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GEO-ENVIRONMENTAL & GEOTECHNICAL ASSESSMENT (GROUND INVESTIGATION) REPORT

Meadow Road
Reading
RG1 8LB



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EXECUTIVE SUMMARY

Site Details	**Site Address**	Meadow Road, Reading RG1 8LB
	National Grid Reference	E:470962, N:174200
	Site Area	0.95ha
	Proposed Development	It is understood that the proposed development currently involves the demolition of the existing industrial units, and the construction of 4No. new industrial structures, comprising 11No units, with associated external parking, roadways and lorry loading areas.
Encountered Conditions	**Scope of Works**	The assessment incorporated a desk study to determine the site's setting to inform a preliminary risk assessment followed by an intrusive investigation to confirm the ground and groundwater conditions and support the development of a geotechnical and geo-environmental assessment.
	Ground Conditions	The ground conditions encountered broadly consistent with those anticipated from the desk study, and comprised Made Ground to depths of up to 4.00m, underlain by Alluvium to depths of up to 4.50m, underlain by Kempton Park Gravel Member to around 11.10m, underlain by the Undifferentiated Chalk to the base of the boreholes (maximum depth of 15.00m).
	Groundwater	During the investigation groundwater was reported within the Window Sample boreholes between 1.70m and 3.00mbgl and within the Cable Percussive Boreholes between 1.20m and 4.50mbgl. During return monitoring groundwater was reported at depths of between 2.51m and 2.95mbgl.
Geo-environmental Assessment Summary and Recommendations		Following generic risk assessments, elevated concentrations of lead, nickel and PAH'S were detected in soils in excess of generic assessment criteria for the protection of human health within a commercial end-use scenario. No asbestos containing materials or fibres were detected in the Made Ground samples analysed in the laboratory. Further investigation is recommended in the vicinity of WS5 in order to attempt to determine and delineate the source of the highly elevated naphthalene concentrations reported. It is also recommended that further investigation is undertaken in the vicinity of BH3 at the same time, in an attempt to identify a potential source of the elevated VOCs recorded during monitoring visit 1. Further investigation and possible localised remediation in these areas is intended to mitigate potential risks to controlled waters and vapour inhalation. The risk to controlled waters from soils is considered generally low. The elevated naphthalene concentrations in the vicinity of WS5 require further investigation as discussed above. Based on the calculated GSV's and consistently elevated concentrations of carbon dioxide at the site has been classified as Characteristic Situation 2 in accordance with BS8485, meaning basic gas protection measures are required. See Section 8 for details. Upgraded potable water supply pipe materials are likely to be required. The water supply pipe requirements for this site should be discussed at an early stage with the relevant utility provider. Preliminary waste classification indicates the Made Ground to be hazardous waste and the natural soils as non-hazardous for disposal purposes, however both exceed criteria for inert waste landfill. As with any ground investigation, the presence of further hotspots between sampling points cannot be ruled out, and caution must be exercised during construction works. Should any contamination be encountered, a suitably qualified environmental consultant should be informed immediately, so that adequate measures may be recommended.

Geotechnical Considerations	**Foundations**	Based on the ground and groundwater conditions encountered, a piled foundation would be suitable and indicative pile carrying capacities are given in Table 11.1.
	Sulphates	Buried concrete for foundations should be designed to Class DS-2 (AC-1s) within the Made Ground and DS-1, AC-1 within the natural soils
	Ground Floor Slabs	Given the presence of shrinkable soils and likely piling, it is recommended that suspended floor slabs are used with an adequate void designed according to NHBC Standards. As a guide, initial modelling indicates a requirement for a sub-floor void of at least 250mm due to the presence of shrinkable soils of medium volume change potential.
	Excavations	Temporary excavations within the Made Ground and granular soils are unlikely to remain stable and some form of temporary support or battering back to a safe angle is likely to be required. Temporary excavations within the cohesive soils are likely to remain relatively stable in the short term though some spalling may be anticipated. Subject to seasonal variations, surface water/groundwater encountered during site works could likely be dealt with by conventional pumping from a sump used to collate waters.
	Road Pavements	Preliminary CBR design values of 2.5% is recommended for pavements constructed within the Made Ground and Alluvium, respectively.
	Surface Water Drainage	Based on the results of in-situ testing, and ground conditions encountered, conventional soakaways are not likely to be suitable and an alternative drainage solution should be sought.
Recommended Further Work		The following works are recommended: • Additional investigation and assessment into the potential vapour risk from naphthalene within the soils at WS5 and VOCs recorded at BH3 during monitoring. • Submit chemical testing results to appropriate waste facility to confirm waste classification. • Due to the use of deep foundations and the underlying Principal Aquifer an EA Piling Risk Assessment may be required. • Seek approval of the Generic Quantitative Risk Assessment and Soil Gas Assessment from the Local Authority, NHBC and other relevant stakeholders. • Provision of a Remediation Options Appraisal, Strategy & Verification Plan. • Seek confirmation of the water supply pipe requirements by the appropriate service provider.
This Executive Summary is intended to provide a brief summary of the main findings and conclusions of the investigation. For detailed information, the reader is referred to the main report ref. P6365J3196.		

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 CBRE IM Ltd ("The Client") has commissioned Jomas Associates Ltd ('Jomas') to undertake an investigation of the geotechnical and geo-environmental factors pertaining to the proposed development at a site referred to as Meadow Road, Reading RG1 8LB (herein referred to as 'the site').

1.1.2 A Phase 1 Desk Study has been produced for the site and issued separately (detailed in Table 1.1 below), followed by an intrusive investigation (detailed in this report).

1.1.3 An intrusive investigation has been undertaken in accordance with Jomas' proposal dated 8th January 2025.

1.2 Proposed Development

1.2.1 The proposed development currently involves the demolition of the existing industrial units, and the construction of 4No. new industrial structures, comprising 11No units, with associated external parking, roadways and lorry loading areas.

1.2.2 For the purpose of geo-environmental assessment and selection of generic assessment criteria, the development is considered "commercial"

1.2.3 A plan of the proposed development is provided as Figure 3.

1.2.4 For the purpose of geotechnical assessment, it is considered that the project could be classified as a Geotechnical Category (GC) 2 site in accordance with BS EN 1997.

1.3 Objectives

1.3.1 The objectives of Jomas' investigation are as follows:

- To undertake an intrusive investigation, to determine the ground and groundwater conditions as well as to assess the nature and extent of contaminants (if any) potentially present at the site.
- To establish the presence of significant pollutant linkages, in accordance with the procedures set out within Part IIA of the Environmental Protection Act 1990, associated statutory guidance and current best practice including the EA land contamination risk management (LCRM); and,
- To determine soil properties to inform the preliminary geotechnical assessment for foundations, drainage, excavation stability, pavement design and buried concrete and recommendations for further action (if required).

1.4 Scope of Works

1.4.1 The following tasks were undertaken to achieve the objectives listed above:

- Intrusive ground investigation to determine shallow ground conditions, and potential for contamination to be present at the site.

- Soil infiltration testing.
- Undertaking of laboratory chemical and geotechnical testing upon samples obtained.
- Return ground gas/groundwater monitoring including one round of water sampling using low flow equipment.
- The compilation of this report, which collects and discusses the above data, and presents an assessment of the site conditions, conclusions and recommendations.

1.5 Previous/Supplied Documentation

1.5.1 A Desk Study/Preliminary Risk Assessment Report prepared by Jomas Associates prior to the commencement of this investigation are detailed in Table 1.1:

Table 1.1: Previous/Supplied Reports

Title	Author	Reference	Date
Desk Study/Preliminary Risk Assessment Report for Meadow Road, Reading RG1 8LB	Jomas Associates Ltd	P6365J3196/CLP	18th June 2025

1.5.2 Jomas is not aware of any previous intrusive investigation works that have been undertaken on the site.

1.6 Limitations

1.6.1 Jomas has prepared this report for the sole use of CBRE IM Ltd, in accordance with the generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of Jomas. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.

1.6.2 The records search was limited to information available from public sources; this information is changing continually and frequently incomplete. Unless Jomas has actual knowledge to the contrary, information obtained from public sources or provided to Jomas by site personnel and other information sources, have been assumed to be correct. Jomas does not assume any liability for the misinterpretation of information or for items not visible, accessible or present on the subject property at the time of this study.

1.6.3 Whilst every effort has been made to ensure the accuracy of the data supplied, and any analysis derived from it, there may be conditions at the site that have not been disclosed by the investigation and could not therefore be taken into account. As with any site, there may be differences in soil conditions between exploratory hole positions. Furthermore, it should be noted that groundwater conditions may vary due to seasonal and other effects and may at times be significantly different from those measured by the investigation. No liability can be accepted for any such variations in these conditions.

1.6.4 Any reports provided to Jomas have been reviewed in good faith. Jomas cannot be held liable for any errors or omissions in these reports, or for any incorrect interpretation contained within them.

1.6.5 This investigation and report has been carried out in accordance with the relevant standards and guidance in place at the time of the works. Future changes to these may require a re-assessment of the recommendations made within this report.

1.6.6 **This report is not an engineering design and the figures and calculations contained in the report should be used by the Structural Engineer, taking note that variations may apply, depending on variations in design loading, in techniques used, and in site conditions. Our recommendations should therefore not supersede the Engineer's design.**

2 DESK STUDY SUMMARY

2.1 Site Information

2.1.1 The site location plan is appended to this report in Figure 1, Appendix 1.

Table 2.1: Site Information

Address of Site	Meadow Road Reading RG1 8LB
Approx. National Grid Ref.	470962 174200
Site Area (Approx)	0.95ha
Site Occupation	4No. occupied industrial units and external car parking.
Local Authority	Reading Borough Council
Proposed Site Use	The proposed development currently involves the demolition of the existing industrial units, and the construction of 4No. new industrial structures, comprising 11No units, with associated external parking, roadways and lorry loading areas.

2.2 Site Walkover

2.2.1 A site walkover survey was undertaken by Jomas Associates on 4th June 2025.

Table 2.2: Site Description

Area	Item	Details
On-site:	**Current Uses:**	The site was occupied by 4No. industrial units with external parking and a large area of gravel covered open space in the east of the site. The gravel covered open space was being utilised as parking for buses and cars, assumed to be used by the vehicle workshop. The other industrial units were occupied by Phantom Brewing and Rocco Brand Group. Waste appeared to be well handled with specific storage areas around the site.
	Evidence of historic uses:	There was no evidence of historic uses of the site, however the footprint/base of a previous building/structure appears to be present in the north-east.
	Surfaces:	Much of the site was hard cover either by the industrial unit's footprint or by the concrete spaces in front of the industrial units and large gravel covered open space. There was limited soft landscaping on site, much of which contained dense and small shrubs along the boundaries. The hard cover was a mixture of concrete and asphalt.
	Vegetation:	Large and small shrubs situated by the entrance to the site in the east, adjacent to the vehicle workshop and to the east of the site.

Area	Item	Details
	Topography/Slope Stability:	The site was relatively flat with no significant changes across the site. Small slopes were present leading onto the site in the south-east access points and in front of the vehicle workshop. The gravel covered car parking area in the east of the site was raised at a slightly higher level than the surrounding site, by a concrete slope.
	Drainage:	The site appeared to be connected to normal drainage facilities with drains surrounding the outside of the industrial units. Drain covers were situated around the site. A cap of a possible drainage pipe was raised above ground level, near the entrance to the site. No obvious evidence of drainage issues.
	Services:	There was an electricity sub-station located in the east and the north-west of the site. The site is assumed to be connected to other communication services as well.
	Controlled waters:	No controlled waters were noted on site.
	Tanks:	No tanks were noted during the walkover.
Neighbouring land:	**North:**	Residential building, industrial units and a park.
	East:	Residential buildings and associated gardens.
	South:	Residential buildings and associated gardens.
	West:	Industrial units including vehicle repair businesses and 'pack & send'.

2.2.2 Although no tanks were observed on during the site walkover, the utilities surveyor identified a potential underground storage tank on site, as discussed in section 3.

2.3 Summary of Preliminary Risk Assessment (Desk Study)

2.3.1 As detailed in Table 1.1, a Phase 1 Desk Study report has been produced for the site and issued separately (Jomas Associates Ltd – P6365J3196/CLP – 18th June 2025). The findings of the Phase 1 Desk Study are presented in the following section. Reference should be made to the original reports and documents for further details. Comments made in the following section regarding possible ground conditions on the site and within the surrounding area are based purely on the desk study. Where appropriate, this information will be used in the later sections of this report as supplementary information to assist in the evaluation of the ground conditions and aid the identification of geotechnical and geo-environmental constraints and hazards that could impact on the scheme.

2.3.1 A review of earliest available (1877) historical maps indicated that the site comprised unoccupied fields. By the map dated 1932, the site was shown to be occupied by a small industrial style building. Few changes occurred to the site until the map dated 1958 by which time a larger works building replaced the previous, later identified as an engineering works. By the map dated 1971, a warehouse and builders' yard are shown present in the west of the site, a coal yard is shown in the north of the site and runs through the north of the site, labelled "Ross Road".

2.3.2 By the map dated 1979 the warehouse building had expanded, the coal yard in the north had been converted to a depot, and by 1989 the building in the north-west corner of site had been demolished. In 2010, it appears "Ross Road" no longer extended onto the site. No further changes were noted on site until the most recent 2025 map where the central works building appeared to have been demolished. Current site uses at the time of the desk study included a food wholesalers, a brewery company and a vehicle workshop business occupying a large gravel covered open space.

2.3.3 The surrounding area comprised predominantly unoccupied fields from the earliest available map dated 1877, with a railway located 200m south of the site. From 1900, the area to the east of site was dominated by residential buildings and associated gardens. In 1912, a printing works was developed 40m south of site, later extending to 10m south of the site. There were no further significant changes surrounding site until the map dated 1971 where the area to the north and west were dominated by industrial style buildings including a chemical works 90m to the west, and many warehouses and factories.

2.3.4 Information provided by the British Geological Survey indicated that the site is directly underlain by superficial deposits of the Langley Silt Member. These are reportedly underlain by further superficial deposits of the Kempton Gravel Park Member. These superficial deposits are reportedly underlain by bedrock deposits of the Seaford and Newhaven Chalk Formations.

2.3.5 The superficial deposits directly underlying the site were identified as unproductive and Secondary A aquifer, with the underlying solid deposits identified as a Principal Aquifer.

2.3.6 A review of the Enviro+Geoinsight Report indicated that there were no source protection zones within 500m of the site.

2.3.7 There were 19No groundwater abstractions reported within 2km; nearest 4No entries were for commercial/industrial/public services and non-evaporative cooling, 71m south-west. 2No of which were active. There were 5No potable water abstractions reported within 2km; nearest active entry is for commercial, industrial and public services, 71m south-west.

2.3.8 There were no active surface water abstractions within 2km of site.

2.3.9 The nearest detailed river entry was for the River Thames reported 227m north-west of the site. The site was reported to be located within an Environment Agency Zone 2.

2.3.10 The desk study recommended an intrusive investigation to clarify potential risks to the identified receptors and assess the extent of Made Ground soils present at the site, as well as confirm the underlying ground conditions to determine whether a potential pathway into the underlying chalk, is present.

2.3.11 The conceptual site model is reproduced in Table 2.3 overleaf.

Table 2.3: Preliminary Risk Assessment for the Site

Sources	Pathways (P)	Receptors	Consequence of Impact	Probability of Impact	Risk Estimation	Hazard Assessment
• Potential for contaminated ground associated with previous and existing site use – on site (S1) Previous: ○ Engineering works ○ Warehouse ○ Builders yard ○ Coal yard ○ Depot ○ Ross Road Existing: ○ Vehicle sales and cleaning. ○ Phantom brewing. • Current and previous industrial use – off site (S2) ○ Works adjacent to the south-east ○ Engineering works 50m north ○ Printing works 40m south ○ Industrial style buildings north, north-west and east of site, nearest 70m. ○ Numerous tanks; nearest 70m north-west. ○ Chemical works 90m west ○ Coal depot 100m south-west and 350m east ○ Works and warehouse buildings; nearest 225m east ○ Railway 250m south • Potential for Made Ground associated with previous development operations – on site (S3) ○ Buildings and Ross Road • Potential asbestos containing materials within existing buildings and associated with demolition of previous buildings – on site (S4)	• Ingestion and dermal contact with contaminated soil (P1) • Inhalation or contact with potentially contaminated dust and vapours (P2) • Permeation of water pipes and attack on concrete foundations by aggressive soil conditions (P6)	• Construction workers (R1) • Maintenance workers (R2) • Neighbouring site users (R3) • Future site users (R4) • Building foundations and on site buried services (water mains, electricity and sewer) (R5)	Medium	Likely	Moderate	GI – Ground Investigation
			Severe for Asbestos	Low likelihood	Moderate for Asbestos	
	• Accumulation and migration of soil gases (P5)		Severe	Unlikely	Moderate/Low	
	• Leaching through permeable soils, migration within the vadose zone (i.e., unsaturated soil above the water table) and/or lateral migration within surface water, as a result of cracked hardstanding or via service pipe/corridors and surface water runoff (P3) • Horizontal and vertical migration of contaminants within groundwater (P4)	• Neighbouring site users (R3) • Building foundations and on site buried services (water mains, electricity and sewer) (R5) • Controlled Waters (R6) ○ Secondary and Principal Aquifers. ○ River Thames 227m north-east.	Medium	Unlikely	Low	

3 GROUND INVESTIGATION

3.1 Scope of Works

3.1.1 A ground investigation was undertaken on the 23rd to the 27th of June 2025.

3.1.2 A summary of the fieldwork carried out at the site, with justifications for exploratory hole positions, is presented in Table 3.1 below.

Table 3.1: Scope of Intrusive Investigation

Investigation Type	Number of Exploratory Holes Achieved	Exploratory Hole Designation	Depth Achieved	Justification
Windowless Sample Boreholes	8	WS1-7 and WS9	Up to 5mbgl	Obtain shallow samples for laboratory chemical and geotechnical testing. To allow in-situ geotechnical testing. WS1 and WS9 were positioned within the vicinity of electrical sub-stations. WS6 and WS7 were positioned within the vicinity of a potential underground tank. The remaining boreholes were positioned across the site to provide a non-targeted spread of information.
Cable Percussion Boreholes	3	BH1-3	Up to 15mbgl	Obtain deeper samples for laboratory geotechnical testing. To allow in-situ geotechnical testing.
Machine Excavated Trial Pits	4	TP1 - 4	Up to 3.3mbgl	Obtain shallow samples for laboratory chemical and geotechnical testing. To allow soil infiltration testing within TP1 and TP3.
Monitoring Wells	5	WS1, WS6 & BH1-3	Up to 5mbgl	Gas and groundwater monitoring wells.

3.1.3 The ground investigation was undertaken in accordance with British Standard BS5930:2015+A1:2020 “Code of practice for ground investigations”, British Standard BS10175:2011+A2:2017 “Investigation of potentially contaminated sites - code of practice”, NHBC Standards, Chapter 4.1 and AGS Guidelines for Good Practice in Site Investigations.

3.1.4 During the setting out of site locations prior to work, the utilities surveyor identified an underground tank located in the north of site, as shown in Figure 2, Appendix 1. WS6 borehole was located adjacent to the potential tank. WS7 was located approximately 5m south-east to target the ground within the proximity of the tank.

3.1.5 Exploratory hole positions are shown on the exploratory hole location plan presented in Figure 2, Appendix 1. The exploratory hole records are included in Appendix 2.

3.1.6 Where monitoring well installations were not installed, the exploratory holes were backfilled with the arisings (in the reverse order in which they were drilled) and the ground surface was reinstated so that no depression was left.

3.2 Sampling Rationale

3.2.1 Our soil sampling rationale for the site investigation was developed with reference to EA guidance 'Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination' (Technical Report P5-066/TR).

3.2.2 The exploratory holes were positioned by applying a combined non-targeted sampling strategy, as well as sample locations positioned with reference to sources identified from the desk study.

3.2.3 Soil samples were taken from across the site at various depths as shown in the exploratory hole logs.

3.2.4 Jomas Associates Limited's engineers normally collect samples at appropriate depths based on field observations such as:

- appearance, colour and odour of the strata and other materials, and changes in these.
- the presence or otherwise of sub-surface features such as pipework, tanks, foundations and walls; and.
- areas of obvious damage, e.g. to the building fabric.

3.2.5 A number of the samples were taken from the top 0-1m to aid in the assessment of the pollutant linkages identified at the site. In addition, some deeper samples were taken to aid in the interpretation of fate and transport of any contamination identified.

3.2.6 Samples were stored in cool boxes (<4^{o}C) and preserved in accordance with laboratory guidance.

3.2.7 During return groundwater monitoring visits, where groundwater samples are taken, all boreholes were purged of three well volumes prior to obtaining the sample for testing. This removes stagnant groundwater from the monitoring well.

3.2.8 Groundwater strikes noted during drilling, are recorded within the exploratory hole records in Appendix 2.

3.3 In-situ Geotechnical Testing

3.3.1 In-situ geotechnical testing included Standard Penetration Tests. The determined 'N' values have been used to determine the relative density of granular materials and have been used with standard correlations to infer various other derived geotechnical parameters including the undrained shear strength of the cohesive strata. The results of the individual tests are on the appropriate exploratory hole logs in Appendix 2.

3.3.2 In-situ California Bearing Ratios (CBRs) were determined using a TRL dynamic cone penetrometer (DCP) and the methodology laid out in IAN 73/06. The CBR values have then been calculated using the methodology laid out in both IAN 73/06 and TRL 587. Copies of the test results and calculations are provided in Appendix 5.

3.3.3 The determination of infiltration rates for the underlying ground was undertaken by carrying out tests in general accordance with BRE 365. Copies of the results and calculations are provided in Appendix 6.

3.4 Laboratory Analysis

3.4.1 A programme of laboratory testing, scheduled by Jomas Associates Limited, was carried out on selected samples of Made Ground and natural strata.

Chemical Testing

3.4.2 Chemical testing of soils was undertaken by Construction Testing Solutions Limited, which holds UKAS and MCERTS accreditations for a wide range of determinands.

3.4.3 The samples were analysed for a wide range of contaminants as shown in Table 3.2 below:

Table 3.2: Chemical Tests Scheduled

	No. of tests	
Test Suite	**Made Ground**	**Natural**
Basic Suite 3	12	-
Basic Suite 5	3	2
Hydrocarbon Suite	3	2
Soil Organic Matter	3	-
Jomas Modified BRE SD-1 Suite	1	8
PCBs	2	-
Asbestos Screen & ID	14	2
Waste Acceptance Criteria	5	1

3.4.4 The determinands contained in the Basic Suite 3 are as detailed in Table 3.3 below. Basic Suite 5 contains the same determinands but without the hydrocarbon compounds to avoid overlapping with the extended hydrocarbon testing.

3.4.5 The Hydrocarbon Suite includes TPHCWG, PAH, phenols and VOCs including BTEX & MTBE.

3.4.6 In addition, 5No water samples were collected for standard suite and hydrocarbon suite including TPHCWG, PAHs, VOCs, and Phenols.

Table 3.3: Basic Suite of Determinands

DETERMINAND	LIMIT OF DETECTION (mg/kg)	UKAS ACCREDITATION	TECHNIQUE
Arsenic	2	Y (MCERTS)	ICP-EOS
Cadmium	0.2	Y (MCERTS)	ICP-EOS
Chromium	2	Y (MCERTS)	ICP-EOS
Chromium (Hexavalent)	4	N	ICP-EOS
Lead	3	Y (MCERTS)	ICP-EOS
Mercury	1	Y (MCERTS)	ICP-EOS
Nickel	3	Y (MCERTS)	ICP-EOS
Selenium	2	Y (MCERTS)	ICP-EOS
Copper	4	Y (MCERTS)	ICP-EOS
Zinc	3	Y (MCERTS)	ICP-EOS
Boron (Water Soluble)	0.1	N	ICP-EOS
pH Value	0.1 units	Y (MCERTS)	Electrometric Measurement
Sulphate (Water Soluble)	0.01g/l	Y (MCERTS)	Ion Chromatography/ICP-EOS
Total Cyanide	1	N	Distillation followed by Chromatography
Speciated/Total PAH	0.10/1.6	Y (MCERTS)	GC-MS
Phenols	2	N	Distillation followed by Colorimetry
Total Petroleum Hydrocarbons (banded)	6	N	GC-FID/Headspace GS-MS

3.4.7 To support the selection of appropriate tier 1 screening values, 3No. samples were analysed for soil organic matter.

3.4.8 The chemical laboratory test results are included in Appendix 3.

Geotechnical Testing

3.4.9 In addition to the contamination assessment, soil samples were submitted to the UKAS accredited laboratory of K4 Soils Laboratory for a series of geotechnical analyses.

3.4.10 This testing was designed to classify the samples and to obtain parameters (either directly or sufficient to allow relevant correlations to be used) relevant to the technical objectives of the investigation.

3.4.11 The following laboratory geotechnical testing was carried out:

Table 3.4: Laboratory Geotechnical Analysis

Methodology	Test Description	Number of tests
BS EN ISO 17892: 2022	Moisture Content Determination	19
BS EN ISO 17892: 2022	Liquid and Plastic Limit Determination (Atterberg Limits)	19
BS EN ISO 17892: 2016	Particle Size Distribution - Sieving	3

3.4.12 In addition, 9No. soil samples were analysed for a modified BRE Special Digest 1 suite (acid and water-soluble sulphate, total sulphur and pH) to assist with the ACEC classification for buried concrete.

3.4.13 The geotechnical laboratory test results are included in Appendix 4.

4 GROUND CONDITIONS ENCOUNTERED

4.1 General

4.1.1 A factual record of the conditions encountered during the physical investigation of the site is presented in the following section.

4.2 Ground Conditions

4.2.1 The ground conditions encountered were broadly consistent with those anticipated, however, the Langley Silt Member is not considered to be present, it was determined that a layer of possible Alluvium was underlying the Made Ground, over the Kempton Gravel Park Member over the Seaford and Newhaven Chalk Formation (Undifferentiated Chalk. The encountered ground conditions are summarised in Table 4.1 below.

Table 4.1: Ground Conditions Encountered

Stratum and Description	Encountered from (mbgl)	Base of strata (mbgl)	Thickness range (m)
Concrete/asphalt over grey/brown/black silt/clay/sand/ gravel with cobbles in places. Gravel consists of flint, brick, concrete, glass and plastic. (MADE GROUND)	0.00	1.00 – 4.00	1.00 – 4.00
Very soft to firm consistency** orangish/yellowish/greyish/greenish brown/grey/black clayey/sandy/gravelly SILT and CLAY with rootlets in places. Gravel consists of flint. (ALLUVIUM)	1.00 – 4.00	1.90 – 4.50	0.50 – 2.80
Very soft to stiff consistency** yellowish/greenish grey silty, sandy CLAY. (ALLUVIUM / COHESIVE KEMPTON PARK GRAVEL MEMBER TRANSITION) *WS3, WS4 only*	3.00 – 4.10	4.00 – 4.30	0.20 - 1.00
Firm consistency** grey slightly gravelly CLAY. Gravel consists of flint. (KEMPTON PARK GRAVEL MEMBER – COHESIVE) *BH1, WS5 only*	4.30 – 4.40	4.70 - 5.20	0.30 - 0.90
Medium dense becoming very dense orangish/yellowish brown to grey silty gravelly SAND / sandy GRAVEL. Gravel consists of flint. (KEMPTON GRAVEL PARK MEMBER)	1.90 – 5.20	>5.00 – 11.10	>0.70 – 8.80
STRUCTURELESS CHALK. Recovered as a stiff consistency** white gravelly SILT with cobbles in places. Gravel consists of chalk. (UNDIFFERENTIATED CHALK) *BH1-BH3 only*	10.70 – 11.10	>15.00 (BASE NOT PROVEN)	>3.90 - >4.30 (THICKNESS NOT PROVEN)

***Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature*

4.2.2 The deepest Made Ground was encountered within BH1 and BH2, reported between 3.00m and 4.00mbgl.

4.3 Groundwater

4.3.1 Recorded groundwater strikes are summarised below.

Table 4.2: Groundwater Strikes During Investigation

Exploratory Hole ID	Depth Encountered (mbgl)	Depth After 20mins (mbgl)	Stratum
BH1	4.30	4.30	Alluvium/Kempton Park Gravel Boundary
BH2	4.50	4.50	Alluvium/Kempton Park Gravel Boundary
BH3	1.20	1.20	Alluvium
TP1	3.30	-	Alluvium
TP2	2.90	-	Alluvium
TP3	2.40	-	Made Ground/Alluvium Boundary
WS1	2.00	-	Made Ground
WS2	1.70	-	Made Ground
WS3	2.00	-	Alluvium
WS4	2.00	-	Alluvium
WS5	3.00	-	Alluvium
WS6	3.00	-	Kempton Gravel Park Member
WS7	2.90	-	Kempton Gravel Park Member
WS9	3.00	-	Alluvium

4.3.2 4No. return groundwater monitoring visits were carried out between 04th and 23rd July 2025, results are presented in Appendix 5 and are summarised below.

Table 4.3: Groundwater Monitoring Summary

Exploratory Hole ID	Depth Encountered (mbgl)	Well Response Zone as installed (top/ bottom) (mbgl)	Depth to Base of Well – as gauged (mbgl)	Strata targeted by response zone
WS1	2.45 - 2.54	1.00 – 5.00	4.80 - 4.91	Made Ground/Alluvium/Kempton Park Gravel Member
WS6	2.51 - 2.60	1.00 – 5.00	4.30 – 4.36	Made Ground/Alluvium/Kempton Park Gravel Member
BH1	2.20 – 2.43	1.00 – 5.00	4.25 - 4.38	Alluvium/Kempton Park Gravel Member
BH2	2.84 - 2.95	1.00 – 5.00	4.40 – 4.48	Alluvium/Kempton Park Gravel Member
BH3	2.52 – 2.84	1.00 – 5.00	4.79 - 4.91	Alluvium/Kempton Park Gravel Member

4.3.3 It should be noted that changes in groundwater levels can occur for a number of reasons including seasonal effects and variations in drainage. Such fluctuations may only be recorded by the measurement of the groundwater level within a standpipe or piezometer installed within appropriate response zones. Changes in groundwater level can have a direct effect on excavation stability and dewatering requirements, and cohesive soils can soften under rising or high groundwater levels.

4.4 Physical and Olfactory Evidence of Contamination

4.4.1 Hydrocarbon odours were reported within the Made Ground at WS2 and WS5 and the Alluvium in WS3 and TP4.

4.4.2 A Photo Ionisation Detector (PID) was used during sampling of the soil arisings, to detect volatile organic compounds. The concentrations detected ranged between 0ppm and 45ppm, with the significantly higher results within WS5 and BH3.

4.4.3 No other visual or olfactory evidence of potential contamination was identified within the investigation positions.

4.5 Limitations

4.5.1 Potential Asbestos containing materials (ACM) were identified within TP1 at a depth of 1.00mbgl. The asbestos was not disturbed, and the pit was backfilled once the soil infiltration testing was complete.

4.5.2 The proposed exploratory hole position WS8 could not be completed due to several attempts encountering concrete obstructions.

4.5.3 The possible presence of unidentified natural and/or manmade obstructions elsewhere on site cannot be discounted.

5 RISK ASSESSMENT – ANALYTICAL FRAMEWORK

5.1 Context and Objectives

5.1.1 This section seeks to evaluate the level of chronic risk pertaining to human health and the environment which may result from both the existing use and proposed future use of the site. It makes use of the ground investigation findings, as described in the previous sections, to evaluate further the potential pollutant linkages identified in the desk study. A combination of qualitative and quantitative techniques is used, as described below.

5.1.2 The purpose of generic quantitative risk assessment is to compare concentrations of contaminants found on site against generic assessment criteria (GAC) to establish whether there are actual or potential unacceptable risks. It also determines whether further detailed assessment is required. The approaches detailed all broadly fit within a tiered assessment structure in line with the framework set out in the Department of Environment, Food and Rural Affairs (DEFRA), EA and Institute for Environment and Health Publication, Guidelines for Environmental Risk Assessment and Management.

5.2 Analytical Framework – Soils

5.2.1 There is no single methodology that covers all the various aspects of the assessment of potentially contaminated land and groundwater. Therefore, the analytical framework adopted for this investigation is made up of a number of procedures, which are outlined below. All of these are based on a Risk Assessment methodology centred on the identification and analysis of Source – Pathway – Receptor linkages.

5.2.2 The soil analytical test results have been compared to Suitable 4 Use Levels (S4UL) published by the Chartered Institute of Environmental Health in order to assess the potential long-term risks to human health posed by contaminants in the soils. S4UL'S have been derived for a range of land uses and Soil Organic Matter contents. They represent the minimal or tolerable risk, above which further assessment of the risks or remedial action may be required.

5.2.3 In the absence of a S4UL recommended concentration, other available general assessment criteria (GAC), including the Category 4 Screening Levels (C4SL) published by DEFRA have been used. Site-specific assessments are undertaken wherever possible and/or applicable. All assessments are carried out in accordance with the CLEA protocol.

5.2.4 The assessment criteria used for the screening of determinands within soils are identified within Table 5.1.

Table 5.1: Selected Assessment Criteria - Contaminants in Soils

Substance Group	Determinand(s)	Assessment Criteria Selected
Organic Substances		
Non-halogenated Hydrocarbons	Total Petroleum Hydrocarbons (TPHCWG banded)	S4UL
	Total Phenols	S4UL
Polycyclic Aromatic Hydrocarbons (PAH-16)	Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(123-cd)pyrene, Dibenzo(ah)anthracene, Benzo(ghi)perylene	S4UL
Volatile Organic Compounds (VOCs/sVOCs).	Toluene, Ethylbenzene, Benzene, Xylenes	S4UL
Inorganic Substances		
Heavy Metals and Metalloids	Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Zinc	S4UL
	Copper, Zinc, Nickel	BS: 3882 (2015).
Cyanides	Free Cyanide	CLEA v1.06
Sulphates	Water Soluble Sulphate	BRE Special Digest 1:2005

5.2.5 It is understood that the site is to be converted to provide new industrial units with parking, roadways, loading areas and communal soft landscaping. As a result, the site has been assessed with regards to a 'commercial' end use scenario.

5.2.6 GAC have been selected with consideration to the Soil Organic Matter (SOM) content of the soil. Assuming a SOM of 1% as this ensures the most conservative assessment.

5.3 BRE

5.3.1 The BRE Special Digest 1:2005, 'Concrete in Aggressive Ground' is used with soluble sulphate and pH results to assess the aggressive chemical environment of future underground concrete structures at the site.

5.4 Analytical Framework – Groundwater and Leachate

5.4.1 The requirement to protect groundwater from pollution is outlined in Groundwater Protection: Principles and Practice (GP3, EA, August 2013, v1.1).

5.4.2 Where undertaken, the groundwater quality analysis comprises a Level 1 assessment in accordance with the EA Remedial Targets Methodology Document (EA, 2006).

5.4.3 The criteria used by Jomas' in the Level 1 assessment of groundwater and leachate quality are shown in Table 5.2.

Table 5.2: Selected Assessment Criteria - Contaminants in Water

Substance Group	Determinand(s)	Assessment Criteria Selected
Metals	Arsenic, Boron, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel,	EQS/DWS
	Zinc	EQS
	Selenium	DWS
PAHs	Sum of Four – benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, indeno(123-c,d)pyrene	DWS
PAH	Anthracene, Naphthalene	EQS
PAHs	Benzo(a)pyrene	EQS/ DWS
PAHs	Remainder	LEC
Total Petroleum Hydrocarbons	Aliphatic C5-C6, Aliphatic >C6-C8, Aliphatic >C8-C10. Aliphatic >C10-C12, Aliphatic >C12-C16, Aliphatic >C16-C21, Aromatic C5-C7, Aromatic >C7-C8, Aromatic >C8-C10, Aromatic >C10-C12, Aromatic >C12-C16, Aromatic >C16-C21, Aromatic> C21-C35	/WHO
Benzene	Benzene	EQS/ DWS
Toluene	Toluene	EQS/ WHO
Ethylbenzene	Ethylbenzene	WHO
Xylene	Xylene	EQS/WHO

Environmental Quality Standards EQS

Environmental Quality Standards (EQS) have been released by the EA for dangerous substances, as identified by the EC Dangerous Substances Directive. EQS can vary for each substance, for the hardness of the water and can be different for fresh, estuarine or coastal waters.

WHO Health

These screening criteria have been taken from the World Health Organisation Guidelines for Drinking Water Quality (2017). The health value is a guideline value representing the concentration of a contaminant that does not result in any significant risk to the receptor over a lifetime of exposure.

Further criteria have been obtained from 'Petroleum Products in Drinking-water' - Background document for development of WHO Guidelines for Drinking-water Quality (2005).

UK Drinking Water Standards (DWS)

These comprise screening criteria provided by the Drinking Water Inspectorate (DWI) in the Water Supply (Water Quality) Regulations 2018.

6 GENERIC QUANTITATIVE RISK ASSESSMENT – SOIL DATA

6.1 Screening of Soil Chemical Analysis Results – Human Health Risk Assessment

6.1.1 Laboratory analysis results for soils are summarised in Table 6.1 to Table 6.4. Raw laboratory data is included in Appendix 3.

6.1.2 Results have been screened against generic assessment criteria for a "Commercial" end use, assuming 1% soil organic matter.

Table 6.1: Soil Laboratory Test Results - Metals, Metalloids, Phenol, Cyanide

Determinand	Unit	No. samples tested	Screening Criteria		Min	Max	No. Exceeding
Arsenic	mg/kg	17	S4UL	640	11	61	0
Cadmium	mg/kg	17	S4UL	190	0.7	94	0
Chromium	mg/kg	17	S4UL	8600	<1.0	4500	0
Lead	mg/kg	17	C4SL	2300	47	6600	1No (WS1 at 0.20mbgl)
Mercury	mg/kg	17	S4UL	320	<2.5	9.3	0
Nickel	mg/kg	17	S4UL	980	14	1200	1No (TP2 at 2.10mbgl)
Copper	mg/kg	17	S4UL	68000	49	2300	0
Zinc	mg/kg	17	S4UL	730000	89	2600	0
Total Cyanide [A]	mg/kg	17	CLEA v 1.06	33	<1	9.5	0
Selenium	mg/kg	17	S4UL	12000	<8	<8	0
Boron Water Soluble	mg/kg	17	S4UL	240000	<2.5	18	0
Phenols	mg/kg	17	S4UL	440	<1	44	0

Notes: [A] Generic assessment criteria derived for free inorganic cyanide.

Table 6.2: Soil Laboratory Test Results - Polycyclic Aromatic Hydrocarbons (PAHs)

Determinand	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
Naphthalene	mg/kg	17	S4UL	190	<0.02	1800	1No (WS5 at 0.65mbgl)
Acenaphthylene	mg/kg	17	S4UL	83000	0.10	22	0
Acenaphthene	mg/kg	17	S4UL	84000	0.02	550	0
Fluorene	mg/kg	17	S4UL	63000	0.02	620	0
Phenanthrene	mg/kg	17	S4UL	22000	0.35	2400	0
Anthracene	mg/kg	17	S4UL	520000	0.13	770	0
Fluoranthene	mg/kg	17	S4UL	23000	0.7	1600	0

Determinand	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
Pyrene	mg/kg	17	S4UL	54000	0.58	1300	0
Benzo(a)anthracene	mg/kg	17	S4UL	170	0.32	590	1No (WS5 at 0.65mbgl)
Chrysene	mg/kg	17	S4UL	350	0.35	510	1No (WS5 at 0.65mbgl)
Benzo(b)fluoranthene	mg/kg	17	S4UL	44	0.47	590	2No (WS5 at 0.65mbgl WS4 at 0.40mbgl)
Benzo(k)fluoranthene	mg/kg	17	S4UL	1200	0.18	240	0
Benzo(a)pyrene	mg/kg	17	S4UL	35	0.33	450	3No (WS5 at 0.65mbgl WS4 at 0.40mbgl TP1 at 1.00mbgl)
Indeno(123-cd)pyrene	mg/kg	17	S4UL	500	0.24	260	0
Dibenzo(ah)anthracene	mg/kg	17	S4UL	3.5	0.06	66	3No (WS5 at 0.65mbgl WS4 at 0.40mbgl TP1 at 1.00mbgl)
Benzo(ghi)perylene	mg/kg	17	S4UL	3900	0.27	220	0
Total PAH	mg/kg	17	-	-	4.12	12000	-

Table 6.3: Soil Laboratory Test Results - Total Petroleum Hydrocarbons (TPH)

TPH Band	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
C_8-C_{10}	mg/kg	12	S4UL	2000	<5	<50	0
>C_{10}-C_{12}	mg/kg	12	S4UL	9700	<5	<50	0
>C_{12}-C_{16}	mg/kg	12	S4UL	36000	<5	290	0
>C_{16}-C_{21}	mg/kg	12	S4UL	28000	7.2	850	0
>C_{21}-C_{35}	mg/kg	12	S4UL	28000	60	3600	0
Total TPH	mg/kg	12	-	-	95	5400	-

Notes: *The lower value of guidelines for Aromatic/Aliphatics has been selected

Table 6.4: Soil Laboratory Analysis Results - Total Petroleum Hydrocarbons (TPHCWG)

TPH Band	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
>C_5-C_6 Aliphatic	mg/kg	5	S4UL	3200	<0.06	0.39	0
>C_6-C_8 Aliphatic	mg/kg	5	S4UL	7800	<0.06	<0.07	0

TPH Band	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
>C_8-C_{10} Aliphatic	mg/kg	5	S4UL	2000	<0.06	<0.07	0
>C_{10}-C_{12} Aliphatic	mg/kg	5	S4UL	9700	<1.0	85	0
>C_{12}-C_{16} Aliphatic	mg/kg	5	S4UL	59000	3.8	140	0
>C_{16}-C_{35} Aliphatic	mg/kg	5	S4UL	1600000	15.2	209	0
>C_5-C_7 Aromatic	mg/kg	5	S4UL	26000	<0.01	0.10	0
>C_7-C_8 Aromatic	mg/kg	5	S4UL	56000	<0.01	0.40	0
>C_8-C_{10} Aromatic	mg/kg	5	S4UL	3500	<0.06	18	0
>C_{10}-C_{12} Aromatic	mg/kg	5	S4UL	16000	<1.0	1300	0
>C_{12}-C_{16} Aromatic	mg/kg	5	S4UL	36000	2.8	2400	0
>C_{16}-C_{21} Aromatic	mg/kg	5	S4UL	28000	5.1	4500	0
>C_{21}-C_{35} Aromatic	mg/kg	5	S4UL	28000	35	5100	0
Total TPH (Ali/Aro)	mg/kg	5	-	-	68	14000	-

6.2 Asbestos in Soil

6.2.1 16No samples of the Made Ground were screened in the laboratory for the presence of asbestos.

6.2.2 No asbestos containing materials (ACM) or fibres were reported in samples analysed in the laboratory.

6.3 Volatile Organic Compounds

6.3.1 In addition to the suites outlined previously, 5No samples were tested for the presence of volatile organic compounds (VOCs) including BTEX compounds (benzene, toluene, ethylbenzene, xylene).

Table 6.5: Soil Laboratory Test Results – VOC's above the limit of detection

TPH Band	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
Benzene	mg/kg	5	S4UL	27	<0.01	0.05	0
Toluene	mg/kg	5	S4UL	56000^{vap} (869)	<0.01	0.16	0
Ethylbenzene	mg/kg	5	S4UL	57000^{vap} (518)	<0.01	0.23	0
m&p Xylene*	mg/kg	5	S4UL	5900^{sol} (576)	<0.02	0.74	0
o-Xylene	mg/kg	5	S4UL	6600^{sol} (478)	<0.01	0.49	0
Chloromethane	mg/kg	5	CL:AIRE GAC	1.0	<0.02	0.04	0

TPH Band	Unit	No. Samples Tested	Screening Criteria		Min	Max	No. Exceeding
Trichloroethylene	-	5	-	-	<0.01	0.09	-
Styrene	mg/kg	5	CL:AIRE GAC	3300	<0.01	0.23	0
Isopropylbenzene	mg/kg	5	CL:AIRE GAC	1400	<0.01	0.39	0
1,3,5-Trimethylbenzene	-	5	-	-	<0.01	0.34	0
1,2,4-trimethylbenzene	mg/kg	5	CL:AIRE GAC	42	<0.01	0.90	0
4-Isopropyltoluene (P-Cymene)	-	5	-	-	<0.01	0.05	0
n-Butylbenzene	-	5	-	-	<0.01	0.38	0

*Lowest screening criteria is for p-xylene.

6.3.2 The determinands with relevant screening criteria values available have not been shown to exceed them.

6.3.3 There are not currently published screening criteria available for some of the determinands as shown in the table above. On this basis, these are not considered to be priority risk drivers.

6.4 Polychlorinated Biphenyl (PCB) Concentrations

6.4.1 In addition to the suites outlined previously, 2No samples from the vicinity of electrical substations were analysed for the presence of PCBs.

6.4.2 No PCBs were reported above the laboratory method detection limit (0.004mg/kg).

6.5 Vapour Risk Assessment from a Soil Source

6.5.1 As outlined in Table 6.2, Table 6.3 and Table 6.4, a number of polycyclic aromatic hydrocarbons have been found in excess of their generic screening criteria for the protection of human health within a 'commercial' end-use scenario. The generic screening criteria considers all possible pathways between the source and the receptor. In order to assess potential risks from inhalation of vapour, each organic compound that has been found in excess of its GAC will be assessed in terms of the contribution to total exposure from vapour inhalation inside a structure as reported within the LQM/CIEH S4UL document. Where a significant proportion of the total exposure is reported from vapour inhalation, there could be a potential risk from vapour inhalation.

Table 6.6: Soil Laboratory Analysis Results - Contribution to Total Exposure from Vapour Inhalation (Indoor)

Compound	Contribution of Vapour Inhalation to Total Exposure (%)	Screening Criteria (mg/kg)	Maximum Recorded Value (mg/kg)	Potential Vapour Risk?
Naphthalene	52.3	190	1800	**YES**
Benzo(a)anthracene	<0.1	170	590	**X**
Chrysene	0.0	350	510	**X**

Compound	Contribution of Vapour Inhalation to Total Exposure (%)	Screening Criteria (mg/kg)	Maximum Recorded Value (mg/kg)	Potential Vapour Risk?
Benzo(b)fluoranthene	0.0	44	590	X
Benzo(a)pyrene	0.0	35	450	X
Dibenzo(ah)anthracene	0.0	3.5	66	X

6.5.2 As shown in the table above, for a commercial end use, the contribution of vapour inhalation to total exposure for naphthalene is 52.3% and elevated levels above the laboratory detection limit have been found within most of the samples tested, with a significantly higher concentration of 1800mg/kg found within WS5, the only location exceeding the screening criteria.

6.5.3 It should be noted that WS5 was positioned in an area previously used to park buses and the sample analysed has been described by the laboratory as 'blacktop'.

6.5.4 Further investigation is required to assess the extent of naphthalene and PAH's within the vicinity of WS5.

6.5.5 The remaining potentially volatile compounds detected in soils in excess of generic assessment criteria have a negligible contribution to total exposure via inhalation pathway (less or equal to 0.1%).

6.6 Summary of Human Health Generic Quantitative Risk Assessment

6.6.1 In summary, concentrations of lead, nickel and PAH in excess of the GAC have been recorded in samples of Made Ground within WS4, WS5 and TP1.

6.6.2 No exceedances of contaminants above the GAC were recorded in the 2No soil samples analysed from natural strata within WS3 and TP4.

6.6.3 Potential vapour risk has been identified in the vicinity of WS5 due to elevated concentrations of naphthalene.

6.7 Screening of Soil Chemical Analysis Results – Potential Risks to Plant Growth

6.7.1 Zinc, copper and nickel are phytotoxins and could therefore inhibit plant growth in soft landscaped areas. Concentrations measured in soil for these determinands have been compared with the pH dependent values given in BS:3882 (2015). This does not constitute a full BS:3882 topsoil test.

6.7.2 Table 6.7 shows the soil analytical results compared with the relevant screening values, adopting a pH value of greater than 7, as indicated by the results of the laboratory analysis.

Table 6.7: Soil Laboratory Analysis Results - Phytotoxic Determinands

Determinand	Threshold level (mg/kg)	Min (mg/kg)	Max (mg/kg)	No. Exceeding
Nickel	110	14	1200	TP2 at 2.10mbgl
Copper	200	62	2000	WS1 at 0.20mbgl

Determinand	Threshold level (mg/kg)	Min (mg/kg)	Max (mg/kg)	No. Exceeding
				WS3 at 0.40mbgl WS7 at 0.30mbgl TP1 at 1.0mbgl
Zinc	300	89	2600	WS1 at 0.20mbgl WS3 at 0.40mbgl WS7 at 0.30mbgl WS9 at 1.50mbgl WS2 at 2.00mbgl WS6 at 1.40mbgl TP1 at 2.10mbgl TP2 at 2.10mbgl BH2 at 2.0mbgl

6.7.3 A number of samples have recorded determinands in excess of threshold levels. The current topsoil may not satisfy the requirements of BS:3882 but as no signs of dieback or vegetation distress were observed, it is not considered to be significantly detrimental to plant growth.

6.8 Screening for Water Pipes Materials

6.8.1 The results of the analysis have been assessed for potential impact upon water supply pipes. Table 6.8 below summarises the findings of the assessment:

Table 6.8: Screening Guide for Water Pipes

Determinand	No. of tests	Threshold for Polyethylene Pipes* mg/kg)	Value for site data (mg/kg)		No of Exceedances
			Min	Max	
Total VOCs	5	0.5	<1.01	3.96	WS5 at 0.65m WS6 at 1.40m TP4 at 2.50m
BTEX	5	0.1	<0.06	1.67	WS5 at 0.65m
MTBE	5	0.1	<0.01	<0.02	0
EC5-EC10	17	1	<0.27	18.39	WS5 at 0.65mbgl
EC10-EC16	17	10	9.8	<3925	WS1 at 0.20mbgl WS2 at 0.70mbgl WS3 at 0.40mbgl WS4 at 0.40mbgl WS7 at 0.30mbgl WS9 at 1.50mbgl BH1 at 0.60mbgl WS2 at 2.00mbgl WS3 at 2.10mbgl WS5 at 0.65mbgl TP4 at 0.30mbgl

Determinand	No. of tests	Threshold for Polyethylene Pipes* mg/kg)	Value for site data (mg/kg)		No of Exceedances
			Min	Max	
					TP1 at 1.00mbgl TP4 at 2.50mbgl BH2 at 2.00mbgl
EC16-EC40		500	55.3	10469	WS1 at 0.20m WS2 at 0.70m WS3 at 0.40m WS4 at 0.40m WS5 at 0.65m WS7 at 0.30m WS9 at 1.50m TP1 at 0.40m WS2 at 2.00m TP4 at 0.30m TP2 at 2.10m
Naphthalene		5	<0.03	1800	WS4 at 0.40m WS5 at 0.65m
Phenols		2	<1	44	WS5 at 0.65m TP4 at 2.50m

** UK Water Industry Research (2010) Source Guidance for Selection of Water Supply Pipes to be Used in Brownfield Sites. Report No. 10/WM/03/21.*

6.8.2 The above suggests that upgraded pipe work is likely to be required.

6.8.3 Alternatively, it may be possible to utilise other protection methods including (but not limited to):

- Localised remediation
- Embedding the pipe in a sufficient thickness of clean granular material

6.8.4 The water supply pipe requirements for this site should be discussed at an early stage with the relevant utility provider.

6.9 Assessment of Soil Analytical Data with Respect to Controlled Waters

6.9.1 At the Preliminary Risk Assessment (Desk Study) stage, risks to controlled waters were low.

6.9.2 The following controlled waters receptors were identified:

- Secondary and Principal Aquifers.
- River Thames 227m north-east.

6.9.3 Pathways for migration of leachable/mobile contamination were considered to be potentially present within the underlying Alluvium, Kempton Park Gravel Member and underlying

Undifferentiated Chalk and confirmed that potential pathways for migration of leachable/mobile contamination are present. Further assessment of these risks is provided in Section 7, with the evaluation for groundwater analytical data.

6.10 Waste Characterisation

6.10.1 Waste soil must be classified using the characterisation assessment and analysis described by the WM3 technical guidance to determine whether soils may be treated as hazardous or non-hazardous prior to removal from site.

6.10.2 Preliminary waste classification has been carried out (see Appendix 10) and has resulted in the following:

- Made Ground is provisionally classified as hazardous waste;
- Natural soils are provisionally classified as non-hazardous waste.

6.10.3 Waste Acceptance Criteria testing results are summarised in Table 6.9 below.

Table 6.9: Waste Acceptance Criteria Testing Summary

Sample	Material Type	Preliminary Hazardous Waste Classification	Exceeds *"Inert Waste Landfill"* Thresholds?	Exceeds *"Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill"* Thresholds?	Exceeds *"Hazardous Waste Landfill"* Thresholds?	Notes
WS1 at 0.20m	Made Ground	Hazardous	-	-	-	HP7 – Carcinogenic HP10 – Toxic for reproduction HP11 – Mutagenic HP14 - Ecotoxic
WS2 at 0.70m	Made Ground	Hazardous	-	-	-	HP14 - Ecotoxic
WS3 at 0.40m	Made Ground	Hazardous	-	-	-	HP7 – Carcinogenic HP11 – Mutagenic HP14 - Ecotoxic
WS4 at 0.40m	Made Ground	Hazardous	-	-	-	HP7 – Carcinogenic HP11 – Mutagenic
WS7 at 0.30m	Made Ground	Non-hazardous	-	-	-	-
WS9 at 1.50m	Made Ground	Hazardous	-	-	-	HP14 - Ecotoxic
BH1 at 0.60m	Made Ground	Non-hazardous	-	-	-	-
WS5 at 0.65m	Made Ground	Hazardous	-	-	-	HP7 – Carcinogenic HP11 – Mutagenic HP14 - Ecotoxic

Sample	Material Type	Preliminary Hazardous Waste Classification	Exceeds *"Inert Waste Landfill"* Thresholds?	Exceeds *"Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill"* Thresholds?	Exceeds *"Hazardous Waste Landfill"* Thresholds?	Notes
WS6 at 1.40m	Made Ground	Hazardous	-	-	-	HP7 – Carcinogenic HP14 - Ecotoxic
BH2 at 2.00m	Made Ground	Non-hazardous	-	-	-	-
TP1 at 0.40m	Made Ground	Hazardous	-	-	-	HP7 – Carcinogenic HP8 - Corrosive HP11 – Mutagenic HP14 - Ecotoxic
TP1 at 1.00m	Made Ground	-	Yes	Yes	Yes	Exceeds 'Hazardous waste landfill' for TOC, loss on ignition. Exceeds 'Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill' for pH only. Exceeds 'inert' for mineral oil, PAH and sulphate.
TP2 at 2.10m	Made Ground	Hazardous	Yes	Yes	-	Exceeds 'Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill' for pH only. Exceeds 'inert' for mercury, nickel, antimony and sulphate. HP7 – Carcinogenic HP10 – Toxic for reproduction HP14 - Ecotoxic
TP3 at 0.50m	Made Ground	-	Yes	Yes	-	Exceeds 'inert' for TOC and sulphate. Exceeds 'Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill' for pH only
TP4 at 0.30m	Made Ground	Non-hazardous	-	Yes	-	Exceeds 'Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill' for pH only.

