

lead {lead chromate}

worst-case

mercury {mercury dichloride}

Most likely worst-case

nickel {nickel dihydroxide}

Most likely worst-case

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

Most likely worst-case

vanadium {divanadium pentaoxide; vanadium pentoxide}

Most likely worst-case

zinc {zinc chromate}

worst-case

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

worst case

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2025.195.6709.12171 (14 Jul 2025)
HazWasteOnline Database: 2025.195.6709.12171 (14 Jul 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

Waste Classification Report

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

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

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

ZKTP1-32H29-1F6RE

Report is invalid if pages are removed.

Job name

GWPR6594 Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY

Description/Comments

Project

GWPR6594

Site

Cockpit Barn, Knowle Lane, Horton Heath SO50 7DY

Classified by

Name:	Company:
Roger Foord	**Ground and Water**
Date:	**2 The Long Barn, Norton Farm**
14 Jul 2025 17:16 GMT	**Selborne Road**
Telephone:	**Alton**
0333 600 1221	**GU34 3NB**

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

HazWasteOnline™ Certification: -

Course	Date
Hazardous Waste Classification	-

Purpose of classification

2 - Material Characterisation

Address of the waste

Cockpit Barn, Knowle Lane, Horton Heath **Post Code** SO50 7DY

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Redevelopment of barn.

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

Waste created during foundation excavations

Description of the waste

Made Ground comprising dark brown gravelly fine to coarse SAND. Gravel was angular to sub-rounded fine to coarse flint, brick and concrete.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	TP2--19052025-0.20		Non Hazardous		3
2	TP3--19052025-0.20		Non Hazardous		5
3	TP4--19052025-0.20		Non Hazardous		7
4	TP5--19052025-0.20		Non Hazardous		9
5	TP3--19052025-1.50		Non Hazardous		11
6	TP4--19052025-1.00		Non Hazardous		12
7	TP5--19052025-0.80		Non Hazardous		13

Related documents

#	Name	Description
1	25-027450_HWOL.hwol	i2 Analytical .hwol file used to populate the Job

Report

Created by: Roger Foord

Created date: 14 Jul 2025 17:16 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	14
Appendix B: Rationale for selection of metal species	15
Appendix C: Version	15

Classification of sample: TP2--19052025-0.20

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

Sample details

Sample name:
TP2--19052025-0.20
Moisture content:
11%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		10 mg/kg		8.9 mg/kg	0.00089 %	✓	
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
5	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
6	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
7	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
8	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
9	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
10	chrysene	601-048-00-0	205-923-4	218-01-9		0.05 mg/kg		0.0445 mg/kg	0.00000445 %	✓	
11	fluoranthene		205-912-4	206-44-0		0.1 mg/kg		0.089 mg/kg	0.0000089 %	✓	
12	fluorene		201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	phenanthrene		201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	pyrene		204-927-3	129-00-0		0.09 mg/kg		0.0801 mg/kg	0.00000801 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
								Total:	0.00091 %		

Key

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

Classification of sample: TP3--19052025-0.20

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

Sample details

Sample name:
TP3--19052025-0.20
Moisture content:
7.1%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 7.1% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		9.2 mg/kg		8.547 mg/kg	0.000855 %	✓	
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
5	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
6	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.06 mg/kg		0.0557 mg/kg	0.00000557 %	✓	
7	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.08 mg/kg		0.0743 mg/kg	0.00000743 %	✓	
8	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
9	benzo[ghi]perylene		205-883-8	191-24-2		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
10	chrysene	601-048-00-0	205-923-4	218-01-9		0.07 mg/kg		0.065 mg/kg	0.0000065 %	✓	
11	fluoranthene		205-912-4	206-44-0		0.1 mg/kg		0.0929 mg/kg	0.00000929 %	✓	
12	fluorene		201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	phenanthrene		201-581-5	85-01-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
16	pyrene		204-927-3	129-00-0		0.08 mg/kg		0.0743 mg/kg	0.00000743 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
								Total:	0.00089 %		