Sample	Material Type	Preliminary Hazardous Waste Classification	Exceeds *"Inert Waste Landfill"* Thresholds?	Exceeds *"Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill"* Thresholds?	Exceeds *"Hazardous Waste Landfill"* Thresholds?	Notes
TP4 at 1.50m	Made Ground	Non-hazardous	Yes	Yes	-	Exceeds 'inert' for mineral oil, PAH, arsenic, antimony, fluoride, total dissolved solids and phenol index. Exceeds 'Stable Non-Reactive Hazardous Waste in Non-Hazardous Landfill' for pH only
TP4 at 2.50m	Alluvium	-	Yes	Yes	Yes	Exceeds hazardous waste landfill for TOC and loss on ignition.

6.10.5 The above testing indicates that the Made Ground and natural soils cannot be disposed at inert waste landfill.

6.10.6 Additional testing will be required by the landfill operator to confirm the above preliminary assessment during construction. Surplus Made Ground and natural soils should be segregated on excavation and placed in separate stockpiles underlain by polythene sheeting (to prevent potential cross-contamination of underlying soils) before further testing is carried out.

6.10.7 The above comments are given as guidance and should be confirmed by the waste disposal facility accepting the waste. The waste disposal facility may have their own classification methodology and are under no obligation to honour the comments given above.

6.10.8 Alternatively, if Made Ground soils are to be excavated and re-used on site, a Materials Management Plan (MMP) must be produced in accordance with CL:AIRE Definition of Waste: Development Industry Code of Practice (DoWCoP) and approved by a Qualified Person ahead of the commencement of any material movement.

7 GENERIC QUANTITATIVE RISK ASSESSMENT – GROUNDWATER DATA

7.1 Groundwater sampling

7.1.1 Groundwater samples obtained from the monitoring wells installed within exploratory locations BH1, BH2, BH3, WS1 and WS6 were submitted for chemical analysis.

7.1.2 Due to restricted access to BH1 during the initial groundwater sampling visit (4th July 2025), a sample was obtained on 9th July 2025.

7.1.3 The samples were obtained by means of a low flow methodology. Groundwater sampling records are presented in Appendix 7.

7.2 Assessment of groundwater analytical data with respect to controlled waters

7.2.1 The results of the laboratory testing are summarised in Table 7.1 to Table 7.3 below and compared to GAC for controlled waters receptors. Analytical laboratory certificates are presented in Appendix 3.

Table 7.1: Groundwater Laboratory Analysis Results – Metals, Metalloids, Phenol, Cyanide

Determinand	Unit	No. samples tested	Screening Criteria		Min	Max	No of Exceedances
Arsenic	µg/l	5	10	DWS	0.34	4.50	0
	µg/l		50	EQS	0.34	4.50	0
Cadmium	µg/l	5	5	DWS	<0.20	<0.20	0
	µg/l		<0.08-0.25+	EQS	<0.20	<0.20	0
Chromium	µg/l	5	50	DWS	0.25	0.80	0
	µg/l		4.7	EQS	0.25	0.80	0
Lead	µg/l	5	10	DWS	<0.50	<0.50	0
	µg/l		1.2*	EQS	<0.50	<0.50	0
Nickel	µg/l	5	20	DWS	<0.50	9.71	0
	µg/l		4*	EQS	<0.50	9.71	BH1, BH2, BH3, WS6
Copper	µg/l	5	1.0	EQS	<0.30	1.18	BH3
			2000	DWS	<0.30	1.18	0
Zinc	µg/l	5	10.9*	EQS	<2.0	22.7	BH2
Mercury	µg/l	5	1.0	DWS	<0.05	<0.05	0
	µg/l		0.07	EQS	<0.05	<0.05	0
Selenium	µg/l	5	10	DWS	<0.50	<0.50	0
Boron	µg/l	5	1000	DWS	68	387	0
	µg/l		2000	EQS	68	387	0
Cyanide (Total)	µg/l	5	50	DWS	5.7	29	0
	µg/l		1	EQS	5.7	29	BH1, BH2, BH3, WS1, WS6

Determinand	Unit	No. samples tested	Screening Criteria		Min	Max	No of Exceedances
Phenols (Total)	µg/l	5	7.7	EQS	<1.10	1.32	0

** bioavailable concentration*
⁺Assessment criteria dependent on water hardness
***bioavailable concentration + ambient background concentration dissolved for Thames Groundwater (2 µg/L)*

Table 7.2: Groundwater Analysis Results - Polycyclic Aromatic Hydrocarbons (PAHs)

Determinand	Unit	No. samples tested	Screening Criteria		Min.	Max.	No. of Exceedances
Naphthalene	µg/l	5	2.0	EQS	0.06	0.44	0
Acenaphthylene	µg/l	5	-	-	<0.01	0.04	0
Acenaphthene	µg/l	5	-	-	0.03	0.67	0
Fluorene	µg/l	5	-	-	<0.01	0.06	0
Phenanthrene	µg/l	5	-	-	<0.01	<0.01	0
Anthracene	µg/l	5	0.1	EQS	<0.01	<0.01	0
Fluoranthene	µg/l	5	0.0063	EQS	<0.01	<0.01	0
Pyrene	µg/l	5	-	-	<0.01	<0.01	0
Benzo(a)anthracene	µg/l	5	-	-	<0.01	<0.01	0
Chrysene	µg/l	5	-	-	<0.01	<0.01	0
Benzo(b)fluoranthene	µg/l	5	0.017	EQS	<0.01	<0.01	0
Benzo(k)fluoranthene	µg/l	5	0.017	EQS	<0.01	<0.01	0
Benzo(a)pyrene	µg/l	5	0.01	DWS	<0.01	<0.01	0
	µg/l	5	0.00017	EQS	<0.01	<0.01	0
Dibenzo(ah)anthracene	µg/l	5	-	-	<0.01	<0.01	0
Benzo(ghi)perylene	µg/l	5	0.0082	EQS	<0.01	<0.01	0
Sum of four Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(ghi)perylene Indeno(123-cd)pyrene	µg/l	5	0.1	DWS	<0.004	<0.004	0

Table 7.3: Groundwater Analysis Results - TPHCWG & BTEX - Controlled Waters

Determinand	Unit	No. Samples tested	Screening Criteria		Min.	Max.	No. of Exceedances
Benzene	µg/l	5	1.0	DWS	<6.00	<6.00	0 (None above LOD)
	µg/l	5	10	EQS	<6.00	<6.00	0
Toluene	µg/l	5	74	EQS	<6.00	<6.00	0
Ethylbenzene	µg/l	5	300	WHO	<6.00	<6.00	0
Xylenes (total)	µg/l	5	500	WHO	18.00	<18.00	0
	µg/l	5	30	EQS	18.00	<18.00	0
MTBE	µg/l	5	15	WHO	<6.00	<6.00	0
>C5-C6 Aliphatic	µg/l	5	15000	WHO	<6.00	<6.00	0
>C6-C8 Aliphatic	µg/l	5	15000	WHO	12.4	15.9	0
>C8-C10 Aliphatic	µg/l	5	300	WHO	<6.00	17	0
>C10-C12 Aliphatic	µg/l	5	300	WHO	<5.00	<5.00	0
>C12-C16 Aliphatic	µg/l	5	300	WHO	<10	<10	0
>C16-C21 Aliphatic	µg/l	5	-	-	<10	12.4	-
>C21-C35 Aliphatic	µg/l	5	-	-	<15	32.6	-
>C5-C7 Aromatic	µg/l	5	10	WHO	<1.0	<1.0	0
>C7-C8 Aromatic	µg/l	5	700	WHO	<1.0	<1.0	0
>C8-C10 Aromatic	µg/l	5	300	WHO	<6.00	<6.00	0
>C10-C12 Aromatic	µg/l	5	90	WHO	<5.00	<5.00	0
>C12-C16 Aromatic	µg/l	5	90	WHO	<10.0	<10.0	0
>C16-C21 Aromatic	µg/l	5	90	WHO	<10	28.8	0
>C21-C35 Aromatic	µg/l	5	90	WHO	<15	58.6	0

7.2.2 In addition to the suite outlined above, the four water samples were also analysed for a suite of volatile organic compounds (VOCs). None of the compounds analysed for were reported above the laboratory method detection limit.

7.2.3 Similarly, for the BTEX (Benzene, Toluene, Ethylbenzene and Xylene) compounds, none of the results were reported above the laboratory method of detection.

7.2.4 Concentrations of nickel, copper, zinc and total cyanide were found to exceed Environmental Water Quality Standard (EQS).

7.2.5 The River Thames is located approximately 220m north-east of the site and is flowing in an east/south-east direction. The groundwater beneath the site is assumed to be in continuity with the River Thames.

7.2.6 Zinc was reported to exceed EQS within BH2 only, located in the middle of the east of the site and therefore as no other exceedances were detected, including likely down-gradient wells,

zinc is not considered to be migrating off site at concentrations in excess of the EQS and therefore no pollutant linkage to controlled waters is considered to exist.

7.2.7 Copper was found to exceed the EQS within BH3 only, however the exceedance is minimal and is not considered to pose a risk to the controlled waters receptors.

7.2.8 Total cyanide concentrations are shown to be the highest within WS1, in the far north-west corner of the site and decreases in line with the groundwater levels at the site. It is likely that the concentrations are decreasing off site in the direction of groundwater flow.

7.2.9 The highest concentration of nickel was reported as 9.71µg/l, within WS1, in the far north-west corner of the site boundary. Nickel concentrations within WS6 were not reported above the laboratory detection limit, however similar exceeding concentrations between 4.50µg/l and 4.79µg/l were reported within BH1, BH2 and BH3. It is therefore likely concentrations will continue to decrease in the direction of groundwater flow.

7.3 Assessment of Groundwater Analytical Data with Respect to Vapour Intrusion Pathways

7.3.1 In order to further assess potential risks to human health receptors via vapour intrusion pathways, the groundwater results have been compared to generic assessment criteria, published by the Society of Brownfield Risk Assessment (SoBRA) in 2017, relevant to a pollutant linkage via vapour intrusion from a dissolved phase source in groundwater. As per the CSM, potential receptors at risk comprise the on and off-site industrial uses and therefore the GAC have been selected for a commercial end use.

7.3.2 This assessment supplements the assessment of risks via vapour intrusion from soil data provided in Section 7.5.

7.3.3 The assessment results are presented in Table 7.4. Only contaminants recorded above detection limits have been assessed.

Table 7.4: Groundwater Vapour Risk Assessment – Human Health

Determinand	Unit	No. samples tested	Screening Criteria	Min.	Max.	No. of Exceedances
Naphthalene	µg/l	5	23,000 (sol)	0.06	0.44	0
Acenaphthene	µg/l	5	15,000,000 (sol)	0.03	0.67	0
Fluorene	µg/l	5	18,000,000 (sol)	<0.01	0.06	0

7.3.4 No exceedances of the GAC were detected and therefore it is concluded that a pollutant linkage to end users of the proposed development and adjacent site users from vapour inhalation from a groundwater source does not exist.

7.3.5 Further consideration of vapour risks is provided within Section 8, alongside the ground gas assessment.

8 SOIL GAS RISK ASSESSMENT

8.1 Soil Gas Results

8.1.1 Four return monitoring visits have been undertaken between 04th July and 23rd July 2025, to monitor wells installed within boreholes at the site for soil gas concentrations and groundwater levels.

8.1.2 The results of the monitoring undertaken are summarised in Table 8.1 below, with the monitoring records presented in Appendix 6.

Table 8.1: Summary of Gas Monitoring Data

Hole No.	Number of monitoring events	CH_4 (%)	CO_2 (%)	O_2 (%)	VOCs (ppm)	Steady Flow Rate (l/hr)	Peak Flow Rate (l/hr)	Depth to water (mbgl)	Well Response Zone as installed (top/bottom) (mbgl)	Strata targeted by response zone
WS1	4	<0.1	5.2 – 5.9	12.3 – 14.0	0.0 – 0.5	+0.2 – +0.6	+0.2 – +0.6	2.45 – 2.54	0.5 – 5.0	Made Ground/Alluvium/ Kempton Gravel Member
WS6	4	0.0 – 0.1	2.8 – 10.8	6.5 – 15.9	0.0 – 0.5	+0.0 – +0.5	+0.0 – +0.4	2.51 – 2.60	0.5 – 5.0	Made Ground/Alluvium/ Kempton Gravel Member
BH1	3	0.0 – 0.1	6.8 – 12.4	5.4 – 12.4	0.0 – 2.9	+0.2 – +0.6	+0.2 – +0.6	2.20– 2.43	1.0 – 5.0	Made Ground/Alluvium/ Kempton Gravel Member
BH2	4	0.0 – 0.1	4.2 – 5.1	13.4 – 14.8	0.0 – 1.5	+0.0 – +0.3	+0.0 – +0.3	2.84 – 2.95	1.0 – 5.0	Made Ground/Alluvium/ Kempton Gravel Member
BH3	4	0.4 – 0.7	2.6 – 4.2	13.6 – 14.5	1 – 48.1	+0.0– +0.5	0.0 - +0.6	2.52 – 2.84	1.0 – 5.0	Alluvium/ Kempton Gravel Member

8.2 Screening of Results

8.2.1 As shown in Table 8.1, methane was detected to a maximum concentration of 0.7%. The concentrations of carbon dioxide ranged from 2.6% to 12.4% v/v. The maximum concentration of volatile organic compounds measured was 48.1ppm. The maximum gas flow rate recorded was 0.6l/hr.

8.2.2 In the assessment of risks posed by hazardous ground gases and selection of appropriate mitigation measures, BS8485 (2015) + A1 (2019) identifies four types of development, termed Type A to Type D.

8.2.3 Type D buildings are defined as

> *"industrial style building having large volume internal space(s) that are well ventilated. Corporate ownership with building management controls on alterations to the ground floor and basement areas of the building and on maintenance of ground gas protective measures. Probably civil engineering construction. Examples are retail park sales buildings, factory shop floor areas, warehouses. (Small rooms within these style buildings should be separately categorized as Type B or Type C)."*

8.2.4 Type D has been adopted as the relevant category for the majority of the proposed development.

8.2.5 The soil gas assessment method is based on that proposed by Wilson & Card (1999), which was a development of a method proposed in CIRIA publication R149 (CIRIA, 1995). The method uses both gas concentrations and borehole flow rates to define a characteristic situation based on the limiting borehole gas volume flow for methane and carbon dioxide. In both these methods, the limiting borehole gas volume flow is renamed as the Gas Screening Value (GSV).

8.2.6 The Gas Screening Value (litres of gas per hour) is calculated by using the following equation

GSV = (Concentration/100) X Flow rate

Where concentration is measured in percent (%)

and flow rate is measured in litres per hour (l/hr)

8.2.7 In accordance with CIRIA C665, worst case conditions are used in the calculation of GSVs for the site. These have been summarised below in Table 8.2.

8.2.8 The Characteristic Situation is then determined from Table 8.5 of CIRIA C665.

Table 8.2: Summary of Gas Monitoring Data and Gas Screening Value

Gas	Concentration (v/v %)	Peak Flow Rate (l/hr)	GSV (l/hr)	Characteristic Situation (after CIRIA C665)
CO_2	12.4	0.6	**0.0744**	**2**
CH_4	0.7	0.6	**0.0042**	**1**

8.2.9 Based on the calculated GSVs, and in consideration of the conceptual site model, the site is classified as Characteristic Situation 2 (CS2) and formal gas protection measures are considered necessary.

8.2.10 The methodology set out in BS8485 (2015) + A1 (2019) has been used for determining the required gas protection measures. For a Type D development on a CS2 sites the gas protection measures must provide a minimum of 1.5 points.

8.2.11 These could easily be provided using standard construction methodologies (see Table 8.3). As such, no specific additional measures are considered to be required.

8.2.12 Proposed development plans indicate large open industrial buildings with small spaces for welfare only. Therefore, in such small enclosed rooms within these buildings it is deemed appropriate to consider these areas as Type C buildings. Using the methodology set out in BS 8485 (2015) it has been determined that a Type C development on a CS2 sites the gas protection measures must provide a minimum of 2.5 points.

8.2.13 This can be achieved in a number of ways, within BS8485 it is recommended that a range of protection measures are utilised with a minimum of two separate methods chosen from the three groupings (Structural, Ventilation and Barrier).

8.2.14 However, it is felt the following provides options for the most suitable solution for the proposed development:

Table 8.3: Recommended Gas Protection Measures

Protection Measures	BS 8485 Score
Structural	
Cast in situ monolithic reinforced ground bearing raft or reinforced cast in situ suspended floor slab with minimal penetrations	**1.5**
Ventilation	
Pressure relief pathway	**0.5**
Or	
Passive sub floor dispersal layer of:	
• Very good performance:	**2.5**
• Good performance:	**1.5**
Barrier	
Gas resistant membrane meeting all of the following criteria: • sufficiently impervious to the gases with a methane gas transmission rate <40.0 ml/day/m2/atm (average) for sheet and joints (tested in accordance with BS ISO 15105-1 manometric method); • sufficiently durable to remain serviceable for the anticipated life of the building and duration of gas emissions; • sufficiently strong to withstand in-service stresses (e.g. settlement if placed below a floor slab); • sufficiently strong to withstand the installation process and following trades until covered (e.g. penetration from steel fibres in fibre reinforced concrete, penetration of reinforcement ties, tearing due to working above it, dropping tools, etc); • capable, after installation, of providing a complete barrier to the entry of the relevant gas; and • verified in accordance with CIRIA C735	**2**
MINIMUM REQUIRED TOTAL FOR OPEN AREAS (D)	**1.5**
MINIMUM REQUIRED TOTAL FOR SMALL ROOMS (C)	**2.5**

8.2.15 To achieve a score of 1.5 the suspended slab should be well reinforced to control cracking and have minimal penetrations of the slab. Any necessary penetrations should be cast in.

8.3 The media used to provide the dispersal layer can vary, but commonly are formed using either clear void; a polystyrene void former blanket; a geocomposite void former blanket; a no-fines gravel layer with gas drains or a no-fines gravel layer. In designing the ventilation layer, the ventilation effectiveness of different media needs to be taken into consideration. The effectiveness of the ventilation layer depends on a number of different factors including the transmissivity of the medium, the width of the building, the side ventilation spacing and type and the thickness of the layer.

8.3.1 During construction where personnel are required to enter excavations of greater than 1.2m the air quality (carbon dioxide, methane and oxygen as a minimum) should be regularly checked prior and during person entry. Appropriate precautions, including but not limited to, venting, PPE and gas alarms should be undertaken

8.3.2 Any permanent excavations such as manholes, inspection chambers or other void spaces formed beneath the sites ground surface are potential ground gas traps and precautions, as per above, are considered the minimum necessary prior to person entry.

8.3.3 BS 8576:2013 has been used to derived threshold levels for carbon monoxide and volatile organic compounds.

8.3.4 Given the recorded levels it is not considered that additional protection measures need to be incorporated to protect end users from the recorded carbon monoxide concentrations.

Vapour discussion

8.3.5 PID screening of the monitoring well headspace has revealed maximum concentrations of VOCs of 48.1ppm within BH3, however, for all other wells the maximum concentrations of VOCs were 2.9ppm. Significantly elevated VOCs were only recorded in BH3 during a single monitoring visit.

8.3.6 PID screening of the soil arisings detected concentrations ranging between 0ppm and 45ppm, with the significantly higher results within WS5 and BH3.

8.3.7 Although elevated levels have been detected across the site, naphthalene has exceeded the relevant screening criteria within 1No location (WS5). The sample analysed has been described by the laboratory as containing asphalt. Exceedances of PAH's were found within nearby locations TP1 and WS4, however the concentrations of naphthalene detected in these locations are considerably lower (0.03mg/kg and 8.5mg/kg, respectively), therefore the vapour risk from soils containing naphthalene is considered to be localised and supplementary investigation is recommended to further assess the extent.

8.3.8 Therefore, it is considered that the PID screening of monitoring well confirms the assessment that risks to human health receptors via vapour inhalation pathways require further evaluation.

9 GEO-ENVIRONMENTAL ASSESSMENT SUMMARY AND RECOMMENDATIONS

9.1 Land Quality Impact Summary

9.1.1 Following the ground investigation, the following is noted:

- It is understood that the proposed development currently involves the demolition of the existing industrial units, and the construction of 4No. new industrial structures, comprising 11No units, with associated external parking, roadways and lorry loading areas.

- Following generic risk assessments, elevated concentrations of lead, nickel and PAH'S were detected in soils in excess of generic assessment criteria for the protection of human health within a commercial end-use scenario.

- No asbestos containing materials or fibres were detected in the Made Ground samples analysed in the laboratory.

- Further investigation is recommended in the vicinity of WS5 in order to attempt to determine and delineate the source of the highly elevated naphthalene concentrations reported. It is also recommended that further investigation is undertaken in the vicinity of VH3 at the same time, in an attempt to identify a potential source of the elevated VOCs recorded during monitoring visit 1. Further investigation and possible localised remediation in these areas is intended to mitigate potential risks to controlled waters and vapour inhalation.

- The risk to controlled waters from soils is considered generally low. The elevated naphthalene concentrations in the vicinity of WS5 require further investigation as discussed above.

- Based on the calculated GSV's and consistently elevated concentrations of carbon dioxide at the site has been classified as Characteristic Situation 2 in accordance with BS8485, meaning basic gas protection measures are required. See Section 8 for details.

- Upgraded potable water supply pipe materials are likely to be required. The water supply pipe requirements for this site should be discussed at an early stage with the relevant utility provider.

- Preliminary waste classification indicates the Made Ground to be hazardous waste and the natural soils as non-hazardous for disposal purposes, however both exceed criteria for inert waste landfill.

- A remedial strategy will be required for the proposed development.

- As with any ground investigation, the presence of further hotspots between sampling points cannot be ruled out. Should any contamination be encountered, a suitably

qualified environmental consultant should be informed immediately, so that adequate measures may be recommended.

9.1.2 The above conclusions are made subject to approval by the statutory regulatory bodies.

9.2 Review of Pollutant Linkages Following Ground Investigation

9.2.1 The site CSM has been revised and updated from that suggested in the desk study in view of the ground investigation data, including soil laboratory analysis results. Table 9.1 highlights whether pollutant linkages identified in the original CSM are still relevant following the risk assessment, or whether pollutant linkages, not previously identified, exist.

Table 9.1: Plausible Pollutants Linkages Summary (Pre-Remediation)

Potential Source (from desk study)	Pathway	Receptor	Relevant Pollutant Linkage?	Comment
• Potential for contaminated ground associated with previous and existing site use – on site (S1) Previous: o Engineering works o Warehouse o Builders yard o Coal yard o Depot o Ross Road Existing: - Vehicle sales and cleaning. - Phantom brewing. • Current and previous industrial use – off site (S2) o Works adjacent to the south-east o Engineering works 50m north o Printing works 40m south o Industrial style buildings north, north-west and east of site, nearest 70m. o Numerous tanks; nearest 70m north-west. o Chemical works 90m west o Coal depot 100m south-west and 350m east o Works and warehouse buildings; nearest 225m east o Railway 250m south • Potential for Made Ground associated with previous development operations – on site (S3) o Buildings and Ross Road • Potential asbestos containing materials within existing buildings and associated with demolition of previous buildings – on site (S4)	• Ingestion and dermal contact with contaminated soil (P1) • Inhalation or contact with potentially contaminated dust and vapours (P2) • Permeation of water pipes and attack on concrete foundations by aggressive soil conditions (P6)	• Construction workers (R1) • Maintenance workers (R2) • Neighbouring site users (R3) • Future site users (R4) • Building foundations and on site buried services (water mains, electricity and sewer) (R5)	**Y**	See section 9.1 above for remedial measures. The findings of this report should be included in the construction health and safety file, with adequate measures put in place for the protection of construction and maintenance workers. Contact should be made with relevant utility providers to confirm if upgraded materials are required. The concrete classification to protect buried concrete is discussed in Section 11.3.
	• Accumulation and migration of soil gases (P5)		**Y**	Gas protection measures are required in accordance with CS2 classification.
	• Leaching through permeable soils, migration within the vadose zone (i.e., unsaturated soil above the water table) and/or lateral migration within surface water, as a result of cracked hardstanding or via service pipe/corridors and surface water runoff (P3) • Horizontal and vertical migration of contaminants within groundwater (P4)	• Neighbouring site users (R3) • Building foundations and on site buried services (water mains, electricity and sewer) (R5)	**N**	A significant risk of impact to controlled waters has not been identified. The concrete classification to protect buried concrete is discussed in Section 11.3.

10 DERIVATION OF GEOTECHNICAL PARAMETERS

10.1 Introduction

10.1.1 A summary of ground conditions obtained from the ground investigation and the derived geotechnical parameters is provided below.

10.2 Plasticity of Cohesive Materials

Alluvium

10.2.1 Atterberg Limit determination was undertaken on 9No samples of Alluvium, at depths ranging from 2.40m to 4.00mbgl.

10.2.2 Plasticity index values ranged from 21% to 33% and were indicative of “intermediate” to “high” plasticity, as illustrated in Figure 10.1 below.

10.2.3 Modified plasticity index values ranged from 12.18% to 32.67%, indicating soils with “low” to “medium” volume change potential.

Kempton Park Gravel Member

10.2.4 Atterberg Limit determination was undertaken on 3No samples of the Kempton Park Gravel Member, at depths ranging from 3.40m to 5.00mbgl.

10.2.5 Plasticity index values ranged from 6% to 29% and were indicative of “low” to “intermediate” plasticity, as illustrated in Figure 10.1 below.

10.2.6 Modified plasticity index values ranged from 3.3% to 25.52%, indicating soils ranging from “non-shrinkable” to “medium” volume change potential.

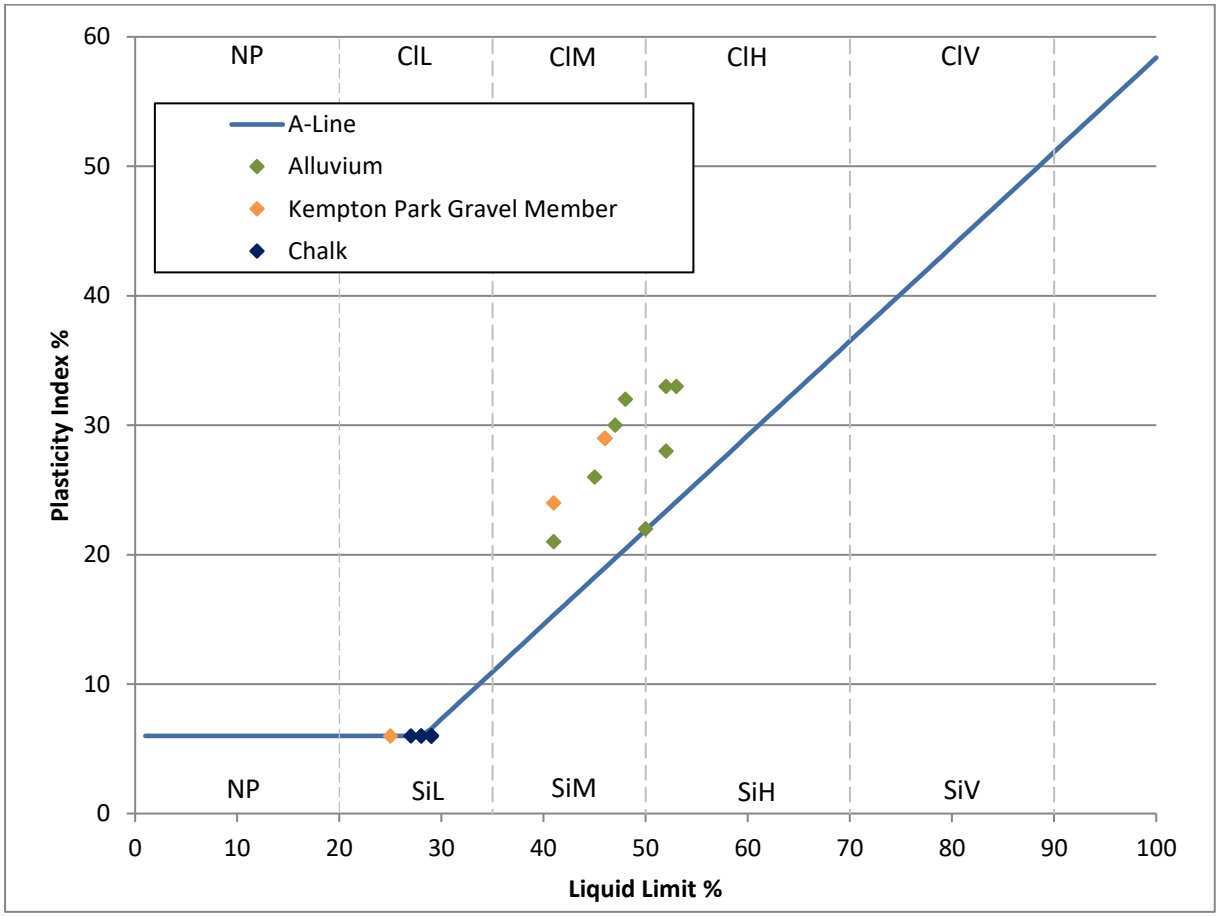
Undifferentiated Chalk

10.2.7 Atterberg Limit determination was undertaken on 7No samples of the Undifferentiated Chalk, at depths ranging from 11.00m to 15.00mbgl.

10.2.8 Plasticity index values for all samples were measured as 6% and were indicative of “low” plasticity, as illustrated in Figure 10.1 below.

10.2.9 Modified plasticity index values ranged from 1.38% to 3.36%, indicating “non-shrinkable” soils.

Figure 10.1: Plasticity Chart

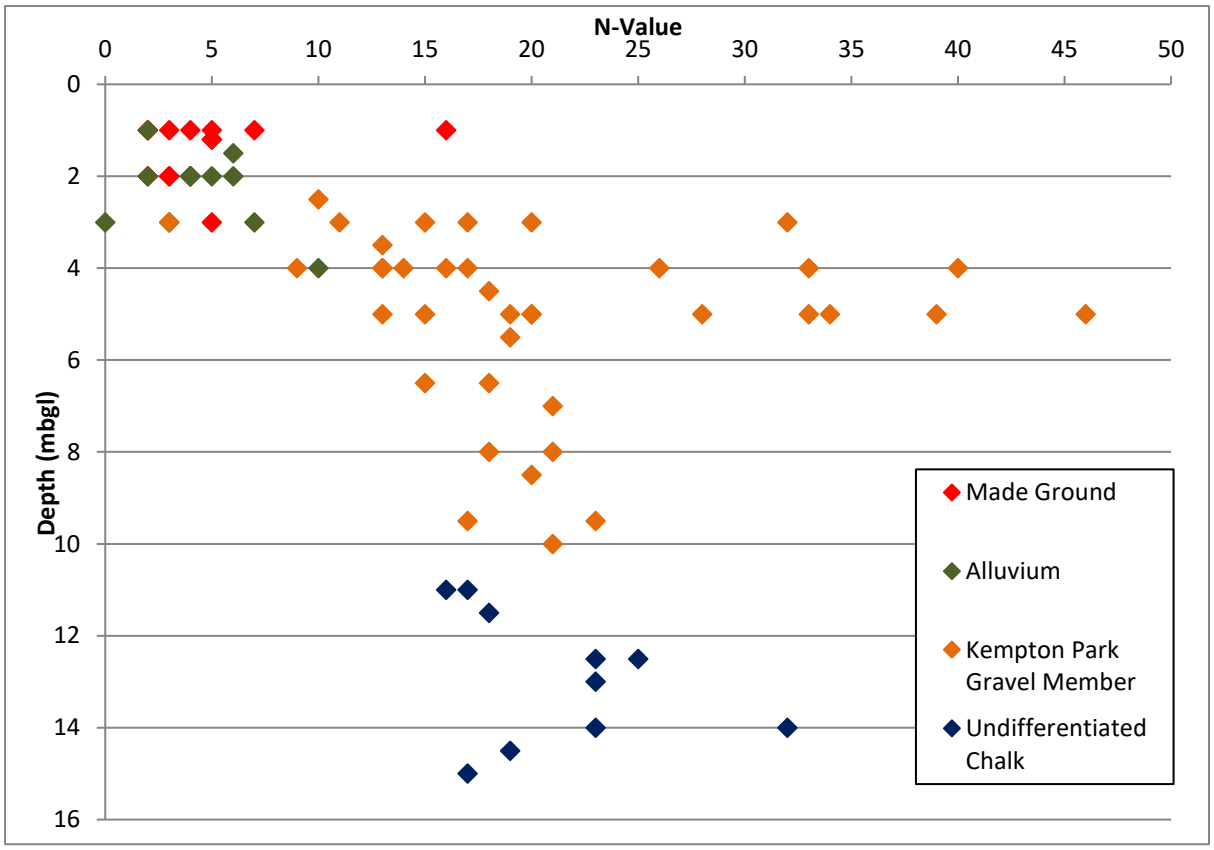


10.3 Standard Penetration Tests

10.3.1 Standard penetration tests (SPT) were undertaken at regular intervals throughout the windowless sample boreholes and cable percussive borehole. The results of the SPTs are plotted against depth in Figure 10.2 below.

10.3.2 The strata have been grouped into “Made Ground”, “Alluvium”, “Kempton Park Gravel Member” and “Undifferentiated Chalk”.

Figure 10.2: SPT N-Value v Depth



10.3.3 Occasional cohesive layers of the Kempton Park Gravel Member / transitional material were reported, reflected by the lowest SPT N value results (N = 3 and N = 9) as well as one result of N = 26.

10.3.4 The results from the Made Ground and Alluvium are variable, as would be expected.

10.3.5 A general increase with depth can be seen for the Kempton Park Gravel Member, although with some variation between the results from the cable percussive and windowless sampling techniques.

10.3.6 Although low SPT N values are expected within Alluvium, a groundwater strike was reported within WS5 at 3.00mbgl, potentially influencing the SPT N = 0 result.

10.4 Undrained Shear Strength

10.4.1 As discussed above, the N-values recorded in the clay vary with depth, this infers that the undrained shear strength of the clay similarly varies. Figure 10.3 below shows the undrained shear strength inferred by the correlation suggested by Stroud (1974):

$c_u = f_1 \times N$ can be applied,

in which

c_u = mass shear strength (kN)

f_1 = constant

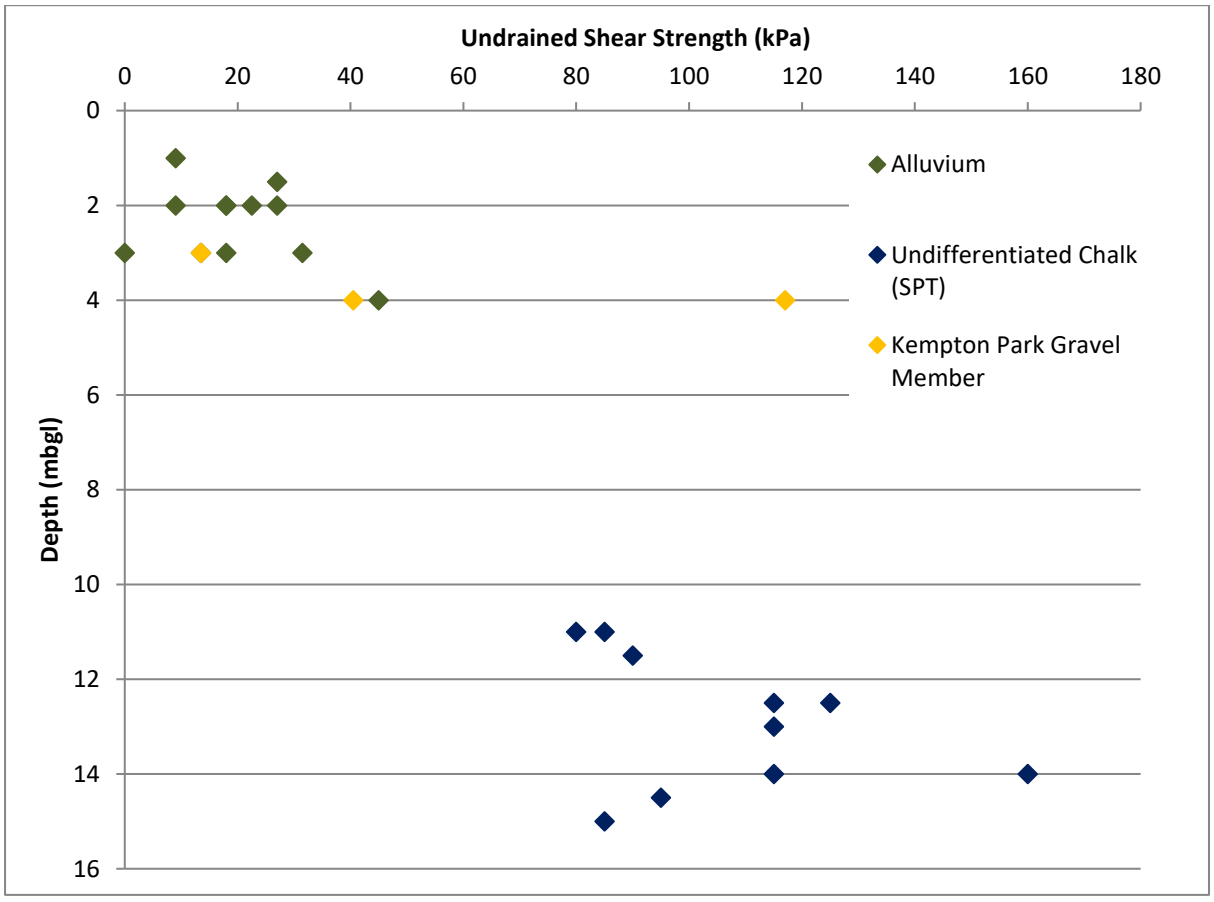
N = SPT value achieved during boring operations

10.4.2 In the above equation f_1 is dependent on the plasticity of the material that the SPT is being carried out in. As the plasticity indices were generally shown to be greater than 25% for Alluvium and lower than 25% for the Undifferentiated Chalk, a value for f_1 of 4.5 and 5 have been adopted, respectively, after Tomlinson (2001).

10.4.3 The graph below shows the shear strength profile of the encountered cohesive materials at the site, based on the SPT to shear strength correlation described above. This includes the results for cohesive layers within the Kempton Park Gravel and transition material.

10.4.4 Due to the nature of the recovery of the Undifferentiated Chalk being 'very wet', samples could not be obtained for undrained triaxial testing.

Figure 10.3: Undrained Shear Strength v Depth



10.5 Coefficient of Compressibility

10.5.1 Stroud and Butler (1974) developed a relationship between the coefficient of compressibility (m_v) and SPT N-value.

$m_v = 1/ f_2 \times N$ can be applied,

in which

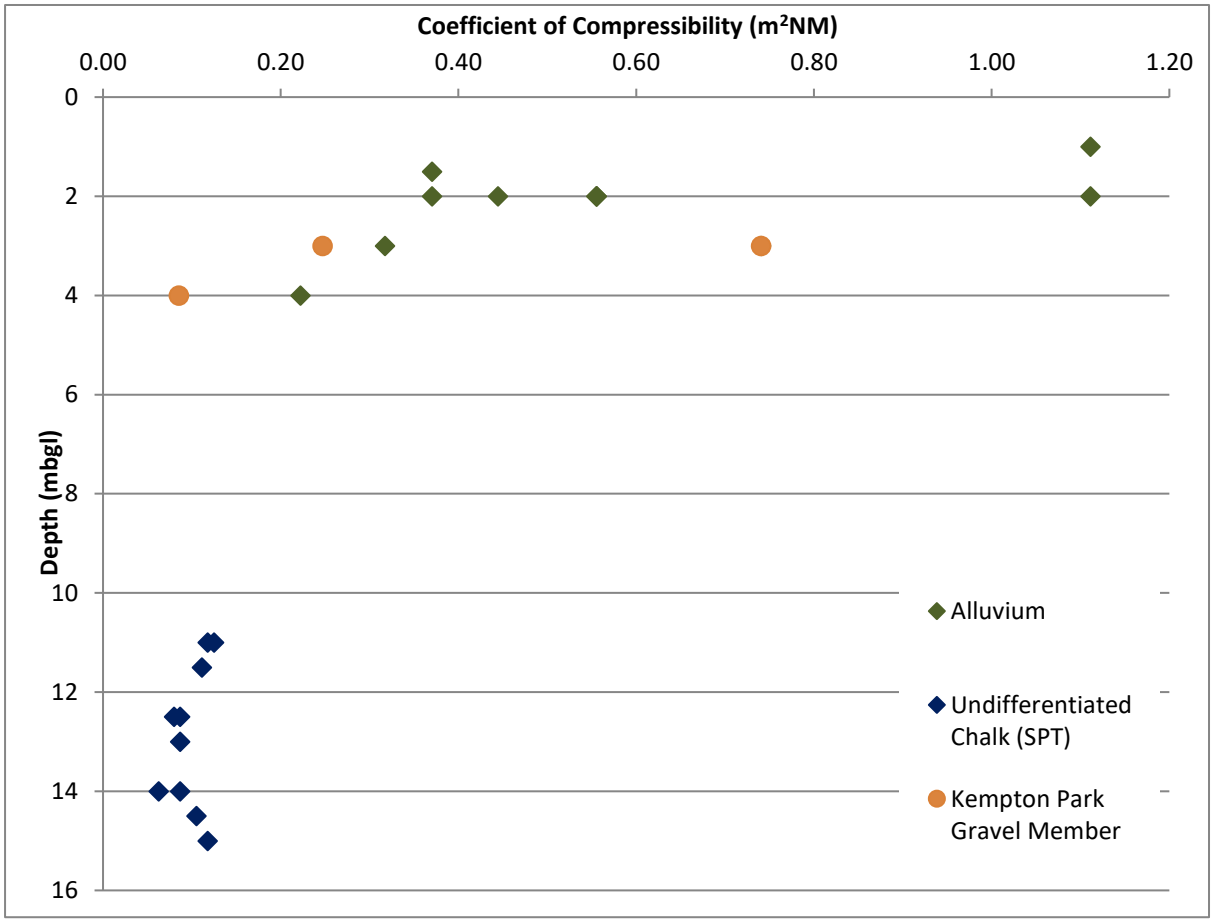
m_v = coefficient of compressibility (m^2/MN)

f_2 = constant dependent on the plasticity index

N = SPT value achieved during boring operations

10.5.2 Using the plasticity indices obtained and the graphs provided in Tomlinson (2001) a value of f_2 of 0.45 and 0.5 has been taken and used with the SPT N-values to infer coefficient of compressibility (m_v).

Figure 10.4: Coefficient of Volume Compressibility (m_v) v Depth



10.5.3 The results of the Alluvium are varied from “medium” to “high” compressibility and the results of the Undifferentiated Chalk are of “low” to “medium” compressibility, generally shown to reduce with depth as the clay increases in strength and the over burden increases, reducing the potential for compressibility.

10.5.4 The results from within the cohesive layers of the Kempton Park Gravel / transition material vary from “low compressibility” to “high compressibility”. The SPT result which produced the “low compressibility” result may have been influenced by the presence of the gravel within the base of the test.

10.6 Density

10.6.1 In the absence of geotechnical laboratory test results, the correlations and suggested values for both cohesive and granular materials given in BS8004:2015 have been used.

10.6.2 The derived unit weights are summarised below in Table 10.1.

Table 10.1: Derived Unit Weights

Strata	Unit Weight (kN/m³)
Made Ground	17
Kempton Park Gravel Member	20
Undifferentiated Chalk	19

10.7 Effective Angle of Shearing Resistance / Angle of Friction

10.7.1 In cohesive soils, the effective angle of shearing resistance can be derived from the plasticity index of the soil, using the following equation presented in BS8004:2015.

$$\emptyset' = 42 - (12.5xLOG10(PI))$$

Where PI = Plasticity Index.

10.7.2 Values have been calculated for all available plasticity index results and are presented in Table 10.2.

Table 10.2 Derived Angles of Shearing Resistance

Sample	Stratum	Derived Angle of Shearing Resistance (°)
BH1 at 4.00m	Alluvium	25.5
TP2 at 2.70m	Alluvium	23.0
TP3 at 2.70m	Alluvium	23.7
TP4 at 2.90m	Alluvium	23.2
WS1 at 2.70m	Alluvium	25.2
WS2 at 3.00m	Alluvium	23.0
WS4 at 2.80m	Alluvium	23.9
WS6 at 2.40m	Alluvium	23.5
WS9 at 2.50m	Alluvium	24.3
BH1 at 5.00m	Kempton Park Gravel Member	24.7
WS3 at 3.40m	Kempton Park Gravel Member	23.7

Sample	Stratum	Derived Angle of Shearing Resistance (°)
WS5 at 4.60m	Kempton Park Gravel Member	32.3
BH1 at 11.00m	Undifferentiated Chalk	32.3
BH1 at 13.00m	Undifferentiated Chalk	32.3
BH2 at 12.00m	Undifferentiated Chalk	32.3
BH2 at 13.00m	Undifferentiated Chalk	32.3
BH2 at 15.00m	Undifferentiated Chalk	32.3
BH3 at 12.00m	Undifferentiated Chalk	32.3
BH3 at 14.00m	Undifferentiated Chalk	32.3

10.7.3 In granular materials, the effective angle of friction can be derived indirectly using the methodology outlined in Table 1 of BS8004:2015, using a combination of the SPT N-Values, particle size distribution (PSD) of the soil, and the field descriptions of angularity of the gravel fraction. This method assumes that the fines content of the material is less than 15%. An alternative method is to refer to the correlation between angle of friction and SPT N-values postulated by Peck *et al* (1967) and reproduced in Tomlinson (2001).

10.8 Stiffness Moduli

10.8.1 In cohesive materials, the undrained stiffness modulus (Young's Modulus) can be derived using the correlation with SPT N-values, presented in CIRIA Report R143.

$$\underline{Eu = 1.2 * N}$$

10.8.2 The drained Young's Modulus for cohesive material can also be derived from the SPT N-values, as follows:

$$\underline{E' = 0.9 * N}$$

10.8.3 In granular materials, the drained Young's Modulus can be derived using the following correlation:

$$E' = N$$

10.8.4 In Chalk, the drained Young's Modulus can be derived using the following equation.

$$\underline{E' = 5 * N}$$

10.9 Unconfined Compressive Strength (Chalk)

10.9.1 SPTs were carried out within the encountered chalk. These results are plotted above in Figure 10.2.

10.9.2 As shown in Figure 10.2, there is a general increase in the recorded N-values with depth and the undrained shear strength of the completely weathered chalk materials. The percussive nature of the drilling meant that the recovered materials within the chalk were heavily

disturbed, however from these results it is possible to infer that from the start of the chalk at around 5mbgl the chalk is heavily weathered, with a steady increase in N-values with depth.

10.9.3 It is usual to use unconfined compressive shear strength with rock strata. The unconfined compressive strength of chalk has often been inferred using the Stroud Correlation, see below.

UCS = f_1 x N can be applied,

in which

c_u= mass shear strength (kN)

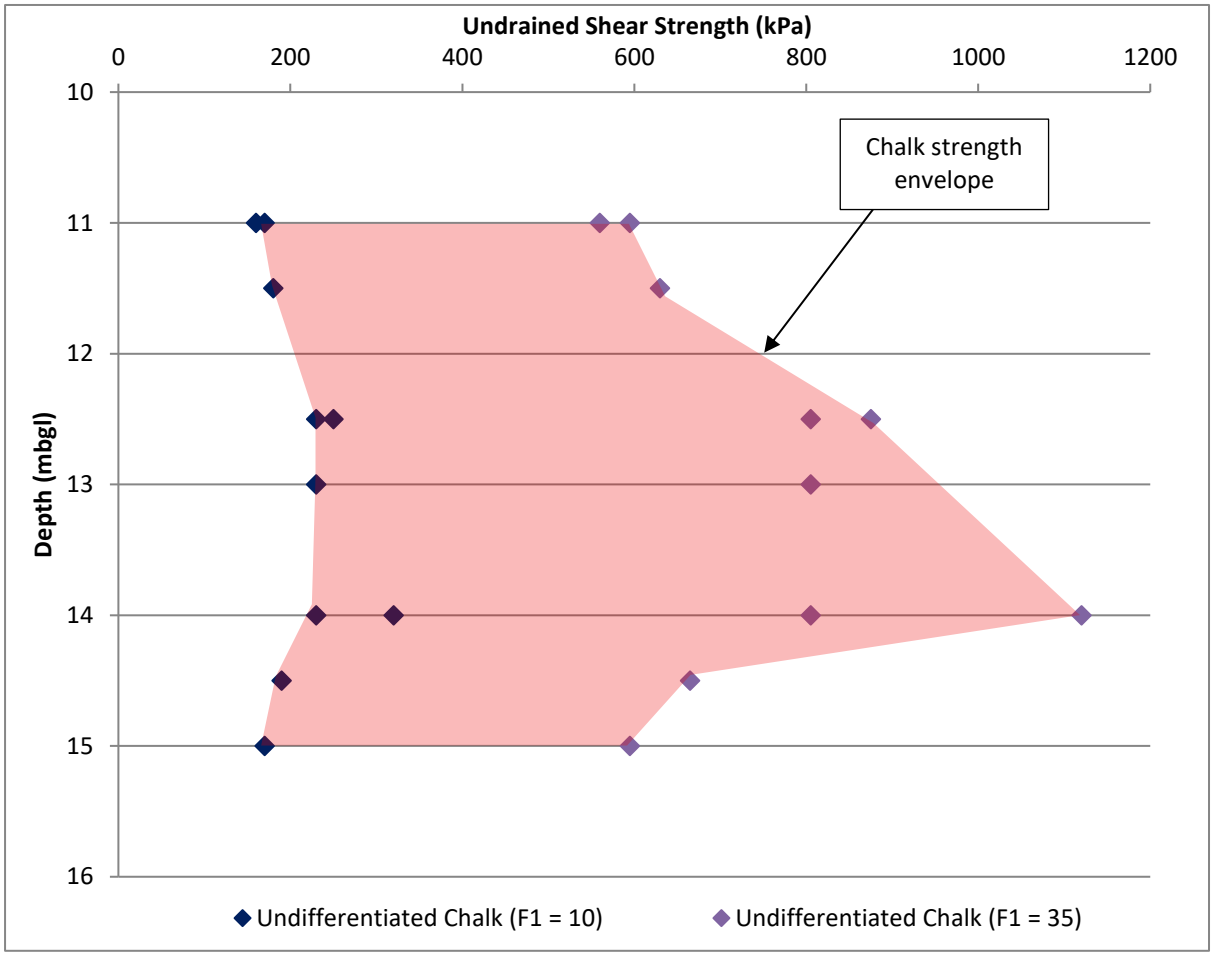
f_1 = constant

N = SPT value achieved during boring operations

10.9.4 Within chalk, the f_1 factor can range between 10 and 35, dependent on a number of factors including the physical structure of the chalk (weathering grade, inclusions (i.e. flints), and jointing (including the aperture, infill and tightness)).

10.9.5 Consequently, CIRIA C574 “Engineering in Chalk” (2002) states that the general use of SPTs to assess chalk is unlikely to be particularly useful other than to identify generic changes in the material rather than being able to provide a specific strength.

Figure 10.5: Inferred Unconfined Compressive Strength Envelope v Depth



10.9.6 If definitive unconfined compressive strengths are required for the chalk, it would be recommended that rotary cored boreholes are undertaken with unconfined compressive strength laboratory testing undertaken on lengths of the retrieved core.

10.10 Summary of Derived General Properties

10.10.1 Based on the analysis of the ground investigation data and past experience with similar deposits, the following derived general parameters are given in Table 10.3.

Table 10.3 Derived Geotechnical Parameters

Property	Alluvium	Kempton Park Gravel Member	Undifferentiated Chalk
Unit Weight (kN/m^3) [1)]	16	20	19
Drained Friction, ϕ' (◦)	23.0 – 25.5[2)]	29.5 - 41[3)] 23.7 – 32.3[2)]	32.3[2)]
Drained Cohesion, c' (kPa)	0	0	0

Property	Alluvium	Kempton Park Gravel Member	Undifferentiated Chalk
SPT N-Value	0 – 10	3 – 9 (cohesive) 10 - >50+	16 - 32
Undrained Young's Modulus, E_u (MPa)[4]	(0) 5 - 12	4.5 – 13.5	19.2 - >60+
Drained Young's Modulus E' (MPa)	(0) 1.8 - 9[5]	2.7 – 8.1[5] 10 - >50+[7]	8.4 - >35[6]
Undrained Shear Strength, c_u (kPa)[8]	9 - 45	13.5 - 117	160 - 320
Plasticity Index (%)	21 - 33	6 - 29	6
Modified Plasticity Index (%)	12.6 – 32.67	3.3 – 24.7	1.38 – 3.36
Volume Change Potential [NHBC]	Low to medium	Non-shrinkable (cohesive layers low to medium)	Non-shrinkable
Modulus of Volume Compressibility, m_v (m^2/MN)[9]	(0) 0.222 – 1.111	0.085 – 0.741	0.063 – 0.125

[1] Derived from Figures 1 and 2 of BS8004:2015

[2] Calculated from: $\phi' = (42° - 12.5\log 10 I_p)$ for $5\% \leq I_p \leq 100\%$ Where, I_p is the soil's plasticity index (BS8004:2015)

[3] Calculated from Correlation between N-value and Φ

[4] Calculated from: $E_u = 1.2 \times N$ MPa, based on the guidance given in CIRIA Report 143 (COHESIVE SOILS)

[5] Calculated from $E' = 0.9 \times N$ MPa, based on the guidance given in CIRIA Report 143 (COHESIVE SOILS)

[6] Calculated from $E' = 5 * N$ (MPa), based on the guidance given in CIRIA Report 143 (CHALK)

[7] Calculated from: $E' = 1.0 \times N$ MPa, based on the guidance given in CIRIA Report 143 (GRANULAR)

[8] The undrained shear strength (c_u) of the cohesive soils was correlated to the SPT N-values using Stroud (1974), where $c_u = f_1 N$ and f_1 is factor related to the Plasticity Index (PI) of the clay (a value of f_1 equal to 5.0 for PI ≤ 25% and a value of f_1 value equal to 4.5 for PI>25)

[9] Calculated from: $m_v = 1/f_2$ N m^2/MN, f_2 is a coefficient proposed by Stroud and Butler (1975) and varies with Plasticity Index (PI) as presented in Figure 27 of CIRIA Report 27 or $10/c_u$.

11 GEOTECHNICAL ENGINEERING RECOMMENDATIONS

11.1 General

11.1.1 Subsequent to intrusive investigation of the site and receipt of the laboratory test results, the following geotechnical assessments have been made.

11.2 Proposed Foundations

General

11.2.1 The Made Ground and low strength clays of the Alluvium and Kempton Park Gravel Member transitional material are not considered to provide suitable bearing strata due to their low and variable bearing properties, and the unacceptable risk of total and differential settlement.

11.2.2 As soils of medium volume change potential are present, heave precautions will be required against the side of foundations and ground beams in accordance with the requirements set out in NHBC Standards Chapter 4.2.

Conventional Foundations

11.2.3 Made Ground and Alluvium have been encountered up to 4.0mbgl and all foundations should be deepened beneath these deposits and any soft/loose soils encountered in order to found within underlying competent strata. Therefore, conventional foundations are not considered suitable.

Piled Foundations

11.2.4 Due to the required depth of construction, the presence of deeper zones of Made Ground or very soft and loose soils would dictate conventional foundations exceeding 2.5mbgl, an alternative such as piled foundations would be considered suitable.

11.2.5 Preliminary load capacities calculated for varying diameter of CFA piles taken into the Undifferentiated Chalk are given in Table 11.1. The design should be used for preliminary purposes only as the actual working load is dependent on the type of pile and method of installation.

Table 11.1: Indicative Pile Capacities (kN)

Pile toe depth (mbgl)	Pile diameter (mm)		
	450	600	800
	Indicative Allowable Pile Capacity (kN)		
8	120	188	300
10	*156*	*236*	*356*
12	*329*	*525*	*853*
14	*386*	*601*	*953*
15	*417*	*642*	*1009*

11.2.6 To comply with BS EN 1997 and the guidance given by the Federation of Piling Specialists the ground must be proven to a minimum of 5m below the proposed toe of the piles. Consequently, values below 10mbgl have been given indicatively in grey italics.

11.2.7 The construction of a piled foundation is a specialist job and the advice of a reputable local contractor familiar with the type of ground and groundwater conditions encountered on this site should be sought prior to finalising the design.

11.2.8 The piling contractor should be made aware of any obstructions that may have been encountered during the investigation.

11.2.9 These working loads have been calculated on the basis of the ground and groundwater conditions encountered in the boreholes and assume the following:

- The contribution to the working load on the upper 4.5m has been ignored due to the presence of Made Ground and Alluvium.S
- Partial factors were applied on the sum of the end bearing and skin friction working loads as defined by BS EN 1997 using Design Approach 1 Combination 2.
- No allowance has been made for additional forces acting on the pile shaft, such as negative skin friction, or loading due to desiccation or heave forces.
- Groundwater level was adopted as 1.20mbgl.

11.2.10 The preliminary working loads given are applicable to single vertically loaded piles. Where groups of piles are to be constructed, the working load of each individual pile should be reduced appropriately and a calculation made to check for the factor of safety against block failure.

11.2.11 A temporary working platform is likely to be required. In addition, some form of temporary drainage may also be required to prevent the working platform becoming waterlogged or deteriorating during use. A working platform should be designed in accordance with BRE BR470, or similar design standard.

11.2.12 The site overlies a Principal Aquifer and as such the foundation solution adopted should not introduce migration pathways for potential mobile contaminants from the overlying materials. The Environment Agency have a preference for Continuous Flight Auger (CFA) piles undertaken within geology designated as an aquifer as it reduces this risk. It is possible that the Environment Agency will require a Foundation Works Risk Assessment to be undertaken prior to any foundation works being undertaken. Liaison with the Environment Agency will be required in this respect.

<u>Ground Improvement</u>

11.2.13 Alternatively, consideration could be given to the use of ground improvement techniques, such as vibro-replacement stone columns (VSC).

11.2.14 Allowable bearing pressures for reinforced strip foundations in the order of approximately 100kPa to 125kPa can typically be achieved by this technique, though the advice and design of a specialist contractor should be sought for confirmation of the load carrying capacity and costs of their proprietary techniques.

11.3 Aggressive Ground Conditions

11.3.1 Sulphate attack on building foundations occurs where sulphate solutions react with the various products of hydration in Ordinary Portland Cement (OPC) or converted High-Alumina Cement (HAC). The reaction is expansive, and therefore disruptive, not only due to the formation of minute cracks, but also due to loss of cohesion in the matrix.

11.3.2 In accordance with BRE Special Digest 1, the characteristic values of sulphate used to determine the concrete classification are determined using the methodology summarised in Table 11.2 below.

Table 11.2: Concrete in the Ground Characteristic Value Determination

No Samples in the dataset	Method for determining the sulphate characteristic value
1 - 4	Highest value
5 - 9	Mean of the top 2No highest results
10 or greater	Mean of the top 20% highest results

11.3.3 Table 11.3 summarises the analysis of the aggressive nature of the ground for each of the strata encountered within the ground investigation.

Table 11.3: Concrete in the Ground Class

Stratum	No Samples	pH range	Characteristic WS Sulphate (mg/l)	Characteristic Total Potential Sulphate (%)[1)]	Design Sulphate Class	ACEC Class
Made Ground	16	7.7 – 11.8	1025	N/A	DS-2	AC-1s
Alluvium	2	7.8 -8.1	120	N/A	DS-1	AC-1
Kempton Park Gravel Member	3	8.3 – 8.7	91	N/A	DS-1	AC-1
Undifferentiated Chalk	3	8.6 – 9.3	39	N/A	DS-1	AC-1

1) Applies to soils containing more than 0.3% of oxidisable sulphides, calculated in accordance with BRE SD-1

11.3.4 Analysis of the results indicates that the underlying soils do not contain appreciable concentrations of oxidisable sulphates and therefore the Design Class is dependent on the soluble sulphate content and pH only.

11.3.5 The concrete structures, including foundations, will need to be designed in accordance with BS EN 1992-1-1:2004+A1:2014. It is recommended that the advice of this publication be taken for the design and specification of all sub-surface concrete.

11.4 Ground Floor Slabs

11.4.1 Given the presence of shrinkable soils and the recommended piling at the site, it is recommended that suspended floor slabs are used with an adequate void designed according to NHBC Standards. As a guide, initial modelling indicates a requirement for a sub-floor void of at least 250mm due to the presence of shrinkable soils of medium volume change potential.

11.4.2 Due to the nature of the development, NHBC regulations will not apply. However, due to the presence of shrinkable soils, the potential for heave to affect a ground bearing floor slab should be considered, and measures included within the design to minimise the impact on the finished floor slab.

11.5 Excavations

11.5.1 Temporary excavations within the Made Ground and granular soils are unlikely to remain stable and some form of temporary support or battering back to a safe angle is likely to be required.

11.5.2 Temporary excavations within the cohesive soils are likely to remain relatively stable in the short term though some spalling may be anticipated.

11.5.3 Ground works should always be designed in such a manner to avoid entry into excavations by construction or maintenance personnel. However, in the event that such works cannot be avoided or designed out, they should only be undertaken in accordance with a safe system of work, following an appropriate risk assessment and in accordance with any legislative requirements, e.g. Confined Spaces Regulations.

11.6 Road Pavements

11.6.1 Table 11.4 summarises the results of the in-situ CBR testing.

Table 11.4: Summary of CBR Test Results

Position	Depth Range (mm)	Stratum	Average DCP CBR (%)
CBR01 – Test 1	105-210	Made Ground	40.2
CBR01 – Test 2	210-450	Made Ground	11.8
CBR01 – Test 3	450-670	Made Ground	28.6
CBR01 – Test 4	670-920	Made Ground	12.4
CBR02 – Test 1	78-300	Made Ground	39.2
CBR02 – Test 2	300-444	Made Ground	29.15
CBR02 – Test 3	444-762	Made Ground	11.35
CBR02 – Test 4	762-920	Made Ground	9.75

Position	Depth Range (mm)	Stratum	Average DCP CBR (%)
CBR03 – Test 1	130-353	Made Ground	53.55
CBR03 – Test 2	353-499	Made Ground	25.05
CBR03 – Test 3	499-660	Made Ground	32.65
CBR03 – Test 4	660-878	Made Ground	30.1
CBR04 – Test 1	248-325	Made Ground	6.65
CBR04 – Test 2	325-408	Made Ground	9.25
CBR04 – Test 3	408-451	Made Ground	43
CBR04 – Test 4	451-457	Made Ground	653.05
CBR05 – Test 1	296-486	Made Ground	2.65
CBR05 – Test 2	486-581	Made Ground	13.6
CBR05 – Test 3	581-684	Made Ground	25.4
CBR05 – Test 4	684-909	Made Ground	13.8
CBR06 – Test 1	294-467	Made Ground	7.4
CBR06 – Test 2	467-600	Made Ground	41.7
CBR06 – Test 3	600-730	Made Ground	44.75
CBR06 – Test 4	730-900	Made Ground	12.15

Position	Depth Range (mm)	Stratum	Average DCP CBR (%)
CBR07 – Test 1	150-390	Made Ground	1.00
CBR07 – Test 2	390 - 480	Made Ground	2.8
CBR07 – Test 3	480 - 750	Made Ground	7.6
CBR07 – Test 4	750-970	Made Ground	2.3

11.6.2 The engineering characteristics of Made Ground are variable, and the results of in-situ testing do not predict the overall settlements that may occur. It would therefore be prudent to assume a CBR value of 2.5% for the preliminary design of pavements constructed upon Made Ground.

11.6.3 In-situ CBR testing using a TRL DCP gives only a short-term estimated value, which may be influenced by seasonal variations in the moisture content of the soil or due to resistance against local granular inclusions.

11.6.4 Based on the plasticity results, and with reference to the equilibrium suction-index CBR values provided in the Transport Road Research Laboratory (TRRL) Laboratory Report 1132 (1984), a preliminary CBR value of 2.5% is considered suitable for the Alluvium.

11.6.5 The near-surface soils are deemed to be of low permeability and should therefore be treated as being not frost-susceptible.

11.6.6 Additional CBR testing should be undertaken after detailed design is complete to confirm suitability.

11.7 Surface Water Drainage

BRE 365 Soakage Tests

11.7.1 Table 11.5 summarises the soakage rates, which were calculated based on the results of the soakage testing:

Table 11.5: Summary of BRE 365 Soakage Test Results

Position	Geology	Calculated Infiltration Rates (m/s)		
		1st cycle	2nd Cycle	3rd Cycle
TP01	**Alluvium**	N/D	-	-
TP03	**Made Ground/Alluvium**	1 x 10^{-5}	-	-

N/D: Not determined due to insufficient fall in head over 286 minutes.

11.7.2 As previously noted, groundwater strikes were encountered within TP01 and TP03 at depths of between 3.30m and 2.40mbgl respectively prior to the commencement of the soakage testing, which may have also influenced very poor infiltration during the soakage testing within TP01.

11.7.3 Testing was undertaken in TP01 over 286 minutes, but insufficient drainage occurred during this time and an infiltration rate could not be calculated.

11.7.4 1No complete test was undertaken within TP03, indicating 'good' drainage conditions.

11.7.5 Although a soil infiltration rate was calculated within TP03, this is considered to be representative of the Made Ground and not the natural soils. Noting the boundary between the Made Ground and the low permeability Alluvium at 2.4mbgl, the accelerated infiltration during the first 10 minutes of the test is likely a result of water draining int the surrounding Made Ground.

11.7.6 Based on the above results and ground conditions encountered, conventional soakaways are not likely to be suitable, and an alternative drainage solution should be sought.

11.8 Groundwater Control

11.8.1 During the investigation groundwater was reported within the Window Sample boreholes between 1.70m and 3.00mbgl and within the Cable Percussive Boreholes between 1.20m and 4.50mbgl.

11.8.2 During return monitoring groundwater was reported at depths of between 2.51m and 2.95mbgl.

11.8.3 Subject to seasonal variations, any groundwater encountered during site works could be readily dealt with by conventional pumping from a sump used to collate waters.

11.8.4 Surface water or rainfall ingress could be similarly dealt with.

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APPENDICES

APPENDIX 1 – FIGURES

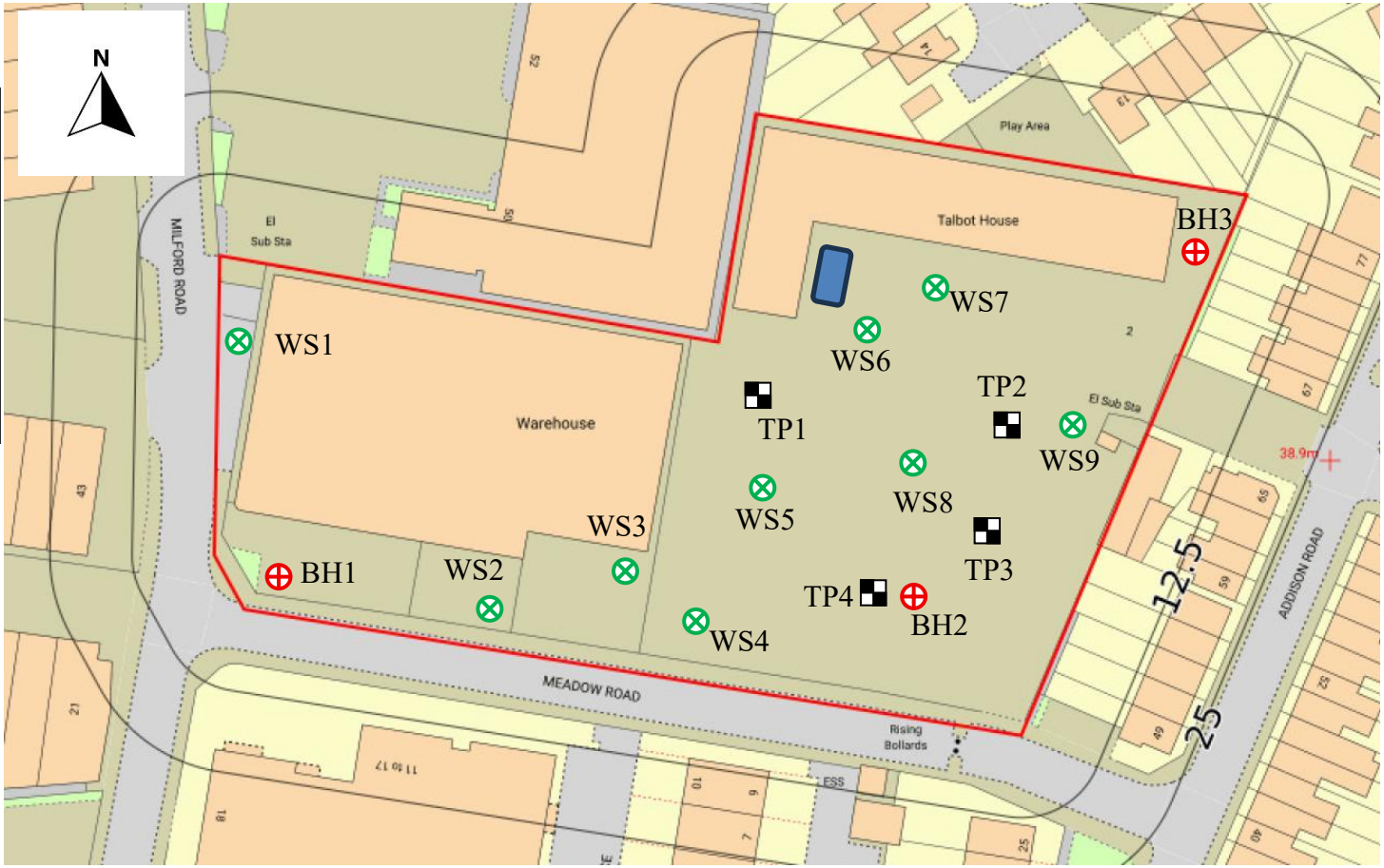
PROJECT NAME	Meadow Road, Reading, RG1 8LB	**CLIENT**	CBRE Ltd
TITLE	Site Location Plan	**PROJECT NO.**	P6365J3196
DATE	May 2025	**FIGURE NO.**	1



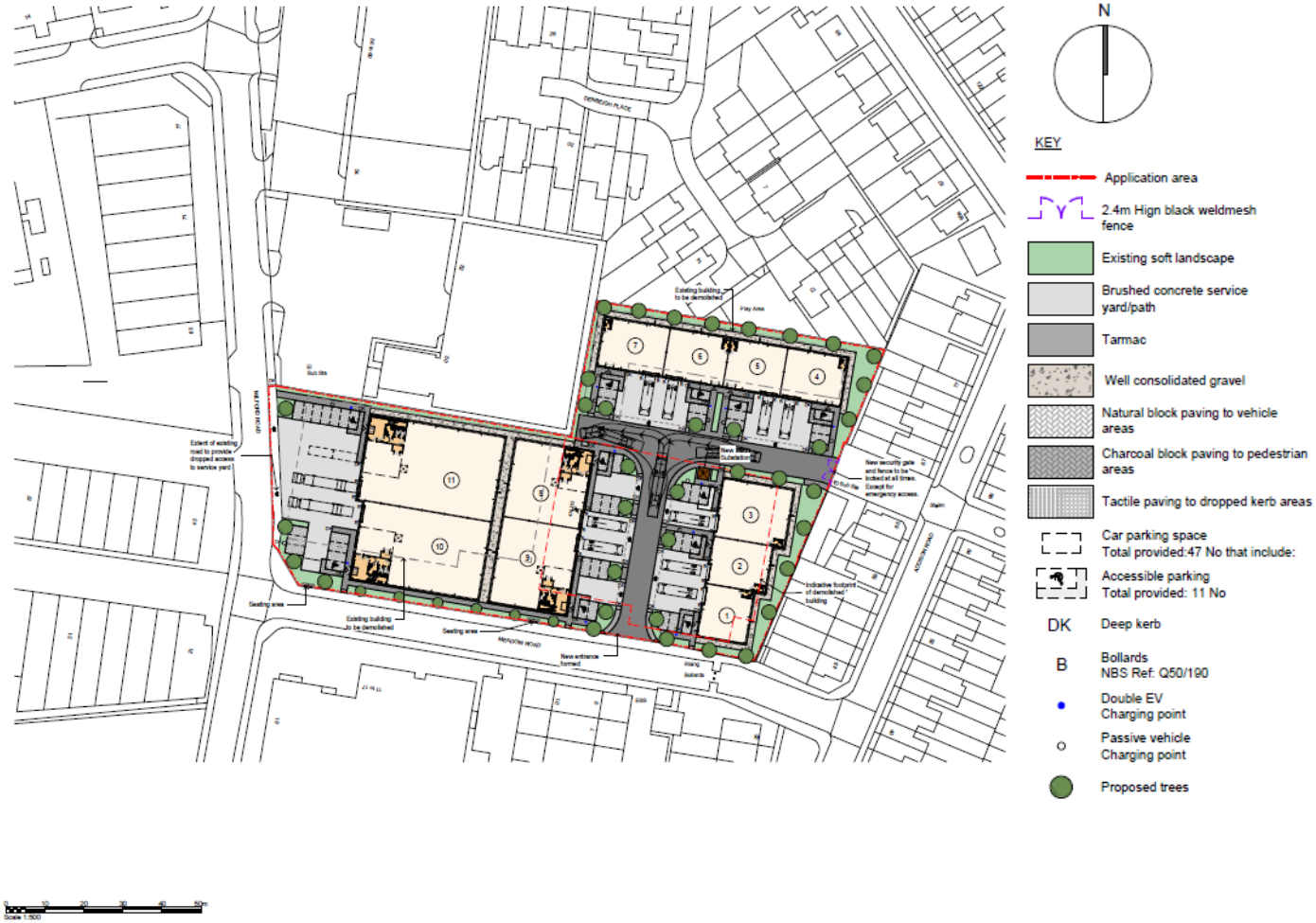
PROJECT NAME	Meadow Road	**CLIENT**	CBRE IM
TITLE	Completed Ground Investigation Plan	**PROJECT NO.**	P6365J3196
DATE	June 2025	**FIGURE NO.**	2

Key:

- Windowless Sampler boreholes
- Machine Trial Pits
- Cable Percussive boreholes to 15m
- Underground Tank



PROJECT NAME	Meadow Road, Reading, RG1 8LB	**CLIENT**	CBRE Ltd
TITLE	Proposed Site Plan	**PROJECT NO.**	P6365J3196
DATE	May 2025	**FIGURE NO.**	3



APPENDIX 2 – EXPLORATORY HOLE RECORDS

JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CABLE PERCUSSION RECORD

Borehole Number **BH1**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 24/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470895.13 N174178.16
Project No. : P6365J3196	Crew Name: RT	Drilling Equipment: Dando 2000

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	CP	38.68m AoD	CLP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
		0.00	PID	PID=0.3	0.05	38.63		Asphalt. (MADE GROUND)
		0.20	ES		0.25	38.43		Light grey slightly sandy gravel. Sand is fine to coarse. Gravel consists of fine to coarse, angular concrete. (MADE GROUND)
		0.25	D					
		0.50	D					
		0.60	ES					
		0.60	PID	PID=0.5				Brown sandy very gravelly silt. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and wood, occasional brick and glass. (MADE GROUND)
		1.00	D		1.00	37.68		
		1.20	SPT	N=5 (2,1/2,1,1,1)				Brown slightly sandy gravelly silt. Sand is fine. Gravel consists of fine to medium, angular to sub-rounded flint, occasional brick, glass and plastic. (MADE GROUND)
		2.00	D					
		2.00	ES					
		2.00	SPT	N=4 (1,2/2,1,0,1)				
		2.00	PID	PID=0.6				
		3.00	D		3.00	35.68		
		3.00	SPT	N=7 (2,2/2,2,1,2)				Soft consistency** grey gravelly SILT. Gravel consists of fine to medium, sub-angular to sub-rounded flint. (ALLUVIUM)
		4.00	D					
		4.00	D					
	▼	4.00	SPT	N=9 (3,2/2,3,2,2)	4.30	34.38		Firm consistency** grey slightly gravelly CLAY. Gravel consists of fine, sub-rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		5.00	D					
		5.00	D		5.20	33.48		
		5.00	SPT	N=15 (3,3/3,4,5,3)				Medium dense becoming very dense brown GRAVEL. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		6.00	D					
		6.00	D					
		6.50	SPT	N=18 (4,5/4,5,5,4)				
		7.00	D					
		8.00	D					
		8.00	SPT	N=21 (5,4/5,5,6,5)				
		9.00	D					
		9.50	SPT	N=23 (5,5/5,5,6,7)				
		10.00	D					

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Casing Diameter by Depth			Chiselling		
Depth Top	Depth Base	Diameter	Depth Top	Depth Base	Duration

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CABLE PERCUSSION RECORD

Borehole Number **BH1**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 24/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470895.13 N174178.16
Project No. : P6365J3196	Crew Name: RT	Drilling Equipment: Dando 2000

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	CP	38.68m AoD	CLP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Medium dense becoming very dense brown GRAVEL. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
					10.80	27.88		
		11.00	D					STRUCTURELESS CHALK. Recovered as a stiff consistency** white very gravelly SILT. Gravel consists of fine to coarse, sub-angular to rounded chalk. (UNDIFFERENTIATED CHALK)
		11.00	SPT	N=17 (4,3/4,5,4,4)				
		12.00	D					
		12.50	SPT	N=25 (5,8/5,4,9,7)				
		13.00	D					
		14.00	D					
		14.00	D					
		14.00	SPT	N=23 (9,10/3,7,5,8)				
		15.00	D		15.00	23.68		End of Borehole at 15.00m

11 12 13 14 15 16 17 18 19 20

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Casing Diameter by Depth			Chiselling		
Depth Top	Depth Base	Diameter	Depth Top	Depth Base	Duration

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CABLE PERCUSSION RECORD

Borehole Number **BH2**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 23/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470986.85 N174175.42
Project No. : P6365J3196	Crew Name: RT	Drilling Equipment: Dando 2000

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	CP	39.26m AoD	CLP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
		0.20	D		0.30	38.96		Greyish brown clayey, very gravelly silt. Gravel consists of fine to coarse, angular to rounded flint and brick. (MADE GROUND)
		0.25	ES					
		0.25	PID	PID=0.0				Greyish brown clayey, gravelly silt. Gravel consists of fine to coarse, angular to sub-rounded flint, brick concrete and glass. (MADE GROUND)
		0.50	D					
		0.50	ES					
		0.50	PID	PID=0.0				
		1.00	D					
		1.00	ES					
		1.00	PID	PID=0.0				
		1.20	SPT	N=5 (2,3/1,2,1,1)				
		2.00	D					
		2.00	ES					
		2.00	SPT	N=3 (2,1/1,1,0,1)				
		2.00	PID	PID=0.0				
		3.00	D					
		3.00	ES					
		3.00	SPT	N=5 (1,1/0,1,2,2)				
		3.00	PID	PID=0.0				
		4.00	D		4.00	35.26		Firm consistency** orangish brown clayey sandy gravelly SILT. Sand is coarse. Gravel consists of fine to coarse, sub-angular to sub-rounded flint. (ALLUVIUM)
		4.00	SPT	N=10 (1,1/2,2,3,3)				
	▼				4.50	34.76		Medium dense orangish brown very sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		5.00	D					
		5.00	SPT	N=13 (2,2/3,3,4,3)				
		6.00	D					
		7.00	D					
		8.00	D					
		8.00	SPT	N=18 (4,3/4,5,4,5)				
		9.00	D					
		9.00	D					
		9.50	SPT	N=17 (4,5/3,4,4,6)				
		10.00	D					

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Casing Diameter by Depth			Chiselling		
Depth Top	Depth Base	Diameter	Depth Top	Depth Base	Duration

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CABLE PERCUSSION RECORD

Borehole Number **BH2**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 23/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470986.85 N174175.42
Project No. : P6365J3196	Crew Name: RT	Drilling Equipment: Dando 2000

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	CP	39.26m AoD	CLP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		11.00	D		11.10	28.16		Medium dense orangish brown very sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		11.00	SPT	N=16 (3,4/4,3,5,4)				
		12.00	D					STRUCTURELESS CHALK. Recovered as a stiff to very stiff consistency** white gravelly SILT with low cobble content. Gravel consists of fine to coarse, angular to sub-rounded chalk. Cobbles consist of sub-angular to sub-rounded chalk. (UNDIFFERENTIATED CHALK)
		12.50	SPT	N=23 (3,5/7,5,6,5)				
		13.00	D					
		13.00	D					
		14.00	D					
		14.00	SPT	N=32 (4,8/8,7,9,8)				
		15.00	D		15.00	24.26		End of Borehole at 15.00m

11 12 13 14 15 16 17 18 19 20

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Casing Diameter by Depth			Chiselling		
Depth Top	Depth Base	Diameter	Depth Top	Depth Base	Duration

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CABLE PERCUSSION RECORD

Borehole Number **BH3**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E471031.87 N174229.47
Project No. : P6365J3196	Crew Name: RT	Drilling Equipment: Dando 2000

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	CP	39.17m AoD	CLP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
					0.30	38.88		Concrete. (MADE GROUND)
		0.40	D		0.50	38.67		Light brown clayey slightly sandy gravel. Sand is medium to coarse. Gravel consists of fine to coarse, angular to rounded flint. (MADE GROUND)
		0.40	ES					
		0.40	PID	PID=45.0				
		0.60	D					Greyish black sandy gravelly silt. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)
		0.60	ES		1.00	38.17		
	▼	0.60	PID	PID=2.0				
		1.20	D					Soft consistency** greyish brown very gravelly SILT. Gravel consists of fine to medium, angular to rounded flint. (ALLUVIUM)
		1.20	D					
		1.50	SPT	N=6 (1,2/2,1,1,2)				
		2.00	D		1.90	37.28		Medium dense brown slightly sandy GRAVEL. Sand is coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		2.50	SPT	N=10 (2,1/2,3,3,2)				
		3.00	D					
		3.50	SPT	N=13 (3,2/3,4,3,3)				
		4.00	D					
		4.50	SPT	N=18 (3,3/4,5,4,5)				
		5.00	D					
		5.50	SPT	N=19 (5,4/4,4,5,6)				
		6.00	D					
		7.00	D					
		7.00	SPT	N=21 (4,5/6,5,5,5)				
		8.00	D					
		8.50	SPT	N=20 (5,6/5,6,5,4)				
		9.00	D					
		10.00	D					

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Casing Diameter by Depth			Chiselling		
Depth Top	Depth Base	Diameter	Depth Top	Depth Base	Duration

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CABLE PERCUSSION RECORD

Borehole Number **BH3**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E471031.87 N174229.47
Project No. : P6365J3196	Crew Name: RT	Drilling Equipment: Dando 2000

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	CP	39.17m AoD	CLP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.00	D					Medium dense brown slightly sandy GRAVEL. Sand is coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		10.00	SPT	N=21 (6,5/5,5,6,5)				
					10.70	28.48		STRUCTURELESS CHALK. Recovered as a stiff consistency** white gravelly SILT. Gravel consists of fine to coarse, sub-angular to sub-rounded chalk. (UNDIFFERENTIATED CHALK)
		11.00	D					
		11.00	D					
		11.50	SPT	N=18 (5,4/4,3,4,7)				
		12.00	D					
		13.00	D					
		13.00	SPT	N=23 (5,4/4,3,7,9)				
		14.00	D					
		14.50	SPT	N=19 (9,10/5,6,5,3)				
		15.00	D		15.00	24.18		End of Borehole at 15.00m

11 12 13 14 15 16 17 18 19 20

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Casing Diameter by Depth			Chiselling		
Depth Top	Depth Base	Diameter	Depth Top	Depth Base	Duration

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TRIAL PIT RECORD

Pit ID
TP1

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470972.01 N174182.57
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)	
		Depth (m)	Type	Results				
					Decorative gravel . (MADE GROUND)			
						0.20	38.80	
					Grey very gravelly sand with medium cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded brick and concrete. Cobbles consist of angular concrete. (MADE GROUND)			
		0.40 0.40	ES PID	PID=0.4				
						0.50	38.50	0.5
					Blackish brown very gravelly sand with medium cobble content and reinforced concrete. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. Cobbles consist of angular to sub-angular brick concrete and possible asbestos. (MADE GROUND)			
		1.00 1.00	ES PID	PID=0.5				1.0
								1.5
						1.90	37.10	
		2.00 2.00	ES PID	PID=0.2	Light brown sandy gravelly clay. Sand is fine to medium. Gravel consists of fine to medium, angular to rounded flint and brick. (MADE GROUND)			2.0
					Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular to sub-rounded flint. (ALLUVIUM)	2.10	36.90	
								2.5
		3.00	D					3.0
	▼				End of Trial Pit at 3.30m	3.30	35.70	
								3.5

Dimensions		Trench Support and Comment			Key:
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	ES - Envrionmental Sample D - Small Disturbed Sample B - Bulk Disturbed Sample PID - Photo-ionisation Detector
2.20	0.60				

Remarks:

Oily sheen present on the groundwater.

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TRIAL PIT RECORD

Pit ID
TP2

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470949.22 N174174.92
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)
		Depth (m)	Type	Results			
					Decorative gravel (MADE GROUND)		
					Grey very gravelly sand with medium cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded brick and concrete. Cobbles consists of angular concrete. (MADE GROUND)	0.20	38.80
					Brown very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)	0.70	38.30
		1.10	ES				
		1.10	ES				
		1.10	PID	PID=0.7	Brown very gravelly sandy silt. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)	1.20	37.80
		1.50	ES				
		1.50	PID	PID=0.0			
					Green and light brown sandy gravelly clay with medium cobble content and band of yellowish brown fine sand at 2.20mbgl. Sand is fine to medium. Gravel consists of fine to coarse, sub-angular to sub-rounded flint and brick. (MADE GROUND)	1.80	37.20
		2.10	ES				
		2.10	ES				
		2.10	PID	PID=0.0			
					Very soft consistency* black sandy CLAY with rootlets. Sand is fine to medium. (ALLUVIUM)	2.30	36.70
		2.40	ES				
		2.40	PID	PID=0.2			
					Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine to coarse, sub-angular to sub-rounded flint. (ALLUVIUM)	2.50	36.50
		2.70	D				
		2.70	ES				
	▼						
					End of Trial Pit at 3.00m	3.00	36.00

0.5 1.0 1.5 2.0 2.5 3.0 3.5

Dimensions		Trench Support and Comment		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks
1.80	0.60			

Key:
ES - Envrionmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector

Remarks:
Oily sheen present on the groundwater.

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

TRIAL PIT RECORD

Pit ID **TP3**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E471008.23 N174187.60
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)
		Depth (m)	Type	Results			
		0.50 0.50	ES PID	PID=0.0	Decorative gravel. (MADE GROUND)	0.20	38.80
		0.90 0.90	ES PID	PID=0.0	Grey very gravelly sand with high cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded brick and concrete. Cobbles consist of angular concrete and brick. (MADE GROUND)	0.70	38.30
		2.30 2.30	ES PID	PID=0.0	Brown gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)	1.20	37.80
		2.70	D		Blackish brown sandy gravelly silt. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)	2.40	36.60
					Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular to sub-rounded flint. (ALLUVIUM)	3.10	35.90
					End of Trial Pit at 3.10m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5

Dimensions		Trench Support and Comment		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks
1.60	0.60			

Key:
ES - Envrionmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector

Remarks:
Oily sheen present on the groundwater.

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

TRIAL PIT RECORD

Pit ID **TP4**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470960.60 N174178.64
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)	
		Depth (m)	Type	Results				
					Decorative gravel. (MADE GROUND)			
		0.30 0.30	ES PID	PID=0.3	Grey very gravelly sand with high cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded brick and concrete. Cobbles consist of angular to sub-angular concrete and brick. (MADE GROUND)	0.20	38.80	0.5
		1.50 1.50 1.50	ES ES PID	PID=2.2	Brown very gravelly sandy silt with high cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. Cobbles consist of angular to sub-angular brick and concrete. (MADE GROUND)	0.60	38.40	1.0 1.5 2.0
		2.20 2.20	ES PID	PID=1.3	Light brown and off-white gravelly clay. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and chalk. (MADE GROUND)	2.10	36.90	
		2.50 2.50 2.50	ES ES PID	PID=0.2	Very soft consistency* black sandy clay with rootlets. Sand is fine to medium. Hydrocarbon odour. (ALLUVIUM)	2.40	36.60	2.5
		2.90 2.90	D ES		Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine, sub-angular to rounded flint. (ALLUVIUM)	2.60	36.40	
					End of Trial Pit at 3.00m	3.00	36.00	3.0 3.5

Dimensions		Trench Support and Comment			Key:
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	ES - Envrionmental Sample D - Small Disturbed Sample B - Bulk Disturbed Sample PID - Photo-ionisation Detector
2.00	0.80				

Remarks:

Trial pit excavated into what appears to be a relic brick foundation.

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS1**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 26/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470886.22 N174211.76
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	38.95m AoD	CLP	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
					0.05	38.90		Asphalt. (MADE GROUND)
		0.20	ES					Black clayey gravelly sand with low cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick, concrete and asphalt. Cobbles consist of sub-angular concrete. (MADE GROUND)
		0.20	PID	PID=0.0	0.30	38.65		
		0.60	ES					Dark brown clayey gravelly sand. Sand is fine to coarse. Gravel consists of fine to medium, sub-angular to rounded flint and brick. (MADE GROUND)
		0.60	PID	PID=0.0				
					0.90	38.05		
		1.00	SPT	N = 2 (0,1/0,1,0,1)				Brown sandy gravelly clay. Sand is fine to medium. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)
		1.20	ES					
		1.20	PID	PID=0.0				
					1.40	37.55		
		1.80	ES					Dark brown gravelly clay with low cobble content. Gravel consists of fine to coarse flint and brick. Cobbles consist of sub-angular brick. (MADE GROUND)
	▼	1.80	PID	PID=0.0				
		2.00	SPT	N = 3 (0,1/0,1,1,1)				
					2.40	36.55		
		2.70	D					Very soft consistency* black slightly gravelly CLAY with low cobble content. Gravel consists of fine, sub-rounded flint and wood. Cobbles consist of sub-angular flint. (ALLUVIUM)
		3.00	SPT	N = 20 (2,3/5,3,6,6)	3.00	35.95		Medium dense yellowish brown clayey very gravelly SAND. Sand is fine to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON GRAVEL MEMBER)
		3.60	D					
					3.90	35.05		
		4.00	SPT	N = 13 (3,2/3,3,3,4)				Medium dense becoming dense brown sandy GRAVEL. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint. Poor recovery between 4-5mbgl. (KEMPTON PARK GRAVEL MEMBER)
		4.10	D					
		5.00	SPT	N = 34 (5,7/6,7,10,11)	5.00	33.95		End of Borehole at 5.00m

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
ES - Environmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector Reading

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS2**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470930.08 N174182.79
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	38.74m AoD	CLP	1:30	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	38.65		Concrete. (MADE GROUND)
		0.15	ES		0.20	38.54		Brown sandy gravel. Sand is fine to coarse. Gravel consists of fine to coarse, sub-angular to rounded flint. (MADE GROUND)
		0.15	PID	PID=0.4				
		0.30	ES					
		0.30	PID	PID=0.1	0.40	38.34		Yellowish brown gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint, brick and concrete. (MADE GROUND)
		0.70	ES					Blackish grey sandy gravelly clay with low cobble content. Sand is medium to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick, concrete and wood. Cobbles consist of angular brick. (MADE GROUND)
		0.70	PID	PID=0.1				
		1.00	SPT	N = 2 (0,0/1,0,0,1)	1.00	37.74		
		1.20	ES					Brown and off-white very gravelly clay. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and chalk. (MADE GROUND)
		1.20	PID	PID=0.0				
	▼				1.60	37.15		Black gravelly clay. Gravel consists of fine to coarse, angular to rounded flint and brick. Hydrocarbon odour. (MADE GROUND)
		2.00	ES					
		2.00	SPT	N = 4 (1,1/1,1,1,1)				
		2.00	PID	PID=0.0	2.20	36.54		Very soft becoming firm consistency** yellowish grey CLAY. (ALLUVIUM)
		3.00	D					
		3.00	SPT	N = 32 (1,1/5,8,9,10)				
					3.30	35.44		Medium dense brown very sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		4.00	SPT	N = 13 (3,3/4,3,3,3)				
		4.10	D					
		5.00	SPT	N = 28 (3,4/5,6,8,9)	5.00	33.74		End of Borehole at 5.00m

1 2 3 4 5 6

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS3**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470947.52 N174183.31
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless Sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	38.79m AoD	CLP	1:30	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	ES		0.10	38.69		Concrete. (MADE GROUND)
		0.12	PID	PID=0.3	0.15	38.64		Brown clayey sandy gravel. Sand is medium to coarse. Gravel consists of fine to coarse, sub-angular to rounded flint and concrete. (MADE GROUND)
					0.20	38.59		Concrete. (MADE GROUND)
		0.40	ES					Blackish brown very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint, brick and concrete. (MADE GROUND)
		0.40	PID	PID=0.3				
					0.70	38.09		Brown and grey slightly gravelly clay. Gravel consists of fine to coarse, sub-angular to sub-rounded flint, brick and concrete. (MADE GROUND)
		0.90	ES					
		0.90	PID	PID=0.0				
		1.00	SPT	N = 2 (0,0/0,0,1,1)				
					1.20	37.59		Very soft consistency** greyish brown slightly gravelly CLAY. Gravel consists of fine to medium, angular to sub-rounded flint and wood. (ALLUVIUM)
		1.40	D					
					1.90	36.89		Very soft consistency** black with brown staining slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular flint. Hydrocarbon odour. (ALLUVIUM)
	▼	2.00	SPT	N = 2 (0,1/0,1,0,1)				
		2.10	ES					
		2.10	PID	PID=0.0				
					2.30	36.49		Grey mottled brown slightly gravelly CLAY. Gravel consists of medium, sub-angular flint. (ALLUVIUM)
		2.60	D					
		3.00	SPT	N = 3 (0,0/0,1,1,1)	3.00	35.79		Yellowish grey silty CLAY. (ALLUVIUM/KEMPTON PARK GRAVEL MEMBER TRANSITION)
		3.40	D					
		4.00	SPT	N =40 (4,7/8,10,11,11)	4.00	34.79		Dense brown gravelly SAND. Sand is fine to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		4.10	D					
					4.30	34.49		Dense brown sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		4.90	D					
		5.00	SPT	N = 39 (4,5/7,11,10,11)	5.00	33.79		End of Borehole at 5.00m

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS4**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 26/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470957.83 N174169.79
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	38.91m AoD	CLP	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Concrete. (MADE GROUND)
		0.25	ES		0.20	38.71		
		0.25	PID	PID=0.0	0.30	38.61		Very soft consistency** yellowish brown gravelly sand. Sand is fine to medium. Gravel consists of fine to coarse, sub-angular to sub-rounded flint, brick and concrete. (MADE GROUND)
		0.40	ES					
		0.40	PID	PID=0.0				
					0.70	38.21		Greyish black very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint and concrete. (MADE GROUND)
		0.90	ES					
		0.90	PID	PID=0.0				Reddish brown sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-angular flint, brick and concrete. Poor recovery between 1-2mbgl. (MADE GROUND)
		1.00	SPT	N = 5 (2,1/1,1,2,1)				
	▼				1.90	37.01		
		2.00	SPT	N = 4 (1,1/0,2,1,1)				Very soft consistency** greenish grey slightly gravelly CLAY with occasional rootlets. Gravel consists of medium, sub-angular flint. (ALLUVIUM)
		2.80	D					
		3.00	SPT	N = 3 (2,1/0,1,1,1)				
		3.60	D					
		4.00	SPT	N = 26 (6,8/8,6,6,6)				
		4.20	D		4.10	34.81		
					4.30	34.61		Very soft becoming firm consistency** greenish grey sandy CLAY. Sand is fine to medium. (ALLUVIUM/ KEMPTON PARK GRAVEL MEMBER TRANSITION)
		4.50	D					Medium dense becoming dense brown sandy GRAVEL. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		5.00	SPT	N = 46 (8,9/12,11,11,12)	5.00	33.91		End of Borehole at 5.00m

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
ES - Environmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector Reading

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS5**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025 - 26/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470952.79 N174182.06
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	39.27m AoD	CLP	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
		0.30	ES					Grey very sandy gravel with low cobble content. Sand is fine. Gravel consists of fine to coarse, angular to sub-angular concrete. Cobbles consist of angular concrete. (MADE GROUND)
		0.30	PID		0.40	38.87		
					0.60	38.67		Red and greyish brown very gravelly sand with low cobble content and reinforcement. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint, brick and concrete. Cobbles consist of sub-angular concrete. (MADE GROUND)
		0.65	ES		0.70	38.57		
		0.65	PID	PID=17.5	0.80	38.47		
		1.00	SPT	N = 7 (5,3/3,2,1,1)				Dark grey with black staining very gravelly clay. Gravel consists of fine to coarse, angular to rounded flint and concrete. Hydrocarbon odour, (MADE GROUND)
		1.10	ES					
		1.10	PID	PID=0.0	1.20	38.07		Grey very sandy gravel. Sand is fine. Gravel consists of fine to coarse, angular to sub-angular concrete. (MADE GROUND)
								Black clayey gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)
		1.60	ES					
		1.60	PID	PID=0.0				Yellow to dark brown clayey gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)
		2.00	SPT	N = 2 (0,1/0,1,0,1)				
					2.10	37.17		Black sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to medium, angular to sub-angular brick and glass. (MADE GROUND)
		2.30	ES					
		2.30	PID	PID=0.0	2.40	36.87		Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of medium, sub-angular flint and wood. (ALLUVIUM)
		2.80	D					
	▼	3.00	SPT	N = 0 (0,0/0,0,0,0)				
		3.50	D					
		4.00	SPT	N = 33 (4,8/8,9,9,7)	4.00	35.27		Dense brown sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
					4.40	34.87		Very soft consistency* brown sandy gravelly CLAY. Sand is fine to coarse. Gravel consists of fine to medium, angular to sub-rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		4.60	D		4.70	34.57		
		4.80	D					Dense brown sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		5.00	SPT	N = 33 (7,8/8,8,7,10)	5.00	34.27		End of Borehole at 5.00m

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
ES - Environmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector Reading

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS6**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470983.01 N174226.41
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	38.95m AoD	CLP	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
					0.10	38.85		Asphalt. (MADE GROUND)
		0.20	ES					Reddish brown very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint, brick and asphalt. (MADE GROUND)
		0.20	PID	PID=0.0				
		0.50	ES					
		0.50	PID	PID=0.0	0.60	38.35		Brown very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)
		0.80	ES					
		0.80	PID	PID=0.0				
		1.00	SPT	N = 3 (1,2/1,1,0,1)				1
					1.30	37.65		Brownish black sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to medium, angular to sub-rounded flint, brick and concrete. (MADE GROUND)
		1.40	ES					
		1.40	PID	PID=0.0	1.50	37.45		Brown slightly sandy gravelly clay. Sand is coarse. Gravel consists of fine to coarse, angular to rounded flint and brick. (MADE GROUND)
		1.80	ES					
		1.80	PID	PID=0.0				
		2.00	SPT	N = 6 (0,0/1,1,2,2)				2
					2.10	36.85		Soft consistency** yellowish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular flint. (ALLUVIUM)
		2.40	D					
					2.70	36.25		Medium dense grey very gravelly SAND. Sand is medium to coarse. Gravel consists of fine to coarse, sub-angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
	▼	3.00	SPT	N = 11 (2,3/3,2,3,3)				3
		3.20	D					
					3.50	35.45		Yellowish brown slightly gravelly SAND. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		3.70	D					
		4.00	SPT	N = 17 (2,3/3,5,4,5)	4.00	34.95		Medium dense brown slightly sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		4.15	D					4
					4.30	34.65		Medium dense yellowish brown gravelly SAND. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		4.80	D					
		5.00	SPT	N = 19 (2,2/4,4,5,6)	5.00	33.95		End of Borehole at 5.00m
								5
								6

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
ES - Environmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS7**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E471026.51 N174192.06
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	39.01m AoD	CLP	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
								Concrete. (MADE GROUND)	
					0.20	38.81			
		0.30	ES					Black sandy very gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-angular flint, brick and concrete. (MADE GROUND)	
		0.30	PID	PID=0.0					
					0.50	38.51		Yellowish brown gravelly sand. Sand is fine to coarse. Gravel consists of fine to medium, sub-angular to sub-rounded flint and occasional brick. (MADE GROUND)	
		0.70	ES						
		0.70	PID	PID=0.0	0.80	38.21		Greyish and yellowish brown sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded flint, brick and concrete. (MADE GROUND)	
		1.00	SPT	N = 4 (1,0/1,1,1,1)					1
		1.30	ES						
		1.30	PID	PID=0.0					
					1.50	37.51		Greyish brown and off-white gravelly clay. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and chalk. (MADE GROUND)	
		1.80	ES						
		1.80	PID	PID=0.0					
		2.00	SPT	N = 5 (1,1/1,1,1,2)					2
					2.10	36.91		Soft consistency** greenish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular flint. (ALLUVIUM)	
		2.50	D						
					2.60	36.41		Brown sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to medium, angular to sub-rounded flint. (KEMPTON PARK GRAVEL MEMBER)	
	▼	2.80	D						
		3.00	SPT	N = 15 (4,4/4,3,4,4)	3.00	36.01		Medium dense brown very gravelly SAND. Sand is fine to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)	3
		3.50	D						
		4.00	SPT	N = 14 (3,3/3,4,3,4)	4.00	35.01		Medium dense brown sandy GRAVEL. Sand is medium to coarse. Gravel consists of fine to coarse, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)	4
		4.50	D						
		5.00	SPT	N = 20 (2,2/4,5,6,5)	5.00	34.01		End of Borehole at 5.00m	5
									6

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
ES - Environmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector Reading

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

WINDOWLESS SAMPLER RECORD

Borehole Number **WS9**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 25/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E471016.98 N174203.56
Project No. : P6365J3196	Crew Name: JH	Drilling Equipment: Windowless sampler

Log Status	Hole Type	Level	Approved By	Scale	Page Number
FINAL	WS	39.25m AoD	CLP	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
								Concrete. (MADE GROUND)
		0.25	ES		0.20	39.05		
		0.25	PID	PID=0.2	0.30	38.95		Brown and black sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)
					0.35	38.90		
		0.50	ES		0.40	38.85		Greyish black very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick, concrete and chalk. (MADE GROUND)
		0.50	PID	PID=0.0				
					0.70	38.55		Brown and off-white gravelly clay. Gravel consists of fine to coarse, sub-angular to sub-rounded flint and chalk. (MADE GROUND)
		1.00	ES					
		1.00	SPT	N = 16 (3,3/2,5,5,4)	1.10	38.15		Greyish black very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick, concrete and chalk. (MADE GROUND)
					1.20	38.05		
		1.00	PID	PID=0.0				Reddish brown very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-angular flint, brick and concrete. (MADE GROUND)
		1.15	ES					
		1.15	PID	PID=0.5				
		1.50	ES					
		1.50	PID	PID=1.7				Grey and brown gravelly clay. Gravel consists of fine to coarse, angular to rounded flint and brick. (MADE GROUND)
								Greyish black clayey gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and asphalt. (MADE GROUND)
		2.00	SPT	N = 4 (1,1/1,1,1,1)	2.10	37.15		
		2.50	D					Very soft consistency** greenish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular to sub-rounded flint. (ALLUVIUM)
	▼	3.00	SPT	N = 17 (0,1/4,4,4,5)	3.00	36.25		Medium dense brown very gravelly SAND. Sand is fine to coarse. Gravel consists of fine to medium, angular to rounded flint. (KEMPTON PARK GRAVEL MEMBER)
		3.70	D					
		4.00	SPT	N = 16 (3,3/4,4,4,4)				
		4.30	D					
		5.00	SPT	N = 20 (2,4/4,5,5,6)	5.00	34.25		End of Borehole at 5.00m

Remarks:

**Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature

Key:
ES - Environmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector Reading

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

TRIAL PIT RECORD

Pit ID **TP1**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470972.01 N174182.57
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)	
		Depth (m)	Type	Results				
					Decorative gravel . (MADE GROUND)			
						0.20	38.80	
		0.40 0.40	ES PID	PID=0.4	Grey very gravelly sand with medium cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded brick and concrete. Cobbles consist of angular concrete. (MADE GROUND)			
						0.50	38.50	0.5
		1.00 1.00	ES PID	PID=0.5	Blackish brown very gravelly sand with medium cobble content and reinforced concrete. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. Cobbles consist of angular to sub-angular brick concrete and possible asbestos. (MADE GROUND)			1.0
								1.5
		2.00 2.00	ES PID	PID=0.2	Very soft consistency* light brown sandy gravelly clay. Sand is fine to medium. Gravel consists of fine to medium, angular to rounded flint and brick. (MADE GROUND)	1.90	37.10	2.0
					Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular to sub-rounded flint. (ALLUVIUM)	2.10	36.90	
								2.5
	▼	3.00	D					3.0
					End of Trial Pit at 3.30m	3.30	35.70	
								3.5

Dimensions		Trench Support and Comment		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks
2.20	0.60			

Key:
ES - Envrionmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector

Remarks:
Oily sheen present on the groundwater.

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TRIAL PIT RECORD

Pit ID
TP2

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470949.22 N174174.92
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)
		Depth (m)	Type	Results			
					Decorative gravel (MADE GROUND)		
					Grey very gravelly sand with medium cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded brick and concrete. Cobbles consists of angular concrete. (MADE GROUND)	0.20	38.80
					Brown very gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)	0.70	38.30
		1.10	ES				
		1.10	ES				
		1.10	PID	PID=0.7	Brown very gravelly sandy silt. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)	1.20	37.80
		1.50	ES				
		1.50	PID	PID=0.0			
					Green and light brown sandy gravelly clay with medium cobble content and band of yellowish brown fine sand at 2.20mbgl. Sand is fine to medium. Gravel consists of fine to coarse, sub-angular to sub-rounded flint and brick. (MADE GROUND)	1.80	37.20
		2.10	ES				
		2.10	ES				
		2.10	PID	PID=0.0			
					Very soft consistency* black sandy CLAY with rootlets. Sand is fine to medium. (ALLUVIUM)	2.30	36.70
		2.40	ES				
		2.40	PID	PID=0.2			
					Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine to coarse, sub-angular to sub-rounded flint. (ALLUVIUM)	2.50	36.50
		2.70	D				
		2.70	ES				
	▼						
					End of Trial Pit at 3.00m	3.00	36.00

0.5 1.0 1.5 2.0 2.5 3.0 3.5

Dimensions		Trench Support and Comment		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks
1.80	0.60			

Key:
ES - Envrionmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector

Remarks:
Oily sheen present on the groundwater.

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

TRIAL PIT RECORD

Pit ID **TP3**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E471008.23 N174187.60
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)
		Depth (m)	Type	Results			
		0.50 0.50	ES PID	PID=0.0	Decorative gravel. (MADE GROUND)	0.20	38.80
		0.90 0.90	ES PID	PID=0.0	Grey very gravelly sand with high cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded brick and concrete. Cobbles consist of angular concrete and brick. (MADE GROUND)	0.70	38.30
		2.30 2.30	ES PID	PID=0.0	Brown gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. (MADE GROUND)	1.20	37.80
		2.70	D		Blackish brown sandy gravelly silt. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint and brick. (MADE GROUND)	2.40	36.60
					Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine to medium, sub-angular to sub-rounded flint. (ALLUVIUM)	3.10	35.90
					End of Trial Pit at 3.10m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5

Dimensions		Trench Support and Comment		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks
1.60	0.60			

Key:
ES - Envrionmental Sample
D - Small Disturbed Sample
B - Bulk Disturbed Sample
PID - Photo-ionisation Detector

Remarks:
Oily sheen present on the groundwater.