Key

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

Classification of sample: TP4--19052025-0.20

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

Sample details

Sample name:
TP4--19052025-0.20
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		9.7 mg/kg		8.73 mg/kg	0.000873 %	✓	
2	acenaphthylene		205-917-1	208-96-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
3	acenaphthene		201-469-6	83-32-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
4	anthracene		204-371-1	120-12-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
5	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
6	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.11 mg/kg		0.099 mg/kg	0.0000099 %	✓	
7	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.15 mg/kg		0.135 mg/kg	0.0000135 %	✓	
8	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.07 mg/kg		0.063 mg/kg	0.0000063 %	✓	
9	benzo[ghi]perylene		205-883-8	191-24-2		0.09 mg/kg		0.081 mg/kg	0.0000081 %	✓	
10	chrysene	601-048-00-0	205-923-4	218-01-9		0.15 mg/kg		0.135 mg/kg	0.0000135 %	✓	
11	fluoranthene		205-912-4	206-44-0		0.27 mg/kg		0.243 mg/kg	0.0000243 %	✓	
12	fluorene		201-695-5	86-73-7		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
13	indeno[123-cd]pyrene		205-893-2	193-39-5		0.07 mg/kg		0.063 mg/kg	0.0000063 %	✓	
14	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
15	phenanthrene		201-581-5	85-01-8		0.17 mg/kg		0.153 mg/kg	0.0000153 %	✓	
16	pyrene		204-927-3	129-00-0		0.24 mg/kg		0.216 mg/kg	0.0000216 %	✓	
17	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
								Total:	0.00099 %		

Key

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

Classification of sample: TP5--19052025-0.20

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

Sample details

Sample name:
TP5--19052025-0.20
Moisture content:
10%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 10% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic }	033-001-00-X	231-148-6	7440-38-2		9	mg/kg		8.1	mg/kg	0.00081 %	✓	
2		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
3		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
4		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
5		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
6		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
7		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
8		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
9		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
10		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
11		fluoranthene		205-912-4	206-44-0		0.05	mg/kg		0.045	mg/kg	0.0000045 %	✓	
12		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
13		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
14		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
15		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
16		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
17		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
											Total:	0.00081 %		

Key

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

Classification of sample: TP3--19052025-1.50

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

Sample details

Sample name:
TP3--19052025-1.50
Moisture content:
14%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	pH				7.7 pH		7.7 pH	7.7 pH		
				PH							
								Total:	0%		

Key

	User supplied data
●	Determinand defined or amended by HazWasteOnline (see Appendix A)

Classification of sample: TP4--19052025-1.00

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

Sample details

Sample name:
TP4--19052025-1.00
Moisture content:
13%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH		PH		8.1 pH		8.1 pH	8.1 pH		
								Total:	0%		

Key

	User supplied data
	Determinand defined or amended by HazWasteOnline (see Appendix A)

Classification of sample: TP5--19052025-0.80

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

Sample details

Sample name:
TP5--19052025-0.80
Moisture content:
15%
(wet weight correction)

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

Hazard properties

None identified

Determinands

Moisture content: 15% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	pH				7.3 pH		7.3 pH	7.3 pH		
				PH							
								Total:	0%		

Key

	User supplied data
●	Determinand defined or amended by HazWasteOnline (see Appendix A)

Appendix A: Classifier defined and non GB MCL determinands

arsenic (EC Number: 231-148-6, CAS Number: 7440-38-2)

GB MCL index number: 033-001-00-X
Description/Comments: Worst Case: IARC considers arsenic Group 1; Carcinogenic to humans
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

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

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

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

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

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

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

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

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

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

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

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

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

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

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

pH (CAS Number: PH)

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic}

Most likely worst case.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2025.192.6704.12164 (12 Jul 2025)
HazWasteOnline Database: 2025.192.6704.12164 (12 Jul 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