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JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

TRIAL PIT RECORD

Pit ID **TP4**

Project Name: Meadow Road	Client: CBRE Ltd	Date: 27/06/2025
Location: Meadow Road, Reading, RG1 8LB	Logged by: JMH	Co-ords: E470960.60 N174178.64
Project No. : P6365J3196	Crew Name: NA	Equipment: JCB 3CX

Log Status	Location Type	Level	Approved By	Scale	Page Number
FINAL	TP	39.00m AoD	CLP	1:20	Sheet 1 of 1

Legend	Water Strikes	Sample and In Situ Testing			Stratum Description	Depth (m)	Level (m)	
		Depth (m)	Type	Results				
					Decorative gravel. (MADE GROUND)			
		0.30 0.30	ES PID	PID=0.3	Grey very gravelly sand with high cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to rounded brick and concrete. Cobbles consist of angular to sub-angular concrete and brick. (MADE GROUND)	0.20	38.80	0.5
		1.50 1.50 1.50	ES ES PID	PID=2.2	Brown very gravelly sandy silt with high cobble content. Sand is fine to coarse. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and concrete. Cobbles consist of angular to sub-angular brick and concrete. (MADE GROUND)	0.60	38.40	1.0 1.5 2.0
		2.20 2.20	ES PID	PID=1.3	Very soft consistency* light brown and off-white gravelly clay. Gravel consists of fine to coarse, angular to sub-rounded flint, brick and chalk. (MADE GROUND)	2.10	36.90	
		2.50 2.50 2.50	ES ES PID	PID=0.2	Very soft consistency* black sandy clay with rootlets. Sand is fine to medium. Hydrocarbon odour. (ALLUVIUM)	2.40	36.60	2.5
		2.90 2.90	D ES		Very soft consistency* greenish grey slightly gravelly CLAY. Gravel consists of fine, sub-angular to rounded flint. (ALLUVIUM)	2.60	36.40	
					End of Trial Pit at 3.00m	3.00	36.00	3.0 3.5

Dimensions		Trench Support and Comment			Key:
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	ES - Envrionmental Sample D - Small Disturbed Sample B - Bulk Disturbed Sample PID - Photo-ionisation Detector
2.00	0.80				

Remarks:

Trial pit excavated into what appears to be a relic brick foundation.

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APPENDIX 3 – CHEMICAL LABORATORY TEST RESULTS

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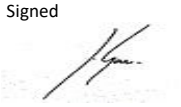
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Leicester
LE1 4DH

Jomas Associates
Unit 24 Sarum Complex,
Salisbury Road,
UB8 2RZ

Analytical Test Report: P25/01158/JOM - 25-73061

Your Project Reference:	**Meadow Road Reading RG1 8LB - J3196**		
Your Order Number:	P6365J3196.9	Samples Received / Instructed:	10/07/2025 / 10/07/2025
Report Issue Number:	1	Sample Tested:	10/07 to 22/07/2025
Samples Analysed:	5 sample(s)	Report issued:	22/07/2025

Signed



James Gane
Analytical Services Manager
CTS

Notes:

General

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

Samples will be retained for 14 days after issue of this report unless otherwise requested.

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

Uncertainty of measurement values are available on request.

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

Deviating Samples

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

Accreditation Key

This report shall not be reproduce except in full

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

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

UKAS accreditation on waters only covers the Ground water and Surface water matrices

Date of Issue: 21.05.25

Issued by: J. Gane

Issue No: 4

Rev No: 27

4161

CONSTRUCTION TESTING SOLUTIONS
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7 - 11 Harding Street
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P25/01158/JOM - 25-73061
Project Reference - Meadow Road Reading RG1
8LB - J3196
Analytical Test Results - Water

Lab Reference			545126	545127	545128	545129	545130
Client Sample ID			-	-	-	-	-
Client Sample Location			BH2	BH3	WS1	WS6	BH1
Client Sample Type			WATER	WATER	WATER	WATER	WATER
Client Sample Number			-	-	-	-	-
Depth (m)			-	-	-	-	-
Date of Sampling			-	-	-	-	-
Time of Sampling			-	-	-	-	-
Water Matrix			UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Determinant	**Units**	**Accreditation**					
Arsenic (Dissolved)	(ug/l)	UKAS	1.59	0.34	3.69	0.77	4.50
Boron (Dissolved)	(ug/l)	UKAS	162	282	68	312	387
Cadmium (Dissolved)	(ug/l)	UKAS	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Chromium (Dissolved)	(ug/l)	UKAS	0.43	0.25	0.80	0.26	0.30
Copper (Dissolved)	(ug/l)	UKAS	< 0.30	1.18	0.31	0.83	< 0.30
Lead (Dissolved)	(ug/l)	UKAS	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Mercury (Dissolved)	(ug/l)	UKAS	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Nickel (Dissolved)	(ug/l)	UKAS	9.71	4.56	< 0.50	4.50	4.79
Selenium (Dissolved)	(ug/l)	UKAS	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Zinc (Dissolved)	(ug/l)	u	22.7	2.5	< 2.0	4.8	< 2.0
Ammoniacal Nitrogen	(mgN/l)	u	7.4	5.9	1.6	3.0	8.3
Conductivity	(µs/cm)	UKAS	962	766	382	782	704
Cyanide (Total)	(µg/l)	u	20	9.1	29	10	5.7
Hardness (Water)	(mg/l)	u	115	92.4	199	94.1	82.7
pH	pH Units	UKAS	7.6	7.6	7.8	7.3	7.2
Sulphate (As SO_4)	(mg/l)	UKAS	160	61	< 10	61	< 10
Acenaphthene	(µg/l)	u	0.05	0.06	0.67	0.03	0.25
Acenaphthylene	(µg/l)	u	0.03	< 0.01	0.04	< 0.01	0.02
Anthracene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo (a) anthracene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo (a) pyrene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo (b) fluoranthene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo (g, h, i) perylene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo (k) fluoranthene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenzo (a,h) anthracene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	(µg/l)	u	0.03	0.03	0.03	< 0.01	0.06
Indeno (1, 2, 3,-cd) pyrene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Naphthalene	(µg/l)	u	0.15	0.44	0.13	0.06	0.37
Phenanthrene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	(µg/l)	u	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH (Sum of USEPA 16)	(µg/l)	u	0.39	0.66	0.99	0.22	0.83
Phenols (Total)	(µg/l)	u	1.32	< 1.10	< 1.10	< 1.10	< 1.10

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P25/01158/JOM - 25-73061
Project Reference - Meadow Road Reading RG1
8LB - J3196
Analytical Test Results - EPH / VPH Water

Lab Reference			545126	545127	545128	545129	545130
Client Sample ID			-	-	-	-	-
Client Sample Location			BH2	BH3	WS1	WS6	BH1
Client Sample Type			WATER	WATER	WATER	WATER	WATER
Client Sample Number			-	-	-	-	-
Depth (m)			-	-	-	-	-
Date of Sampling			-	-	-	-	-
Time of Sampling			-	-	-	-	-
Water Matrix			UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Determinant	**Units**	**Accreditation**					
Aliphatic >C_5 to C_6	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Aliphatic >C_6 to C_8	(µg/l)	u	14.5	12.4	13.3	13.3	15.9
Aliphatic >C_8 to C_{10}	(µg/l)	u	< 6.00	17.0	< 6.00	< 6.00	< 6.00
Aliphatic >C_{10} to C_{12}	(µg/l)	u	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Aliphatic >C_{12} to C_{16}	(µg/l)	u	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Aliphatic >C_{16} to C_{21}	(µg/l)	u	12.4	< 10.0	< 10.0	< 10.0	< 10.0
Aliphatic >C_{21} to C_{35}	(µg/l)	u	< 15.0	32.6	< 15.0	< 15.0	< 15.0
Aromatic >C_5 to C_7	(µg/l)	u	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Aromatic >C_7 to C_8	(µg/l)	u	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Aromatic >C_8 to C_{10}	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Aromatic >C_{10} to C_{12}	(µg/l)	u	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Aromatic >C_{12} to C_{16}	(µg/l)	u	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Aromatic >C_{16} to C_{21}	(µg/l)	u	< 10.0	< 10.0	24.9	< 10.0	28.8
Aromatic >C_{21} to C_{35}	(µg/l)	u	58.6	< 15.0	< 15.0	41.2	26.8
Total >C_5 to C_{35}	(µg/l)	u	86	62	38	54	71
Benzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Toluene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Ethylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
m&p Xylene	(µg/l)	u	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0
o-Xylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
MTBE	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00

CONSTRUCTION TESTING SOLUTIONS
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P25/01158/JOM - 25-73061

Project Reference - Meadow Road Reading RG1 8

Analytical Test Results - VOC

Lab Reference			545126	545127	545128	545129	545130
Client Sample ID			-	-	-	-	-
Client Sample Location			BH2	BH3	WS1	WS6	BH1
Client Sample Type			WATER	WATER	WATER	WATER	WATER
Client Sample Number			-	-	-	-	-
Depth (m)			-	-	-	-	-
Date of Sampling			-	-	-	-	-
Time of Sampling			-	-	-	-	-
Water Matrix			UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Determinant	**Units**	**Accreditation**					
Benzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Toluene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Ethylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
m&p Xylene	(µg/l)	u	< 12.0	< 12.0	< 12.0	< 12.0	< 12.0
o-Xylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Dichlorodifluoromethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Chloromethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Vinyl Chloride	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Bromomethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Chloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Trichlorofluoromethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1-Dichloroethylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Dichloromethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
MTBE	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
trans-1,2,-dichloroethylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1-Dichloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
2,2-Dichloropropane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
cis--1,2,-dichloroethylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Bromochloromethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Chloroform (Trichloromethane)	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1,1-Trichloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1-Dichloropropene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Carbon Tetrachloride	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2-dichloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Trichloroethylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2-Dichloropropane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Dibromomethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Bromodichloromethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
cis-1,2-dichloropropylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
trans-1,3-dichloropropylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1,2-Trichloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,3-Dichloropropane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Tetrachloroethylene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Chlorodibromomethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2-Dibromoethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Chlorobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1,1,2-tetrachloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Styrene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Isopropylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Bromoform	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,1,2,2-Tetrachloroethane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2,3-Trichloropropane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
n-Propylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Bromobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,3,5-Trimethylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
2-chlorotoluene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
4-chlorotoluene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
tert-butylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2,4-trimethylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
sec-Butylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
4-Isopropyltoluene (P-Cymene)	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,3-Dichlorobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,4-Dichlorobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
n-Butylbenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2-Dichlorobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2-Dibromo-3-chloropropane	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2,4-Trichlorobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Hexachlorobutadiene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
Naphthalene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00
1,2,3-Trichlorobenzene	(µg/l)	u	< 6.00	< 6.00	< 6.00	< 6.00	< 6.00

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P25/01158/JOM - 25-73061

Project Reference - Meadow Road Reading RG1 8LB - J3196

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
ANIONSW	MS - CL - Anions by Aquakem (Water)	As received	-	Determination of Anions (inc Sulphate, chloride etc.) in waters by Aquakem
CONDW	MS - CL - Conductivity in Waters	As received	-	Determination of conductivity (at 20C) in waters by probe measurement
SKALARCNW	MS - CL - Cyanide by Skalar	As received	-	Determination of cyanide (total / free / complex) in water using a Skalar segmented flow analyser
ICP-MS DMW	MS - CL - Metals in Waters by ICP-MS	As received	Passing 0.45um membrane filter	Determination of dissolved metals in water via ICP-MS
EPHW	MS - CL - TPH EPH Waters	As received	-	Determination of Extractable Petroleum Hydrocarbons in waters via GC-FID
PHW	MS - CL - pH in Waters	As received	-	Determination of pH in waters using a pH probe
PAHSPMEW	MS - CL - PAH SPME	As received	-	Determination of Polyaromatic hydrocarbons in water via GC-MS
PHOHHPLCW	MS - CL - Phenol Waters by HPLC	As received	-	Determination of speciated phenols in water using HPLC
CWGW	MS - CL - VPH & MS - CL - EPH		-	Determination of TPH CWG (Volatile Petroleum Hydrocarbons and Extractable Petroleum Hydrocarbons) in waters via Headspace-GC-MS and GC-FID respectively
VOCW	MS - CL - VOC and MBTEX	As received	-	Determination of VOCs (inc BTEX) in waters via Headspace-GC-MS
VPHW	MS - CL - VPH	As received	-	Determination of VPH in waters via Headspace-GC-MS

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Project Reference - Meadow Road Reading RG1 8LB - J3196

Sample Deviations

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

Observations on receipt

A - No date of sampling provided
W - No time of sampling provided for water sample
C - Received in inappropriate container
H - Contains headspace
T - Temperature on receipt exceeds storage temperature
R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
545126	-	BH2	WATER	-		A
545127	-	BH3	WATER	-		A
545128	-	WS1	WATER	-		A
545129	-	WS6	WATER	-		A
545130	-	BH1	WATER	-	MS - CL - Metals in Waters by ICP-MS	AC

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P25/01158/JOM - 25-73061

Project Reference - Meadow Road Reading RG1 8LB - J3196

HWOL TPH Acronym Index

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

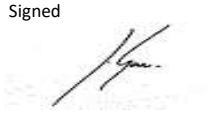
Jomas Associates
Unit 24 Sarum Complex,
Salisbury Road,
UB8 2RZ

7 - 11 Harding Street
Leicester
LE1 4DH

Analytical Test Report: P25/01058/JOM - 25-72116

Your Project Reference:	**Meadow Road Reading RG1 8LB J3196**		
Your Order Number:	P6365J3196.7	Samples Received / Instructed:	03/07/2025 / 03/07/2025
Report Issue Number:	1	Sample Tested:	03/07 to 17/07/2025
Samples Analysed:	30 sample(s)	Report issued:	17/07/2025

Signed



James Gane
Analytical Services Manager
CTS

Notes:

General

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

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

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

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

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

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

Uncertainty of measurement values are available on request.

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

Asbestos

Please note: Where futher analaysis is required samples identified as containing asbestos are screened and tested on an as recevied basis. No correction is made for moisture content and other than the asbestos test(s) these results are not covered by our accrediation

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

WAC Testing

Samples were leached to our inhouse method statement in accordance with BS EN 12457-2: 2002.

Eluate Results are reported as L/S 10. These results have been calculated to report in accordance with BS EN 12457-2:2002.

Comparative values are taken from the Council Decision Annex - CRITERIA AND PROCEDURES FOR THE ACCEPTANCE OF WASTE AT LANDFILLS, (2003/33/EC).

Deviating Samples

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

Accreditation Key

This report shall not be reproduce except in full

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

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

UKAS accreditation on waters only covers the Ground water and Surface water matrices

Date of Issue: 21.05.25

Issued by: J. Gane

Issue No: 4

Rev No: 27

CONSTRUCTION TESTING SOLUTIONS
A PHENNA GROUP COMPANY

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading
RG1 8LB J3196

Analytical Test Results - Solid

Lab Reference			540007	540008	540009	540010	540011	540012	540013
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			WS1	WS2	WS3	WS4	WS7	WS9	BH1
Client Sample Type			ES	ES	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.20	0.70	0.40	0.40	0.30	1.50	0.60
Depth - Bottom (m)			0.20	0.70	0.40	0.40	0.30	1.50	0.60
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Sand	Sand	Sand	Sand	Sand	Clay
Determinant	**Units**	**Accreditation**							
Arsenic	(mg/kg)	MCERTS	26	16	40	22	30	23	23
Boron (w/s)	(mg/kg)	u	< 2.5	< 2.5	2.7	5.6	< 2.5	3.9	< 2.5
Cadmium	(mg/kg)	MCERTS	1.4	1.6	3.2	0.7	1.9	1.7	1.6
Chromium (Total)	(mg/kg)	UKAS	49	38	15	3.6	11	5.9	4.7
Copper	(mg/kg)	MCERTS	2000	62	400	62	330	180	< 200.0
Lead	(mg/kg)	MCERTS	6600	400	920	430	490	1100	< 150.0
Mercury	(mg/kg)	UKAS	< 2.5	< 2.5	< 2.5	< 2.5	9.3	< 2.5	< 2.5
Nickel	(mg/kg)	MCERTS	70	14	70	14	42	38	33
Selenium	(mg/kg)	u	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
Zinc	(mg/kg)	MCERTS	2600	130	850	130	340	700	< 200.0
Total Phenols	(mg/kg)	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cyanide (Total)	(mg/kg)	MCERTS	2.0	1.4	9.5	< 1.0	< 1.0	< 1.0	8.9
Chromium (Hexavalent)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sulphate (Acid Soluble)	(%)	u	0.12	0.18	0.15	0.23	0.11	0.29	0.26
pH	pH Units	MCERTS	8.0	7.7	8.1	8.5	8.4	7.9	9.1
Sulphate (Water soluble as SO_4)	(mg/l)	u	72	520	160	220	160	390	240
Acenaphthene	(mg/kg)	MCERTS	4.6	1.4	0.61	9.7	0.59	0.02	1.7
Acenaphthylene	(mg/kg)	UKAS	0.66	0.61	2.5	9.8	4.0	0.26	0.99
Anthracene	(mg/kg)	UKAS	3.9	2.5	5.7	31	6.6	0.33	5.2
Benzo (a) anthracene	(mg/kg)	MCERTS	9.8	3.8	21	74	12	0.65	11
Benzo (a) pyrene	(mg/kg)	MCERTS	8.2	3.5	22	82	11	0.54	11
Benzo (b) fluoranthene	(mg/kg)	MCERTS	13	5.5	31	100	15	1.0	15
Benzo (g, h, i) perylene	(mg/kg)	MCERTS	4.7	2.3	14	51	6.8	0.35	8.1
Benzo (k) fluoranthene	(mg/kg)	MCERTS	4.3	1.9	11	39	5.4	0.37	5.3
Chrysene	(mg/kg)	MCERTS	10	3.9	20	73	11	0.77	10
Dibenzo (a,h) anthracene	(mg/kg)	MCERTS	1.9	0.60	3.5	13	1.7	0.11	1.9
Fluoranthene	(mg/kg)	MCERTS	17	11	39	170	29	1.5	21
Fluorene	(mg/kg)	MCERTS	3.7	1.6	0.72	13	2.3	0.07	1.8
Indeno (1, 2, 3,-cd) pyrene	(mg/kg)	MCERTS	5.2	2.5	15	52	6.9	0.37	8.2
Naphthalene	(mg/kg)	MCERTS	< 0.20	0.43	0.38	8.5	0.64	0.06	1.7
Phenanthrene	(mg/kg)	MCERTS	16	5.8	14	95	21	0.68	15
Pyrene	(mg/kg)	MCERTS	12	9.1	35	150	25	1.3	19
Total PAH (Sum of USEPA 16)	(mg/kg)	UKAS	120	56	240	970	160	8.4	140
SOM (via TOC)	(%)	UKAS	25	-	9.5	-	-	-	-
Asbestos	-	UKAS	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
PCB 28	(mg/kg)	MCERTS	-	-	-	-	-	-	-
PCB 52	(mg/kg)	MCERTS	-	-	-	-	-	-	-
PCB 101	(mg/kg)	MCERTS	-	-	-	-	-	-	-
PCB 118	(mg/kg)	MCERTS	-	-	-	-	-	-	-
PCB 153	(mg/kg)	MCERTS	-	-	-	-	-	-	-
PCB 138	(mg/kg)	MCERTS	-	-	-	-	-	-	-

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading
RG1 8LB J3196

Analytical Test Results - Solid

Lab Reference			540007	540008	540009	540010	540011	540012	540013
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			WS1	WS2	WS3	WS4	WS7	WS9	BH1
Client Sample Type			ES	ES	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.20	0.70	0.40	0.40	0.30	1.50	0.60
Depth - Bottom (m)			0.20	0.70	0.40	0.40	0.30	1.50	0.60
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Sand	Sand	Sand	Sand	Sand	Clay
Determinant	**Units**	**Accreditation**							
PCB 180	(mg/kg)	MCERTS	-	-	-	-	-	-	-

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading
RG1 8LB J3196

Analytical Test Results - Solid

Lab Reference			540014	540015	540016	540017	540018	540019	540020
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			TP1	WS2	WS3	WS5	WS6	WS1	WS9
Client Sample Type			ES	ES	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.40	2.00	2.10	0.65	1.40	0.60	0.50
Depth - Bottom (m)			0.40	2.00	2.10	0.65	1.40	0.60	0.50
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Sand	Clay	Other	Sand	Sand	Sand
Determinant	**Units**	**Accreditation**							
Arsenic	(mg/kg)	MCERTS	59	61	14	44	36	-	-
Boron (w/s)	(mg/kg)	u	< 2.5	3.5	5.7	< 2.5	3.2	-	-
Cadmium	(mg/kg)	MCERTS	3.0	2.7	1.2	1.8	2.0	-	-
Chromium (Total)	(mg/kg)	UKAS	37	27	4.6	12	1.5	-	-
Copper	(mg/kg)	MCERTS	68	120	68	120	120	-	-
Lead	(mg/kg)	MCERTS	220	1200	220	47	1500	-	-
Mercury	(mg/kg)	UKAS	3.9	2.5	< 2.5	< 2.5	< 2.5	-	-
Nickel	(mg/kg)	MCERTS	17	66	17	42	30	-	-
Selenium	(mg/kg)	u	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	-	-
Zinc	(mg/kg)	MCERTS	140	730	140	89	1200	-	-
Total Phenols	(mg/kg)	MCERTS	< 1.0	< 1.0	< 1.0	44	< 1.0	-	-
Cyanide (Total)	(mg/kg)	MCERTS	< 1.0	< 1.0	2.6	< 1.0	< 1.0	-	-
Chromium (Hexavalent)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	-
Sulphate (Acid Soluble)	(%)	u	0.37	0.37	0.80	0.28	0.24	-	-
pH	pH Units	MCERTS	11.8	8.5	7.5	8.0	7.9	-	-
Sulphate (Water soluble as SO_4)	(mg/l)	u	200	950	1500	44	470	-	-
Acenaphthene	(mg/kg)	MCERTS	0.02	0.57	2.1	550	2.2	-	-
Acenaphthylene	(mg/kg)	UKAS	0.10	0.84	1.4	22	0.88	-	-
Anthracene	(mg/kg)	UKAS	0.19	1.3	6.7	770	5.2	-	-
Benzo (a) anthracene	(mg/kg)	MCERTS	0.62	4.8	13	590	12	-	-
Benzo (a) pyrene	(mg/kg)	MCERTS	0.71	5.4	11	450	10	-	-
Benzo (b) fluoranthene	(mg/kg)	MCERTS	1.1	7.2	16	590	16	-	-
Benzo (g, h, i) perylene	(mg/kg)	MCERTS	0.57	3.3	6.7	220	6.3	-	-
Benzo (k) fluoranthene	(mg/kg)	MCERTS	0.42	2.7	5.6	240	5.4	-	-
Chrysene	(mg/kg)	MCERTS	0.68	5.3	13	510	12	-	-
Dibenzo (a,h) anthracene	(mg/kg)	MCERTS	0.13	0.80	1.7	66	2.0	-	-
Fluoranthene	(mg/kg)	MCERTS	1.1	12	36	1600	26	-	-
Fluorene	(mg/kg)	MCERTS	0.02	0.81	3.0	620	2.2	-	-
Indeno (1, 2, 3,-cd) pyrene	(mg/kg)	MCERTS	0.57	3.3	6.7	260	6.7	-	-
Naphthalene	(mg/kg)	MCERTS	0.03	0.63	0.64	1800	1.1	-	-
Phenanthrene	(mg/kg)	MCERTS	0.44	6.2	19	2400	21	-	-
Pyrene	(mg/kg)	MCERTS	0.98	11	28	1300	21	-	-
Total PAH (Sum of USEPA 16)	(mg/kg)	UKAS	7.7	66	170	12000	150	-	-
SOM (via TOC)	(%)	UKAS	-	9.6	-	-	-	-	-
Asbestos	-	UKAS	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	-	-
PCB 28	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004
PCB 52	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004
PCB 101	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004
PCB 118	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004
PCB 153	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004
PCB 138	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

Analytical Test Results - Solid

Lab Reference			540014	540015	540016	540017	540018	540019	540020
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			TP1	WS2	WS3	WS5	WS6	WS1	WS9
Client Sample Type			ES	ES	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.40	2.00	2.10	0.65	1.40	0.60	0.50
Depth - Bottom (m)			0.40	2.00	2.10	0.65	1.40	0.60	0.50
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Sand	Clay	Other	Sand	Sand	Sand
Determinant	**Units**	**Accreditation**							
PCB 180	(mg/kg)	MCERTS	-	-	-	-	-	< 0.004	< 0.004

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Project Reference - Meadow Road Reading
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Analytical Test Results - Solid

Lab Reference			540021	540022	540023	540025	540034	540035
Client Sample ID			-	-	-	-	-	-
Client Sample Location			TP4	TP1	TP2	TP3	TP4	BH2
Client Sample Type			ESX2	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-
Depth - Top (m)			0.30	1.00	2.10	0.50	2.50	2.00
Depth - Bottom (m)			0.30	1.00	2.10	0.50	2.50	2.00
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-
Sample Matrix			Sand	Sand	Clay	Sand	Clay	Clay
Determinant	**Units**	**Accreditation**						
Arsenic	(mg/kg)	MCERTS	11	40	52	-	27	21
Boron (w/s)	(mg/kg)	u	< 2.5	5.0	6.8	-	18	2.9
Cadmium	(mg/kg)	MCERTS	1.4	4.4	94	-	1.1	2.2
Chromium (Total)	(mg/kg)	UKAS	13	93	4500	-	13	22
Copper	(mg/kg)	MCERTS	49	2300	90	-	50	91
Lead	(mg/kg)	MCERTS	61	1700	890	-	190	380
Mercury	(mg/kg)	UKAS	< 2.5	2.8	< 2.5	-	< 2.5	< 2.5
Nickel	(mg/kg)	MCERTS	19	78	1200	-	21	64
Selenium	(mg/kg)	u	< 8.0	< 8.0	< 8.0	-	< 8.0	< 8.0
Zinc	(mg/kg)	MCERTS	110	1600	650	-	230	380
Total Phenols	(mg/kg)	MCERTS	< 1.0	< 1.0	< 1.0	-	1.9	< 1.0
Cyanide (Total)	(mg/kg)	MCERTS	< 1.0	1.5	4.5	-	< 1.0	1.2
Chromium (Hexavalent)	(mg/kg)	u	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0
Sulphate (Acid Soluble)	(%)	u	0.52	0.40	0.33	-	0.21	0.14
pH	pH Units	MCERTS	11.4	9.0	8.8	-	7.7	8.9
Sulphate (Water soluble as SO_4)	(mg/l)	u	350	800	1100	-	46	290
Acenaphthene	(mg/kg)	MCERTS	0.02	5.8	< 0.02	-	0.08	< 0.20
Acenaphthylene	(mg/kg)	UKAS	0.07	7.8	0.22	-	0.06	< 0.20
Anthracene	(mg/kg)	UKAS	0.13	32	0.22	-	0.09	0.44
Benzo (a) anthracene	(mg/kg)	MCERTS	0.32	57	1.3	-	0.32	0.89
Benzo (a) pyrene	(mg/kg)	MCERTS	0.33	46	1.5	-	0.38	0.85
Benzo (b) fluoranthene	(mg/kg)	MCERTS	0.47	67	2.0	-	0.63	1.0
Benzo (g, h, i) perylene	(mg/kg)	MCERTS	0.27	26	0.94	-	0.33	0.59
Benzo (k) fluoranthene	(mg/kg)	MCERTS	0.18	25	0.77	-	0.21	0.38
Chrysene	(mg/kg)	MCERTS	0.35	54	1.2	-	0.44	0.89
Dibenzo (a,h) anthracene	(mg/kg)	MCERTS	0.06	7.4	0.26	-	0.07	< 0.20
Fluoranthene	(mg/kg)	MCERTS	0.70	190	2.0	-	0.73	2.0
Fluorene	(mg/kg)	MCERTS	0.03	13	0.02	-	0.07	< 0.20
Indeno (1, 2, 3,-cd) pyrene	(mg/kg)	MCERTS	0.24	29	1.1	-	0.30	0.55
Naphthalene	(mg/kg)	MCERTS	0.03	1.1	< 0.02	-	2.4	< 0.20
Phenanthrene	(mg/kg)	MCERTS	0.39	180	0.49	-	0.35	1.2
Pyrene	(mg/kg)	MCERTS	0.58	160	1.9	-	0.64	1.8
Total PAH (Sum of USEPA 16)	(mg/kg)	UKAS	4.2	900	14	-	7.2	12
SOM (via TOC)	(%)	UKAS	-	-	-	-	-	-
Asbestos	-	UKAS	-	No asbestos detected	-	No asbestos detected	No asbestos detected	No asbestos detected
PCB 28	(mg/kg)	MCERTS	-	-	-	-	-	-
PCB 52	(mg/kg)	MCERTS	-	-	-	-	-	-
PCB 101	(mg/kg)	MCERTS	-	-	-	-	-	-
PCB 118	(mg/kg)	MCERTS	-	-	-	-	-	-
PCB 153	(mg/kg)	MCERTS	-	-	-	-	-	-
PCB 138	(mg/kg)	MCERTS	-	-	-	-	-	-

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Project Reference - Meadow Road Reading
RG1 8LB J3196

Analytical Test Results - Solid

Lab Reference			540021	540022	540023	540025	540034	540035
Client Sample ID			-	-	-	-	-	-
Client Sample Location			TP4	TP1	TP2	TP3	TP4	BH2
Client Sample Type			ESX2	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-
Depth - Top (m)			0.30	1.00	2.10	0.50	2.50	2.00
Depth - Bottom (m)			0.30	1.00	2.10	0.50	2.50	2.00
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-
Sample Matrix			Sand	Sand	Clay	Sand	Clay	Clay
Determinant	**Units**	**Accreditation**						
PCB 180	(mg/kg)	MCERTS	-	-	-	-	-	-

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Project Reference - Meadow Road Reading
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Analytical Test Results - Chemical Analysis

Lab Reference			540014	540026	540027	540028	540029	540030	540031
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			TP1	BH1	BH1	BH2	BH2	BH3	BH3
Client Sample Type			ES	ES	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.40	14.00	6.00	13.00	9.00	11.00	10.00
Depth - Bottom (m)			0.40	14.00	6.00	13.00	0.90	11.00	10.00
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Clay	Other	Clay	Sand	Clay	Sand
Determinant	**Units**	**Accreditation**							
Water soluble sulphate (as SO_4)	(mg/l)	u	200	39	91	36	62	30	65
Acid Soluble Sulphate	(%)	u	0.37	0.05	0.06	0.05	0.07	0.04	0.06
Total Sulphur	(%)	UKAS	0.18	0.02	0.03	0.01	0.04	0.02	0.03
pH Value	pH Units	MCERTS	11.8	9.3	8.3	8.6	8.7	8.6	8.6

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Project Reference - Meadow Road Reading
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Analytical Test Results - Chemical Analysis

Lab Reference			540032	540033
Client Sample ID			-	-
Client Sample Location			TP2	TP4
Client Sample Type			ES	ES
Client Sample Number			-	-
Depth - Top (m)			2.70	2.90
Depth - Bottom (m)			2.70	2.90
Date of Sampling			27/06/2025	27/06/2025
Time of Sampling			-	-
Sample Matrix			Clay	Clay
Determinant	**Units**	**Accreditation**		
Water soluble sulphate (as SO_4)	(mg/l)	u	120	27
Acid Soluble Sulphate	(%)	u	0.06	0.03
Total Sulphur	(%)	UKAS	0.05	0.02
pH Value	pH Units	MCERTS	8.1	7.8

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Analytical Test Results - VPH / EPH

Lab Reference			540007	540008	540009	540010	540011	540012	540013
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			WS1	WS2	WS3	WS4	WS7	WS9	BH1
Client Sample Type			ES	ES	ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.20	0.70	0.40	0.40	0.30	1.50	0.60
Depth - Bottom (m)			0.20	0.70	0.40	0.40	0.30	1.50	0.60
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Sand	Sand	Sand	Sand	Sand	Clay
Determinant	**Units**	**Accreditation**							
Benzene	(mg/kg)	MCERTS	-	-	-	-	-	-	0.02
Toluene	(mg/kg)	MCERTS	-	-	-	-	-	-	0.01
Ethylbenzene	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.01
m&p Xylene	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.02
o-Xylene	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.01
MTBE	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.01
Aliphatic >C_5 to C_6 [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.06
Aliphatic >C_6 to C_8 [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.06
Aliphatic >C_8 to C_{10} [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.06
Aliphatic >C_{10} to C_{12} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	2.5
Aliphatic >C_{12} to C_{16} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	26
Aliphatic >C_{16} to C_{21} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	30
Aliphatic >C_{21} to C_{35} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	-	-	-	-	65
Aliphatic >C_{35} to C_{44} [EH_2D_AL]	(mg/kg)	u	-	-	-	-	-	-	24
Aromatic >C_5 to C_7 [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	0.02
Aromatic >C_7 to C_8 [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	0.01
Aromatic >C_8 to C_{10} [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	< 0.06
Aromatic >C_{10} to C_{12} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	< 1.0
Aromatic >C_{12} to C_{16} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	8.0
Aromatic >C_{16} to C_{21} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	52
Aromatic >C_{21} to C_{35} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	-	-	-	-	170
Aromatic >C_{35} to C_{44} [EH_2D_AR]	(mg/kg)	u	-	-	-	-	-	-	44
Total >C_5 to C_{35} [EH_2D+HS_1D_Total]	(mg/kg)	MCERTS	-	-	-	-	-	-	350
GRO (>C_8 to C_{10}) [EH_1D_Total]	(mg/kg)	MCERTS	< 50.0	< 5.0	< 50.0	< 50.0	< 5.0	< 5.0	-
Total TPH (>C_{10} to C_{12}) [EH_1D_Total]	(mg/kg)	MCERTS	< 50.0	< 5.0	< 50.0	< 50.0	< 5.0	< 5.0	-
Total TPH (>C_{12} to C_{16}) [EH_1D_Total]	(mg/kg)	MCERTS	290	22	77	160	32	12	-
Total TPH (>C_{16} to C_{21}) [EH_1D_Total]	(mg/kg)	MCERTS	630	130	450	850	120	38	-
Total TPH (>C_{21} to C_{35}) [EH_1D_Total]	(mg/kg)	MCERTS	1900	490	1800	3600	450	380	-
Total TPH (>C_{35} to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	360	95	390	740	110	110	-
DRO (>C_{10} to C_{21}) [EH_1D_Total]	(mg/kg)	MCERTS	940	150	550	1000	160	52	-
MRO (>C_{21} to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	2200	590	2200	4300	570	490	-
Total TPH (>C_8 to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	3200	740	2800	5400	730	550	-

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Project Reference - Meadow Road Reading
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Analytical Test Results - VPH / EPH

Lab Reference			540014	540015	540016	540017	540018	540021	540022
Client Sample ID			-	-	-	-	-	-	-
Client Sample Location			TP1	WS2	WS3	WS5	WS6	TP4	TP1
Client Sample Type			ES	ES	ES	ES	ES	ESX2	ES
Client Sample Number			-	-	-	-	-	-	-
Depth - Top (m)			0.40	2.00	2.10	0.65	1.40	0.30	1.00
Depth - Bottom (m)			0.40	2.00	2.10	0.65	1.40	0.30	1.00
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-	-	-
Sample Matrix			Sand	Sand	Clay	Other	Sand	Sand	Sand
Determinant	**Units**	**Accreditation**							
Benzene	(mg/kg)	MCERTS	-	-	< 0.01	0.10	0.02	-	-
Toluene	(mg/kg)	MCERTS	-	-	< 0.01	0.40	0.02	-	-
Ethylbenzene	(mg/kg)	MCERTS	-	-	< 0.01	0.81	< 0.01	-	-
m&p Xylene	(mg/kg)	MCERTS	-	-	< 0.02	2.7	< 0.02	-	-
o-Xylene	(mg/kg)	MCERTS	-	-	< 0.01	1.8	< 0.01	-	-
MTBE	(mg/kg)	MCERTS	-	-	< 0.01	< 0.02	< 0.01	-	-
Aliphatic >C_5 to C_6 [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	-	< 0.06	0.39	< 0.06	-	-
Aliphatic >C_6 to C_8 [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	-	< 0.06	< 0.07	< 0.06	-	-
Aliphatic >C_8 to C_{10} [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	-	< 0.06	< 0.07	< 0.06	-	-
Aliphatic >C_{10} to C_{12} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	2.7	85	1.2	-	-
Aliphatic >C_{12} to C_{16} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	8.2	140	3.8	-	-
Aliphatic >C_{16} to C_{21} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	4.5	99	2.4	-	-
Aliphatic >C_{21} to C_{35} [EH_2D_AL]	(mg/kg)	MCERTS	-	-	39	110	21	-	-
Aliphatic >C_{35} to C_{44} [EH_2D_AL]	(mg/kg)	u	-	-	13	61	30	-	-
Aromatic >C_5 to C_7 [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	-	< 0.01	0.10	0.02	-	-
Aromatic >C_7 to C_8 [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	-	< 0.01	0.40	0.02	-	-
Aromatic >C_8 to C_{10} [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	-	< 0.06	18	< 0.06	-	-
Aromatic >C_{10} to C_{12} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	< 1.0	1300	< 1.0	-	-
Aromatic >C_{12} to C_{16} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	8.8	2400	2.8	-	-
Aromatic >C_{16} to C_{21} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	71	4500	57	-	-
Aromatic >C_{21} to C_{35} [EH_2D_AR]	(mg/kg)	MCERTS	-	-	150	5100	180	-	-
Aromatic >C_{35} to C_{44} [EH_2D_AR]	(mg/kg)	u	-	-	29	660	46	-	-
Total >C_5 to C_{35} [EH_2D+HS_1D_Total]	(mg/kg)	MCERTS	-	-	280	14000	270	-	-
GRO (>C_8 to C_{10}) [EH_1D_Total]	(mg/kg)	MCERTS	< 5.0	< 5.0	-	-	-	< 5.0	< 50.0
Total TPH (>C_{10} to C_{12}) [EH_1D_Total]	(mg/kg)	MCERTS	< 5.0	< 5.0	-	-	-	< 5.0	< 50.0
Total TPH (>C_{12} to C_{16}) [EH_1D_Total]	(mg/kg)	MCERTS	< 5.0	20	-	-	-	12	< 50.0
Total TPH (>C_{16} to C_{21}) [EH_1D_Total]	(mg/kg)	MCERTS	51	88	-	-	-	57	210
Total TPH (>C_{21} to C_{35}) [EH_1D_Total]	(mg/kg)	MCERTS	840	480	-	-	-	270	2100
Total TPH (>C_{35} to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	87	160	-	-	-	81	920
DRO (>C_{10} to C_{21}) [EH_1D_Total]	(mg/kg)	MCERTS	57	110	-	-	-	71	270
MRO (>C_{21} to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	930	640	-	-	-	350	3000
Total TPH (>C_8 to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	990	760	-	-	-	420	3300

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading
RG1 8LB J3196

Analytical Test Results - VPH / EPH

Lab Reference			540023	540034	540035
Client Sample ID			-	-	-
Client Sample Location			TP2	TP4	BH2
Client Sample Type			ES	ES	ES
Client Sample Number			-	-	-
Depth - Top (m)			2.10	2.50	2.00
Depth - Bottom (m)			2.10	2.50	2.00
Date of Sampling			27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-
Sample Matrix			Clay	Clay	Clay
Determinant	**Units**	**Accreditation**			
Benzene	(mg/kg)	MCERTS	-	< 0.01	-
Toluene	(mg/kg)	MCERTS	-	< 0.01	-
Ethylbenzene	(mg/kg)	MCERTS	-	< 0.01	-
m&p Xylene	(mg/kg)	MCERTS	-	< 0.02	-
o-Xylene	(mg/kg)	MCERTS	-	< 0.01	-
MTBE	(mg/kg)	MCERTS	-	< 0.01	-
Aliphatic >C_5 to C_6 [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	< 0.06	-
Aliphatic >C_6 to C_8 [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	< 0.06	-
Aliphatic >C_8 to C_{10} [HS_MS_1D_AL]	(mg/kg)	MCERTS	-	< 0.06	-
Aliphatic >C_{10} to C_{12} [EH_2D_AL]	(mg/kg)	MCERTS	-	< 1.0	-
Aliphatic >C_{12} to C_{16} [EH_2D_AL]	(mg/kg)	MCERTS	-	7.9	-
Aliphatic >C_{16} to C_{21} [EH_2D_AL]	(mg/kg)	MCERTS	-	2.2	-
Aliphatic >C_{21} to C_{35} [EH_2D_AL]	(mg/kg)	MCERTS	-	13	-
Aliphatic >C_{35} to C_{44} [EH_2D_AL]	(mg/kg)	u	-	< 5.0	-
Aromatic >C_5 to C_7 [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	< 0.01	-
Aromatic >C_7 to C_8 [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	< 0.01	-
Aromatic >C_8 to C_{10} [HS_MS_1D_AR]	(mg/kg)	MCERTS	-	0.25	-
Aromatic >C_{10} to C_{12} [EH_2D_AR]	(mg/kg)	MCERTS	-	< 1.0	-
Aromatic >C_{12} to C_{16} [EH_2D_AR]	(mg/kg)	MCERTS	-	4.8	-
Aromatic >C_{16} to C_{21} [EH_2D_AR]	(mg/kg)	MCERTS	-	5.1	-
Aromatic >C_{21} to C_{35} [EH_2D_AR]	(mg/kg)	MCERTS	-	35	-
Aromatic >C_{35} to C_{44} [EH_2D_AR]	(mg/kg)	u	-	< 5.0	-
Total >C_5 to C_{35} [EH_2D+HS_1D_Total]	(mg/kg)	MCERTS	-	68	-
GRO (>C_8 to C_{10}) [EH_1D_Total]	(mg/kg)	MCERTS	< 5.0	-	< 5.0
Total TPH (>C_{10} to C_{12}) [EH_1D_Total]	(mg/kg)	MCERTS	< 5.0	-	< 5.0
Total TPH (>C_{12} to C_{16}) [EH_1D_Total]	(mg/kg)	MCERTS	< 5.0	-	12
Total TPH (>C_{16} to C_{21}) [EH_1D_Total]	(mg/kg)	MCERTS	7.2	-	42
Total TPH (>C_{21} to C_{35}) [EH_1D_Total]	(mg/kg)	MCERTS	60	-	350
Total TPH (>C_{35} to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	23	-	210
DRO (>C_{10} to C_{21}) [EH_1D_Total]	(mg/kg)	MCERTS	< 10	-	56
MRO (>C_{21} to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	83	-	560
Total TPH (>C_8 to C_{40}) [EH_1D_Total]	(mg/kg)	MCERTS	95	-	620

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading
RG1 8LB J3196

Analytical Test Results - VOC

Lab Reference			540013	540016	540017	540018	540034
Client Sample ID			-	-	-	-	-
Client Sample Location			BH1	WS3	WS5	WS6	TP4
Client Sample Type			ES	ES	ES	ES	ES
Client Sample Number			-	-	-	-	-
Depth - Top (m)			0.60	2.10	0.65	1.40	2.50
Depth - Bottom (m)			0.60	2.10	0.65	1.40	2.50
Date of Sampling			27/06/2025	27/06/2025	27/06/2025	27/06/2025	27/06/2025
Time of Sampling			-	-	-	-	-
Sample Matrix			Clay	Clay	Other	Sand	Clay
Determinant	**Units**	**Accreditation**					
Benzene	(mg/kg)	MCERTS	< 0.01	< 0.01	0.05	< 0.01	< 0.01
Toluene	(mg/kg)	MCERTS	< 0.01	< 0.01	0.16	< 0.01	< 0.01
Ethylbenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	0.23	< 0.01	< 0.01
m&p Xylene	(mg/kg)	MCERTS	< 0.02	< 0.02	0.74	< 0.02	< 0.02
o-Xylene	(mg/kg)	MCERTS	< 0.01	< 0.01	0.49	< 0.01	< 0.01
Dichlorodifluoromethane	(mg/kg)	UKAS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloromethane	(mg/kg)	UKAS	< 0.02	< 0.02	< 0.02	< 0.02	0.04
Vinyl Chloride	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	(mg/kg)	u	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloroethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Trichlorofluoromethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,1-Dichloroethylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Dichloromethane	(mg/kg)	u	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
MTBE	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
trans-1,2,-dichloroethylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,1-Dichloroethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
2,2-Dichloropropane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
cis--1,2,-dichloroethylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Bromochloromethane	(mg/kg)	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,1,1-Trichloroethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,1-Dichloropropene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Carbon Tetrachloride	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,2-dichloroethane	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Trichloroethylene	(mg/kg)	MCERTS	0.01	< 0.01	< 0.02	0.09	< 0.01
1,2-Dichloropropane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Dibromomethane	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromodichloromethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
cis-1,2-dichloropropylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
trans-1,3-dichloropropylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,1,2-Trichloroethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,3-Dichloropropane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Tetrachloroethylene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Chlorodibromomethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,2-Dibromoethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Chlorobenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Styrene	(mg/kg)	UKAS	< 0.01	< 0.01	0.23	< 0.01	< 0.01
Isopropylbenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	0.39	< 0.01	< 0.01
Bromoform	(mg/kg)	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,2,3-Trichloropropane	(mg/kg)	MCERTS	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
n-Propylbenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
Bromobenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,3,5-Trimethylbenzene	(mg/kg)	UKAS	< 0.01	< 0.01	0.34	< 0.01	< 0.01
2-chlorotoluene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
4-chlorotoluene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
tert-butylbenzene	(mg/kg)	UKAS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,2,4-trimethylbenzene	(mg/kg)	UKAS	< 0.01	< 0.01	0.90	< 0.01	< 0.01
sec-Butylbenzene	(mg/kg)	UKAS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
4-Isopropyltoluene (P-Cymene)	(mg/kg)	UKAS	< 0.01	< 0.01	0.05	< 0.01	< 0.01
1,3-Dichlorobenzene	(mg/kg)	u	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,4-Dichlorobenzene	(mg/kg)	u	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
n-Butylbenzene	(mg/kg)	UKAS	< 0.01	< 0.01	0.38	< 0.01	< 0.01
1,2-Dichlorobenzene	(mg/kg)	MCERTS	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
1,2-Dibromo-3-chloropropane	(mg/kg)	u	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	(mg/kg)	u	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	(mg/kg)	u	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	(mg/kg)	u	< 0.05	< 0.05	U/S	1.0	0.74
1,2,3-Trichlorobenzene	(mg/kg)	u	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

Certificate Of Analysis - WAC Suite

Lab Reference	540021
Client Sample ID	-
Client Sample Location	TP4
Client Sample Type	ESX2
Client Sample Number	-
Depth - Top (m)	0.3
Depth - Bottom (m)	0.3
Date of Sampling	27/06/2025
Time of Sampling	-
Sample Description	Brown gravelly silty sand
Sample Matrix	Sand
Moisture Content (%)	5.7
Stone content (%)	47

			Determined Result	Inert Waste Landfill	Stable non reactive hazardous waste in a non hazardous landfill	Hazardous Waste Landfill
Solid Analysis						
Total Organic Carbon	%	MCERTS	0.7	3.0	5.0	6.0
Loss on Ignition	%	UKAS	4.4	-	-	10.0
BTEX	mg/kg	MCERTS	< 0.06	6.00	-	-
PCB's (7 Congeners)	mg/kg	MCERTS	< 0.025	1.00	-	-
Mineral Oil (>C10 to C40) [EH_1D_Total]	mg/kg	MCERTS	420	500	-	-
PAH	mg/kg	u	4.2	100	-	-
pH	units	MCERTS	11.4	-	> 6	-
Eluate Analysis						
Arsenic	mg/kg	UKAS	0.02	0.50	2	25
Barium	mg/kg	UKAS	0.16	20	100	300
Cadmium	mg/kg	UKAS	< 0.0025	0.04	1	5
Chromium (total)	mg/kg	UKAS	0.28	0.5	10	70
Copper	mg/kg	UKAS	0.03	2.0	50	100
Mercury	mg/kg	UKAS	< 0.00050	0.01	0.2	2
Molybdenum	mg/kg	UKAS	0.04	0.5	10.0	30
Nickel	mg/kg	UKAS	< 0.075	0.4	10.0	40
Lead	mg/kg	UKAS	< 0.035	0.5	10.0	50
Antimony	mg/kg	UKAS	< 0.050	0.06	0.7	5
Selenium	mg/kg	UKAS	< 0.0050	0.1	0.5	7
Zinc	mg/kg	u	< 0.25	4	50	200
Chloride	mg/kg	UKAS	27	800	15000	25000
Fluoride	mg/kg	u	1	10	150	500
Sulphate (as SO_4)	mg/kg	UKAS	440	1000	20000	50000
Total Dissolved Solids	mg/kg	u	2900	4000	60000	100000
Phenol Index	mg/kg	u	< 1.0	1	-	-
Dissolved Organic Carbon	mg/kg	UKAS	20.0	500	800	1000

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

Certificate Of Analysis - WAC Suite

Lab Reference	540022
Client Sample ID	-
Client Sample Location	TP1
Client Sample Type	ES
Client Sample Number	-
Depth - Top (m)	1
Depth - Bottom (m)	1
Date of Sampling	27/06/2025
Time of Sampling	-
Sample Description	Brown gravelly silty sand
Sample Matrix	Sand
Moisture Content (%)	17
Stone content (%)	14

			Determined Result	Inert Waste Landfill	Stable non reactive hazardous waste in a non hazardous landfill	Hazardous Waste Landfill
Solid Analysis						
Total Organic Carbon	%	MCERTS	6.8	3.0	5.0	6.0
Loss on Ignition	%	UKAS	11	-	-	10.0
BTEX	mg/kg	MCERTS	< 0.06	6.00	-	-
PCB's (7 Congeners)	mg/kg	MCERTS	< 0.250	1.00	-	-
Mineral Oil (>C10 to C40) [EH_1D_Total]	mg/kg	MCERTS	3310	500	-	-
PAH	mg/kg	u	900	100	-	-
pH	units	MCERTS	9.0	-	> 6	-
Eluate Analysis						
Arsenic	mg/kg	UKAS	0.05	0.50	2	25
Barium	mg/kg	UKAS	0.25	20	100	300
Cadmium	mg/kg	UKAS	< 0.0025	0.04	1	5
Chromium (total)	mg/kg	UKAS	0.07	0.5	10	70
Copper	mg/kg	UKAS	0.25	2.0	50	100
Mercury	mg/kg	UKAS	< 0.00050	0.01	0.2	2
Molybdenum	mg/kg	UKAS	0.16	0.5	10.0	30
Nickel	mg/kg	UKAS	< 0.075	0.4	10.0	40
Lead	mg/kg	UKAS	< 0.035	0.5	10.0	50
Antimony	mg/kg	UKAS	< 0.050	0.06	0.7	5
Selenium	mg/kg	UKAS	0.02	0.1	0.5	7
Zinc	mg/kg	u	< 0.25	4	50	200
Chloride	mg/kg	UKAS	10	800	15000	25000
Fluoride	mg/kg	u	7	10	150	500
Sulphate (as SO_4)	mg/kg	UKAS	1100	1000	20000	50000
Total Dissolved Solids	mg/kg	u	2100	4000	60000	100000
Phenol Index	mg/kg	u	< 1.0	1	-	-
Dissolved Organic Carbon	mg/kg	UKAS	37.0	500	800	1000

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

Certificate Of Analysis - WAC Suite

Lab Reference	540023
Client Sample ID	-
Client Sample Location	TP2
Client Sample Type	ES
Client Sample Number	-
Depth - Top (m)	2.1
Depth - Bottom (m)	2.1
Date of Sampling	27/06/2025
Time of Sampling	-
Sample Description	Brown slightly sandy silty clay
Sample Matrix	Clay
Moisture Content (%)	16
Stone content (%)	5.2

			Determined Result	Inert Waste Landfill	Stable non reactive hazardous waste in a non hazardous landfill	Hazardous Waste Landfill
Solid Analysis						
Total Organic Carbon	%	MCERTS	0.9	3.0	5.0	6.0
Loss on Ignition	%	UKAS	4.0	-	-	10.0
BTEX	mg/kg	MCERTS	< 0.06	6.00	-	-
PCB's (7 Congeners)	mg/kg	MCERTS	< 0.025	1.00	-	-
Mineral Oil (>C10 to C40) [EH_1D_Total]	mg/kg	MCERTS	93	500	-	-
PAH	mg/kg	u	14	100	-	-
pH	units	MCERTS	8.8	-	> 6	-
Eluate Analysis						
Arsenic	mg/kg	UKAS	0.24	0.50	2	25
Barium	mg/kg	UKAS	0.08	20	100	300
Cadmium	mg/kg	UKAS	0.013	0.04	1	5
Chromium (total)	mg/kg	UKAS	0.12	0.5	10	70
Copper	mg/kg	UKAS	< 0.025	2.0	50	100
Mercury	mg/kg	UKAS	0.031	0.01	0.2	2
Molybdenum	mg/kg	UKAS	0.12	0.5	10.0	30
Nickel	mg/kg	UKAS	0.79	0.4	10.0	40
Lead	mg/kg	UKAS	< 0.035	0.5	10.0	50
Antimony	mg/kg	UKAS	0.18	0.06	0.7	5
Selenium	mg/kg	UKAS	< 0.0050	0.1	0.5	7
Zinc	mg/kg	u	< 0.25	4	50	200
Chloride	mg/kg	UKAS	19	800	15000	25000
Fluoride	mg/kg	u	7	10	150	500
Sulphate (as SO_4)	mg/kg	UKAS	1400	1000	20000	50000
Total Dissolved Solids	mg/kg	u	2900	4000	60000	100000
Phenol Index	mg/kg	u	< 1.0	1	-	-
Dissolved Organic Carbon	mg/kg	UKAS	< 20	500	800	1000

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

Certificate Of Analysis - WAC Suite

Lab Reference	540024
Client Sample ID	-
Client Sample Location	TP4
Client Sample Type	ES
Client Sample Number	-
Depth - Top (m)	1.5
Depth - Bottom (m)	1.5
Date of Sampling	27/06/2025
Time of Sampling	-
Sample Description	Brown slightly gravelly slightly sandy silty clay
Sample Matrix	Clay
Moisture Content (%)	20
Stone content (%)	16

			Determined Result	Inert Waste Landfill	Stable non reactive hazardous waste in a non hazardous landfill	Hazardous Waste Landfill
Solid Analysis						
Total Organic Carbon	%	MCERTS	2.9	3.0	5.0	6.0
Loss on Ignition	%	UKAS	6.8	-	-	10.0
BTEX	mg/kg	MCERTS	< 0.06	6.00	-	-
PCB's (7 Congeners)	mg/kg	MCERTS	< 0.025	1.00	-	-
Mineral Oil (>C10 to C40) [EH_1D_Total]	mg/kg	MCERTS	1400	500	-	-
PAH	mg/kg	u	290	100	-	-
pH	units	MCERTS	12.2	-	> 6	-
Eluate Analysis						
Arsenic	mg/kg	UKAS	0.61	0.50	2	25
Barium	mg/kg	UKAS	0.57	20	100	300
Cadmium	mg/kg	UKAS	< 0.0025	0.04	1	5
Chromium (total)	mg/kg	UKAS	0.01	0.5	10	70
Copper	mg/kg	UKAS	0.55	2.0	50	100
Mercury	mg/kg	UKAS	0.001	0.01	0.2	2
Molybdenum	mg/kg	UKAS	0.12	0.5	10.0	30
Nickel	mg/kg	UKAS	0.32	0.4	10.0	40
Lead	mg/kg	UKAS	0.23	0.5	10.0	50
Antimony	mg/kg	UKAS	0.06	0.06	0.7	5
Selenium	mg/kg	UKAS	0.04	0.1	0.5	7
Zinc	mg/kg	u	< 0.25	4	50	200
Chloride	mg/kg	UKAS	350	800	15000	25000
Fluoride	mg/kg	u	15	10	150	500
Sulphate (as SO_4)	mg/kg	UKAS	66	1000	20000	50000
Total Dissolved Solids	mg/kg	u	15000	4000	60000	100000
Phenol Index	mg/kg	u	51.0	1	-	-
Dissolved Organic Carbon	mg/kg	UKAS	360.0	500	800	1000

CONSTRUCTION TESTING SOLUTIONS
A PHENNA GROUP COMPANY

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P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

Certificate Of Analysis - WAC Suite

Lab Reference	540025
Client Sample ID	-
Client Sample Location	TP3
Client Sample Type	ES
Client Sample Number	-
Depth - Top (m)	0.5
Depth - Bottom (m)	0.5
Date of Sampling	27/06/2025
Time of Sampling	-
Sample Description	Made Ground- brown gravelly silty sand with occasional brick fragments
Sample Matrix	Sand
Moisture Content (%)	4.3
Stone content (%)	55

			Determined Result	Inert Waste Landfill	Stable non reactive hazardous waste in a non hazardous landfill	Hazardous Waste Landfill
Solid Analysis						
Total Organic Carbon	%	MCERTS	4.7	3.0	5.0	6.0
Loss on Ignition	%	UKAS	4.4	-	-	10.0
BTEX	mg/kg	MCERTS	< 0.06	6.00	-	-
PCB's (7 Congeners)	mg/kg	MCERTS	< 0.025	1.00	-	-
Mineral Oil (>C10 to C40) [EH_1D_Total]	mg/kg	MCERTS	417	500	-	-
PAH	mg/kg	u	38	100	-	-
pH	units	MCERTS	9.7	-	> 6	-
Eluate Analysis						
Arsenic	mg/kg	UKAS	0.08	0.50	2	25
Barium	mg/kg	UKAS	0.15	20	100	300
Cadmium	mg/kg	UKAS	< 0.0025	0.04	1	5
Chromium (total)	mg/kg	UKAS	0.09	0.5	10	70
Copper	mg/kg	UKAS	0.05	2.0	50	100
Mercury	mg/kg	UKAS	< 0.00050	0.01	0.2	2
Molybdenum	mg/kg	UKAS	0.10	0.5	10.0	30
Nickel	mg/kg	UKAS	< 0.075	0.4	10.0	40
Lead	mg/kg	UKAS	< 0.035	0.5	10.0	50
Antimony	mg/kg	UKAS	< 0.050	0.06	0.7	5
Selenium	mg/kg	UKAS	0.01	0.1	0.5	7
Zinc	mg/kg	u	< 0.25	4	50	200
Chloride	mg/kg	UKAS	10	800	15000	25000
Fluoride	mg/kg	u	3	10	150	500
Sulphate (as SO_4)	mg/kg	UKAS	1400	1000	20000	50000
Total Dissolved Solids	mg/kg	u	2600	4000	60000	100000
Phenol Index	mg/kg	u	< 1.0	1	-	-
Dissolved Organic Carbon	mg/kg	UKAS	< 20	500	800	1000

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Certificate Of Analysis - WAC Suite

Lab Reference	540034
Client Sample ID	-
Client Sample Location	TP4
Client Sample Type	ES
Client Sample Number	-
Depth - Top (m)	2.5
Depth - Bottom (m)	2.5
Date of Sampling	27/06/2025
Time of Sampling	-
Sample Description	Black slightly sandy silty clay with occasional rootlets
Sample Matrix	Clay
Moisture Content (%)	77
Stone content (%)	< 0.1

			Determined Result	Inert Waste Landfill	Stable non reactive hazardous waste in a non hazardous landfill	Hazardous Waste Landfill
Solid Analysis						
Total Organic Carbon	%	MCERTS	9.7	3.0	5.0	6.0
Loss on Ignition	%	UKAS	31	-	-	10.0
BTEX	mg/kg	MCERTS	< 0.06	6.00	-	-
PCB's (7 Congeners)	mg/kg	MCERTS	< 0.025	1.00	-	-
Mineral Oil (>C10 to C40) [EH_1D_Total]	mg/kg	MCERTS	187	500	-	-
PAH	mg/kg	u	7.3	100	-	-
pH	units	MCERTS	7.7	-	> 6	-
Eluate Analysis						
Arsenic	mg/kg	UKAS	0.12	0.50	2	25
Barium	mg/kg	UKAS	0.26	20	100	300
Cadmium	mg/kg	UKAS	< 0.0025	0.04	1	5
Chromium (total)	mg/kg	UKAS	0.01	0.5	10	70
Copper	mg/kg	UKAS	0.07	2.0	50	100
Mercury	mg/kg	UKAS	< 0.00050	0.01	0.2	2
Molybdenum	mg/kg	UKAS	0.10	0.5	10.0	30
Nickel	mg/kg	UKAS	< 0.075	0.4	10.0	40
Lead	mg/kg	UKAS	0.07	0.5	10.0	50
Antimony	mg/kg	UKAS	< 0.050	0.06	0.7	5
Selenium	mg/kg	UKAS	0.01	0.1	0.5	7
Zinc	mg/kg	u	0.26	4	50	200
Chloride	mg/kg	UKAS	220	800	15000	25000
Fluoride	mg/kg	u	2	10	150	500
Sulphate (as SO_4)	mg/kg	UKAS	200	1000	20000	50000
Total Dissolved Solids	mg/kg	u	1600	4000	60000	100000
Phenol Index	mg/kg	u	< 1.0	1	-	-
Dissolved Organic Carbon	mg/kg	UKAS	290.0	500	800	1000

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Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
540007	-	WS1	ES	-	Dark grey gravelly silty sand	15	24	79
540008	-	WS2	ES	-	Grey gravelly silty sand	14	< 0.1	84
540009	-	WS3	ES	-	Brown gravelly silty sand	9.5	33	72
540010	-	WS4	ES	-	Grey gravelly silty sand	6.4	25	71
540011	-	WS7	ES	-	Dark grey gravelly silty sand	20	23	83
540012	-	WS9	ES	-	Grey gravelly silty sand	18	8.6	94
540013	-	BH1	ES	-	Made Ground- brown slightly gravelly slightly sandy silty clay with rare brick fragments	19	26	89
540014	-	TP1	ES	-	Made Ground- cream gravelly silty sand with occasional brick fragments bituminous material	3.2	62	49
540015	-	WS2	ES	-	Grey slightly clayey gravelly silty sand with rare glass	25	7.8	87
540016	-	WS3	ES	-	Black slightly sandy silty clay	52	< 0.1	100
540017	-	WS5	ES	-	Blacktop	U/S	U/S	U/S
540018	-	WS6	ES	-	Brown gravelly silty sand	15	36	80
540019	-	WS1	ES	-	Dark brown gravelly silty sand with occasional bituminous material	21	< 0.1	-
540020	-	WS9	ES	-	Brown gravelly silty sand with occasional bituminous material	17	< 0.1	-
540021	-	TP4	ESX2	-	Brown gravelly silty sand	5.7	47	36
540022	-	TP1	ES	-	Brown gravelly silty sand	17	14	74
540023	-	TP2	ES	-	Brown slightly sandy silty clay	16	5.2	86
540024	-	TP4	ES	-	Brown slightly gravelly slightly sandy silty clay	20	16	86
540025	-	TP3	ES	-	Made Ground- brown gravelly silty sand with occasional brick fragments	4.3	55	66
540026	-	BH1	ES	-	White sandy silty clay with frequent chalk	-	-	100
540027	-	BH1	ES	-	Brown crushed rock	-	-	100
540028	-	BH2	ES	-	White sandy silty clay with frequent chalk	-	-	100
540029	-	BH2	ES	-	Brown gravelly silty sand	-	-	80
540030	-	BH3	ES	-	White sandy silty clay with frequent chalk	-	-	100

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Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
540031	-	BH3	ES	-	Brown gravelly silty sand	-	-	62
540032	-	TP2	ES	-	Greyish brown slightly sandy silty clay	-	-	100
540033	-	TP4	ES	-	Greyish brown slightly sandy silty clay	-	-	100
540034	-	TP4	ES	-	Black slightly sandy silty clay with occasional rootlets	77	< 0.1	100
540035	-	BH2	ES	-	Greyish brown slightly gravelly slightly sandy silty clay	24	26	96

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Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
540007	-	WS1	ES	-	PAHAR - 1/10 dark extract
540008	-	WS2	ES	-	
540009	-	WS3	ES	-	PAHAR - 1/10 dark extract
540010	-	WS4	ES	-	PAHAR - 1/10 dark extract
540011	-	WS7	ES	-	PAHAR - 1/10 dark extract
540012	-	WS9	ES	-	
540013	-	BH1	ES	-	VOC - Sample taken from container with headspace. PAHAR - 1/10 dark extract VPH/BTEX - Sample taken from container with head space.
540014	-	TP1	ES	-	
540015	-	WS2	ES	-	PAHAR - 1/10 dark extract
540016	-	WS3	ES	-	VOC - Sample taken from container with headspace. PAHAR - 1/10 dark extract
540017	-	WS5	ES	-	VOC - Sample taken from container with headspace. PAHAR - 1/10 dark extract VPH/BTEX - Sample taken from container with head space.
540018	-	WS6	ES	-	VOC - Sample taken from container with headspace. PAHAR - 1/10 dark extract VPH/BTEX - Sample taken from container with head space.
540019	-	WS1	ES	-	
540020	-	WS9	ES	-	
540021	-	TP4	ESX2	-	VPH/BTEX - Sample taken from container with head space.
540022	-	TP1	ES	-	PAHAR - 1/10 dark extract PCB: 1/10 dilution dark extract VPH/BTEX - Sample taken from container with head space.
540023	-	TP2	ES	-	
540024	-	TP4	ES	-	PAHAR - 1/10 dark extract
540025	-	TP3	ES	-	PAHAR - 1/10 dark extract VPH/BTEX - Sample taken from container with head space.
540026	-	BH1	ES	-	
540027	-	BH1	ES	-	
540028	-	BH2	ES	-	
540029	-	BH2	ES	-	
540030	-	BH3	ES	-	

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Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
540031	-	BH3	ES	-	
540032	-	TP2	ES	-	
540033	-	TP4	ES	-	
540034	-	TP4	ES	-	VOC - Sample taken from container with headspace.
540035	-	BH2	ES	-	PAHAR - 1/10 dark extract

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Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
ANIONSS	MS - CL - Anions by Aquakem (2:1Extract)	Oven dried	Passing 2mm test sieve	Determination of Anions (inc Sulphate, chloride etc.) in soils by Aquakem. Analysis is based on a 2:1 water to soil extraction ratio
SKALARCNS	MS - CL - Cyanide by Skalar	As received	Passing 10mm test sieve	Determination of cyanide (total / free / complex) in soil using a Skalar segmented flow analyser
WACMETALS1	MS-CL-Metals in Waters by ICP-MS (WAC)	As received	MS-CL-Soil Leachate Preparation	Determination of dissolved metals in leachates via ICP-MS, expressed as quantity of analyte leached from the original material.
WACDOC	MS - CL - DOC (WAC)	As received	BSEN:12457 Leaching	Determination of dissolved organic carbon in a leachate as part of a WAC test
SKALARHCS	MS - CL - Hexavalent Chromium by Skalar	As received	Passing 10mm test sieve	Determination of hexavalent chromium in soil using Skalar segmented flow analyser
ICPMETS	MS - CL - ICP Metals	Air dried	Passing 10mm test sieve	Determination of metals in soils via ICP
WACPHS	MS - CL - pH in Soils (WAC)	As received	BSEN:12457 Leaching	Determination of pH in soils as part of a WAC test via pH probe
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
PCB7S	MS - CL - PCB Soils	As received	Passing 10mm test sieve	Determination of PCB's (7 congeners) in soils via GC-MS
PAHASRDS	MS - CL - PAH (As Received)	As received	Passing 10mm test sieve	Determination of Polyaromatic hydrocarbons in soil via GC-MS
WACANIONS	MS - CL - Anions by Aquakem (WAC)	As received	BSEN:12457 Leaching	Determination of sulphate, chloride and fluoride in a leachate as part of a WAC test using a Aquakem analyser
TDSL	MS-CL-Conductivity in Water(TDS by Calc)	As received	BSEN:12457 Leaching	Determination of total dissolved solids in leachates (by calculation)
SKALARPHS	MS - CL - Phenols by Skalar	As received	Passing 10mm test sieve	Determination of total phenols in soil using Skalar segmented flow analyser
ASSO4S	MS - CL - Acid Soluble Sulphate	Oven Dried	Passing 2mm test sieve	Determination of total sulphate in soils by acid extraction followed by ICP analysis
WACTOCS	MS - CL - TOC Eltra (WAC)	Air dried	Passing 10mm test sieve	Determination of Total Organic Carbon in soil as part of a WAC test
TOCS	MS - CL - TOC Eltra	Air Dried	Passing 10mm test sieve	Determination of Total Organic Carbon in soils
TPHS	MS - CL - TPH (GC-FID)	As received	Passing 10mm test sieve	Determination of Total Petroleum Hydrocarbons in soil using GC-FID
WACSKALAR	MS - CL - Phenols by Skalar (WAC)	As received	BSEN:12457 Leaching	Determination of Total Phenols within leachate as part of a WAC test using a Skalar Segmented flow analyser
GCXGCS	MS - CL - TPH & EPH by GCXGC	As received	Passing 10mm test sieve	Determination of TPH and EPH in soils via GCxGC-FID
CWGS	Calculation from VPH-S and EPH-S	As received	Passing 10mm test sieve	Determination of TPH CWG (Volatile Petroleum Hydrocarbons and Extractable Petroleum Hydrocarbons) in soils via Headspace-GC-MS and GC-GC-FID respectively
VOCS	MS - CL - VOC and MBTEX	As received	Passing 10mm test sieve	Determination of VOCs (inc BTEX) in soils via Headspace-GC-MS

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Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
VPHS	MS - CL - VPH	As received	Passing 10mm test sieve	Determination of VPH in soils via Headspace-GC-MS
WSBORONS	MS - CL - WS Boron	Air dried	Passing 10mm test sieve	Determination of Water soluble Boron in soils via ICP
ASB	MS - AS - Asbestos	-	-	Fibre identification is in accordance with in house documented methods which are based on the procedure documented in the HSE Document HSG 248 "Asbestos: The analysts guide for sampling, analysis and clearance procedures"
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis
LEACH-SS-P	MS-CL-Soil Leachate Preparation (SS)	As Received	All crushed to pass 4mm test sieve	Preparation of single stage soil leachates in accordance with MS-CL-Soil Leachate Preparation
1377LOI	BS1377 LoI	Oven dried	Passing 2mm test sieve	Testing was in accordance with BS 1377: Part 3: 2018 + A1 :2021 Clause 6. Determination of the mass loss on ignition. Some information required by BS1377: 2016: Part 1 has not been reported. This information is available on request.
1377TS-ELT	BS1377 Total Sulphur Content by HTC	Oven dried	BS1377 : Part 1 : 2016	Total Sulphur Content testing of Soil in accordance with BS 1377 : Part 3 : 2018 + A1 : 2021 Clause 7.10 (using Eltra CS-800 Analyser)

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Sample Deviations

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

Observations on receipt

A - No date of sampling provided
W - No time of sampling provided for water sample
C - Received in inappropriate container
H - Contains headspace
T - Temperature on receipt exceeds storage temperature
R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
540007	-	WS1	ES	-	MS - CL - Cyanide by Skalar	X
540007	-	WS1	ES	-	MS - CL - pH in Soils	R
540007	-	WS1	ES	-	MS - CL - Phenols by Skalar	X
540008	-	WS2	ES	-	MS - CL - Cyanide by Skalar	X
540008	-	WS2	ES	-	MS - CL - pH in Soils	R
540008	-	WS2	ES	-	MS - CL - Phenols by Skalar	X
540009	-	WS3	ES	-	MS - CL - Cyanide by Skalar	X
540009	-	WS3	ES	-	MS - CL - pH in Soils	R
540009	-	WS3	ES	-	MS - CL - Phenols by Skalar	X
540010	-	WS4	ES	-	MS - CL - Cyanide by Skalar	X
540010	-	WS4	ES	-	MS - CL - pH in Soils	R
540010	-	WS4	ES	-	MS - CL - Phenols by Skalar	X
540011	-	WS7	ES	-	MS - CL - Cyanide by Skalar	X
540011	-	WS7	ES	-	MS - CL - pH in Soils	R
540011	-	WS7	ES	-	MS - CL - Phenols by Skalar	X
540012	-	WS9	ES	-	MS - CL - Cyanide by Skalar	X
540012	-	WS9	ES	-	MS - CL - pH in Soils	R
540012	-	WS9	ES	-	MS - CL - Phenols by Skalar	X
540013	-	BH1	ES	-	MS - CL - Cyanide by Skalar	X
540013	-	BH1	ES	-	MS - CL - pH in Soils	R
540013	-	BH1	ES	-	MS - CL - Phenols by Skalar	X
540013	-	BH1	ES	-	MS - CL - VOC and MBTEX	RX
540013	-	BH1	ES	-	MS - CL - VPH	RX
540014	-	TP1	ES	-	MS - CL - Cyanide by Skalar	X
540014	-	TP1	ES	-	MS - CL - pH in Soils	R
540014	-	TP1	ES	-	MS - CL - Phenols by Skalar	X
540015	-	WS2	ES	-	MS - CL - Cyanide by Skalar	X
540015	-	WS2	ES	-	MS - CL - pH in Soils	R

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Sample Deviations

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Observations on receipt

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Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
540015	-	WS2	ES	-	MS - CL - Phenols by Skalar	X
540016	-	WS3	ES	-	MS - CL - Cyanide by Skalar	X
540016	-	WS3	ES	-	MS - CL - pH in Soils	R
540016	-	WS3	ES	-	MS - CL - Phenols by Skalar	X
540016	-	WS3	ES	-	MS - CL - VOC and MBTEX	RX
540016	-	WS3	ES	-	MS - CL - VPH	RX
540017	-	WS5	ES	-	MS - CL - Cyanide by Skalar	X
540017	-	WS5	ES	-	MS - CL - pH in Soils	R
540017	-	WS5	ES	-	MS - CL - Phenols by Skalar	X
540017	-	WS5	ES	-	MS - CL - VOC and MBTEX	RX
540017	-	WS5	ES	-	MS - CL - VPH	RX
540018	-	WS6	ES	-	MS - CL - Cyanide by Skalar	X
540018	-	WS6	ES	-	MS - CL - pH in Soils	R
540018	-	WS6	ES	-	MS - CL - Phenols by Skalar	X
540018	-	WS6	ES	-	MS - CL - VOC and MBTEX	RX
540018	-	WS6	ES	-	MS - CL - VPH	RX
540021	-	TP4	ESX2	-	MS - CL - Cyanide by Skalar	X
540021	-	TP4	ESX2	-	MS - CL - pH in Soils	R
540021	-	TP4	ESX2	-	MS - CL - pH in Soils (WAC)	R
540021	-	TP4	ESX2	-	MS - CL - Phenols by Skalar	X
540021	-	TP4	ESX2	-	MS - CL - VPH	RX
540022	-	TP1	ES	-	MS - CL - Cyanide by Skalar	X
540022	-	TP1	ES	-	MS - CL - pH in Soils	R
540022	-	TP1	ES	-	MS - CL - pH in Soils (WAC)	R
540022	-	TP1	ES	-	MS - CL - Phenols by Skalar	X
540022	-	TP1	ES	-	MS - CL - VPH	RX
540023	-	TP2	ES	-	MS - CL - Cyanide by Skalar	X
540023	-	TP2	ES	-	MS - CL - pH in Soils	R
540023	-	TP2	ES	-	MS - CL - pH in Soils (WAC)	R

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Sample Deviations

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

Observations on receipt

A - No date of sampling provided
W - No time of sampling provided for water sample
C - Received in inappropriate container
H - Contains headspace
T - Temperature on receipt exceeds storage temperature
R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
540023	-	TP2	ES	-	MS - CL - Phenols by Skalar	X
540023	-	TP2	ES	-	MS - CL - VPH	RX
540024	-	TP4	ES	-	MS - CL - pH in Soils (WAC)	R
540024	-	TP4	ES	-	MS - CL - VPH	RX
540025	-	TP3	ES	-	MS - CL - pH in Soils (WAC)	R
540025	-	TP3	ES	-	MS - CL - VPH	RX
540026	-	BH1	ES	-	MS - CL - pH in Soils	R
540027	-	BH1	ES	-	MS - CL - pH in Soils	R
540028	-	BH2	ES	-	MS - CL - pH in Soils	R
540029	-	BH2	ES	-	MS - CL - pH in Soils	R
540030	-	BH3	ES	-	MS - CL - pH in Soils	R
540031	-	BH3	ES	-	MS - CL - pH in Soils	R
540032	-	TP2	ES	-	MS - CL - pH in Soils	R
540033	-	TP4	ES	-	MS - CL - pH in Soils	R
540034	-	TP4	ES	-	MS - CL - Cyanide by Skalar	X
540034	-	TP4	ES	-	MS - CL - pH in Soils	R
540034	-	TP4	ES	-	MS - CL - pH in Soils (WAC)	R
540034	-	TP4	ES	-	MS - CL - Phenols by Skalar	X
540034	-	TP4	ES	-	MS - CL - VOC and MBTEX	RX
540034	-	TP4	ES	-	MS - CL - VPH	RX
540035	-	BH2	ES	-	MS - CL - Cyanide by Skalar	X
540035	-	BH2	ES	-	MS - CL - pH in Soils	R
540035	-	BH2	ES	-	MS - CL - Phenols by Skalar	X

7 - 11 Harding Street
Leicester
LE1 4DH

P25/01058/JOM - 25-72116

Project Reference - Meadow Road Reading RG1 8LB J3196

HWOL TPH Acronym Index

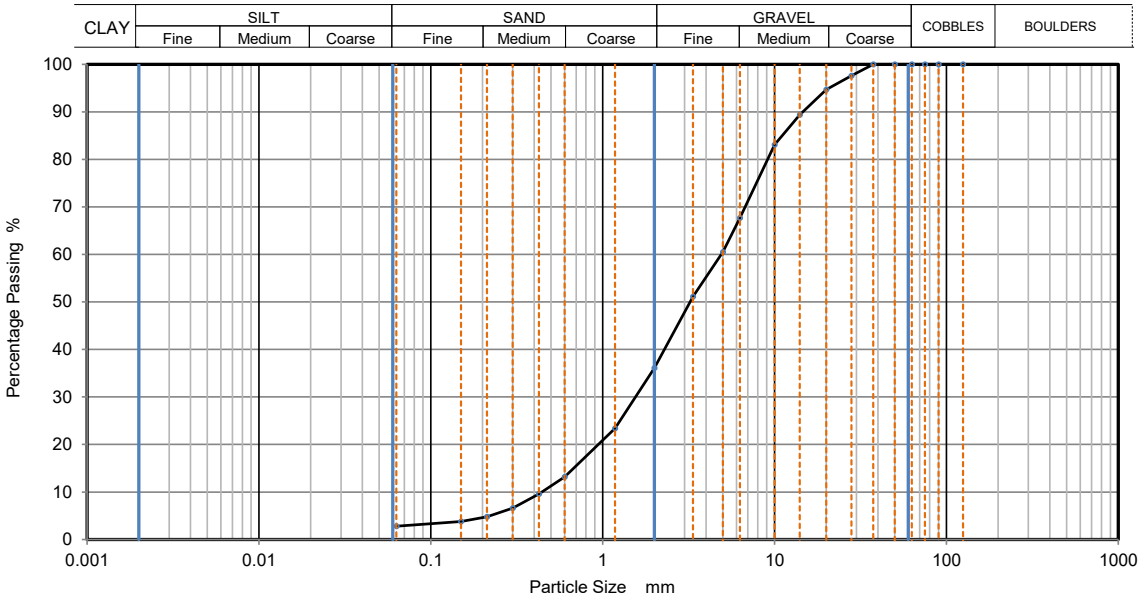
Acronym	Description
HS	Headspace Analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics and Aromatics
AL	Aliphatics Only
AR	Aromatics Only
2D	GC-GC - Double Coil Gas Chromatography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

APPENDIX 4 – GEOTECHNICAL LABORATORY TEST RESULTS

PARTICLE SIZE DISTRIBUTION

Site Name	Meadow Road, Reading RG1 8LB			Job Ref	37506
				Borehole/Pit No.	BH2
Project No.	J3196	Client	Jomas Associates	Sample No.	-
				Depth Top	6.00 m
Soil Description	Brown slightly clayey very sandy GRAVEL (gravel is fmc and sub-angular to sub-rounded)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
Test Method	BS EN ISO 17892 Part 4: 2016			Project started	01/07/2025
				Date tested	21/07/2025

These results only apply to the items tested



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	98		
20	95		
14	89		
10	83		
6.3	68		
5	61		
3.35	51		
2	36		
1.18	23		
0.6	13		
0.425	10		
0.3	7		
0.212	5		
0.15	4		
0.063	3		

Sample Proportions	% dry mass
Very coarse	0
Gravel	64
Sand	33
Fines <0.063mm	3

Grading Analysis		
D100	mm	
D60	mm	4.89
D30	mm	1.55
D10	mm	0.441
Uniformity Coefficient		11
Curvature Coefficient		1.1

Remarks

Preparation and testing in accordance with ISO17892 Part 4 unless noted below

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K4 Soils Laboratory

Unit 8, Olds Close, Watford, Herts, WD18 9RU

Email: james@k4soils.com

Tel: 01923 711288

Checked and Approved

Initials: **J.P**

Date: 25/07/2025

UKAS TESTING

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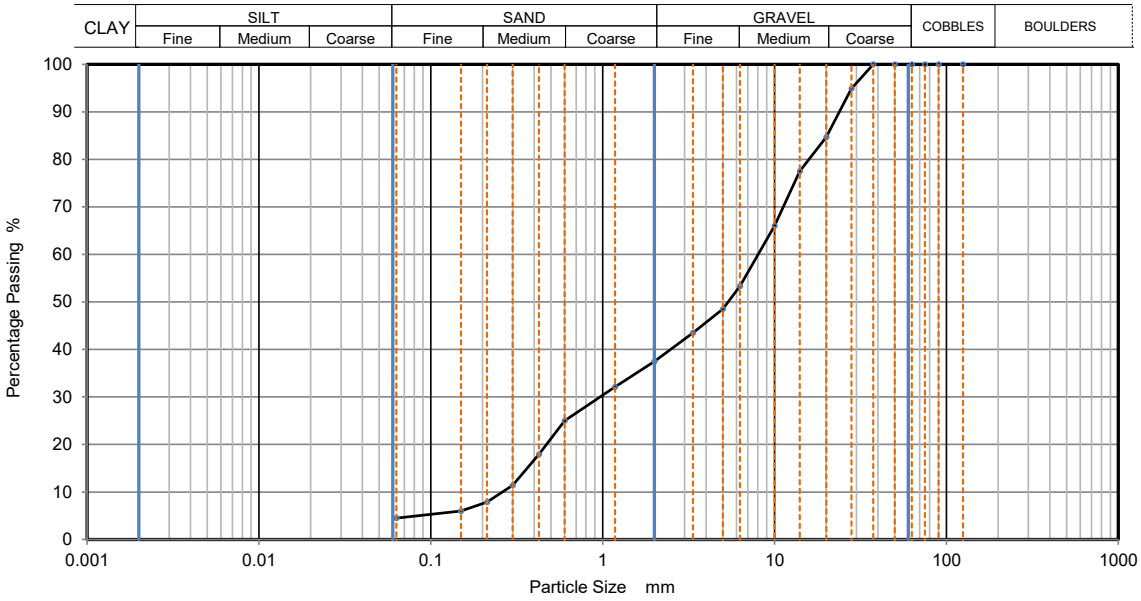
Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R3

PARTICLE SIZE DISTRIBUTION

Site Name	Meadow Road, Reading RG1 8LB			Job Ref	37506
				Borehole/Pit No.	WS2
Project No.	J3196	Client	Jomas Associates	Sample No.	-
				Depth Top	4.10 m
Soil Description	Brown clayey very sandy GRAVEL (gravel is fmc and sub-angular to sub-rounded)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
Test Method	BS EN ISO 17892 Part 4: 2016			Project started	01/07/2025
				Date tested	21/07/2025

These results only apply to the items tested



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	95		
20	85		
14	78		
10	66		
6.3	53		
5	49		
3.35	44		
2	38		
1.18	32		
0.6	25		
0.425	18		
0.3	11		
0.212	8		
0.15	6		
0.063	5		

Sample Proportions	% dry mass
Very coarse	0
Gravel	62
Sand	33
Fines <0.063mm	5

Grading Analysis		
D100	mm	
D60	mm	8.04
D30	mm	0.965
D10	mm	0.262
Uniformity Coefficient		31
Curvature Coefficient		0.44

Remarks

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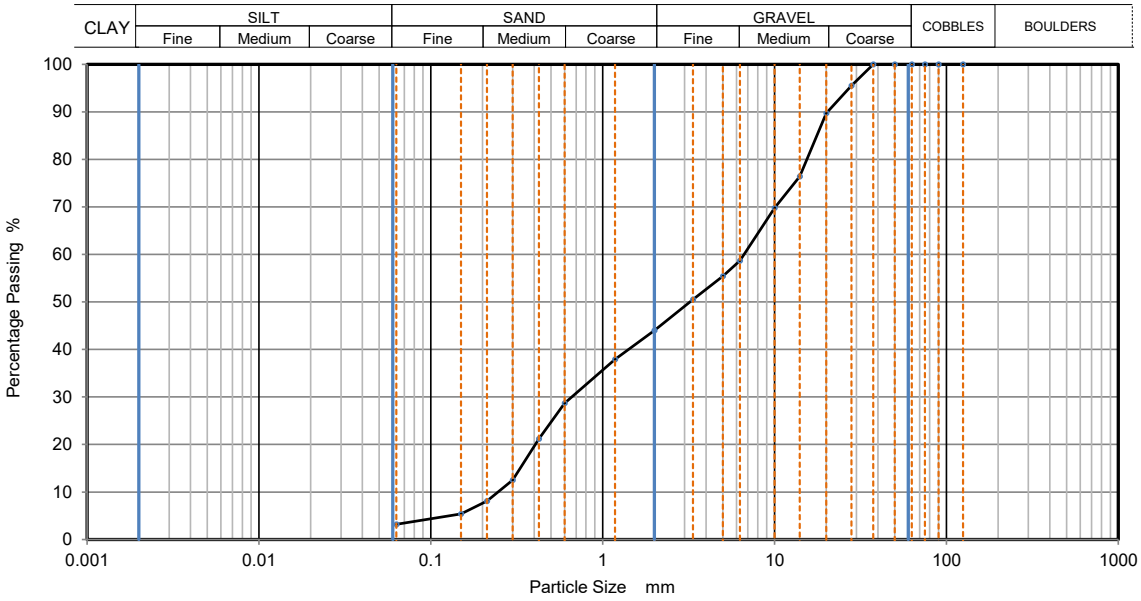
Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R3

PARTICLE SIZE DISTRIBUTION

Site Name	Meadow Road, Reading RG1 8LB			Job Ref	37506
				Borehole/Pit No.	WS7
Project No.	J3196	Client	Jomas Associates	Sample No.	-
				Depth Top	3.50 m
Soil Description	Brown slightly clayey very sandy GRAVEL (gravel is fmc and sub-angular to sub-rounded)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
Test Method	BS EN ISO 17892 Part 4: 2016			Project started	01/07/2025
				Date tested	21/07/2025

These results only apply to the items tested



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	96		
20	90		
14	76		
10	70		
6.3	59		
5	55		
3.35	51		
2	44		
1.18	38		
0.6	29		
0.425	21		
0.3	13		
0.212	8		
0.15	5		
0.063	3		

Sample Proportions	% dry mass
Very coarse	0
Gravel	56
Sand	41
Fines <0.063mm	3

Grading Analysis		
D100	mm	
D60	mm	6.64
D30	mm	0.659
D10	mm	0.247
Uniformity Coefficient		27
Curvature Coefficient		0.27

Remarks

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Initials: **J.P**

Date: 25/07/2025

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Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

MSF-5-R3

Summary of Water Content, Liquid Limit (4 point) and Plastic Limit Results

Job No.	Project Name	Programme	
37506	Meadow Road, Reading RG1 8LB	Samples received	27/06/2025
		Schedule received	01/07/2025
Project No.	Client	Project started	01/07/2025
J3196	Jomas Associates	Testing Started	18/07/2025

Hole No.	Sample				Soil Description	Water Content	Passing 425µm	Preparation	LL	PL	PI	Remarks
	Ref	Top m	Base m	Type		%	%		%	%	%	
BH1	-	4.00	-	D	Dark greyish brown slightly sandy slightly gravelly silty CLAY (gravel is fmc and angular to sub-angular flint)	29.8	60	Tested after washing to remove >425um	41	20	21	
BH1	-	5.00	-	D	Greyish brown and dark greyish brown slightly sandy slightly gravelly silty CLAY (gravel is fmc and angular to sub-angular)	27.7	71	Tested after washing to remove >425um	41	17	24	
BH1	-	11.00	-	D	Off white crushed CHALK with rare fmc angular to sub-angular flint gravel	32.3	23	Tested after washing to remove >425um	29	23	6	
BH1	-	13.00	-	D	Off white crushed CHALK	30.6	27	Tested after washing to remove >425um	29	23	6	
BH2	-	12.00	-	D	Off white and brown crushed CHALK with rare fmc angular to sub-angular flint gravel	27.4	29	Tested after washing to remove >425um	27	21	6	
BH2	-	13.00	-	D	Off white crushed CHALK	30.9	25	Tested after washing to remove >425um	29	23	6	
BH2	-	15.00	-	D	Off white crushed CHALK	30.2	27	Tested after washing to remove >425um	28	22	6	
BH3	-	12.00	-	D	Off white crushed CHALK with rare fm angular to sub-angular flint gravel	23.7	41	Tested after washing to remove >425um	28	22	6	
BH3	-	14.00	-	D	Off white crushed CHALK with rare fm angular to sub-angular flint gravel	29.0	56	Tested after washing to remove >425um	29	23	6	
TP2	-	2.70	-	D	Greyish brown and dark greyish brown slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)	32.8	97	Tested after >425um removed by hand	53	20	33	
TP3	-	2.70	-	D	Brown mottled grey slightly sandy gravelly silty CLAY (gravel is fmc and angular to sub-rounded)	18.3	42	Tested after washing to remove >425um	46	17	29	

80g/300 cone used unless otherwise stated.

Test Methods: BS EN ISO 17892
Part 1: 2014+A1:2022 Water content
Part 12: 2018+A2:2022 Liquid & plastic limit

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Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU

Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials J.P

Date: 25/07/2025

2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

Summary of Water Content, Liquid Limit (4 point) and Plastic Limit Results

Job No.	Project Name	Programme	
37506	Meadow Road, Reading RG1 8LB	Samples received	27/06/2025
		Schedule received	01/07/2025
Project No.	Client	Project started	01/07/2025
J3196	Jomas Associates	Testing Started	18/07/2025

Hole No.	Sample				Soil Description	Water Content	Passing 425µm	Preparation	LL	PL	PI	Remarks
	Ref	Top m	Base m	Type		%	%		%	%	%	
TP4	-	2.90	-	D	Greenish grey, brown and greyish brown mottled slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)	33.9	97	Tested after >425um removed by hand	48	16	32	
WS1	-	2.70	-	D	Greyish brown and dark grey slightly sandy slightly gravelly silty CLAY (gravel is fmc and angular to sub-angular)	56.2	77	Tested after washing to remove >425um	50	28	22	
WS2	-	3.00	-	D	Dark greenish grey and brown slightly sandy silty CLAY with rare fm angular to sub-angular gravel	29.9	99	Tested after >425um removed by hand	52	19	33	
WS3	-	3.40	-	D	Greenish grey, greyish brown and dark greyish brown mottled slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)	37.3	88	Tested after washing to remove >425um	46	17	29	
WS4	-	2.80	-	D	Greyish brown, brown and grey slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)	51.4	77	Tested after washing to remove >425um	52	24	28	
WS5	-	4.60	-	D	Greyish brown gravelly sandy silty CLAY (gravel is fmc and angular to sub-angular flint)	15.1	55	Tested after washing to remove >425um	25	19	6	
WS6	-	2.40	-	D	Greyish green, dark grey and brown mottled slightly gravelly slightly sandy silty CLAY (gravel is fmc and angular to sub-angular)	20.7	92	Tested after >425um removed by hand	47	17	30	
WS9	-	2.50	-	D	Brown mottled dark grey slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)	39.3	90	Tested after washing to remove >425um	45	19	26	

80g/300 cone used unless otherwise stated.

Test Methods: BS EN ISO 17892
Part 1: 2014+A1:2022 Water content
Part 12: 2018+A2:2022 Liquid & plastic limit

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Tel: 01923 711 288
Email: James@k4soils.com

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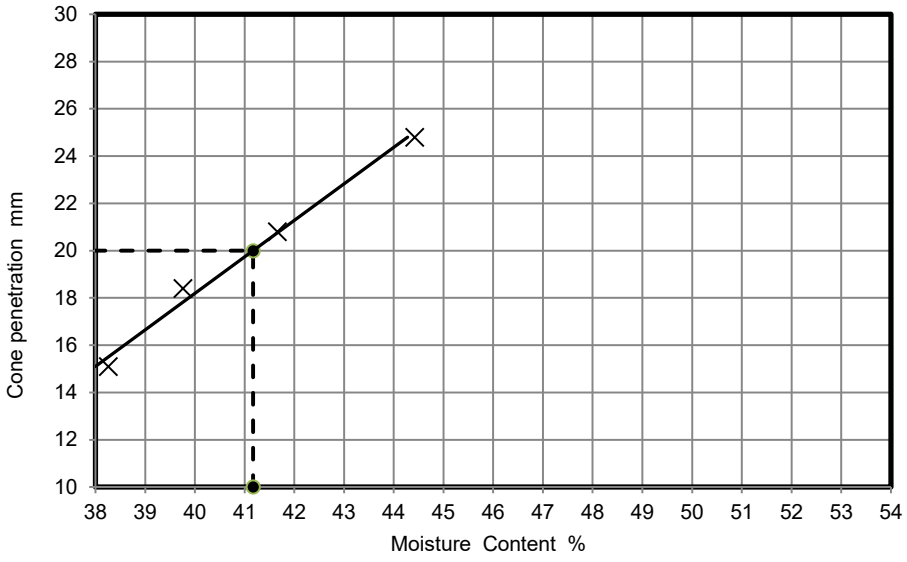
Date: 25/07/2025

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Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	BH1
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	4.00 m
Soil Description	Dark greyish brown slightly sandy slightly gravelly silty CLAY (gravel is fmc and angular to sub-angular flint)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

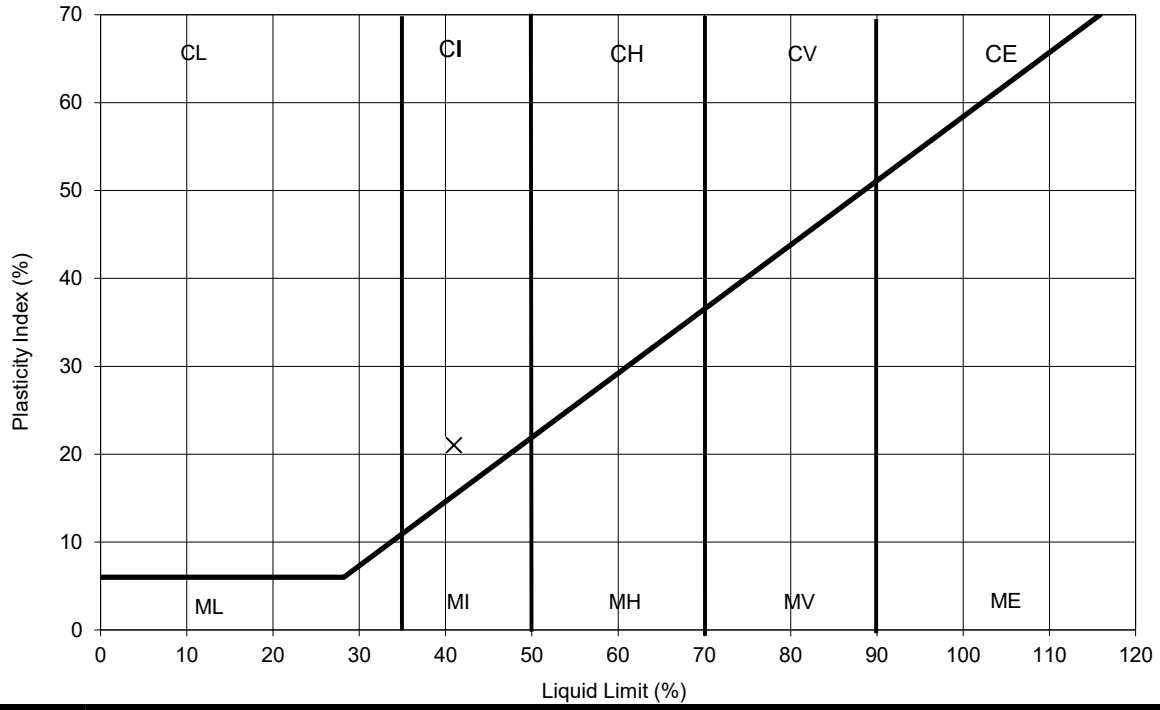


WATER CONTENT	**29.8**	**%**
% PASSING 425µm SIEVE	**60**	**%**
LIQUID LIMIT	**41**	**%**
PLASTIC LIMIT	**20**	**%**
PLASTICITY INDEX	**21**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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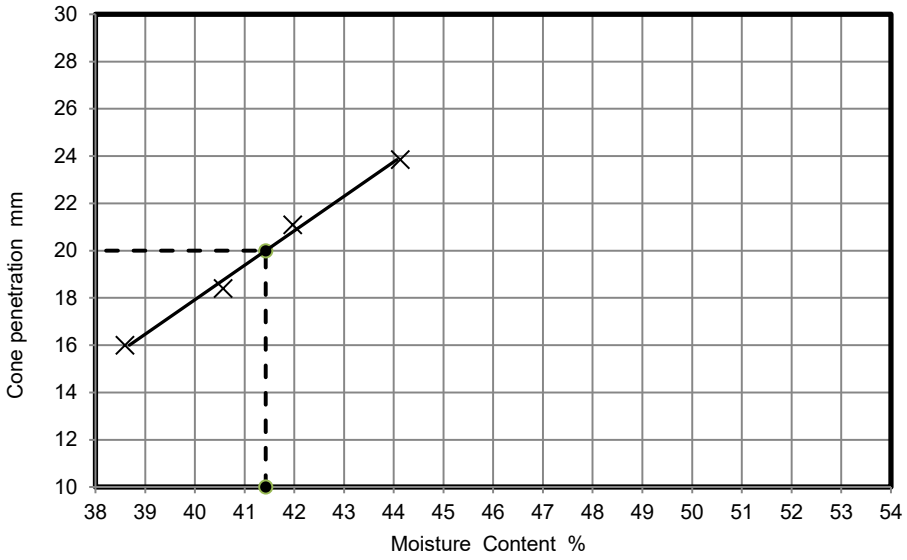
Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU
Tel: 01923 711 288 Email: James@k4soils.com

UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	BH1
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	5.00 m
Soil Description	Greyish brown and dark greyish brown slightly sandy slightly gravelly silty CLAY (gravel is fmc and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

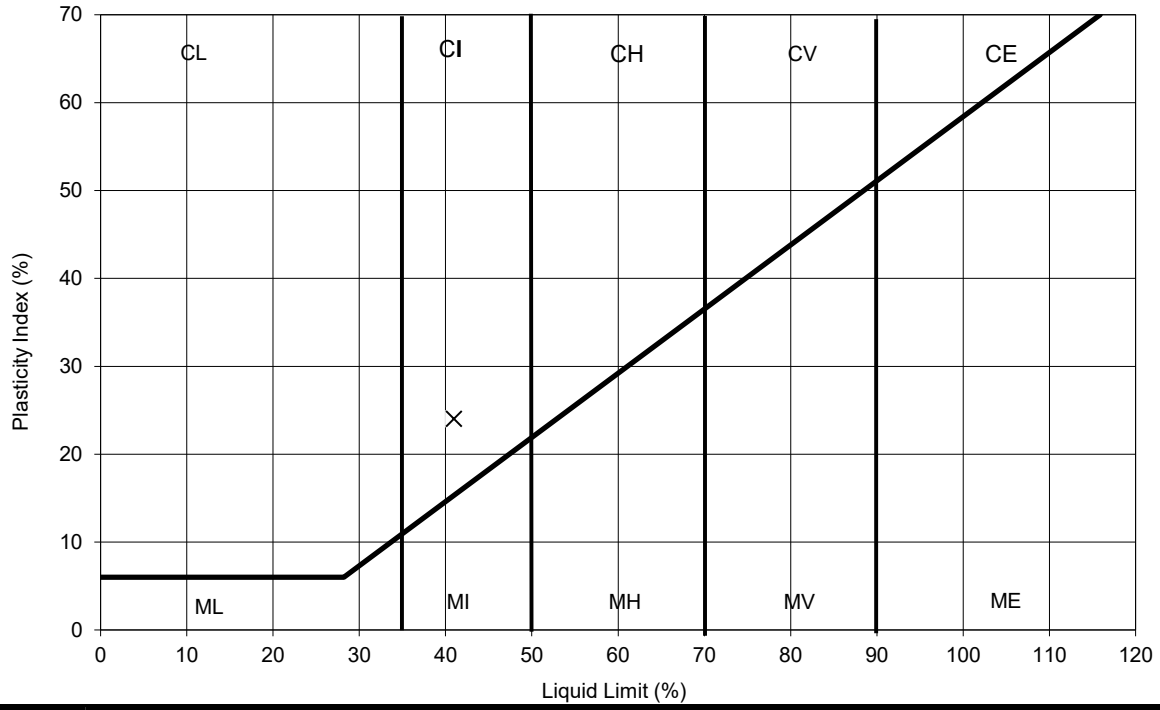


WATER CONTENT	**27.7**	**%**
% PASSING 425µm SIEVE	**71**	**%**
LIQUID LIMIT	**41**	**%**
PLASTIC LIMIT	**17**	**%**
PLASTICITY INDEX	**24**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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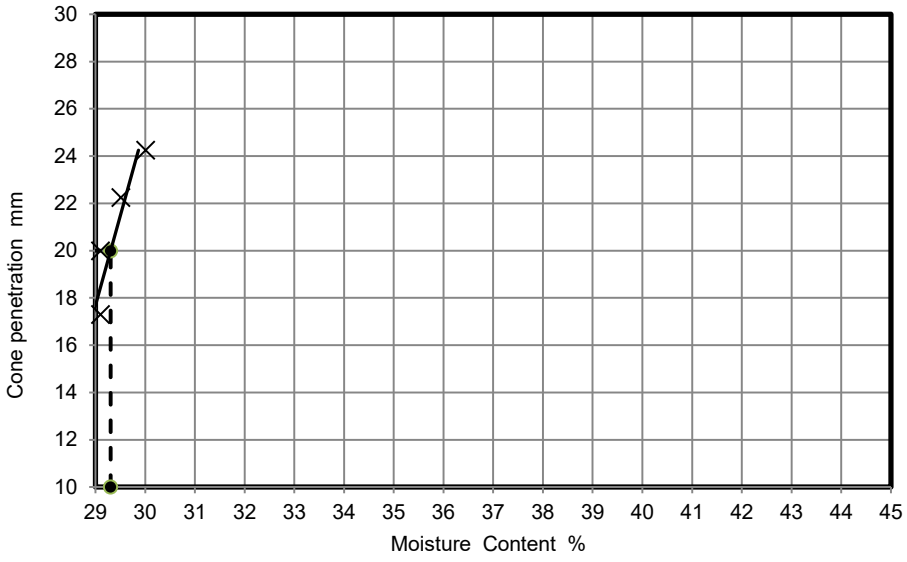
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Checked and Approved
Initials: J.P
Date: 25/07/2025

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	BH1
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	11.00 m
Soil Description	Off white crushed CHALK with rare fmc angular to sub-angular flint gravel			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

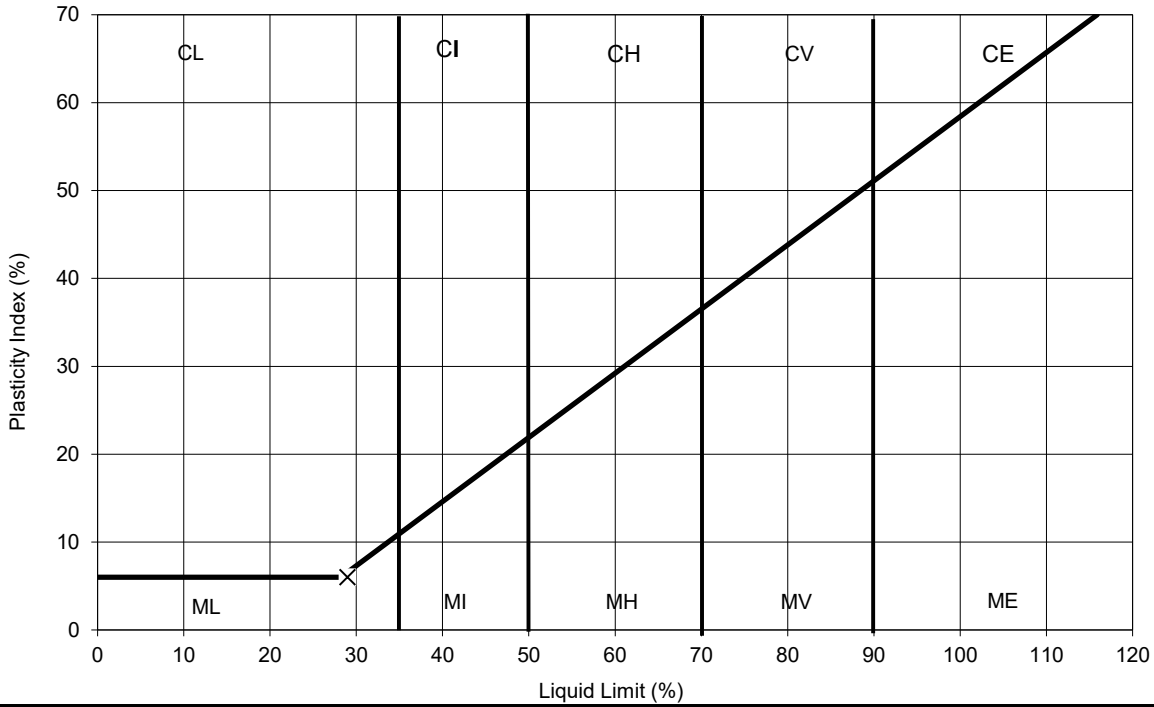


WATER CONTENT	**32.3**	**%**
% PASSING 425µm SIEVE	**23**	**%**
LIQUID LIMIT	**29**	**%**
PLASTIC LIMIT	**23**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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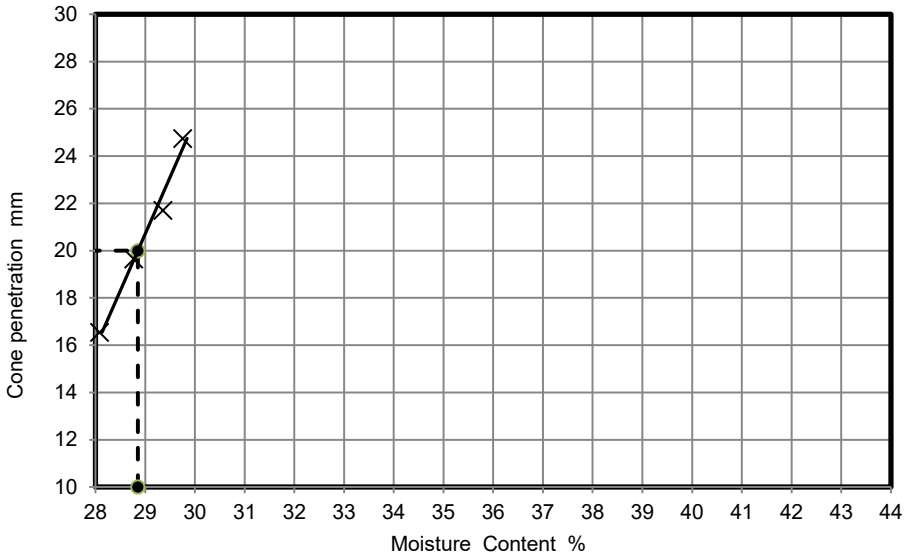
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Tel: 01923 711 288 Email: James@k4soils.com

UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	37506				
Borehole/Pit No.	BH1				
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	13.00 m
Soil Description	Off white crushed CHALK			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

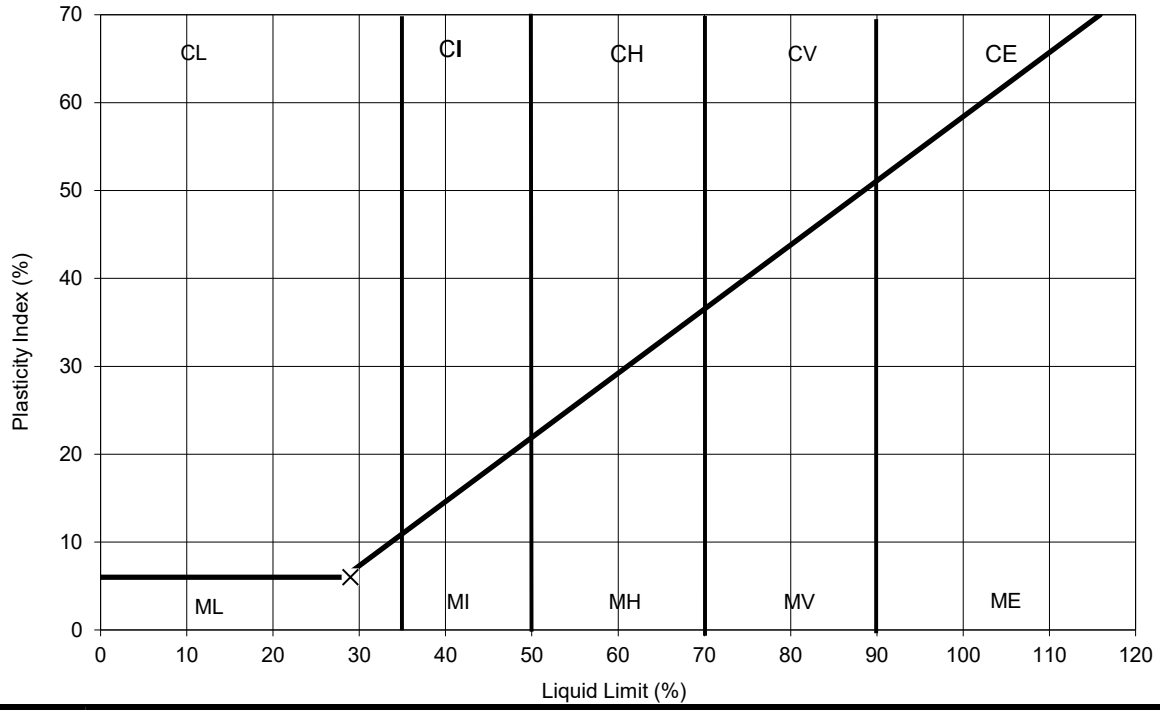


WATER CONTENT	**30.6**	**%**
% PASSING 425µm SIEVE	**27**	**%**
LIQUID LIMIT	**29**	**%**
PLASTIC LIMIT	**23**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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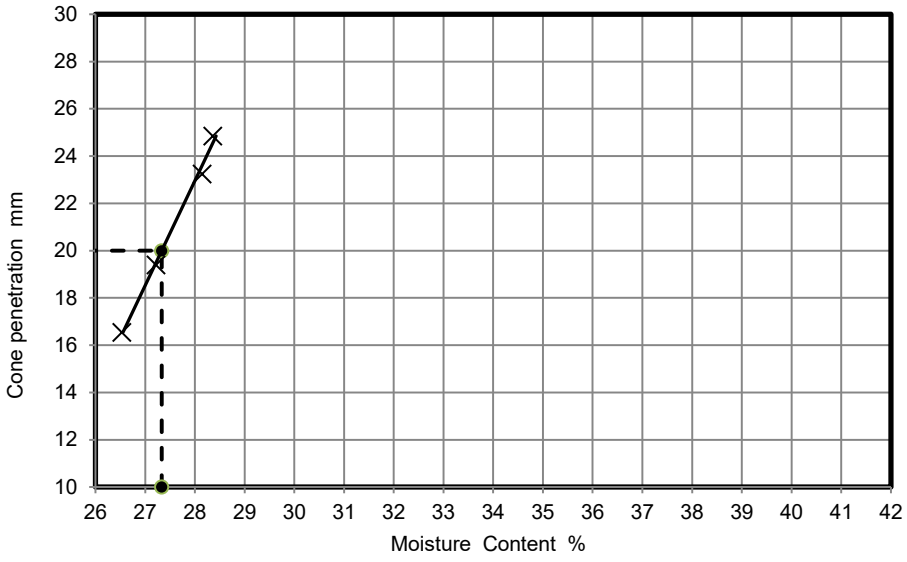
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UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	37506				
Borehole/Pit No.	BH2				
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	12.00 m
Soil Description	Off white and brown crushed CHALK with rare fmc angular to sub-angular flint gravel			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

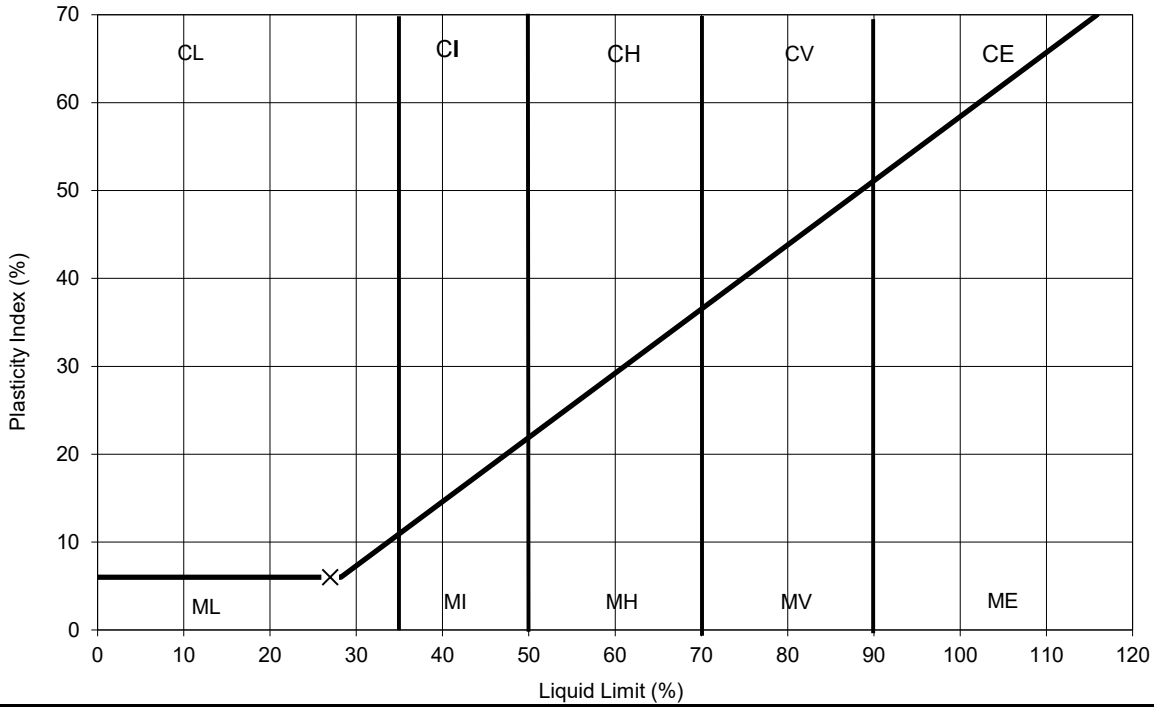


WATER CONTENT	**27.4**	**%**
% PASSING 425µm SIEVE	**29**	**%**
LIQUID LIMIT	**27**	**%**
PLASTIC LIMIT	**21**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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Initials: J.P
Date: 25/07/2025

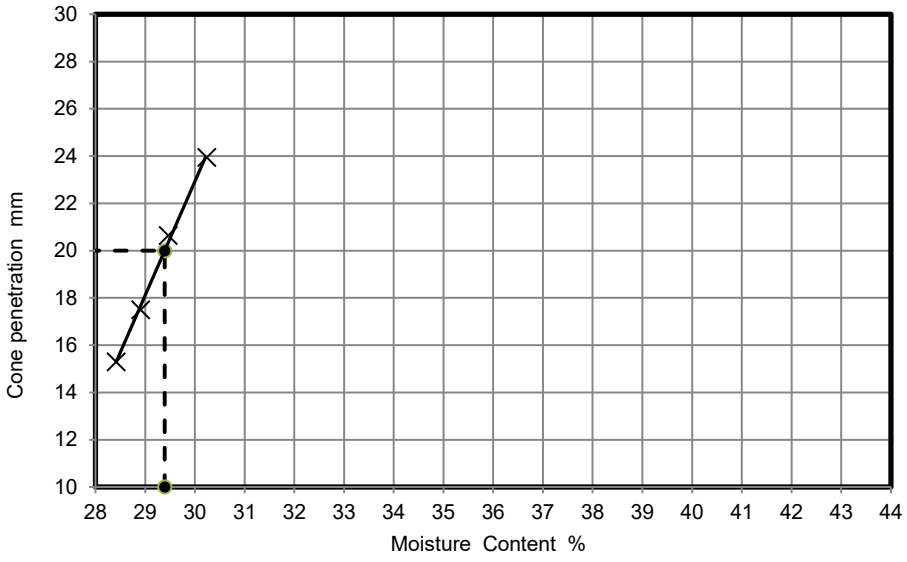
Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU
Tel: 01923 711 288 Email: James@k4soils.com

UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	BH2
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	13.00 m
Soil Description	Off white crushed CHALK			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

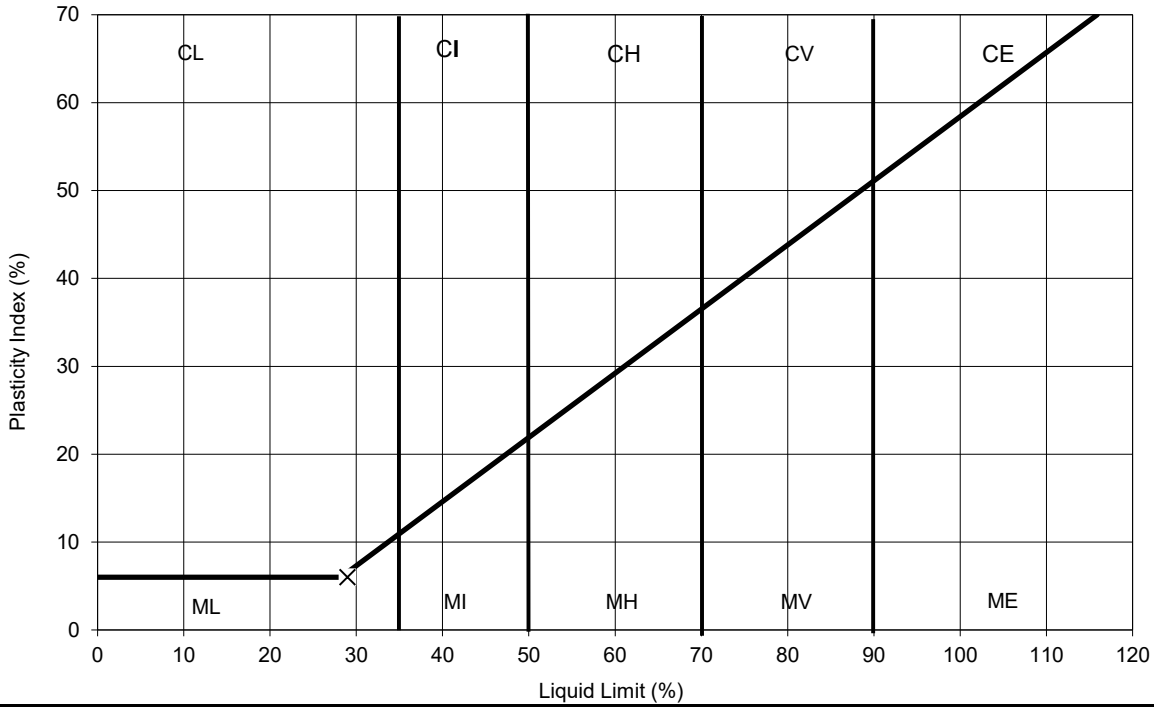


WATER CONTENT	**30.9**	**%**
% PASSING 425µm SIEVE	**25**	**%**
LIQUID LIMIT	**29**	**%**
PLASTIC LIMIT	**23**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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Date: 25/07/2025

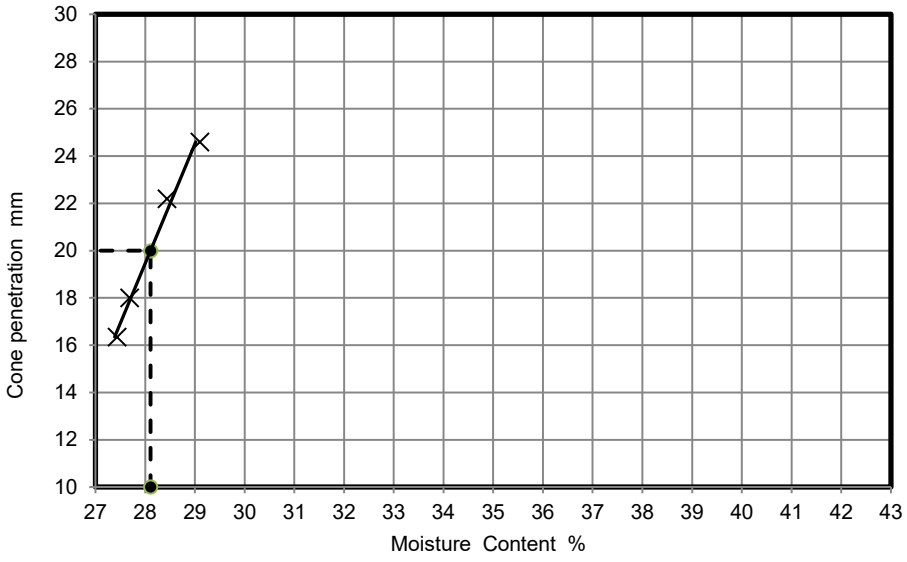
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UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	BH2
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	15.00 m
Soil Description	Off white crushed CHALK			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

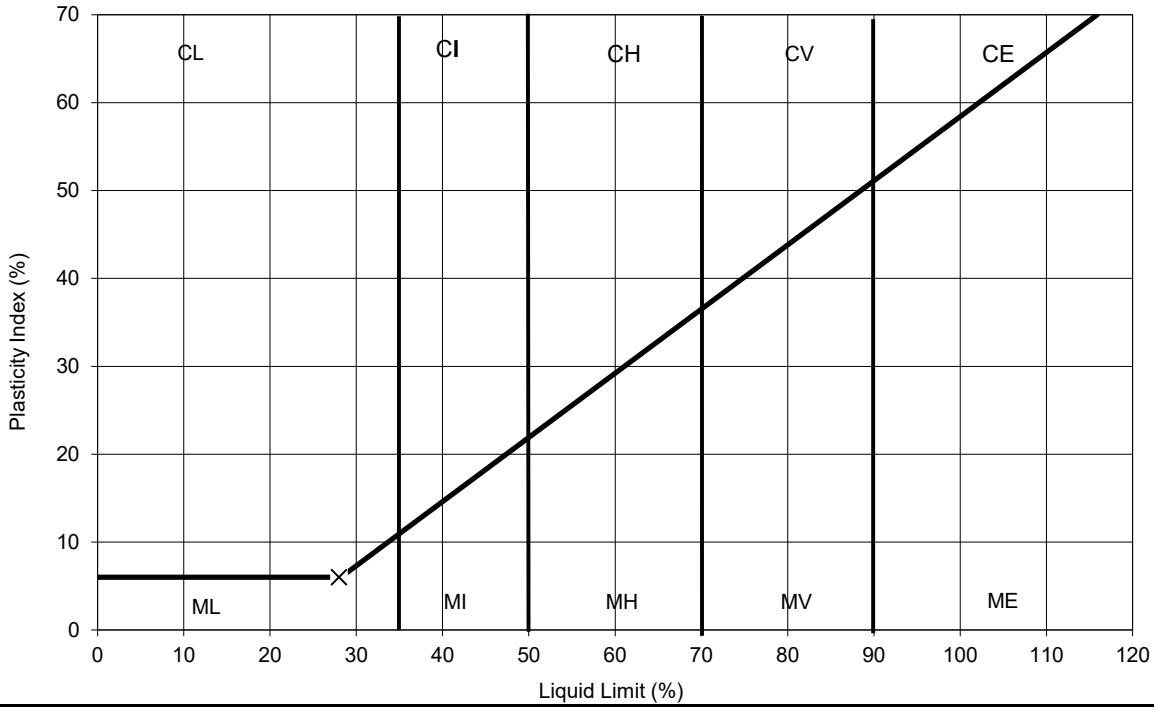


WATER CONTENT	**30.2**	**%**
% PASSING 425µm SIEVE	**27**	**%**
LIQUID LIMIT	**28**	**%**
PLASTIC LIMIT	**22**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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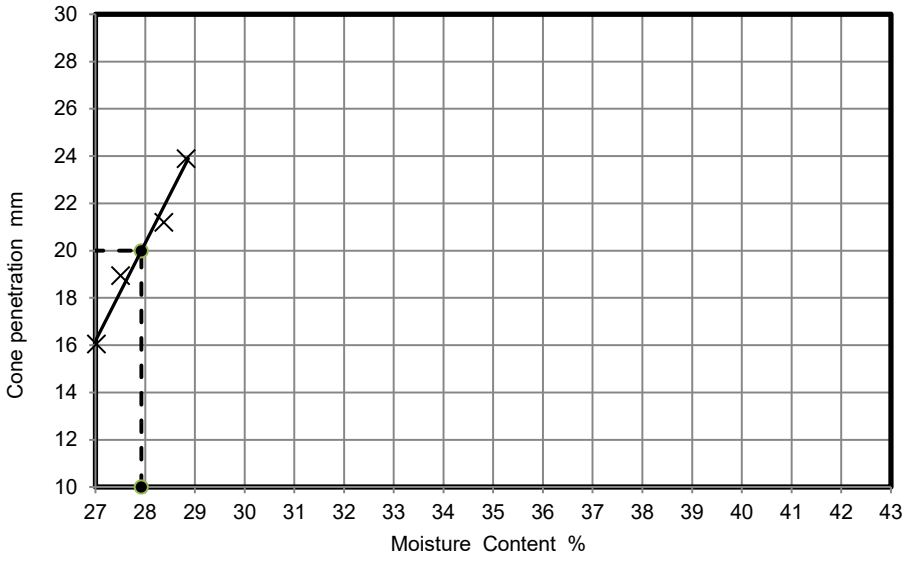
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	BH3
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	12.00 m
Soil Description	Off white crushed CHALK with rare fm angular to sub-angular flint gravel			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

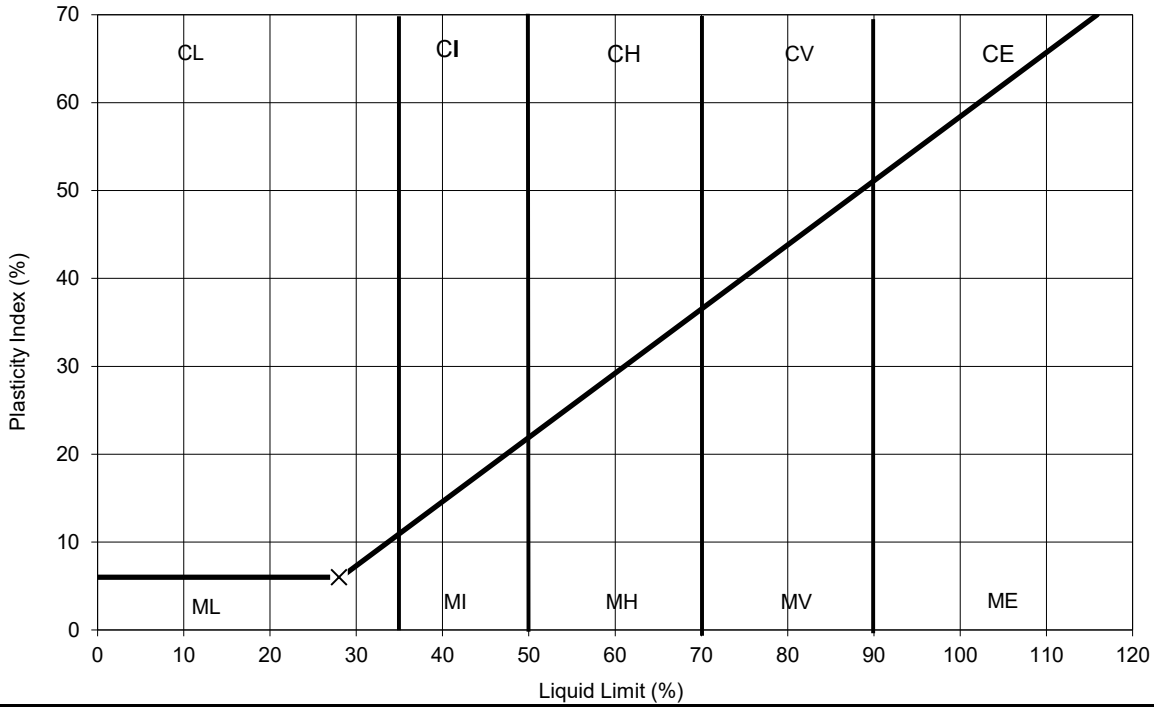


WATER CONTENT	**23.7**	**%**
% PASSING 425µm SIEVE	**41**	**%**
LIQUID LIMIT	**28**	**%**
PLASTIC LIMIT	**22**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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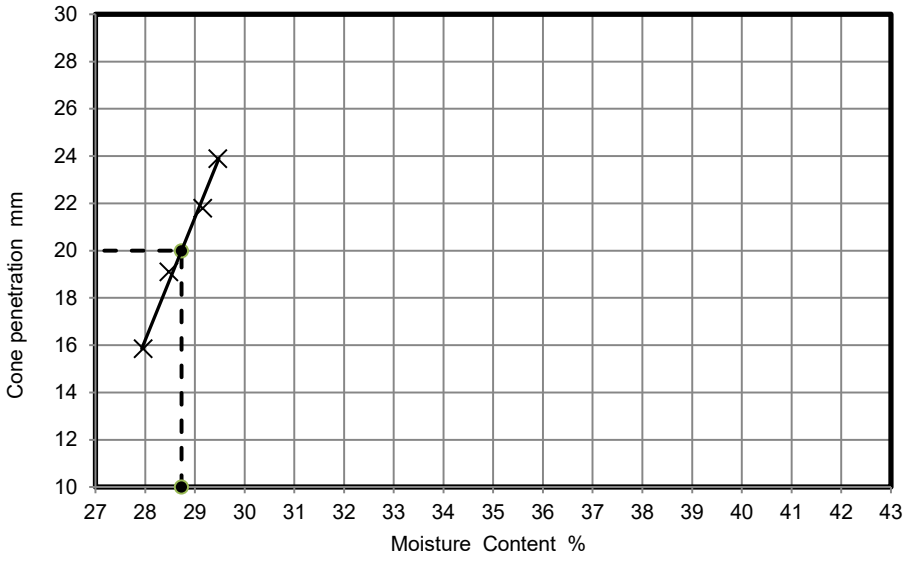
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UKAS TESTING 2519

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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	37506				
Borehole/Pit No.	BH3				
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	14.00 m
Soil Description	Off white crushed CHALK with rare fm angular to sub-angular flint gravel			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

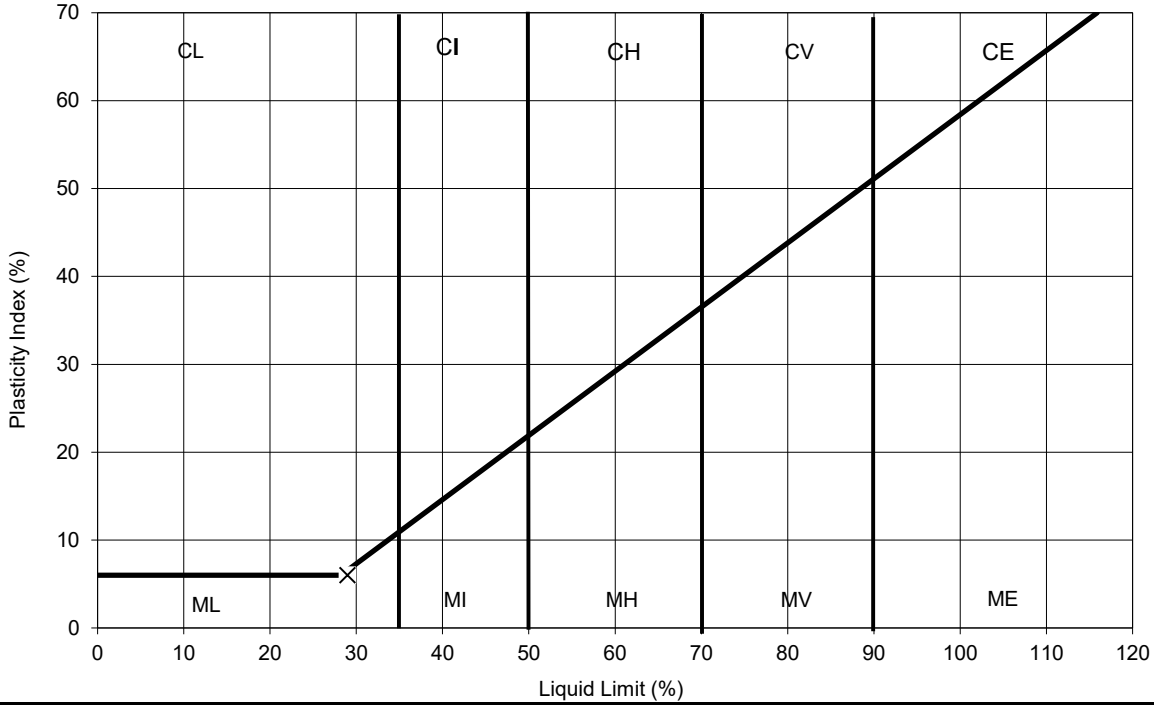


WATER CONTENT	**29.0**	**%**
% PASSING 425µm SIEVE	**56**	**%**
LIQUID LIMIT	**29**	**%**
PLASTIC LIMIT	**23**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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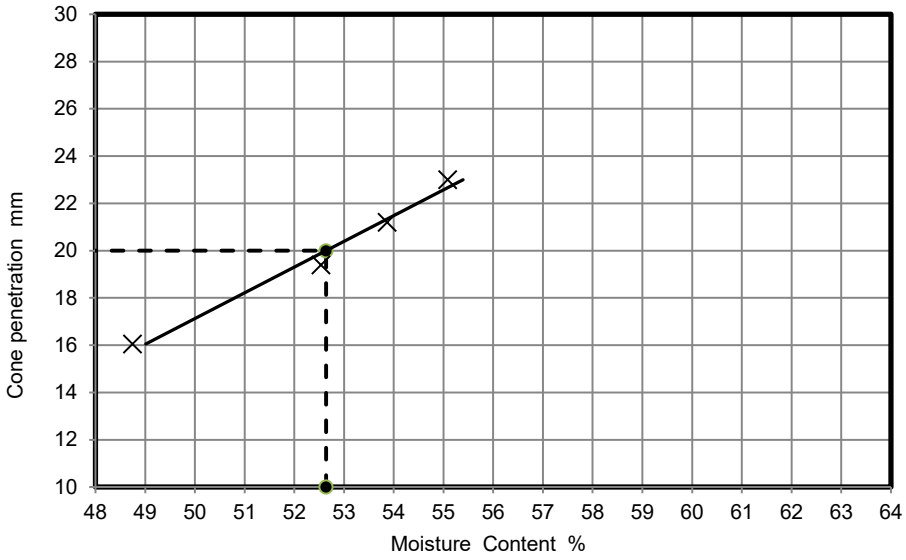
UKAS TESTING 2519

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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.70 m
Soil Description	Greyish brown and dark greyish brown slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

Job No.	37506
Borehole/Pit No.	TP2

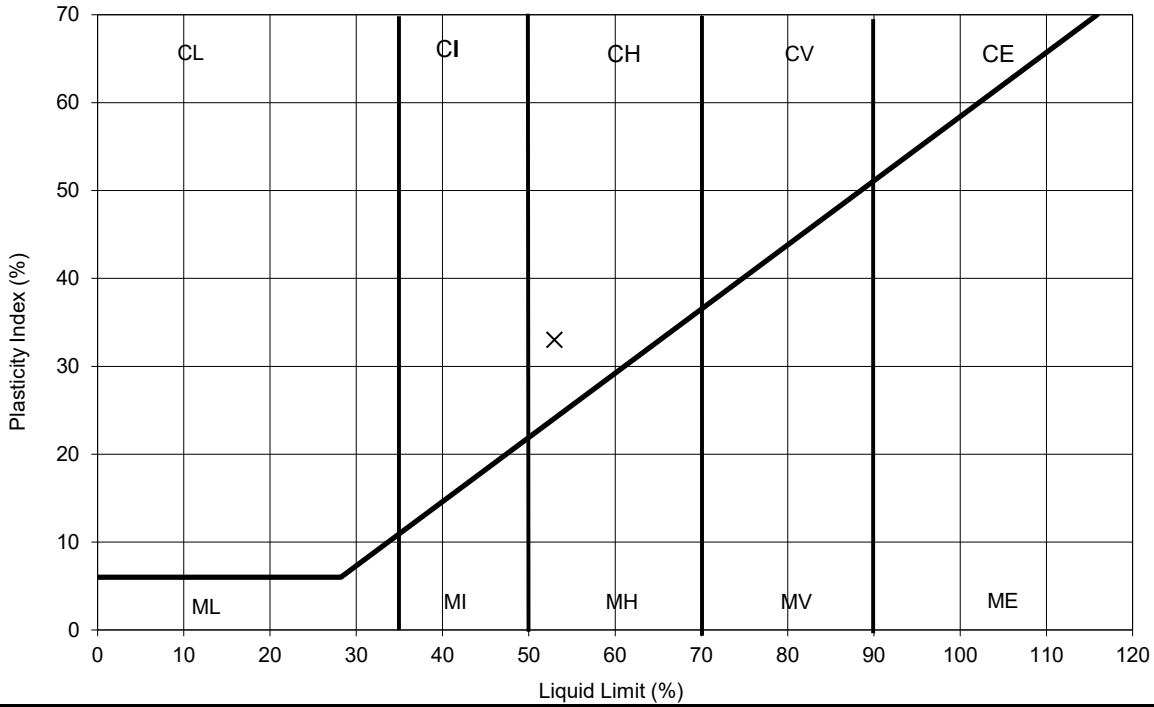


WATER CONTENT	**32.8**	**%**
% PASSING 425µm SIEVE	**97**	**%**
LIQUID LIMIT	**53**	**%**
PLASTIC LIMIT	**20**	**%**
PLASTICITY INDEX	**33**	**%**

Preparation Method	Tested after >425um removed by hand

Remarks

PLASTICITY INDEX



TEST METHODS:

BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content

BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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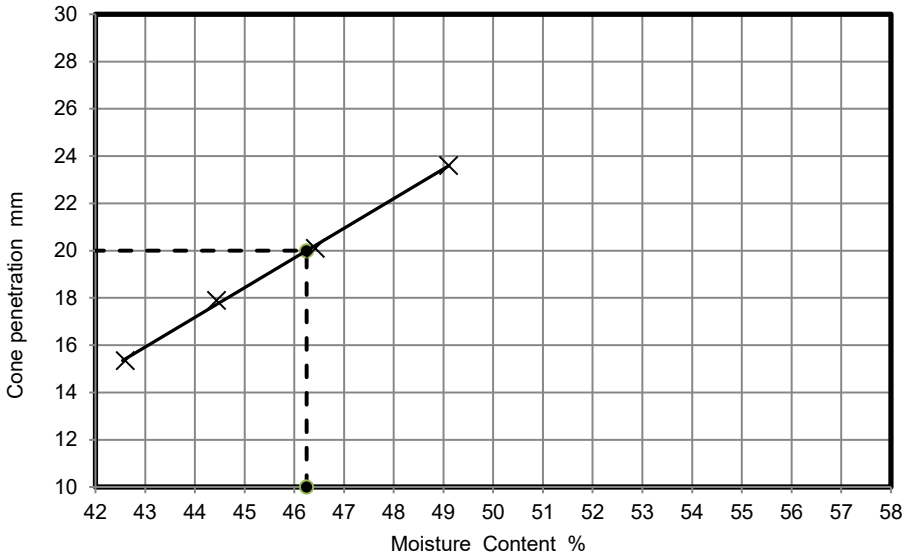
Initials: J.P

Date: 25/07/2025

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.70 m
Soil Description	Brown mottled grey slightly sandy gravelly silty CLAY (gravel is fmc and angular to sub-rounded)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

Job No.	37506
Borehole/Pit No.	TP3

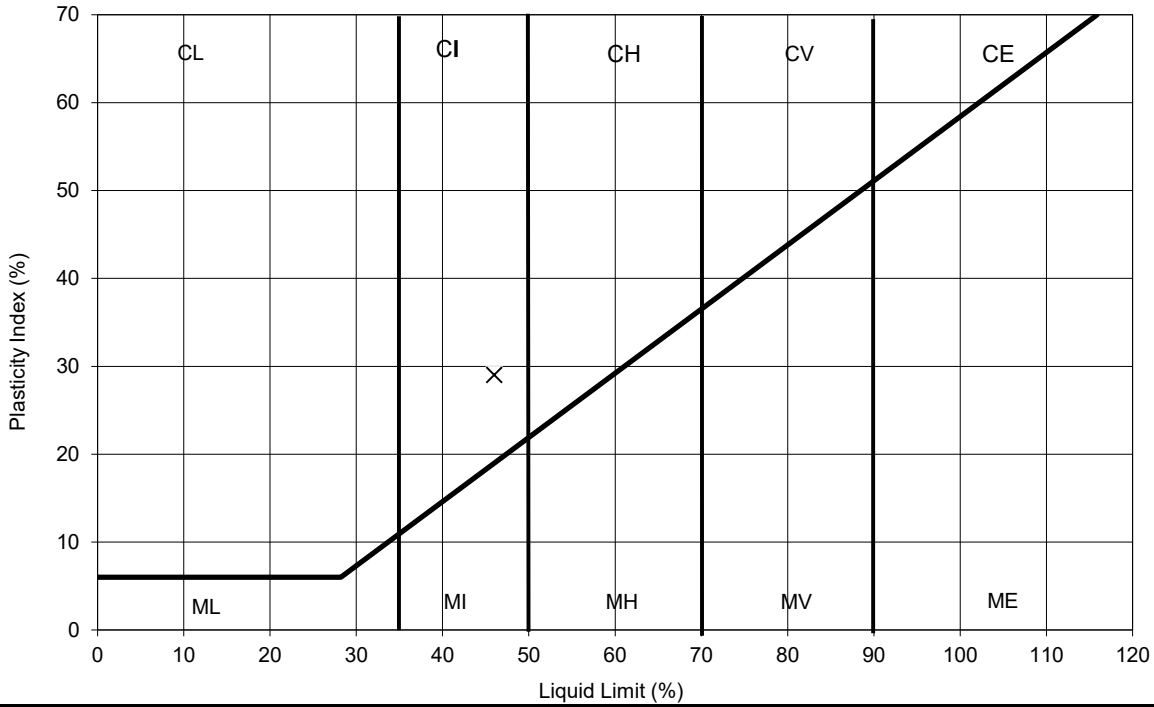


WATER CONTENT	**18.3**	**%**
% PASSING 425µm SIEVE	**42**	**%**
LIQUID LIMIT	**46**	**%**
PLASTIC LIMIT	**17**	**%**
PLASTICITY INDEX	**29**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:

BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content

BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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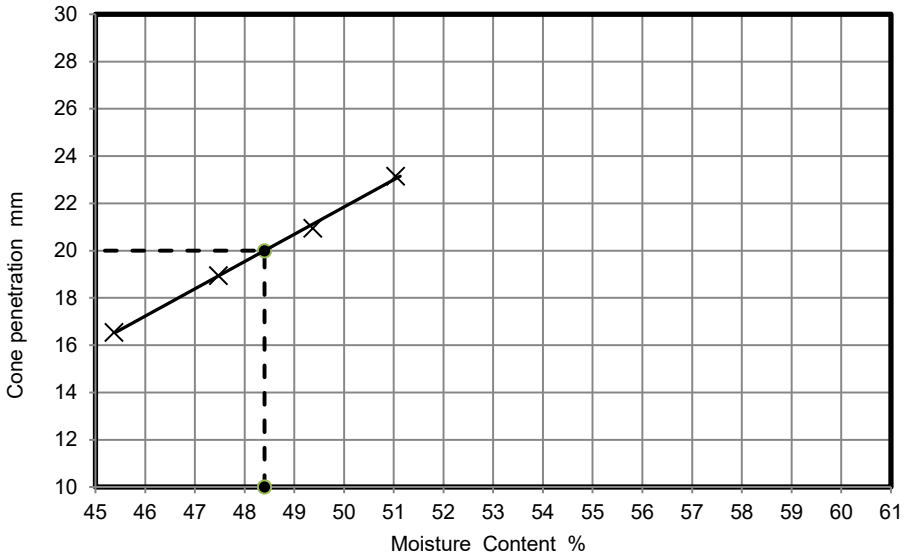
UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.90 m
Soil Description	Greenish grey, brown and greyish brown mottled slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

Job No.	37506
Borehole/Pit No.	TP4

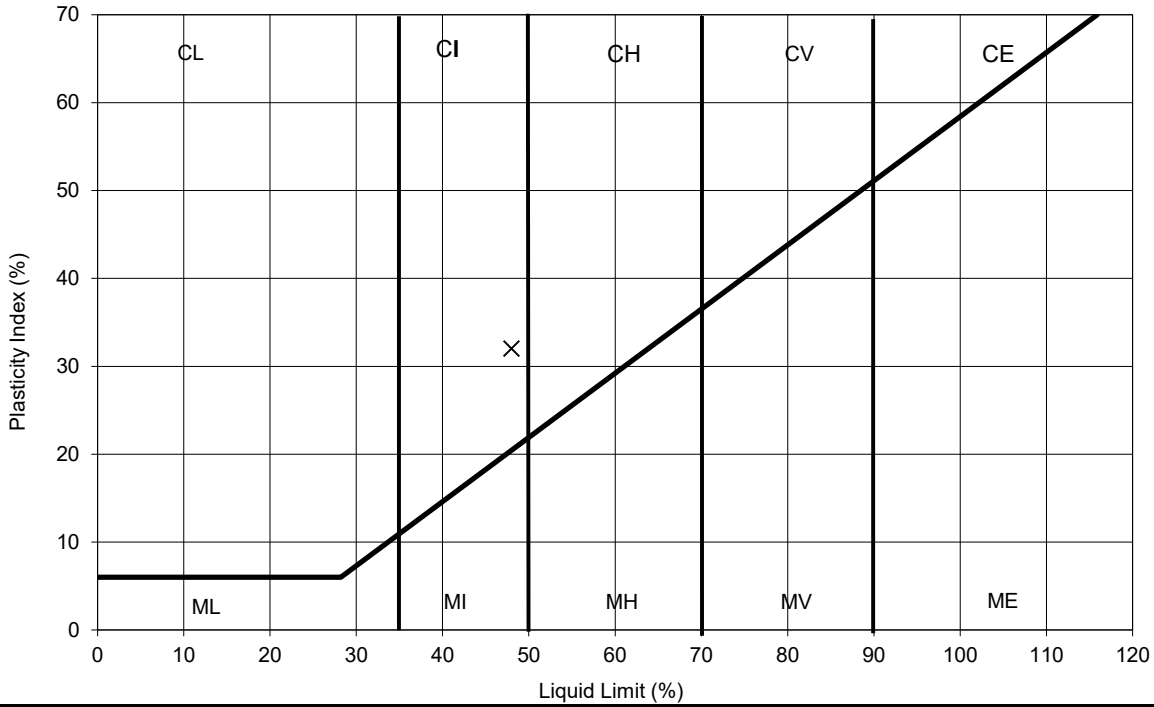


WATER CONTENT	**33.9**	**%**
% PASSING 425µm SIEVE	**97**	**%**
LIQUID LIMIT	**48**	**%**
PLASTIC LIMIT	**16**	**%**
PLASTICITY INDEX	**32**	**%**

Preparation Method	Tested after >425um removed by hand

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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2519

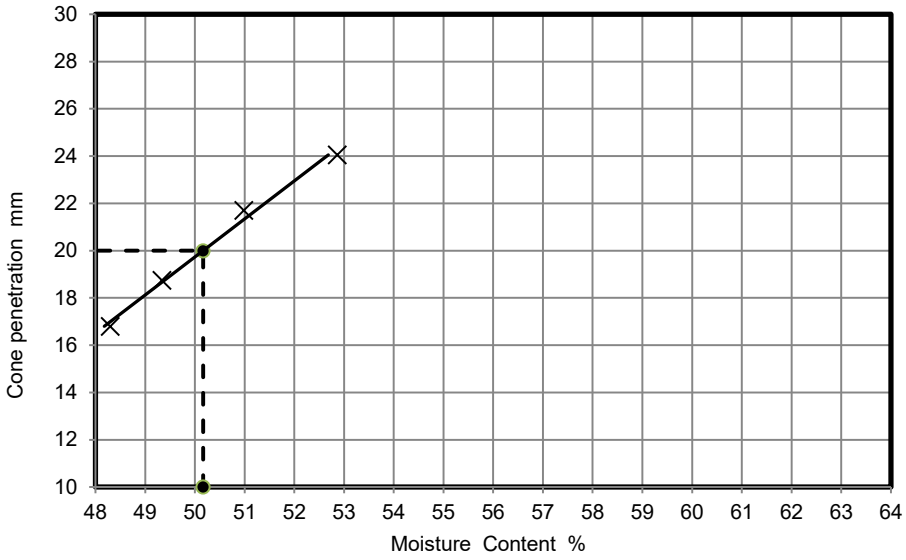
Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

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Initials: J.P
Date: 25/07/2025

MSF-5 R2

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	37506				
Borehole/Pit No.	WS1				
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.70 m
Soil Description	Greyish brown and dark grey slightly sandy slightly gravelly silty CLAY (gravel is fmc and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

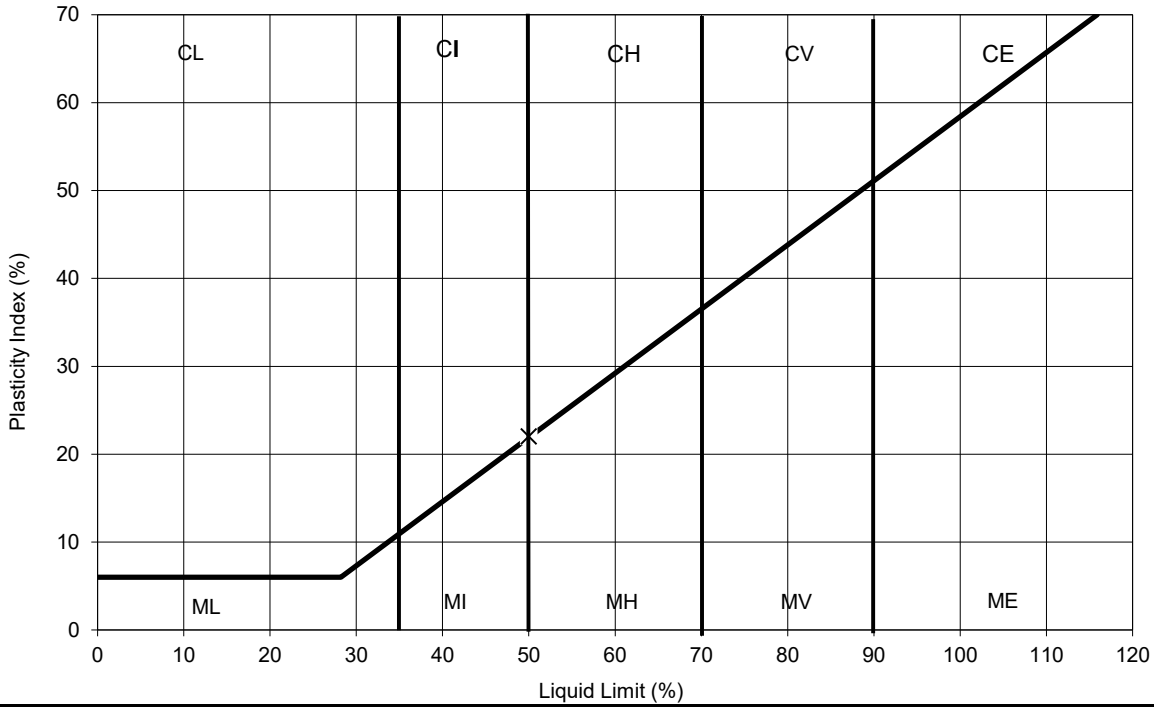


WATER CONTENT	**56.2**	**%**
% PASSING 425µm SIEVE	**77**	**%**
LIQUID LIMIT	**50**	**%**
PLASTIC LIMIT	**28**	**%**
PLASTICITY INDEX	**22**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
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BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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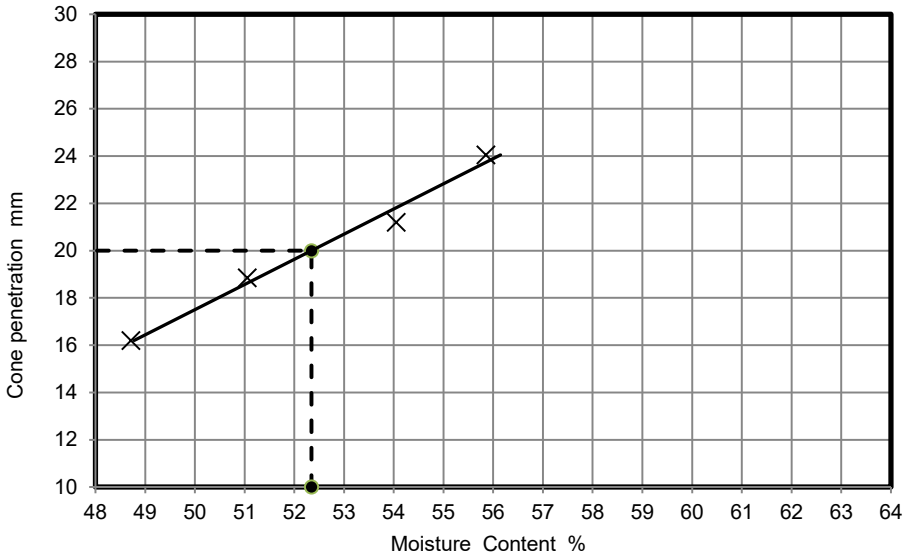
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	37506				
Borehole/Pit No.	WS2				
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	3.00 m
Soil Description	Dark greenish grey and brown slightly sandy silty CLAY with rare fm angular to sub-angular gravel			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	18/07/2025

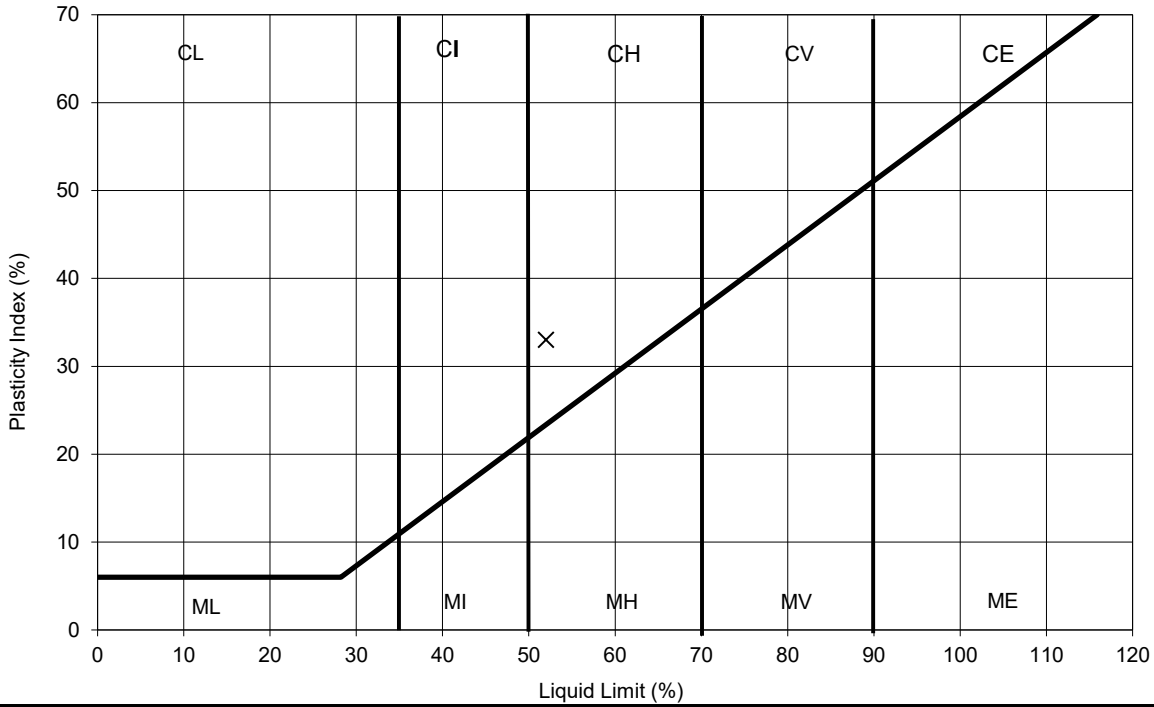


WATER CONTENT	**29.9**	**%**
% PASSING 425µm SIEVE	**99**	**%**
LIQUID LIMIT	**52**	**%**
PLASTIC LIMIT	**19**	**%**
PLASTICITY INDEX	**33**	**%**

Preparation Method	Tested after >425um removed by hand

Remarks

PLASTICITY INDEX



TEST METHODS:
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BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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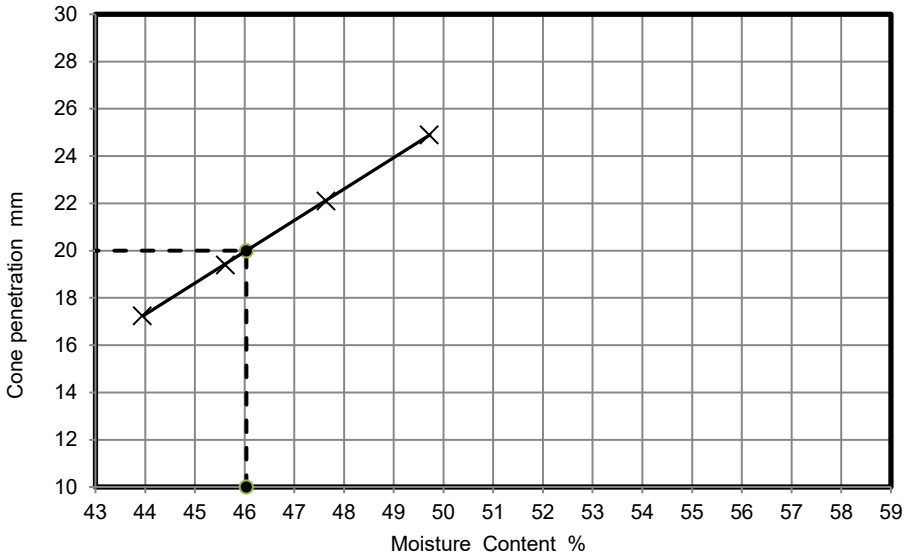
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	WS3
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	3.40 m
Soil Description	Greenish grey, greyish brown and dark greyish brown mottled slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

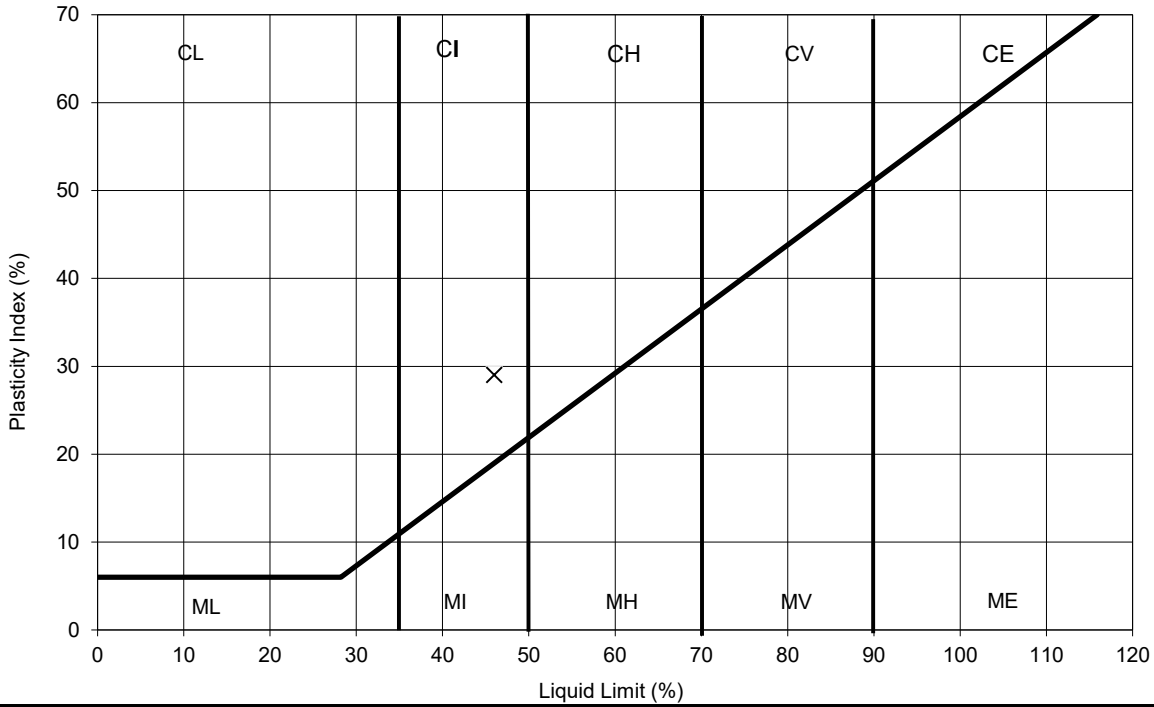


WATER CONTENT	**37.3**	**%**
% PASSING 425µm SIEVE	**88**	**%**
LIQUID LIMIT	**46**	**%**
PLASTIC LIMIT	**17**	**%**
PLASTICITY INDEX	**29**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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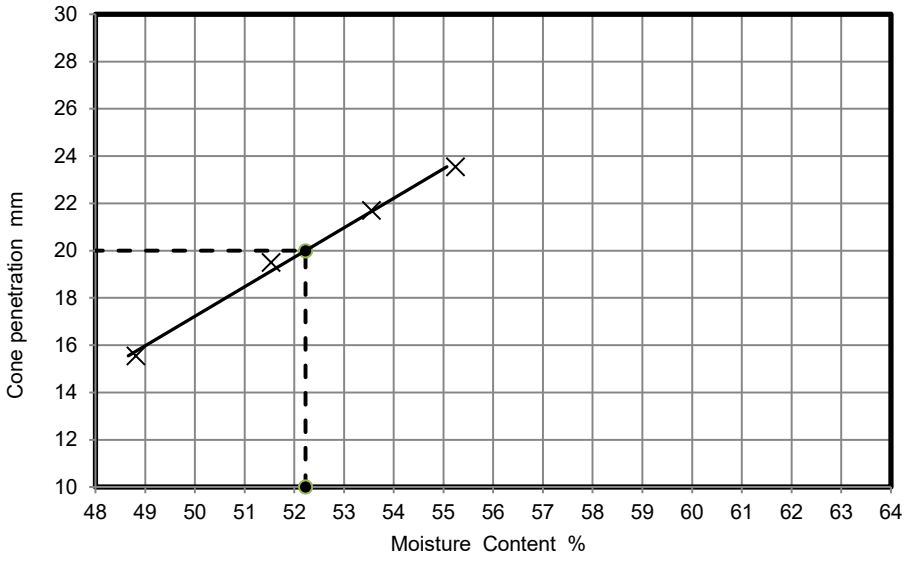
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LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Job No.	37506				
Borehole/Pit No.	WS4				
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.80 m
Soil Description	Greyish brown, brown and grey slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

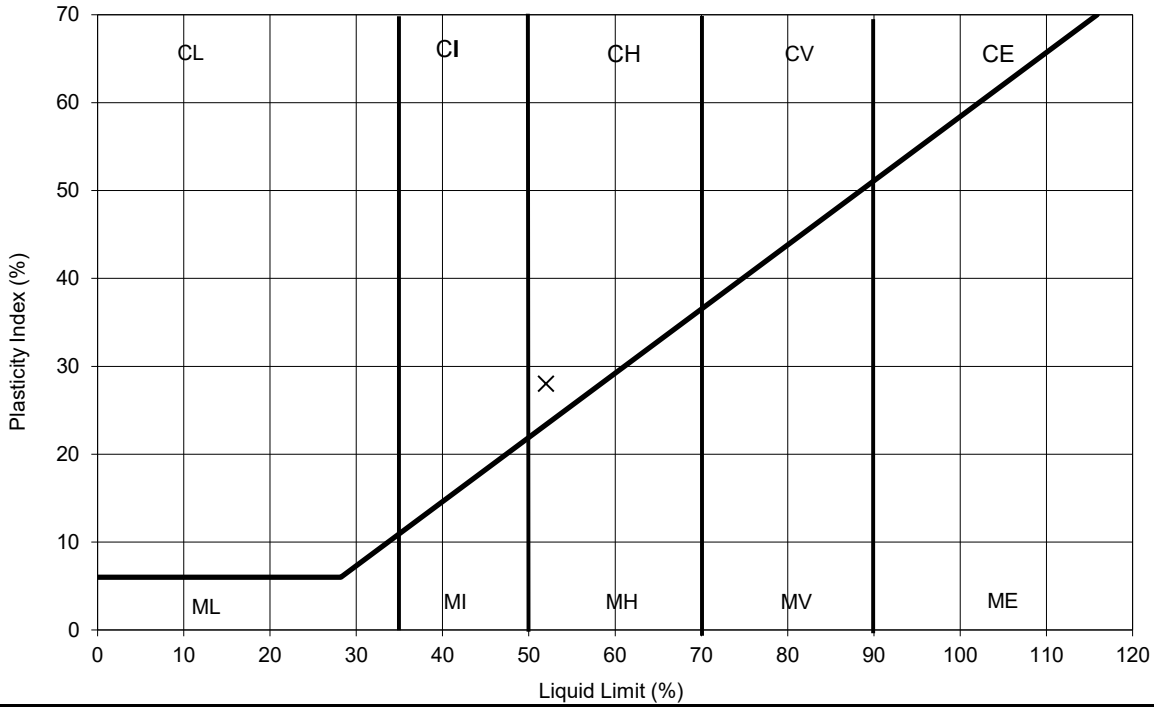


WATER CONTENT	**51.4**	**%**
% PASSING 425µm SIEVE	**77**	**%**
LIQUID LIMIT	**52**	**%**
PLASTIC LIMIT	**24**	**%**
PLASTICITY INDEX	**28**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU
Tel: 01923 711 288 Email: James@k4soils.com

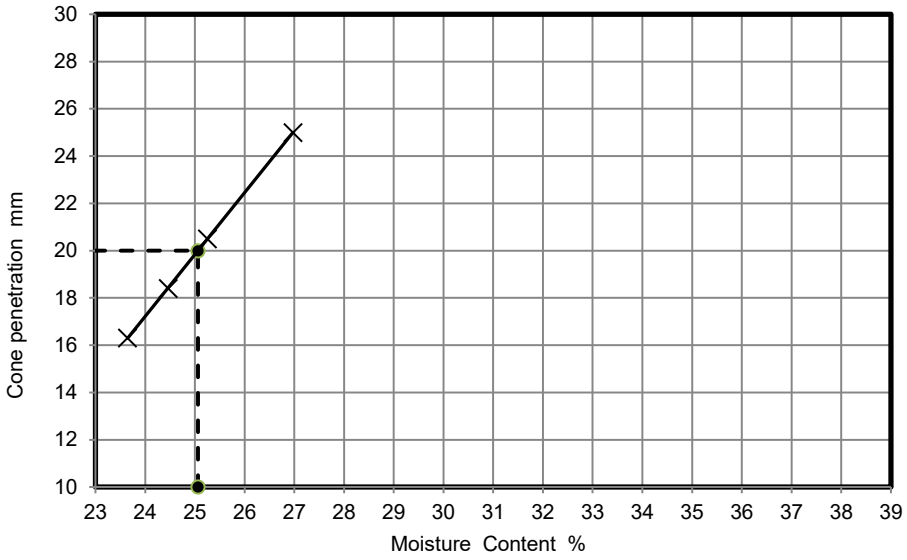
UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	4.60 m
Soil Description	Greyish brown gravelly sandy silty CLAY (gravel is fmc and angular to sub-angular flint)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	18/07/2025

Job No.	37506
Borehole/Pit No.	WS5

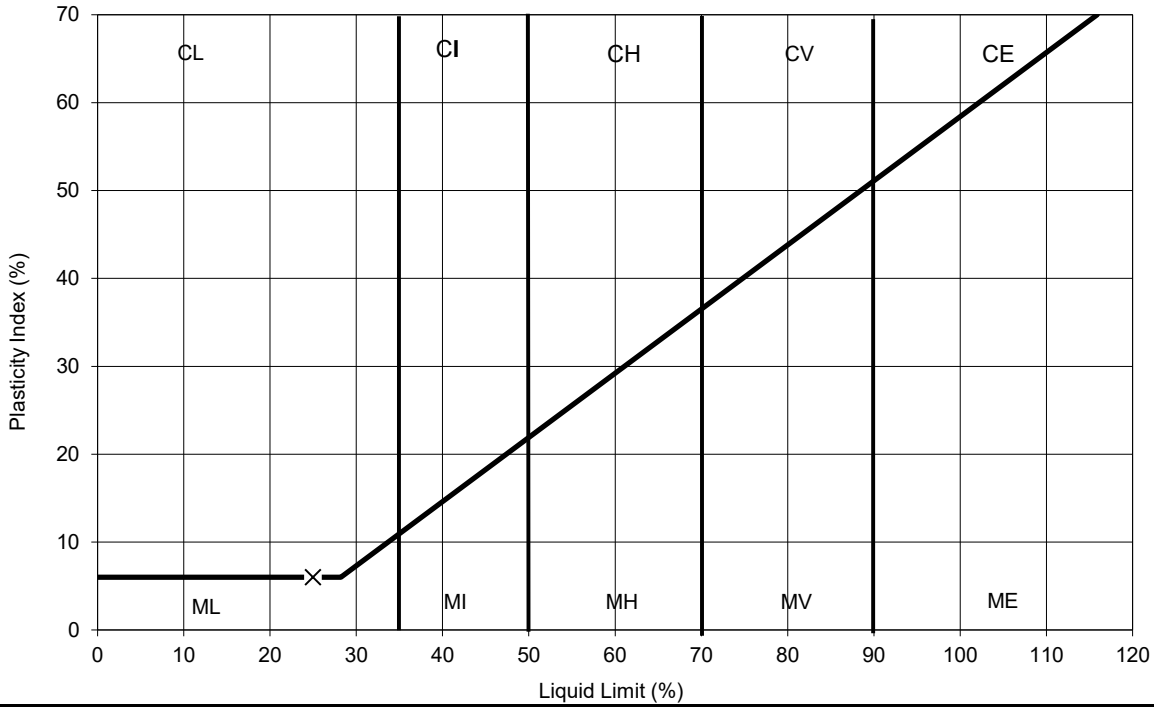


WATER CONTENT	**15.1**	**%**
% PASSING 425µm SIEVE	**55**	**%**
LIQUID LIMIT	**25**	**%**
PLASTIC LIMIT	**19**	**%**
PLASTICITY INDEX	**6**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

These results only apply to the items tested. The report shall not be reproduced except in full without authority of the laboratory

Checked and Approved

Initials: J.P

Date: 25/07/2025

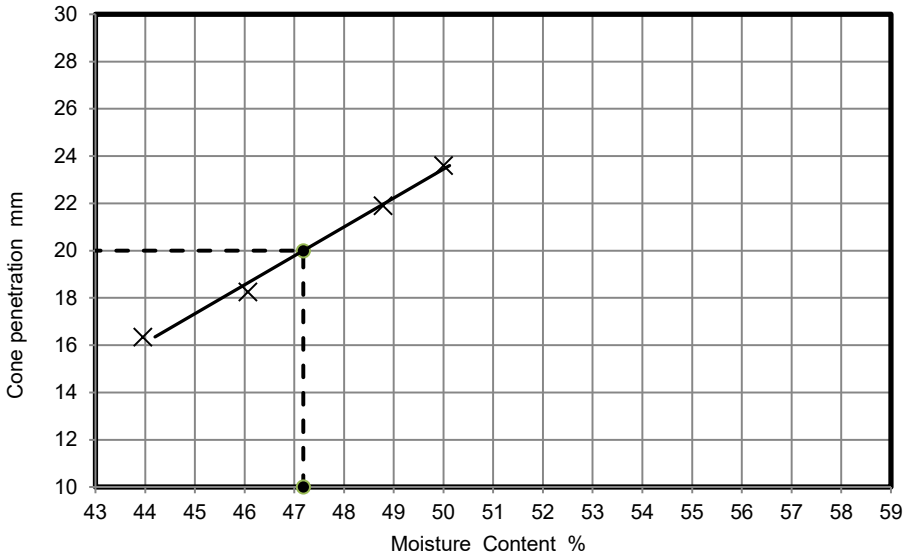
Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU
Tel: 01923 711 288 Email: James@k4soils.com

UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

				Job No.	37506
				Borehole/Pit No.	WS6
Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.40 m
Soil Description	Greyish green, dark grey and brown mottled slightly gravelly slightly sandy silty CLAY (gravel is fmc and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	18/07/2025

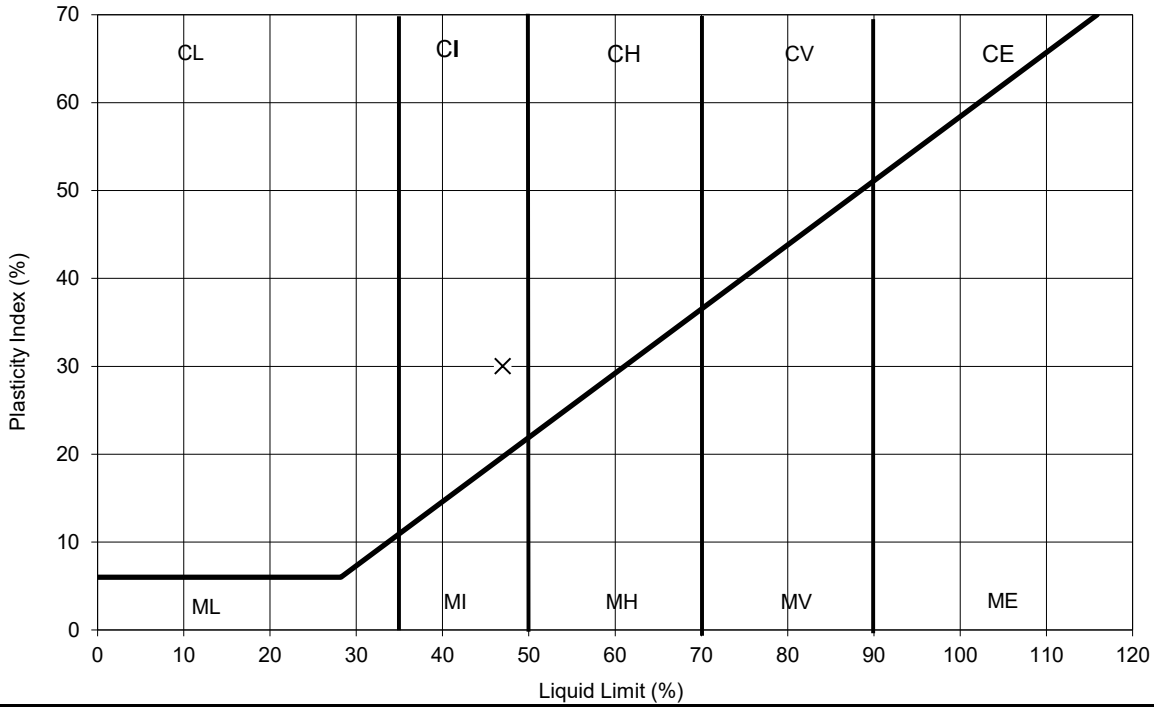


WATER CONTENT	**20.7**	**%**
% PASSING 425µm SIEVE	**92**	**%**
LIQUID LIMIT	**47**	**%**
PLASTIC LIMIT	**17**	**%**
PLASTICITY INDEX	**30**	**%**

Preparation Method	Tested after >425um removed by hand

Remarks

PLASTICITY INDEX



TEST METHODS:
BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content
BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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Checked and Approved

Initials: J.P

Date: 25/07/2025

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU
Tel: 01923 711 288 Email: James@k4soils.com

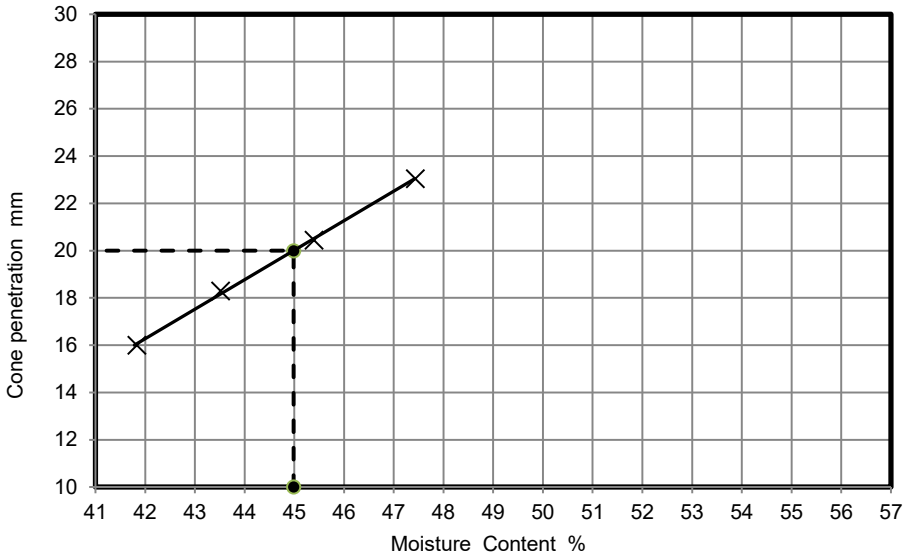
UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX

Site Name	Meadow Road, Reading RG1 8LB			Sample No.	-
Project No.	J3196	Client	Jomas Associates	Depth Top	2.50 m
Soil Description	Brown mottled dark grey slightly gravelly slightly sandy silty CLAY (gravel is fm and angular to sub-angular)			Depth Base	- m
				Sample Type	D
				Samples received	27/06/2025
				Schedules received	01/07/2025
				Project Started	01/07/2025
				Date Tested	21/07/2025

Job No.	37506
Borehole/Pit No.	WS9

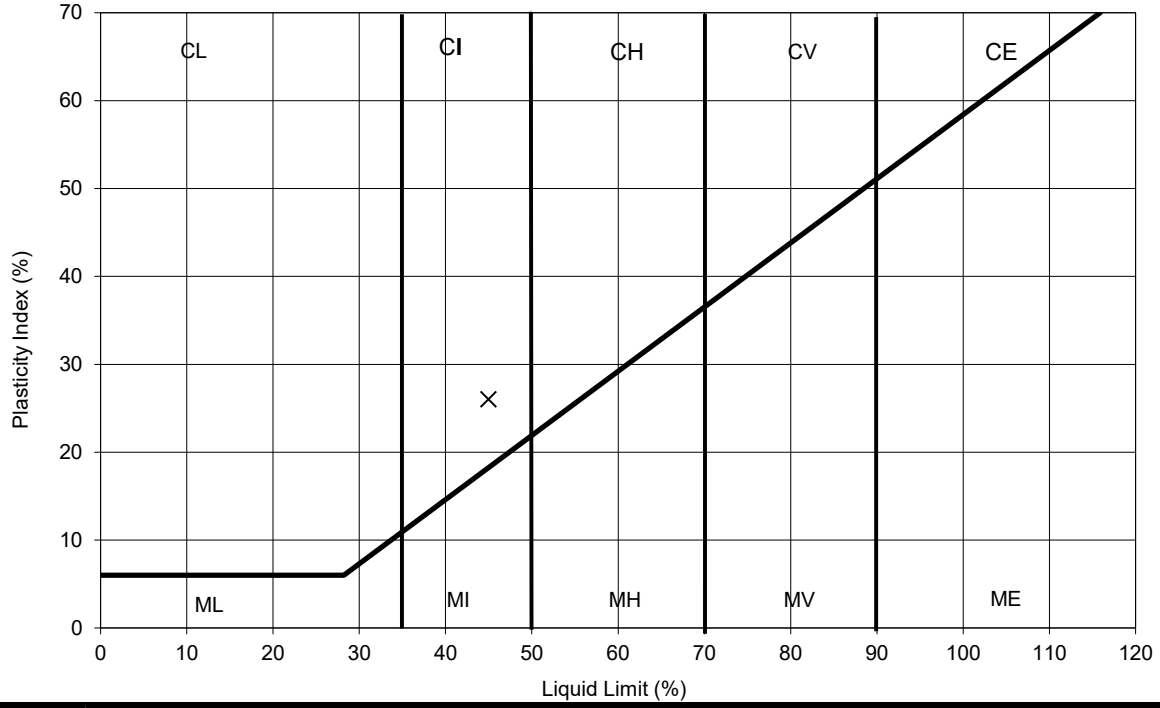


WATER CONTENT	**39.3**	**%**
% PASSING 425µm SIEVE	**90**	**%**
LIQUID LIMIT	**45**	**%**
PLASTIC LIMIT	**19**	**%**
PLASTICITY INDEX	**26**	**%**

Preparation Method	Tested after washing to remove >425um

Remarks

PLASTICITY INDEX



TEST METHODS:

BS EN ISO 17892 Part 1: 2014 + A1:2022 Water Content

BS EN ISO 17892 Part 12: 2018 +A2:2022 Liquid and plastic limit

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Checked and Approved

Initials: J.P

Date: 25/07/2025

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU
Tel: 01923 711 288 Email: James@k4soils.com

UKAS TESTING 2519

Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

APPENDIX 5 – PRELIMINARY HAZARDOUS WASTE CLASSIFICATION

Waste Classification Report

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

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.

YYJ6I-R2QVO-2RM5U

Report is invalid if pages are removed.

Job name

P25-1058-JOM - 25-72116 - HWOL

Description/Comments

J3196 - Meadow Road

Project

J3196 - Meadow Road

Site

J3196 - Meadow Road

Classified by

Name:
Clare Prosser
Date:
08 Aug 2025 10:12 GMT
Telephone:

Company:
JOMAS Associates Ltd
Unit 24 Sarum Complex, Salisbury Road
Uxbridge
UB8 2RZ

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

Meadow Road Reading **Post Code** RG1 8LB

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

Demolition of existing buildings and construction of new industrial buildings.

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

Waste created during redevelopment.

Description of the waste

Made Ground comprising concrete/asphalt over grey/brown/black silt/clay/sand/ gravel with cobbles in places. Gravel consists of flint, brick, concrete, glass and plastic. With possible Alluvium.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS1-ES--27/06/2025	0.20-0.20	Hazardous	HP 7, HP 10, HP 11, HP 14	3
2	WS2-ES--27/06/2025	0.70-0.70	Hazardous	HP 14	6
3	WS3-ES--27/06/2025	0.40-0.40	Hazardous	HP 7, HP 11, HP 14	9
4	WS4-ES--27/06/2025	0.40-0.40	Hazardous	HP 7, HP 11	14
5	WS7-ES--27/06/2025	0.30-0.30	Non Hazardous		17
6	WS9-ES--27/06/2025	1.50-1.50	Hazardous	HP 14	20
7	BH1-ES--27/06/2025	0.60-0.60	Non Hazardous		23
8	TP1-ES--27/06/2025	0.40-0.40	Hazardous	HP 7, HP 8, HP 11, HP 14	28
9	WS5-ES--27/06/2025	0.65-0.65	Hazardous	HP 7, HP 11, HP 14	31
10	WS6-ES--27/06/2025	1.40-1.40	Hazardous	HP 7, HP 14	36
11	TP4-ESX2--27/06/2025	0.30-0.30	Non Hazardous		41
12	TP2-ES--27/06/2025	2.10-2.10	Hazardous	HP 7, HP 10, HP 14	44
13	TP4-ES--27/06/2025	1.50-1.50	Non Hazardous		47
14	BH2-ES--27/06/2025	13.00-13.00	Non Hazardous		52

Related documents

#	Name	Description
1	P25-1058-JOM - 25-72116 - HWOL[2].hwol	CTSGroup .hwol file used to populate the Job

Report

Created by: Clare Prosser

Created date: 08 Aug 2025 10:12 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	55
Appendix B: Rationale for selection of metal species	58
Appendix C: Version	58

Classification of sample: WS1-ES--27/06/2025

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

Sample details

Sample name:	LoW Code:
WS1-ES--27/06/2025	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.20-0.20 m	Entry: 17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:	
21% (dry weight correction)	

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.545%)

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.264%)

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

Hazard Statements hit:

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

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.545%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.264%)

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

Hazard Statements hit:

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

Because of determinands:

copper sulphate pentahydrate (compound conc.: 0.649%)
lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.545%)
zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.945%)

Determinands

Moisture content: 21% Dry 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		pH			PH		8	pH		8	pH	8pH		
2		pyrene		204-927-3	129-00-0		12	mg/kg		9.917	mg/kg	0.000992 %	✓	
3		phenanthrene		201-581-5	85-01-8		16	mg/kg		13.223	mg/kg	0.00132 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
5		indeno[123-cd]pyrene		205-893-2	193-39-5		5.2	mg/kg		4.298	mg/kg	0.00043 %	✓	
6		fluorene		201-695-5	86-73-7		3.7	mg/kg		3.058	mg/kg	0.000306 %	✓	
7		fluoranthene		205-912-4	206-44-0		17	mg/kg		14.05	mg/kg	0.0014 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.9	mg/kg		1.57	mg/kg	0.000157 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		10	mg/kg		8.264	mg/kg	0.000826 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		4.3	mg/kg		3.554	mg/kg	0.000355 %	✓	
11		benzo[ghi]perylene		205-883-8	191-24-2		4.7	mg/kg		3.884	mg/kg	0.000388 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		13	mg/kg		10.744	mg/kg	0.00107 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		8.2	mg/kg		6.777	mg/kg	0.000678 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		9.8	mg/kg		8.099	mg/kg	0.00081 %	✓	
15		anthracene		204-371-1	120-12-7		3.9	mg/kg		3.223	mg/kg	0.000322 %	✓	
16		acenaphthylene		205-917-1	208-96-8		0.66	mg/kg		0.545	mg/kg	0.0000545 %	✓	
17		TPH (C6 to C40) petroleum group			TPH		3200	mg/kg		2644.628	mg/kg	0.264 %	✓	
18		acenaphthene		201-469-6	83-32-9		4.6	mg/kg		3.802	mg/kg	0.00038 %	✓	
19		boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				26	mg/kg	1.895	40.709	mg/kg	0.00407 %	✓	
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		1.4	mg/kg		1.157	mg/kg	0.000116 %	✓	
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
23		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
24		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		70	mg/kg	5.324	308.017	mg/kg	0.0308 %	✓	
25		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		2000	mg/kg	3.929	6494.302	mg/kg	0.649 %	✓	
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	6600	mg/kg		5454.545	mg/kg	0.545 %	✓	

#		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									
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				2600	mg/kg	4.398	9450.089	mg/kg	0.945 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		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 }				2	mg/kg	1.884	3.114	mg/kg	0.000311 %	✓	
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				49	mg/kg	1.462	59.187	mg/kg	0.00592 %	✓	
			215-160-9	1308-38-9									
										Total:	2.455 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.264%)

Classification of sample: WS2-ES--27/06/2025

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

Sample details

Sample name:
WS2-ES--27/06/2025
Sample Depth:
0.70-0.70 m
Moisture content:
25%
(dry weight correction)

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

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.257%)

Determinands

Moisture content: 25% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH		PH		8.5 pH		8.5 pH	8.5 pH		
2		pyrene	204-927-3	129-00-0		11 mg/kg		8.8 mg/kg	0.00088 %	✓	
3		phenanthrene	201-581-5	85-01-8		6.2 mg/kg		4.96 mg/kg	0.000496 %	✓	
4		naphthalene	202-049-5	91-20-3		0.63 mg/kg		0.504 mg/kg	0.0000504 %	✓	
		601-052-00-2									
5		indeno[123-cd]pyrene	205-893-2	193-39-5		3.3 mg/kg		2.64 mg/kg	0.000264 %	✓	
6		fluorene	201-695-5	86-73-7		1.6 mg/kg		1.28 mg/kg	0.000128 %	✓	
7		fluoranthene	205-912-4	206-44-0		12 mg/kg		9.6 mg/kg	0.00096 %	✓	
8		dibenz[a,h]anthracene	200-181-8	53-70-3		0.8 mg/kg		0.64 mg/kg	0.000064 %	✓	
		601-041-00-2									
9		chrysene	205-923-4	218-01-9		5.3 mg/kg		4.24 mg/kg	0.000424 %	✓	
		601-048-00-0									
10		benzo[k]fluoranthene	205-916-6	207-08-9		2.7 mg/kg		2.16 mg/kg	0.000216 %	✓	
		601-036-00-5									
11		benzo[ghi]perylene	205-883-8	191-24-2		3.3 mg/kg		2.64 mg/kg	0.000264 %	✓	
12		benzo[b]fluoranthene	205-911-9	205-99-2		7.2 mg/kg		5.76 mg/kg	0.000576 %	✓	
		601-034-00-4									
13		benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		5.4 mg/kg		4.32 mg/kg	0.000432 %	✓	
		601-032-00-3									
14		benzo[a]anthracene	200-280-6	56-55-3		4.8 mg/kg		3.84 mg/kg	0.000384 %	✓	
		601-033-00-9									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		anthracene				2.5	mg/kg		2	mg/kg	0.0002 %	✓	
			204-371-1	120-12-7									
16		acenaphthylene				0.84	mg/kg		0.672	mg/kg	0.0000672 %	✓	
			205-917-1	208-96-8									
17		TPH (C6 to C40) petroleum group				760	mg/kg		608	mg/kg	0.0608 %	✓	
				TPH									
18		acenaphthene				1.4	mg/kg		1.12	mg/kg	0.000112 %	✓	
			201-469-6	83-32-9									
19		boron { boric acid; [1] boric acid; [2] }				3.5	mg/kg	5.719	16.014	mg/kg	0.0016 %	✓	
		005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				61	mg/kg	1.895	92.453	mg/kg	0.00925 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				2.7	mg/kg		2.16	mg/kg	0.000216 %	✓	
		048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]									
22		mercury { mercury dichloride }				2.5	mg/kg	1.353	2.707	mg/kg	0.000271 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
23		selenium { nickel selenate }				<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<**LOD**
		028-031-00-5	239-125-2	15060-62-5									
24		nickel { nickel diiodide }				66	mg/kg	5.324	281.123	mg/kg	0.0281 %	✓	
		028-029-00-4	236-666-6	13462-90-3									
25		copper { copper sulphate pentahydrate }				120	mg/kg	3.929	377.189	mg/kg	0.0377 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	1200	mg/kg		960	mg/kg	0.096 %	✓	
		082-001-00-6											
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				730	mg/kg	4.398	2568.389	mg/kg	0.257 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1.4	mg/kg	1.884	2.11	mg/kg	0.000211 %	✓	
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				38	mg/kg	1.462	44.431	mg/kg	0.00444 %	✓	
			215-160-9	1308-38-9									
										Total:	0.501 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0608%)

Classification of sample: WS3-ES--27/06/2025

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

Sample details

Sample name:
WS3-ES--27/06/2025
Sample Depth:
0.40-0.40 m
Moisture content:
52%
(dry weight correction)

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

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.184%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.184%)

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

Hazard Statements hit:

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

Because of determinands:

copper sulphate pentahydrate (compound conc.: 0.103%)
zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.246%)

Determinands

Moisture content: 52% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
1		pH		PH		8.1	pH		8.1	pH	8.1 pH		
2		pyrene	204-927-3	129-00-0		35	mg/kg		23.026	mg/kg	0.0023 %	✓	
3		phenanthrene	201-581-5	85-01-8		19	mg/kg		12.5	mg/kg	0.00125 %	✓	
4		naphthalene				0.64	mg/kg		0.421	mg/kg	0.0000421 %	✓	
		601-052-00-2	202-049-5	91-20-3									

#	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
5	indeno[123-cd]pyrene		205-893-2	193-39-5		15 mg/kg		9.868 mg/kg	0.000987 %	✓	
6	fluorene		201-695-5	86-73-7		3 mg/kg		1.974 mg/kg	0.000197 %	✓	
7	fluoranthene		205-912-4	206-44-0		39 mg/kg		25.658 mg/kg	0.00257 %	✓	
8	dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		3.5 mg/kg		2.303 mg/kg	0.00023 %	✓	
9	chrysene	601-048-00-0	205-923-4	218-01-9		20 mg/kg		13.158 mg/kg	0.00132 %	✓	
10	benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		11 mg/kg		7.237 mg/kg	0.000724 %	✓	
11	benzo[ghi]perylene		205-883-8	191-24-2		14 mg/kg		9.211 mg/kg	0.000921 %	✓	
12	benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		31 mg/kg		20.395 mg/kg	0.00204 %	✓	
13	benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		22 mg/kg		14.474 mg/kg	0.00145 %	✓	
14	benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		21 mg/kg		13.816 mg/kg	0.00138 %	✓	
15	anthracene		204-371-1	120-12-7		6.7 mg/kg		4.408 mg/kg	0.000441 %	✓	
16	acenaphthylene		205-917-1	208-96-8		2.5 mg/kg		1.645 mg/kg	0.000164 %	✓	
17	TPH (C6 to C40) petroleum group			TPH		2800 mg/kg		1842.105 mg/kg	0.184 %	✓	
18	acenaphthene		201-469-6	83-32-9		2.1 mg/kg		1.382 mg/kg	0.000138 %	✓	
19	boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		5.7 mg/kg	5.719	21.447 mg/kg	0.00214 %	✓	
20	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				40 mg/kg	1.895	49.856 mg/kg	0.00499 %	✓	
21	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		3.2 mg/kg		2.105 mg/kg	0.000211 %	✓	
22	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5 mg/kg	1.353	<3.384 mg/kg	<0.000338 %		<LOD
23	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8 mg/kg	2.554	<20.431 mg/kg	<0.00204 %		<LOD
24	nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		70 mg/kg	5.324	245.198 mg/kg	0.0245 %	✓	
25	copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		400 mg/kg	3.929	1033.961 mg/kg	0.103 %	✓	
26	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	920 mg/kg		605.263 mg/kg	0.0605 %	✓	
27	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		850 mg/kg	4.398	2459.366 mg/kg	0.246 %	✓	
28	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				9.5 mg/kg	1.884	11.775 mg/kg	0.00118 %	✓	
29	monohydric phenols			P1186		<1 mg/kg		<1 mg/kg	<0.0001 %		<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
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
31		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
32		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
33		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
34		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**
35		chloroethane	602-009-00-0	200-830-5	75-00-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
36		bromomethane; methylbromide	602-002-00-2	200-813-2	74-83-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
37		vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
38		chloromethane; methyl chloride	602-001-00-7	200-817-4	74-87-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
39		dichlorodifluoromethane		200-893-9	75-71-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
40		trichlorofluoromethane		200-892-3	75-69-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
41		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**
42		dichloromethane; methylene chloride	602-004-00-3	200-838-9	75-09-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
43		1,1-dichloroethane	602-011-00-1	200-863-5	75-34-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
44		2,2-dichloropropane		209-832-0	594-20-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
45		bromochloromethane		200-826-3	74-97-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
46		chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
47		1,1,1-trichloroethane; methyl chloroform	602-013-00-2	200-756-3	71-55-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
48		1,1-dichloropropene	602-031-00-0	209-253-3	563-58-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
49		carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
50		1,2-dichloroethane; ethylene dichloride	602-012-00-7	203-458-1	107-06-2		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
51		trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
52		1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
53		dibromomethane	602-003-00-8	200-824-2	74-95-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
54		bromodichloromethane		200-856-7	75-27-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
55		trans-1,3-dichloropropene		431-460-4	10061-02-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
56		1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
57		1,3-dichloropropane		205-531-3	142-28-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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
58		tetrachloroethylene	602-028-00-4	204-825-9	127-18-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
59		dibromochloromethane		204-704-0	124-48-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
60		1,2-dibromoethane	602-010-00-6	203-444-5	106-93-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
61		chlorobenzene	602-033-00-1	203-628-5	108-90-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
62		1,1,1,2-tetrachloroethane		211-135-1	630-20-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
63		styrene	601-026-00-0	202-851-5	100-42-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
64		cumene	601-024-00-X	202-704-5	98-82-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
65		bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
66		1,1,2,2-tetrachloroethane	602-015-00-3	201-197-8	79-34-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
67		1,2,3-trichloropropane	602-062-00-X	202-486-1	96-18-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
68		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
69		bromobenzene	602-060-00-9	203-623-8	108-86-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
70		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
71		tert-butylbenzene		202-632-4	98-06-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
72		1,2,4-trimethylbenzene	601-043-00-3	202-436-9	95-63-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
73		sec-butylbenzene		205-227-0	135-98-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
74		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**
75		1,3-dichlorbenzene	602-067-00-7	208-792-1	541-73-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
76		1,4-dichlorobenzene; p-dichlorobenzene	602-035-00-2	203-400-5	106-46-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
77		n-butylbenzene		203-209-7	104-51-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
78		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**
79		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
80		1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
81		hexachlorobutadiene		201-765-5	87-68-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
82		1,2,3-trichlorobenzene		201-757-1	87-61-6		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
83		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
84		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]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
85		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**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]							
86		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				15 mg/kg	1.462	14.423 mg/kg	0.00144 %	✓	
			215-160-9	1308-38-9							
								Total:	0.645 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.184%)

Classification of sample: WS4-ES--27/06/2025

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

Sample details

Sample name:
WS4-ES--27/06/2025
Sample Depth:
0.40-0.40 m
Moisture content:
6.4%
(dry weight correction)

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

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.508%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.508%)

Determinands

Moisture content: 6.4% Dry 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		pH			PH		8.5	pH		8.5	pH	8.5 pH		
2		pyrene		204-927-3	129-00-0		150	mg/kg		140.977	mg/kg	0.0141 %	✓	
3		phenanthrene		201-581-5	85-01-8		95	mg/kg		89.286	mg/kg	0.00893 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		8.5	mg/kg		7.989	mg/kg	0.000799 %	✓	
5		indeno[123-cd]pyrene		205-893-2	193-39-5		52	mg/kg		48.872	mg/kg	0.00489 %	✓	
6		fluorene		201-695-5	86-73-7		13	mg/kg		12.218	mg/kg	0.00122 %	✓	
7		fluoranthene		205-912-4	206-44-0		170	mg/kg		159.774	mg/kg	0.016 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		13	mg/kg		12.218	mg/kg	0.00122 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		73	mg/kg		68.609	mg/kg	0.00686 %	✓	

#		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
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		39	mg/kg		36.654	mg/kg	0.00367 %	✓	
11		benzo[ghi]perylene		205-883-8	191-24-2		51	mg/kg		47.932	mg/kg	0.00479 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		100	mg/kg		93.985	mg/kg	0.0094 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		82	mg/kg		77.068	mg/kg	0.00771 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		74	mg/kg		69.549	mg/kg	0.00695 %	✓	
15		anthracene		204-371-1	120-12-7		31	mg/kg		29.135	mg/kg	0.00291 %	✓	
16		acenaphthylene		205-917-1	208-96-8		9.8	mg/kg		9.211	mg/kg	0.000921 %	✓	
17		TPH (C6 to C40) petroleum group			TPH		5400	mg/kg		5075.188	mg/kg	0.508 %	✓	
18		acenaphthene		201-469-6	83-32-9		9.7	mg/kg		9.117	mg/kg	0.000912 %	✓	
19		boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		5.6	mg/kg	5.719	30.101	mg/kg	0.00301 %	✓	
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				22	mg/kg	1.895	39.172	mg/kg	0.00392 %	✓	
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		0.7	mg/kg		0.658	mg/kg	0.0000658 %	✓	
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<**LOD**
23		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<**LOD**
24		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		14	mg/kg	5.324	70.057	mg/kg	0.00701 %	✓	
25		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		62	mg/kg	3.929	228.949	mg/kg	0.0229 %	✓	
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	430	mg/kg		404.135	mg/kg	0.0404 %	✓	
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		130	mg/kg	4.398	537.341	mg/kg	0.0537 %	✓	
28		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**
29		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		3.6	mg/kg	1.462	4.945	mg/kg	0.000495 %	✓	
											Total:	0.73 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.508%)

Classification of sample: WS7-ES--27/06/2025

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

Sample details

Sample name:
WS7-ES--27/06/2025
Sample Depth:
0.30-0.30 m
Moisture content:
20%
(dry 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% Dry 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	●	pH			PH		8.4	pH		8.4	pH	8.4 pH		
2	●	pyrene		204-927-3	129-00-0		25	mg/kg		20.833	mg/kg	0.00208 %	✓	
3	●	phenanthrene		201-581-5	85-01-8		21	mg/kg		17.5	mg/kg	0.00175 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		0.64	mg/kg		0.533	mg/kg	0.0000533 %	✓	
5	●	indeno[123-cd]pyrene		205-893-2	193-39-5		6.9	mg/kg		5.75	mg/kg	0.000575 %	✓	
6	●	fluorene		201-695-5	86-73-7		2.3	mg/kg		1.917	mg/kg	0.000192 %	✓	
7	●	fluoranthene		205-912-4	206-44-0		29	mg/kg		24.167	mg/kg	0.00242 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.7	mg/kg		1.417	mg/kg	0.000142 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		11	mg/kg		9.167	mg/kg	0.000917 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		5.4	mg/kg		4.5	mg/kg	0.00045 %	✓	
11	●	benzo[ghi]perylene		205-883-8	191-24-2		6.8	mg/kg		5.667	mg/kg	0.000567 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		15	mg/kg		12.5	mg/kg	0.00125 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		11	mg/kg		9.167	mg/kg	0.000917 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		12	mg/kg		10	mg/kg	0.001 %	✓	
15	●	anthracene		204-371-1	120-12-7		6.6	mg/kg		5.5	mg/kg	0.00055 %	✓	
16	●	acenaphthylene		205-917-1	208-96-8		4	mg/kg		3.333	mg/kg	0.000333 %	✓	
17	●	TPH (C6 to C40) petroleum group			TPH		730	mg/kg		608.333	mg/kg	0.0608 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
18		acenaphthene				0.59	mg/kg		0.492	mg/kg	0.0000492 %	✓	
			201-469-6	83-32-9									
19		boron { boric acid; [1] boric acid; [2] }				<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
		005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				30	mg/kg	1.895	47.363	mg/kg	0.00474 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				1.9	mg/kg		1.583	mg/kg	0.000158 %	✓	
		048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]									
22		mercury { mercury dichloride }				9.3	mg/kg	1.353	10.49	mg/kg	0.00105 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
23		selenium { nickel selenate }				<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
24		nickel { nickel diiodide }				42	mg/kg	5.324	186.351	mg/kg	0.0186 %	✓	
		028-029-00-4	236-666-6	13462-90-3									
25		copper { copper sulphate pentahydrate }				330	mg/kg	3.929	1080.49	mg/kg	0.108 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	490	mg/kg		408.333	mg/kg	0.0408 %	✓	
		082-001-00-6											
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				340	mg/kg	4.398	1246.079	mg/kg	0.125 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				11	mg/kg	1.462	13.398	mg/kg	0.00134 %	✓	
			215-160-9	1308-38-9									
										Total:	0.373 %		

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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0608%)

Classification of sample: WS9-ES--27/06/2025

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

Sample details

Sample name:
WS9-ES--27/06/2025
Sample Depth:
1.50-1.50 m
Moisture content:
18%
(dry weight correction)

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

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.261%)

Determinands

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

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH		PH		7.9 pH		7.9 pH	7.9 pH		
2		pyrene	204-927-3	129-00-0		1.3 mg/kg		1.102 mg/kg	0.00011 %	✓	
3		phenanthrene	201-581-5	85-01-8		0.68 mg/kg		0.576 mg/kg	0.0000576 %	✓	
4		naphthalene	202-049-5	91-20-3		0.06 mg/kg		0.0508 mg/kg	0.00000508 %	✓	
		601-052-00-2									
5		indeno[123-cd]pyrene	205-893-2	193-39-5		0.37 mg/kg		0.314 mg/kg	0.0000314 %	✓	
6		fluorene	201-695-5	86-73-7		0.07 mg/kg		0.0593 mg/kg	0.00000593 %	✓	
7		fluoranthene	205-912-4	206-44-0		1.5 mg/kg		1.271 mg/kg	0.000127 %	✓	
8		dibenz[a,h]anthracene	200-181-8	53-70-3		0.11 mg/kg		0.0932 mg/kg	0.00000932 %	✓	
		601-041-00-2									
9		chrysene	205-923-4	218-01-9		0.77 mg/kg		0.653 mg/kg	0.0000653 %	✓	
		601-048-00-0									
10		benzo[k]fluoranthene	205-916-6	207-08-9		0.37 mg/kg		0.314 mg/kg	0.0000314 %	✓	
		601-036-00-5									
11		benzo[ghi]perylene	205-883-8	191-24-2		0.35 mg/kg		0.297 mg/kg	0.0000297 %	✓	
12		benzo[b]fluoranthene	205-911-9	205-99-2		1 mg/kg		0.847 mg/kg	0.0000847 %	✓	
		601-034-00-4									
13		benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		0.54 mg/kg		0.458 mg/kg	0.0000458 %	✓	
		601-032-00-3									
14		benzo[a]anthracene	200-280-6	56-55-3		0.65 mg/kg		0.551 mg/kg	0.0000551 %	✓	
		601-033-00-9									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		anthracene				0.33	mg/kg		0.28	mg/kg	0.000028 %	✓	
			204-371-1	120-12-7									
16		acenaphthylene				0.26	mg/kg		0.22	mg/kg	0.000022 %	✓	
			205-917-1	208-96-8									
17		TPH (C6 to C40) petroleum group				550	mg/kg		466.102	mg/kg	0.0466 %	✓	
				TPH									
18		acenaphthene				0.02	mg/kg		0.0169	mg/kg	0.00000169 %	✓	
			201-469-6	83-32-9									
19		boron { boric acid; [1] boric acid; [2] }				3.9	mg/kg	5.719	18.902	mg/kg	0.00189 %	✓	
		005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				23	mg/kg	1.895	36.927	mg/kg	0.00369 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				1.7	mg/kg		1.441	mg/kg	0.000144 %	✓	
		048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]									
22		mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
23		selenium { nickel selenate }				<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
24		nickel { nickel diiodide }				38	mg/kg	5.324	171.461	mg/kg	0.0171 %	✓	
		028-029-00-4	236-666-6	13462-90-3									
25		copper { copper sulphate pentahydrate }				180	mg/kg	3.929	599.347	mg/kg	0.0599 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	1100	mg/kg		932.203	mg/kg	0.0932 %	✓	
		082-001-00-6											
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				700	mg/kg	4.398	2608.939	mg/kg	0.261 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				5.9	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
			215-160-9	1308-38-9									
										Total:	0.485 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0466%)

Classification of sample: BH1-ES--27/06/2025

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

Sample details

Sample name:
BH1-ES--27/06/2025
Sample Depth:
0.60-0.60 m
Moisture content:
19%
(dry 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% Dry 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	●	pH			PH		9.3	pH		9.3	pH	9.3 pH		
2	●	pyrene		204-927-3	129-00-0		19	mg/kg		15.966	mg/kg	0.0016 %	✓	
3	●	phenanthrene		201-581-5	85-01-8		15	mg/kg		12.605	mg/kg	0.00126 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		1.7	mg/kg		1.429	mg/kg	0.000143 %	✓	
5	●	indeno[123-cd]pyrene		205-893-2	193-39-5		8.2	mg/kg		6.891	mg/kg	0.000689 %	✓	
6	●	fluorene		201-695-5	86-73-7		1.8	mg/kg		1.513	mg/kg	0.000151 %	✓	
7	●	fluoranthene		205-912-4	206-44-0		21	mg/kg		17.647	mg/kg	0.00176 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		1.9	mg/kg		1.597	mg/kg	0.00016 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		10	mg/kg		8.403	mg/kg	0.00084 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		5.3	mg/kg		4.454	mg/kg	0.000445 %	✓	
11	●	benzo[ghi]perylene		205-883-8	191-24-2		8.1	mg/kg		6.807	mg/kg	0.000681 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		15	mg/kg		12.605	mg/kg	0.00126 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		11	mg/kg		9.244	mg/kg	0.000924 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		11	mg/kg		9.244	mg/kg	0.000924 %	✓	
15	●	anthracene		204-371-1	120-12-7		5.2	mg/kg		4.37	mg/kg	0.000437 %	✓	
16	●	acenaphthylene		205-917-1	208-96-8		0.99	mg/kg		0.832	mg/kg	0.0000832 %	✓	
17	●	TPH (C6 to C40) petroleum group			TPH		418	mg/kg		351.261	mg/kg	0.0351 %	✓	

#		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
18		acenaphthene		201-469-6	83-32-9		1.7	mg/kg		1.429	mg/kg	0.000143 %	✓	
19		boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				23	mg/kg	1.895	36.617	mg/kg	0.00366 %	✓	
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		1.6	mg/kg		1.345	mg/kg	0.000134 %	✓	
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
23		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
24		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		33	mg/kg	5.324	147.649	mg/kg	0.0148 %	✓	
25		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		<200	mg/kg	3.929	<785.811	mg/kg	<0.0786 %		<LOD
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	<150	mg/kg		<150	mg/kg	<0.015 %		<LOD
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		<200	mg/kg	4.398	<879.585	mg/kg	<0.088 %		<LOD
28		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				8.9	mg/kg	1.884	14.09	mg/kg	0.00141 %	✓	
29		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
31		benzene	601-020-00-8	200-753-7	71-43-2		0.02	mg/kg		0.0168	mg/kg	0.00000168 %	✓	
32		toluene	601-021-00-3	203-625-9	108-88-3		0.01	mg/kg		0.0084	mg/kg	0.00000084 %	✓	
33		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
34		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
35		chloroethane	602-009-00-0	200-830-5	75-00-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
36		bromomethane; methylbromide	602-002-00-2	200-813-2	74-83-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
37		vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
38		chloromethane; methyl chloride	602-001-00-7	200-817-4	74-87-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
39		dichlorodifluoromethane		200-893-9	75-71-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
40		trichlorofluoromethane		200-892-3	75-69-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
41		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

#		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
42		dichloromethane; methylene chloride	602-004-00-3	200-838-9	75-09-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
43		1,1-dichloroethane	602-011-00-1	200-863-5	75-34-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
44	●	2,2-dichloropropane		209-832-0	594-20-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
45	●	bromochloromethane		200-826-3	74-97-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
46		chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
47		1,1,1-trichloroethane; methyl chloroform	602-013-00-2	200-756-3	71-55-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
48		1,1-dichloropropene	602-031-00-0	209-253-3	563-58-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
49		carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
50		1,2-dichloroethane; ethylene dichloride	602-012-00-7	203-458-1	107-06-2		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
51		trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6		0.01	mg/kg		0.0084	mg/kg	0.00000084 %	✓	
52		1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
53		dibromomethane	602-003-00-8	200-824-2	74-95-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
54	●	bromodichloromethane		200-856-7	75-27-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
55	●	trans-1,3-dichloropropene		431-460-4	10061-02-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
56		1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
57	●	1,3-dichloropropane		205-531-3	142-28-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
58		tetrachloroethylene	602-028-00-4	204-825-9	127-18-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
59	●	dibromochloromethane		204-704-0	124-48-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
60		1,2-dibromoethane	602-010-00-6	203-444-5	106-93-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
61		chlorobenzene	602-033-00-1	203-628-5	108-90-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
62	●	1,1,1,2-tetrachloroethane		211-135-1	630-20-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
63		styrene	601-026-00-0	202-851-5	100-42-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
64		cumene	601-024-00-X	202-704-5	98-82-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
65		bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
66		1,1,2,2-tetrachloroethane	602-015-00-3	201-197-8	79-34-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
67		1,2,3-trichloropropane	602-062-00-X	202-486-1	96-18-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
68		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
69		bromobenzene	602-060-00-9	203-623-8	108-86-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
70		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<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									
71		tert-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-632-4	98-06-6									
72		1,2,4-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
73		sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
74		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									
75		1,3-dichlorbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
76		1,4-dichlorobenzene; p-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
77		n-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			203-209-7	104-51-8									
78		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									
79		1,2-dibromo-3-chloropropane				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
80		1,2,4-trichlorobenzene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
81		hexachlorobutadiene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-765-5	87-68-3									
82		1,2,3-trichlorobenzene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-757-1	87-61-6									
83		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<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]									
84		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<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]									
85		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<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]									
86		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				4.7	mg/kg	1.462	5.773	mg/kg	0.000577 %	✓	
			215-160-9	1308-38-9									
										Total:	0.0672 %		

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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene (conc.: 1.68e-06%)
toluene (conc.: 8.4e-07%)

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0351%)

Classification of sample: TP1-ES--27/06/2025

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

Sample details

Sample name:	LoW Code:
TP1-ES--27/06/2025	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	
0.40-0.40 m	Entry: 17 05 03 * (Soil and stones containing hazardous substances)
Moisture content:	
17% (dry weight correction)	

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.145%)

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.282%)

HP 8: Corrosive "waste which on application can cause skin corrosion"

pH; pH "Assumed to be irritant/corrosive because of pH value"

Because of determinand:

pH (conc.: 11.8 pH)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.282%)

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

Hazard Statements hit:

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

Because of determinands:

copper sulphate pentahydrate (compound conc.: 0.772%)
lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.145%)
zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.601%)

Determinands

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

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
1		pH		PH		11.8	pH		11.8	pH	11.8 pH		
2		pyrene	204-927-3	129-00-0		160	mg/kg		136.752	mg/kg	0.0137 %	✓	
3		phenanthrene	201-581-5	85-01-8		180	mg/kg		153.846	mg/kg	0.0154 %	✓	
4		naphthalene	202-049-5	91-20-3		1.1	mg/kg		0.94	mg/kg	0.000094 %	✓	
		601-052-00-2											
5		indeno[123-cd]pyrene	205-893-2	193-39-5		29	mg/kg		24.786	mg/kg	0.00248 %	✓	
6		fluorene	201-695-5	86-73-7		13	mg/kg		11.111	mg/kg	0.00111 %	✓	
7		fluoranthene	205-912-4	206-44-0		190	mg/kg		162.393	mg/kg	0.0162 %	✓	
8		dibenz[a,h]anthracene	200-181-8	53-70-3		7.4	mg/kg		6.325	mg/kg	0.000632 %	✓	
		601-041-00-2											
9		chrysene	205-923-4	218-01-9		54	mg/kg		46.154	mg/kg	0.00462 %	✓	
		601-048-00-0											
10		benzo[k]fluoranthene	205-916-6	207-08-9		25	mg/kg		21.368	mg/kg	0.00214 %	✓	
		601-036-00-5											
11		benzo[ghi]perylene	205-883-8	191-24-2		26	mg/kg		22.222	mg/kg	0.00222 %	✓	
12		benzo[b]fluoranthene	205-911-9	205-99-2		67	mg/kg		57.265	mg/kg	0.00573 %	✓	
		601-034-00-4											
13		benzo[a]pyrene; benzo[def]chrysene	200-028-5	50-32-8		46	mg/kg		39.316	mg/kg	0.00393 %	✓	
		601-032-00-3											
14		benzo[a]anthracene	200-280-6	56-55-3		57	mg/kg		48.718	mg/kg	0.00487 %	✓	
		601-033-00-9											
15		anthracene	204-371-1	120-12-7		32	mg/kg		27.35	mg/kg	0.00274 %	✓	
16		acenaphthylene	205-917-1	208-96-8		7.8	mg/kg		6.667	mg/kg	0.000667 %	✓	
17		TPH (C6 to C40) petroleum group		TPH		3300	mg/kg		2820.513	mg/kg	0.282 %	✓	
18		acenaphthene	201-469-6	83-32-9		5.8	mg/kg		4.957	mg/kg	0.000496 %	✓	
19		boron { boric acid; [1] boric acid; [2] }	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		5	mg/kg	5.719	24.441	mg/kg	0.00244 %	✓	
		005-007-00-2											
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				59	mg/kg	1.895	95.536	mg/kg	0.00955 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		4.4	mg/kg		3.761	mg/kg	0.000376 %	✓	
		048-002-00-0											
22		mercury { mercury dichloride }	231-299-8	7487-94-7		3.9	mg/kg	1.353	4.512	mg/kg	0.000451 %	✓	
		080-010-00-X											
23		selenium { nickel selenate }	239-125-2	15060-62-5		<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<**LOD**
		028-031-00-5											
24		nickel { nickel diiodide }	236-666-6	13462-90-3		78	mg/kg	5.324	354.953	mg/kg	0.0355 %	✓	
		028-029-00-4											
25		copper { copper sulphate pentahydrate }	231-847-6	7758-99-8		2300	mg/kg	3.929	7723.779	mg/kg	0.772 %	✓	
		029-023-00-4											
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	1700	mg/kg		1452.991	mg/kg	0.145 %	✓	
		082-001-00-6											

#		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									
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				1600	mg/kg	4.398	6014.258	mg/kg	0.601 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				1.5	mg/kg	1.884	2.415	mg/kg	0.000242 %	✓	
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<**LOD**
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				93	mg/kg	1.462	116.175	mg/kg	0.0116 %	✓	
			215-160-9	1308-38-9									
										Total:	1.938 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.282%)

Classification of sample: WS5-ES--27/06/2025

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

Sample details

Sample name:	LoW Code:	
WS5-ES--27/06/2025	Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:		
0.65-0.65 m	Entry:	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 1.472%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 1.472%)

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

Hazard Statements hit:

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

Because of determinands:

pyrene (conc.: 0.13%)
phenanthrene (conc.: 0.24%)
naphthalene (conc.: 0.18%)
fluoranthene (conc.: 0.16%)

Aquatic Chronic 2; H411 "Toxic to aquatic life with long lasting effects."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 1.472%)

Determinands

Moisture content: None

#		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	pH		8	pH	8pH		
2		pyrene	204-927-3	129-00-0		1300	mg/kg		1300	mg/kg	0.13 %		
3		phenanthrene	201-581-5	85-01-8		2400	mg/kg		2400	mg/kg	0.24 %		

#		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
4		naphthalene	601-052-00-2	202-049-5	91-20-3		1800	mg/kg		1800	mg/kg	0.18 %		
5		indeno[123-cd]pyrene		205-893-2	193-39-5		260	mg/kg		260	mg/kg	0.026 %		
6		fluorene		201-695-5	86-73-7		620	mg/kg		620	mg/kg	0.062 %		
7		fluoranthene		205-912-4	206-44-0		1600	mg/kg		1600	mg/kg	0.16 %		
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		66	mg/kg		66	mg/kg	0.0066 %		
9		chrysene	601-048-00-0	205-923-4	218-01-9		510	mg/kg		510	mg/kg	0.051 %		
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		240	mg/kg		240	mg/kg	0.024 %		
11		benzo[ghi]perylene		205-883-8	191-24-2		220	mg/kg		220	mg/kg	0.022 %		
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		590	mg/kg		590	mg/kg	0.059 %		
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		450	mg/kg		450	mg/kg	0.045 %		
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		590	mg/kg		590	mg/kg	0.059 %		
15		anthracene		204-371-1	120-12-7		770	mg/kg		770	mg/kg	0.077 %		
16		acenaphthylene		205-917-1	208-96-8		22	mg/kg		22	mg/kg	0.0022 %		
17		TPH (C6 to C40) petroleum group			TPH		14721	mg/kg		14721	mg/kg	1.472 %		
18		acenaphthene		201-469-6	83-32-9		550	mg/kg		550	mg/kg	0.055 %		
19		boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				44	mg/kg	1.895	83.359	mg/kg	0.00834 %		
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		1.8	mg/kg		1.8	mg/kg	0.00018 %		
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
23		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
24		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		42	mg/kg	5.324	223.621	mg/kg	0.0224 %		
25		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		120	mg/kg	3.929	471.486	mg/kg	0.0471 %		
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	47	mg/kg		47	mg/kg	0.0047 %		
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		89	mg/kg	4.398	391.415	mg/kg	0.0391 %		
28		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

#		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
29		monohydric phenols			P1186		44	mg/kg		44	mg/kg	0.0044 %		
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<**LOD**
31		benzene	601-020-00-8	200-753-7	71-43-2		0.1	mg/kg		0.1	mg/kg	0.00001 %		
32		toluene	601-021-00-3	203-625-9	108-88-3		0.4	mg/kg		0.4	mg/kg	0.00004 %		
33		ethylbenzene	601-023-00-4	202-849-4	100-41-4		0.81	mg/kg		0.81	mg/kg	0.000081 %		
34		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
35		chloroethane	602-009-00-0	200-830-5	75-00-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
36		bromomethane; methylbromide	602-002-00-2	200-813-2	74-83-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
37		vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
38		chloromethane; methyl chloride	602-001-00-7	200-817-4	74-87-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
39		dichlorodifluoromethane		200-893-9	75-71-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
40		trichlorofluoromethane		200-892-3	75-69-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
41		1,1-dichloroethylene; vinylidene chloride	602-025-00-8	200-864-0	75-35-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
42		dichloromethane; methylene chloride	602-004-00-3	200-838-9	75-09-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
43		1,1-dichloroethane	602-011-00-1	200-863-5	75-34-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
44		2,2-dichloropropane		209-832-0	594-20-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
45		bromochloromethane		200-826-3	74-97-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
46		chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
47		1,1,1-trichloroethane; methyl chloroform	602-013-00-2	200-756-3	71-55-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
48		1,1-dichloropropene	602-031-00-0	209-253-3	563-58-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
49		carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
50		1,2-dichloroethane; ethylene dichloride	602-012-00-7	203-458-1	107-06-2		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
51		trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
52		1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
53		dibromomethane	602-003-00-8	200-824-2	74-95-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
54		bromodichloromethane		200-856-7	75-27-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
55		trans-1,3-dichloropropene		431-460-4	10061-02-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
56		1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**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
57		1,3-dichloropropane		205-531-3	142-28-9		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
58		tetrachloroethylene	602-028-00-4	204-825-9	127-18-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
59		dibromochloromethane		204-704-0	124-48-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
60		1,2-dibromoethane	602-010-00-6	203-444-5	106-93-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
61		chlorobenzene	602-033-00-1	203-628-5	108-90-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
62		1,1,1,2-tetrachloroethane		211-135-1	630-20-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
63		styrene	601-026-00-0	202-851-5	100-42-5		0.23	mg/kg		0.23	mg/kg	0.000023 %		
64		cumene	601-024-00-X	202-704-5	98-82-8		0.39	mg/kg		0.39	mg/kg	0.000039 %		
65		bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
66		1,1,2,2-tetrachloroethane	602-015-00-3	201-197-8	79-34-5		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
67		1,2,3-trichloropropane	602-062-00-X	202-486-1	96-18-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
68		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
69		bromobenzene	602-060-00-9	203-623-8	108-86-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
70		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		0.34	mg/kg		0.34	mg/kg	0.000034 %		
71		tert-butylbenzene		202-632-4	98-06-6		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
72		1,2,4-trimethylbenzene	601-043-00-3	202-436-9	95-63-6		0.9	mg/kg		0.9	mg/kg	0.00009 %		
73		sec-butylbenzene		205-227-0	135-98-8		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
74		1-isopropyl-4-methylbenzene; p-cymene	601-094-00-1	202-796-7	99-87-6		0.05	mg/kg		0.05	mg/kg	0.000005 %		
75		1,3-dichlorbenzene	602-067-00-7	208-792-1	541-73-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
76		1,4-dichlorobenzene; p-dichlorobenzene	602-035-00-2	203-400-5	106-46-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
77		n-butylbenzene		203-209-7	104-51-8		0.38	mg/kg		0.38	mg/kg	0.000038 %		
78		1,2-dichlorobenzene; o-dichlorobenzene	602-034-00-7	202-425-9	95-50-1		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
79		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
80		1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
81		hexachlorobutadiene		201-765-5	87-68-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
82		1,2,3-trichlorobenzene		201-757-1	87-61-6		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
83		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		5.24	mg/kg		5.24	mg/kg	0.000524 %		

#		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									
84		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**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]									
85		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<**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]									
86		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				12	mg/kg	1.462	17.539	mg/kg	0.00175 %		
			215-160-9	1308-38-9									
										Total:	2.8 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene (conc.: 0.00001%)
toluene (conc.: 0.00004%)
ethylbenzene (conc.: 0.00008%)

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

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 1.472%)
styrene (conc.: 0.00002%)
cumene (conc.: 0.00003%)
mesitylene; 1,3,5-trimethylbenzene (conc.: 0.00003%)
1,2,4-trimethylbenzene (conc.: 0.00009%)
1-isopropyl-4-methylbenzene; p-cymene (conc.: 5.0e-06%)
n-butylbenzene (conc.: 0.00003%)
o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4] (conc.: 0.00052%)

Classification of sample: WS6-ES--27/06/2025

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

Sample details

Sample name:
WS6-ES--27/06/2025
Sample Depth:
1.40-1.40 m
Moisture content:
15%
(dry weight correction)

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

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.13%)

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

Hazard Statements hit:

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

Because of determinands:

lead compounds with the exception of those specified elsewhere in this Annex (worst case) (Note 1 conc.: 0.13%)
zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.459%)

Determinands

Moisture content: 15% Dry 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		pH			PH		7.9	pH		7.9	pH	7.9 pH		
2		pyrene		204-927-3	129-00-0		21	mg/kg		18.261	mg/kg	0.00183 %	✓	
3		phenanthrene		201-581-5	85-01-8		21	mg/kg		18.261	mg/kg	0.00183 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		1.1	mg/kg		0.957	mg/kg	0.0000957 %	✓	
5		indeno[123-cd]pyrene		205-893-2	193-39-5		6.7	mg/kg		5.826	mg/kg	0.000583 %	✓	
6		fluorene		201-695-5	86-73-7		2.2	mg/kg		1.913	mg/kg	0.000191 %	✓	
7		fluoranthene		205-912-4	206-44-0		26	mg/kg		22.609	mg/kg	0.00226 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		2	mg/kg		1.739	mg/kg	0.000174 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		12	mg/kg		10.435	mg/kg	0.00104 %	✓	

#		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									
10		benzo[k]fluoranthene				5.4	mg/kg		4.696	mg/kg	0.00047 %	✓	
		601-036-00-5	205-916-6	207-08-9									
11		benzo[ghi]perylene				6.3	mg/kg		5.478	mg/kg	0.000548 %	✓	
			205-883-8	191-24-2									
12		benzo[b]fluoranthene				16	mg/kg		13.913	mg/kg	0.00139 %	✓	
		601-034-00-4	205-911-9	205-99-2									
13		benzo[a]pyrene; benzo[def]chrysene				10	mg/kg		8.696	mg/kg	0.00087 %	✓	
		601-032-00-3	200-028-5	50-32-8									
14		benzo[a]anthracene				12	mg/kg		10.435	mg/kg	0.00104 %	✓	
		601-033-00-9	200-280-6	56-55-3									
15		anthracene				5.2	mg/kg		4.522	mg/kg	0.000452 %	✓	
			204-371-1	120-12-7									
16		acenaphthylene				0.88	mg/kg		0.765	mg/kg	0.0000765 %	✓	
			205-917-1	208-96-8									
17		TPH (C6 to C40) petroleum group				346	mg/kg		300.87	mg/kg	0.0301 %	✓	
				TPH									
18		acenaphthene				2.2	mg/kg		1.913	mg/kg	0.000191 %	✓	
			201-469-6	83-32-9									
19		boron { boric acid; [1] boric acid; [2] }				3.2	mg/kg	5.719	15.914	mg/kg	0.00159 %	✓	
		005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				36	mg/kg	1.895	59.307	mg/kg	0.00593 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				2	mg/kg		1.739	mg/kg	0.000174 %	✓	
		048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]									
22		mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
23		selenium { nickel selenate }				<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
24		nickel { nickel diiodide }				30	mg/kg	5.324	138.895	mg/kg	0.0139 %	✓	
		028-029-00-4	236-666-6	13462-90-3									
25		copper { copper sulphate pentahydrate }				120	mg/kg	3.929	409.988	mg/kg	0.041 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	1500	mg/kg		1304.348	mg/kg	0.13 %	✓	
		082-001-00-6											
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				1200	mg/kg	4.398	4589.14	mg/kg	0.459 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
		024-017-00-8											
31		benzene				0.02	mg/kg		0.0174	mg/kg	0.00000174 %	✓	
		601-020-00-8	200-753-7	71-43-2									
32		toluene				0.02	mg/kg		0.0174	mg/kg	0.00000174 %	✓	
		601-021-00-3	203-625-9	108-88-3									
33		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-023-00-4	202-849-4	100-41-4									

#		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									
34		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									
35		chloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-009-00-0	200-830-5	75-00-3									
36		bromomethane; methylbromide				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		602-002-00-2	200-813-2	74-83-9									
37		vinyl chloride; chloroethylene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		602-023-00-7	200-831-0	75-01-4									
38		chloromethane; methyl chloride				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		602-001-00-7	200-817-4	74-87-3									
39		dichlorodifluoromethane				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			200-893-9	75-71-8									
40		trichlorofluoromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			200-892-3	75-69-4									
41		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									
42		dichloromethane; methylene chloride				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-004-00-3	200-838-9	75-09-2									
43		1,1-dichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-011-00-1	200-863-5	75-34-3									
44		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			209-832-0	594-20-7									
45		bromochloromethane				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			200-826-3	74-97-5									
46		chloroform; trichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-006-00-4	200-663-8	67-66-3									
47		1,1,1-trichloroethane; methyl chloroform				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-013-00-2	200-756-3	71-55-6									
48		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-031-00-0	209-253-3	563-58-6									
49		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-008-00-5	200-262-8	56-23-5									
50		1,2-dichloroethane; ethylene dichloride				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		602-012-00-7	203-458-1	107-06-2									
51		trichloroethylene; trichloroethene				0.09	mg/kg		0.0783	mg/kg	0.00000783 %	✓	
		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				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		602-003-00-8	200-824-2	74-95-3									
54		bromodichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			200-856-7	75-27-4									
55		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			431-460-4	10061-02-6									
56		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									
57		1,3-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			205-531-3	142-28-9									
58		tetrachloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-028-00-4	204-825-9	127-18-4									
59		dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			204-704-0	124-48-1									
60		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-010-00-6	203-444-5	106-93-4									
61		chlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		602-033-00-1	203-628-5	108-90-7									
62		1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			211-135-1	630-20-6									

#		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
63		styrene	601-026-00-0	202-851-5	100-42-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
64		cumene	601-024-00-X	202-704-5	98-82-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
65		bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
66		1,1,2,2-tetrachloroethane	602-015-00-3	201-197-8	79-34-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
67		1,2,3-trichloropropane	602-062-00-X	202-486-1	96-18-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
68		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
69		bromobenzene	602-060-00-9	203-623-8	108-86-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
70		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
71		tert-butylbenzene		202-632-4	98-06-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
72		1,2,4-trimethylbenzene	601-043-00-3	202-436-9	95-63-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
73		sec-butylbenzene		205-227-0	135-98-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
74		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**
75		1,3-dichlorbenzene	602-067-00-7	208-792-1	541-73-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
76		1,4-dichlorobenzene; p-dichlorobenzene	602-035-00-2	203-400-5	106-46-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
77		n-butylbenzene		203-209-7	104-51-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
78		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**
79		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
80		1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
81		hexachlorobutadiene		201-765-5	87-68-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
82		1,2,3-trichlorobenzene		201-757-1	87-61-6		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
83		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
84		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]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
85		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]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
86		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		1.5	mg/kg	1.462	1.906	mg/kg	0.000191 %	✓	
											Total:	0.695 %		

Key	
	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinands:

benzene (conc.: 1.74e-06%)
toluene (conc.: 1.74e-06%)

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0301%)

Classification of sample: TP4-ESX2--27/06/2025

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

Sample details

Sample name:
TP4-ESX2--27/06/2025
Sample Depth:
0.30-0.30 m
Moisture content:
5.7%
(dry 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: 5.7% Dry 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	●	pH			PH		11.4	pH		11.4	pH	11.4 pH		
2	●	pyrene		204-927-3	129-00-0		0.58	mg/kg		0.549	mg/kg	0.0000549 %	✓	
3	●	phenanthrene		201-581-5	85-01-8		0.39	mg/kg		0.369	mg/kg	0.0000369 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		0.03	mg/kg		0.0284	mg/kg	0.00000284 %	✓	
5	●	indeno[123-cd]pyrene		205-893-2	193-39-5		0.24	mg/kg		0.227	mg/kg	0.0000227 %	✓	
6	●	fluorene		201-695-5	86-73-7		0.03	mg/kg		0.0284	mg/kg	0.00000284 %	✓	
7	●	fluoranthene		205-912-4	206-44-0		0.7	mg/kg		0.662	mg/kg	0.0000662 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.06	mg/kg		0.0568	mg/kg	0.00000568 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		0.35	mg/kg		0.331	mg/kg	0.0000331 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.18	mg/kg		0.17	mg/kg	0.000017 %	✓	
11	●	benzo[ghi]perylene		205-883-8	191-24-2		0.27	mg/kg		0.255	mg/kg	0.0000255 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.47	mg/kg		0.445	mg/kg	0.0000445 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.33	mg/kg		0.312	mg/kg	0.0000312 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.32	mg/kg		0.303	mg/kg	0.0000303 %	✓	
15	●	anthracene		204-371-1	120-12-7		0.13	mg/kg		0.123	mg/kg	0.0000123 %	✓	
16	●	acenaphthylene		205-917-1	208-96-8		0.07	mg/kg		0.0662	mg/kg	0.00000662 %	✓	
17	●	TPH (C6 to C40) petroleum group			TPH		420	mg/kg		397.351	mg/kg	0.0397 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
18		acenaphthene				0.02	mg/kg		0.0189	mg/kg	0.00000189 %	✓	
			201-469-6	83-32-9									
19		boron { boric acid; [1] boric acid; [2] }				<2.5	mg/kg	5.719	<14.298	mg/kg	<0.00143 %		<LOD
		005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				11	mg/kg	1.895	19.716	mg/kg	0.00197 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				1.4	mg/kg		1.325	mg/kg	0.000132 %	✓	
		048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]									
22		mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
23		selenium { nickel selenate }				<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
24		nickel { nickel diiodide }				19	mg/kg	5.324	95.706	mg/kg	0.00957 %	✓	
		028-029-00-4	236-666-6	13462-90-3									
25		copper { copper sulphate pentahydrate }				49	mg/kg	3.929	182.142	mg/kg	0.0182 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	61	mg/kg		57.711	mg/kg	0.00577 %	✓	
		082-001-00-6											
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				110	mg/kg	4.398	457.684	mg/kg	0.0458 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
29		monohydric phenols				<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
				P1186									
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				13	mg/kg	1.462	17.976	mg/kg	0.0018 %	✓	
			215-160-9	1308-38-9									
										Total:	0.123 %		

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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.0397%)

Classification of sample: TP2-ES--27/06/2025

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

Sample details

Sample name:
TP2-ES--27/06/2025
Sample Depth:
2.10-2.10 m
Moisture content:
16%
(dry weight correction)

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

Hazard properties

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

Hazard Statements hit:

Carc. 1A; H350i "May cause cancer by inhalation."

Because of determinand:

nickel diiodide (compound conc.: 0.551%)

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

Hazard Statements hit:

Repr. 1B; H360D "May damage the unborn child."

Because of determinand:

nickel diiodide (compound conc.: 0.551%)

Repr. 1B; H360FD "May damage fertility. May damage the unborn child."

Because of determinand:

chromium(III) oxide (worst case) (compound conc.: 0.567%)

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

Hazard Statements hit:

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

Because of determinands:

nickel diiodide (compound conc.: 0.551%)
zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] (compound conc.: 0.246%)
chromium(III) oxide (worst case) (compound conc.: 0.567%)

Determinands

Moisture content: 16% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1		pH		PH		8.8 pH		8.8 pH	8.8 pH		
2		pyrene	204-927-3	129-00-0		1.9 mg/kg		1.638 mg/kg	0.000164 %	✓	
3		phenanthrene	201-581-5	85-01-8		0.49 mg/kg		0.422 mg/kg	0.0000422 %	✓	

#		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									
4		naphthalene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
5		indeno[123-cd]pyrene				1.1	mg/kg		0.948	mg/kg	0.0000948 %	✓	
			205-893-2	193-39-5									
6		fluorene				0.02	mg/kg		0.0172	mg/kg	0.00000172 %	✓	
			201-695-5	86-73-7									
7		fluoranthene				2	mg/kg		1.724	mg/kg	0.000172 %	✓	
			205-912-4	206-44-0									
8		dibenz[a,h]anthracene				0.26	mg/kg		0.224	mg/kg	0.0000224 %	✓	
		601-041-00-2	200-181-8	53-70-3									
9		chrysene				1.2	mg/kg		1.034	mg/kg	0.000103 %	✓	
		601-048-00-0	205-923-4	218-01-9									
10		benzo[k]fluoranthene				0.77	mg/kg		0.664	mg/kg	0.0000664 %	✓	
		601-036-00-5	205-916-6	207-08-9									
11		benzo[ghi]perylene				0.94	mg/kg		0.81	mg/kg	0.000081 %	✓	
			205-883-8	191-24-2									
12		benzo[b]fluoranthene				2	mg/kg		1.724	mg/kg	0.000172 %	✓	
		601-034-00-4	205-911-9	205-99-2									
13		benzo[a]pyrene; benzo[def]chrysene				1.5	mg/kg		1.293	mg/kg	0.000129 %	✓	
		601-032-00-3	200-028-5	50-32-8									
14		benzo[a]anthracene				1.3	mg/kg		1.121	mg/kg	0.000112 %	✓	
		601-033-00-9	200-280-6	56-55-3									
15		anthracene				0.22	mg/kg		0.19	mg/kg	0.000019 %	✓	
			204-371-1	120-12-7									
16		acenaphthylene				0.22	mg/kg		0.19	mg/kg	0.000019 %	✓	
			205-917-1	208-96-8									
17		TPH (C6 to C40) petroleum group				95	mg/kg		81.897	mg/kg	0.00819 %	✓	
				TPH									
18		acenaphthene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
			201-469-6	83-32-9									
19		boron { boric acid; [1] boric acid; [2] }				6.8	mg/kg	5.719	33.526	mg/kg	0.00335 %	✓	
		005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]									
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				52	mg/kg	1.895	84.927	mg/kg	0.00849 %	✓	
		033-005-00-1											
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]				94	mg/kg		81.034	mg/kg	0.0081 %	✓	
		048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]									
22		mercury { mercury dichloride }				<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
		080-010-00-X	231-299-8	7487-94-7									
23		selenium { nickel selenate }				<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
24		nickel { nickel diiodide }				1200	mg/kg	5.324	5507.899	mg/kg	0.551 %	✓	
		028-029-00-4	236-666-6	13462-90-3									
25		copper { copper sulphate pentahydrate }				90	mg/kg	3.929	304.84	mg/kg	0.0305 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }			1	890	mg/kg		767.241	mg/kg	0.0767 %	✓	
		082-001-00-6											
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				650	mg/kg	4.398	2464.355	mg/kg	0.246 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
28		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 }				4.5	mg/kg	1.884	7.309	mg/kg	0.000731 %	✓	
		006-007-00-5											

#		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									
29		monohydric phenols		P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
		024-017-00-8											
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				4500	mg/kg	1.462	5669.828	mg/kg	0.567 %	✓	
			215-160-9	1308-38-9									
										Total:	1.501 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated 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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00819%)

Classification of sample: TP4-ES--27/06/2025

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

Sample details

Sample name:
TP4-ES--27/06/2025
Sample Depth:
1.50-1.50 m
Moisture content:
77%
(dry 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: 77% Dry 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	●	pH			PH		7.8	pH		7.8	pH	7.8 pH		
2	●	pyrene		204-927-3	129-00-0		0.64	mg/kg		0.362	mg/kg	0.0000362 %	✓	
3	●	phenanthrene		201-581-5	85-01-8		0.35	mg/kg		0.198	mg/kg	0.0000198 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		2.4	mg/kg		1.356	mg/kg	0.000136 %	✓	
5	●	indeno[123-cd]pyrene		205-893-2	193-39-5		0.3	mg/kg		0.169	mg/kg	0.0000169 %	✓	
6	●	fluorene		201-695-5	86-73-7		0.07	mg/kg		0.0395	mg/kg	0.00000395 %	✓	
7	●	fluoranthene		205-912-4	206-44-0		0.73	mg/kg		0.412	mg/kg	0.0000412 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.07	mg/kg		0.0395	mg/kg	0.00000395 %	✓	
9		chrysene	601-048-00-0	205-923-4	218-01-9		0.44	mg/kg		0.249	mg/kg	0.0000249 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.21	mg/kg		0.119	mg/kg	0.0000119 %	✓	
11	●	benzo[ghi]perylene		205-883-8	191-24-2		0.33	mg/kg		0.186	mg/kg	0.0000186 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.63	mg/kg		0.356	mg/kg	0.0000356 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.38	mg/kg		0.215	mg/kg	0.0000215 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.32	mg/kg		0.181	mg/kg	0.0000181 %	✓	
15	●	anthracene		204-371-1	120-12-7		0.09	mg/kg		0.0508	mg/kg	0.00000508 %	✓	
16	●	acenaphthylene		205-917-1	208-96-8		0.06	mg/kg		0.0339	mg/kg	0.00000339 %	✓	
17	●	TPH (C6 to C40) petroleum group			TPH		68	mg/kg		38.418	mg/kg	0.00384 %	✓	

#	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
18	acenaphthene		201-469-6	83-32-9		0.08 mg/kg		0.0452 mg/kg	0.00000452 %	✓	
19	boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		18 mg/kg	5.719	58.161 mg/kg	0.00582 %	✓	
20	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				27 mg/kg	1.895	28.9 mg/kg	0.00289 %	✓	
21	cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		1.1 mg/kg		0.621 mg/kg	0.0000621 %	✓	
22	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5 mg/kg	1.353	<3.384 mg/kg	<0.000338 %		<LOD
23	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8 mg/kg	2.554	<20.431 mg/kg	<0.00204 %		<LOD
24	nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		21 mg/kg	5.324	63.17 mg/kg	0.00632 %	✓	
25	copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		50 mg/kg	3.929	110.99 mg/kg	0.0111 %	✓	
26	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	190 mg/kg		107.345 mg/kg	0.0107 %	✓	
27	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		230 mg/kg	4.398	571.482 mg/kg	0.0571 %	✓	
28	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
29	monohydric phenols			P1186		1.9 mg/kg		1.073 mg/kg	0.000107 %	✓	
30	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1 mg/kg	2.27	<2.27 mg/kg	<0.000227 %		<LOD
31	benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
32	toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
33	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
34	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
35	chloroethane	602-009-00-0	200-830-5	75-00-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
36	bromomethane; methylbromide	602-002-00-2	200-813-2	74-83-9		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
37	vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4		<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
38	chloromethane; methyl chloride	602-001-00-7	200-817-4	74-87-3		0.04 mg/kg		0.0226 mg/kg	0.00000226 %	✓	
39	dichlorodifluoromethane		200-893-9	75-71-8		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
40	trichlorofluoromethane		200-892-3	75-69-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
41	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

#		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
42		dichloromethane; methylene chloride	602-004-00-3	200-838-9	75-09-2		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
43		1,1-dichloroethane	602-011-00-1	200-863-5	75-34-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
44		2,2-dichloropropane		209-832-0	594-20-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
45		bromochloromethane		200-826-3	74-97-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
46		chloroform; trichloromethane	602-006-00-4	200-663-8	67-66-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
47		1,1,1-trichloroethane; methyl chloroform	602-013-00-2	200-756-3	71-55-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
48		1,1-dichloropropene	602-031-00-0	209-253-3	563-58-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
49		carbon tetrachloride; tetrachloromethane	602-008-00-5	200-262-8	56-23-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
50		1,2-dichloroethane; ethylene dichloride	602-012-00-7	203-458-1	107-06-2		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
51		trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
52		1,2-dichloropropane; propylene dichloride	602-020-00-0	201-152-2	78-87-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
53		dibromomethane	602-003-00-8	200-824-2	74-95-3		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
54		bromodichloromethane		200-856-7	75-27-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
55		trans-1,3-dichloropropene		431-460-4	10061-02-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
56		1,1,2-trichloroethane	602-014-00-8	201-166-9	79-00-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
57		1,3-dichloropropane		205-531-3	142-28-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
58		tetrachloroethylene	602-028-00-4	204-825-9	127-18-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
59		dibromochloromethane		204-704-0	124-48-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
60		1,2-dibromoethane	602-010-00-6	203-444-5	106-93-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
61		chlorobenzene	602-033-00-1	203-628-5	108-90-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
62		1,1,1,2-tetrachloroethane		211-135-1	630-20-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
63		styrene	601-026-00-0	202-851-5	100-42-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
64		cumene	601-024-00-X	202-704-5	98-82-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
65		bromoform; tribromomethane	602-007-00-X	200-854-6	75-25-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
66		1,1,2,2-tetrachloroethane	602-015-00-3	201-197-8	79-34-5		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
67		1,2,3-trichloropropane	602-062-00-X	202-486-1	96-18-4		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
68		propylbenzene	601-097-00-8	203-132-9	103-65-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
69		bromobenzene	602-060-00-9	203-623-8	108-86-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
70		mesitylene; 1,3,5-trimethylbenzene	601-025-00-5	203-604-4	108-67-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**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
71		tert-butylbenzene		202-632-4	98-06-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
72		1,2,4-trimethylbenzene	601-043-00-3	202-436-9	95-63-6		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
73		sec-butylbenzene		205-227-0	135-98-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
74		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
75		1,3-dichlorbenzene	602-067-00-7	208-792-1	541-73-1		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
76		1,4-dichlorobenzene; p-dichlorobenzene	602-035-00-2	203-400-5	106-46-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
77		n-butylbenzene		203-209-7	104-51-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
78		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
79		1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
80		1,2,4-trichlorobenzene	602-087-00-6	204-428-0	120-82-1		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
81		hexachlorobutadiene		201-765-5	87-68-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
82		1,2,3-trichlorobenzene		201-757-1	87-61-6		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
83		o-xylene; [1] p-xylene; [2] m-xylene; [3] xylene [4]	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
84		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]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
85		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]		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<LOD
86		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13	mg/kg	1.462	10.735	mg/kg	0.00107 %	✓	
											Total:	0.0995 %		

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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00384%)

HP 3(iv): Flammable "flammable gaseous waste: gaseous waste which is flammable in air at 20°C and a standard pressure of 101.3 kPa"

Force this Hazardous Property to non-hazardous for cumulative determinand results below the threshold of: 50000 mg/kg (5%) because: Not considered flammable below 50000mg/kg. No free-phase product reported.

Hazard Statements hit:

Flam. Gas 1; H220 "Extremely flammable gas."

Because of determinand:

chloromethane; methyl chloride (conc.: 2.26e-06%)

Classification of sample: BH2-ES--27/06/2025

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

Sample details

Sample name:
BH2-ES--27/06/2025
Sample Depth:
13.00-13.00 m
Moisture content:
24%
(dry 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% Dry 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	●	pH			PH		8.9	pH		8.9	pH	8.9 pH		
2	●	pyrene		204-927-3	129-00-0		1.8	mg/kg		1.452	mg/kg	0.000145 %	✓	
3	●	phenanthrene		201-581-5	85-01-8		1.2	mg/kg		0.968	mg/kg	0.0000968 %	✓	
4		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
5	●	indeno[123-cd]pyrene		205-893-2	193-39-5		0.55	mg/kg		0.444	mg/kg	0.0000444 %	✓	
6	●	fluorene		201-695-5	86-73-7		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
7	●	fluoranthene		205-912-4	206-44-0		2	mg/kg		1.613	mg/kg	0.000161 %	✓	
8		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
9		chrysene	601-048-00-0	205-923-4	218-01-9		0.89	mg/kg		0.718	mg/kg	0.0000718 %	✓	
10		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		0.38	mg/kg		0.306	mg/kg	0.0000306 %	✓	
11	●	benzo[ghi]perylene		205-883-8	191-24-2		0.59	mg/kg		0.476	mg/kg	0.0000476 %	✓	
12		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		1	mg/kg		0.806	mg/kg	0.0000806 %	✓	
13		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		0.85	mg/kg		0.685	mg/kg	0.0000685 %	✓	
14		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.89	mg/kg		0.718	mg/kg	0.0000718 %	✓	
15	●	anthracene		204-371-1	120-12-7		0.44	mg/kg		0.355	mg/kg	0.0000355 %	✓	
16	●	acenaphthylene		205-917-1	208-96-8		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
17	●	TPH (C6 to C40) petroleum group			TPH		620	mg/kg		500	mg/kg	0.05 %	✓	

#		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
18		acenaphthene		201-469-6	83-32-9		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
19		boron { boric acid; [1] boric acid; [2] }	005-007-00-2	233-139-2 [1] 234-343-4 [2]	10043-35-3 [1] 11113-50-1 [2]		2.9	mg/kg	5.719	13.376	mg/kg	0.00134 %	✓	
20		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }	033-005-00-1				21	mg/kg	1.895	32.085	mg/kg	0.00321 %	✓	
21		cadmium (non-pyrophoric); [1] cadmium oxide (non-pyrophoric) [2]	048-002-00-0	231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		2.2	mg/kg		1.774	mg/kg	0.000177 %	✓	
22		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<2.5	mg/kg	1.353	<3.384	mg/kg	<0.000338 %		<LOD
23		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<8	mg/kg	2.554	<20.431	mg/kg	<0.00204 %		<LOD
24		nickel { nickel diiodide }	028-029-00-4	236-666-6	13462-90-3		64	mg/kg	5.324	274.803	mg/kg	0.0275 %	✓	
25		copper { copper sulphate pentahydrate }	029-023-00-4	231-847-6	7758-99-8		91	mg/kg	3.929	288.342	mg/kg	0.0288 %	✓	
26		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	380	mg/kg		306.452	mg/kg	0.0306 %	✓	
27		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		380	mg/kg	4.398	1347.752	mg/kg	0.135 %	✓	
28		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				1.2	mg/kg	1.884	1.823	mg/kg	0.000182 %	✓	
29		monohydric phenols			P1186		<1	mg/kg		<1	mg/kg	<0.0001 %		<LOD
30		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1	mg/kg	2.27	<2.27	mg/kg	<0.000227 %		<LOD
31		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		22	mg/kg	1.462	25.931	mg/kg	0.00259 %	✓	
											Total:	0.28 %		

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: 50000 mg/kg (5%) because: Not flammable below 50000. No free-phase product reported.

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.05%)

Appendix A: Classifier defined and non GB MCL determinands

pH (CAS Number: PH)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

monohydric phenols (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: CLP combined data
Data source date: 26 Mar 2019
Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 <= conc. < 3 % , Eye Irrit. 2; H319 1 <= conc. < 3 % , Aquatic Chronic 2; H411

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

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

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

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

Appendix B: Rationale for selection of metal species

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

Boron tribromide/trichloride unlikely present. Next worst case.

arsenic {arsenic acid and its salts with the exception of those specified elsewhere in this Annex}

Worst-case

mercury {mercury dichloride}

2nd worst case.

selenium {nickel selenate}

Worst-case

nickel {nickel diiodide}

Worst-case

copper {copper sulphate pentahydrate}

Worst-case

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

There isn't enough Metal and Cr(VI) to make the Metal chromate/hazardous levels. Next worst case.

zinc {zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

There isn't enough Metal and Cr(VI) to make the Metal chromate/hazardous levels. Next 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}

Worst-case

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

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: 2025.213.6734.12217 (02 Aug 2025)
HazWasteOnline Database: 2025.213.6734.12217 (02 Aug 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

APPENDIX 6 – SOIL GAS MONITORING RESULTS

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Meadow Road	**Operative(s):** BKS	**Date:** 04/07/2025	**Time:** 11:00	**Round:** 1	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	Instrument Make	Serial No.	Date Last Calibrated
Analox	GA5000		
		G501805	24/03/2025
PID	Multirae	M01C009236	19/11/2024
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Sunny	**Ground Conditions:** Dry	**Temperature:** 22^{0}C
Barometric Pressure (mbar): 1024	**Barometric Pressure Trend (24hr):** Falling	**Ambient Concentration:** 0.1 %CH_4, 0.1 %CO_2, 20.6 %O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		CO (ppm)	H_2S (ppm)	Depth to product (mbgl)*	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
WS1	+0.4	+0.4	1023	0.0	-	5.2	14.0	0	0	1	0	-	2.52	4.91
WS6	+0.3	+0.3	1024	0.0	-	2.8	15.9	0	0	0	0	-	2.56	4.34
BH1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	+0.3	+0.3	1024	0.0	-	4.3	14.0	0	0	2	0	-	2.90	4.47
BH3	+0.3	+0.2	1023	0.4	-	2.6	14.5	1	1	15	0	-	2.52	4.91

BH1*= No access to well.

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Meadow Road	**Operative(s):** MOS	**Date:** 9/7/2025	**Time:** 11:00	**Round:** 2	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	Instrument Make	Serial No.	Date Last Calibrated
Analox	GA5000		
		G501805	24/03/2025
PID	Phocheck tiger	T-106448	21/09/2024
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Sunny	**Ground Conditions:** Dry	**Temperature:** 25
Barometric Pressure (mbar): 1018	**Barometric Pressure Trend (24hr):** Rising	**Ambient Concentration:** 0.1% CH_4, 0.1%CO_2, 20.7%O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		CO (ppm)	H_2S (ppm)	Depth to product (mbgl)*	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
WS1	0.2	0.2	1019	0	-	5.4	12.9	0	0	1	0	-	2.48	4.89
WS6	0	0	1018	0	-	8.8	6.5	0.5	0.5	0	1	-	2.51	4.36
BH1	0.2	0.2	1019	0.1	-	6.8	12.4	0.5	0.5	3	0	-	2.2	4.38
BH2	0.2	0.2	1018	0	-	4.2	13.4	1.5	1.0	1	1	-	2.84	4.48
BH3	0	0	1018	0.5	-	4.0	13.6	4.4	3.0	6	0	-	2.8	4.9

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Meadow Road	**Operative(s):** BKS	**Date:** 17/07/25	**Time:** 10:30	**Round:** 3	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	Instrument Make	Serial No.	Date Last Calibrated
Analox	GA5000		
		G501805	24/03/2025
PID	Phocheck tiger	T-106448	21/09/2024
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Overcast	**Ground Conditions:** Dry	**Temperature:** 24^{0}C
Barometric Pressure (mbar): 1014	**Barometric Pressure Trend (24hr):** Rising	**Ambient Concentration:** 0.1 %CH_4, 0.1 %CO_2, 20.8 %O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		CO (ppm)	H_2S (ppm)	Depth to product (mbgl)*	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
WS1	+0.6	+0.6	1014	0.0	-	5.8	12.8	0.5	0.4	0	0	-	2.54	4.83
WS6	+0.4	+0.4	1014	0.0	-	10.8	7.4	0.5	0.4	0	0	-	2.56	4.30
BH1	+0.5	+0.5	1014	0.0	-	12.4	5.4	2.9	2.8	1	0	-	2.25	4.28
BH2	+0.0	+0.0	1014	0.1	-	4.9	14.6	0.7	0.6	0	0	-	2.91	4.40
BH3	+0.6	+0.5	1014	0.7	-	4.0	14.0	48.1	47.2	4	0	-	2.84	4.79

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Meadow Road	**Operative(s):** YAB	**Date:** 23/07/25	**Time:** 10:40	**Round:** 4	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	Instrument Make	Serial No.	Date Last Calibrated
Analox	GA5000		
		G501805	24/03/2025
PID	Phocheck tiger	T-106448	21/09/2024
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Overcast	**Ground Conditions:** Dry	**Temperature:** 20^0C
Barometric Pressure (mbar): 1012	**Barometric Pressure Trend (24hr):** Steady	**Ambient Concentration:** 0.0 %CH_4, 0.2 %CO_2, 20.5 %O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		CO (ppm)	H_2S (ppm)	Depth to product (mbgl)*	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
WS1	+0.6	+0.6	1012	0.0	-	5.9	12.3	-	-	0	0	-	2.45	4.80
WS6	+0.5	+0.4	1012	0.0	-	10.0	8.0	-	-	0	0	-	2.60	4.30
BH1	+0.6	+0.5	1012	0.0	-	8.0	10.7	-	-	1	0	-	2.43	4.25
BH2	+0.2	+0.1	1012	0.1	-	5.1	14.8	-	-	0	0	-	2.95	4.42
BH3	+0.6	+0.5	1012	0.6	-	4.2	13.8	-	-	4	0	-	2.84	4.80

APPENDIX 7 – GROUNDWATER SAMPLING RECORDS

LOW FLOW GROUNDWATER MONITORING BOREHOLE RECORD SHEET					
Site: Meadow Road	**Operative(s):** BKS	**Date:** 04/07/2025	**Time:** 11:30	**Round:** 1	**Page:** 1 of 1

MONITORING EQUIPMENT			
Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
SmarTROLL MP	In-Situ	674243	Prior to use
Dip Meter	In-Situ		

MONITORING CONDITIONS		
Weather Conditions: Sunny	**Ground Conditions:** Dry	**Temperature:** 22°C

Hole ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	(ORP) Oxidation-Reduction Potential (mV)	(RDO) Rugged Dissolved Oxygen Concentration (mg/L)	Depth to product – NB do not sample if present	Water Level (Start of testing)	Water Level (End of testing)	Depth to base of well (m)	Sample depth (tube intake depth) – (m)	Comments
WS1	15.79	571.62	6.99	185.1	4.41	-	2.52	2.52	4.91	3.03	Stable at 9 minutes, transparent.
WS6	15.39	1113.4	7.04	182.0	4.95	-	2.56	2.56	4.34	3.04	Stable at 8 minutes, slightly turbid.
BH1*						-					
BH2	14.97	1350.3	6.92	181.4	4.93	-	2.90	2.90	4.47	3.50	Stable at 9 minutes, turbid.
BH3	14.67	1045.4	6.84	176.7	4.54	-	2.83	2.83	4.86	3.33	Stable at 7 minutes, slightly turbid.

BH1* = No access to well.

Site: Meadow Road	**Operative(s):** MOS	**Date:** 09/07/2025	**Time:** 13:30	**Round:** 1 (BH1)	**Page:** 1 of 1

MONITORING EQUIPMENT

Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
SmarTROLL MP	In-Situ	674243	Prior to use
Dip Meter	In-Situ		

MONITORING CONDITIONS

Weather Conditions: Sunny	**Ground Conditions:** Dry	**Temperature:** 25°C

Hole ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	(ORP) Oxidation-Reduction Potential (mV)	(RDO) Rugged Dissolved Oxygen Concentration (mg/L)	Depth to product – NB do not sample if present	Water Level (Start of testing)	Water Level (End of testing)	Depth to base of well (m)	Sample depth (tube intake depth) – (m)	Comments
BH1	17.32	1137.0	6.92	184.5	5.320	-	2.20m	2.19m	4.38m	2.84	Stable at 8 min. Slightly turbid.

This is a measure of the capability of a solution such as water in a stream to pass an electric current. This is an indicator of the concentration of dissolved electrolyte ions in the water. It doesn't identify the specific ions in the water. However, significant increases in conductivity may be an indicator that polluting discharges have entered the water.

Every creek will have a baseline conductivity depending on the local geology and soils. Higher conductivity will result from the presence of various ions including nitrate, phosphate, and sodium.

The basic unit of measurement for conductivity is micromhos per centimetre (µmhos/cm) or micro Siemens per centimetre (µS/cm). Either can be used, they are the same. It is a measure of the inverse of the amount of resistance an electric charge meets in traveling through the water. Distilled water has a conductivity ranging from 0.5 to 3 µS/cm, while most streams range between 50 to 1500 µS/cm. Freshwater streams ideally should have a conductivity between 150 to 500 µS/cm to support diverse aquatic life.

pH

A measure of a solution's acidity. In water, small numbers of water molecules (H2O) will break apart or disassociate into hydrogen ions (H+) and hydroxide ions (OH-). Other compounds entering the water may react with these, leaving an imbalance in the numbers of hydrogen and hydroxide ions. When more hydrogen ions react, more hydroxide ions are left in solution and the water is basic; when more hydroxide ions react, more hydrogen ions are left and the water is acidic. pH is a measure of the number of hydrogen ions and thus a measure of acidity.

pH is measured on a logarithmic scale between 1 and 14 with 1 being extremely acid, 7 neutral, and 14 extremely basic. Because it is a logarithmic scale there is a tenfold increase in acidity for a change of one unit of pH, e.g. 5 is 100 times more acid than 7 on the pH scale. The largest variety of freshwater aquatic organisms prefer a pH range between 6.5 to 8.0.

(RDO) Rugged Dissolved Oxygen Concentration (mg/L)

Dissolved oxygen is oxygen gas molecules (O2) present in the water. Plants and animals cannot directly use the oxygen that is part of the water molecule (H2O), instead depending on dissolved oxygen for respiration. Oxygen enters streams from the surrounding air and as a product of photosynthesis from aquatic plants. Consistently high levels of dissolved oxygen are best for a healthy ecosystem.

Levels of dissolved oxygen vary depending on factors including water temperature, time of day, season, depth, altitude, and rate of flow. Water at higher temperatures and altitudes will have less dissolved oxygen. Dissolved oxygen reaches its peak during the day. At night, it decreases as photosynthesis has stopped while oxygen consuming processes such as respiration, oxidation, and respiration continue, until shortly before dawn.

Human factors that affect dissolved oxygen in streams include addition of oxygen consuming organic wastes such as sewage, addition of nutrients, changing the flow of water, raising the water temperature, and the addition of chemicals.

Dissolved oxygen is measured in mg/L.

0-2 mg/L: not enough oxygen to support life.
2-4 mg/L: only a few fish and aquatic insects can survive.
4-7 mg/L: good for many aquatic animals, low for cold water fish
7-11 mg/L: very good for most stream fish

(ORP) Oxidation- Reduction Potential (mV)

ORP is a measure of the cleanliness of the water & its ability to break down contaminants". It has a range of –2,000 to + 2,000 and units are in "mV" (millivolts).

APPENDIX 8 – CBR TESTING RESULTS

JOMAS ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP1
Date of Test: 26/07/2025

Calculating Engineer: JMH
Approved by: DG

Date: 02/07/2025
Date: 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
105	1	1
152	9	10
210	7	17
255	3	20
270	1	21
320	1	22
385	3	25
450	3	28
500	6	34
550	6	40
600	6	46
670	6	52
715	3	55
750	2	57
810	3	60
860	2	62
920	2	64

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP1-Test 1	105	210	6.6	41.3	39.1	190.42
DCP1-Test 2	210	450	21.8	11.6	12.0	84.48
DCP1-Test 3	450	670	9.2	29	28.2	151.86
DCP1-Test 4	670	920	20.8	12.2	12.6	87.25

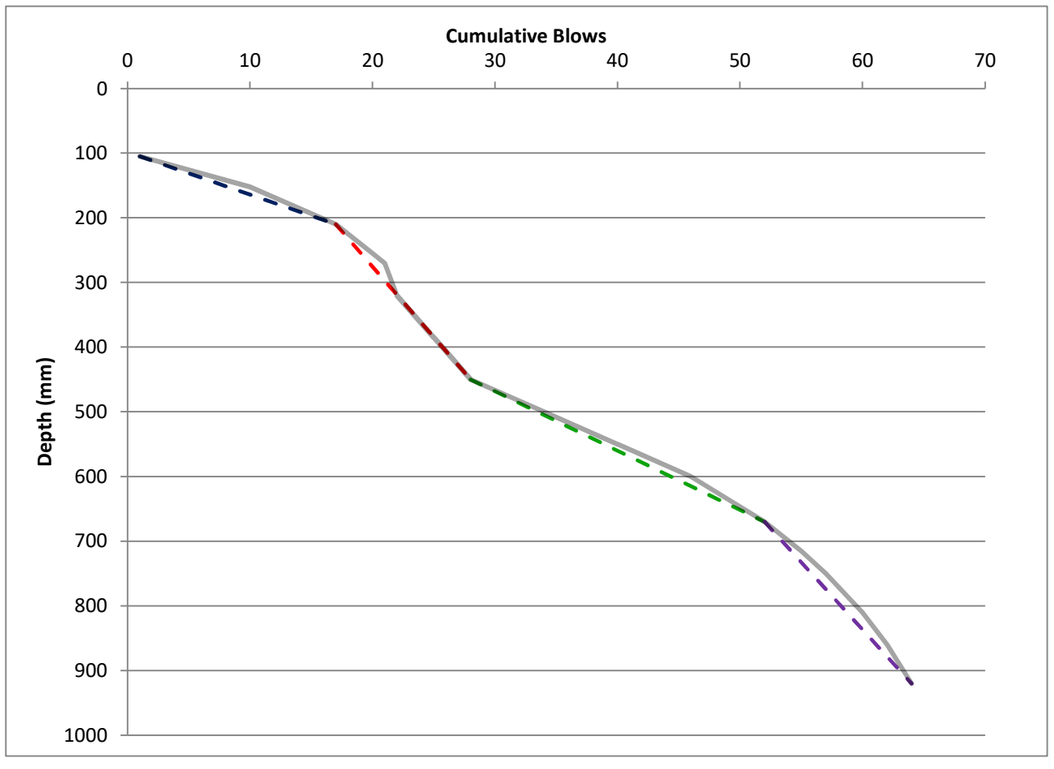
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP2
Date of Test: 27/07/2025

Calculating Engineer: JMH
Approved by: DG

Date: 02/07/2025
Date: 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
78	1	1
100	1	2
155	10	12
203	6	18
246	6	24
300	10	34
367	8	42
408	4	46
444	4	50
509	4	54
558	2	56
613	2	58
685	2	60
740	2	62
762	2	64
798	2	66
844	2	68
920	2	70

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP2-Test 1	78	300	6.7	40.3	38.1	187.46
DCP2-Test 2	300	444	9.0	29.6	28.7	153.86
DCP2-Test 3	444	762	22.7	11.1	11.6	82.13
DCP2-Test 4	762	920	26.3	9.5	10	74.35

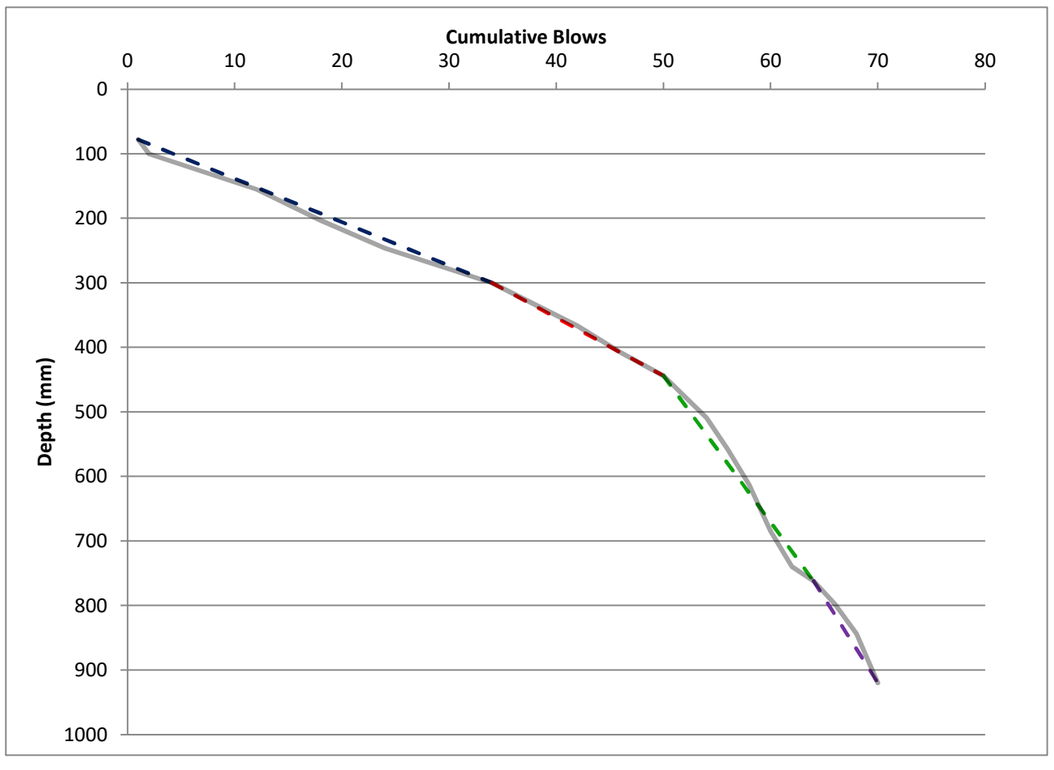
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



JOMAS | ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP3
Date of Test: 27/07/2025

Calculating Engineer: JMH **Date:** 02/07/2025
Approved by: DG **Date:** 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
130	1	1
151	2	3
196	13	16
251	10	26
299	10	36
353	10	46
389	4	50
410	2	52
459	4	56
499	4	60
550	8	68
610	8	76
660	4	80
710	4	84
756	5	89
800	5	94
852	7	101
878	4	105

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP3-Test 1	130	353	5.0	55.6	51.5	230.34
DCP3-Test 2	353	499	10.4	25.3	24.8	139.16
DCP3-Test 3	499	660	8.1	33.3	32.0	165.91
DCP3-Test 4	660	878	8.7	30.6	29.6	157.17

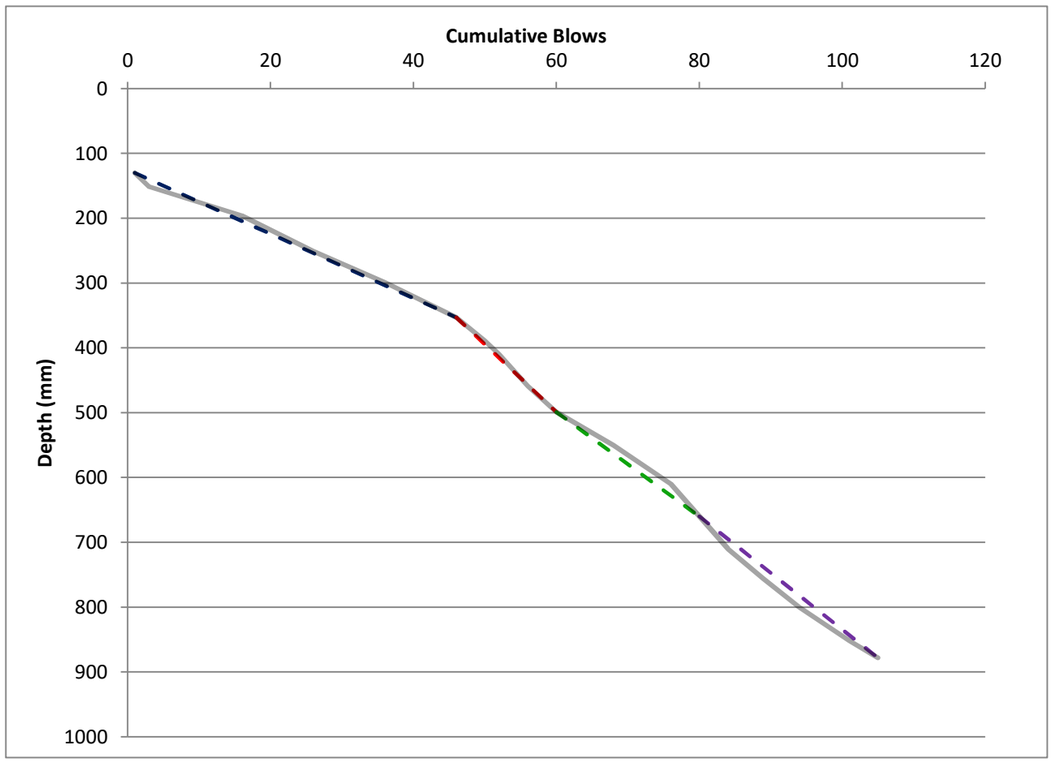
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP4
Date of Test: 27/07/2025

Calculating Engineer: JMH
Approved by: DG

Date: 02/07/2025
Date: 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
248	1	1
302	1	2
325	1	3
356	1	4
378	1	5
408	1	6
415	1	7
428	2	9
440	2	11
446	1	12
451	1	13
455	2	15
457	12	27

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP4-Test 1	248	325	38.5	6.4	6.9	57.74
DCP4-Test 2	325	408	27.7	9	9.5	71.82
DCP4-Test 3	408	451	6.1	44.3	41.7	199.16
DCP4-Test 4	451	457	0.4	739.5	566.6	1206.8

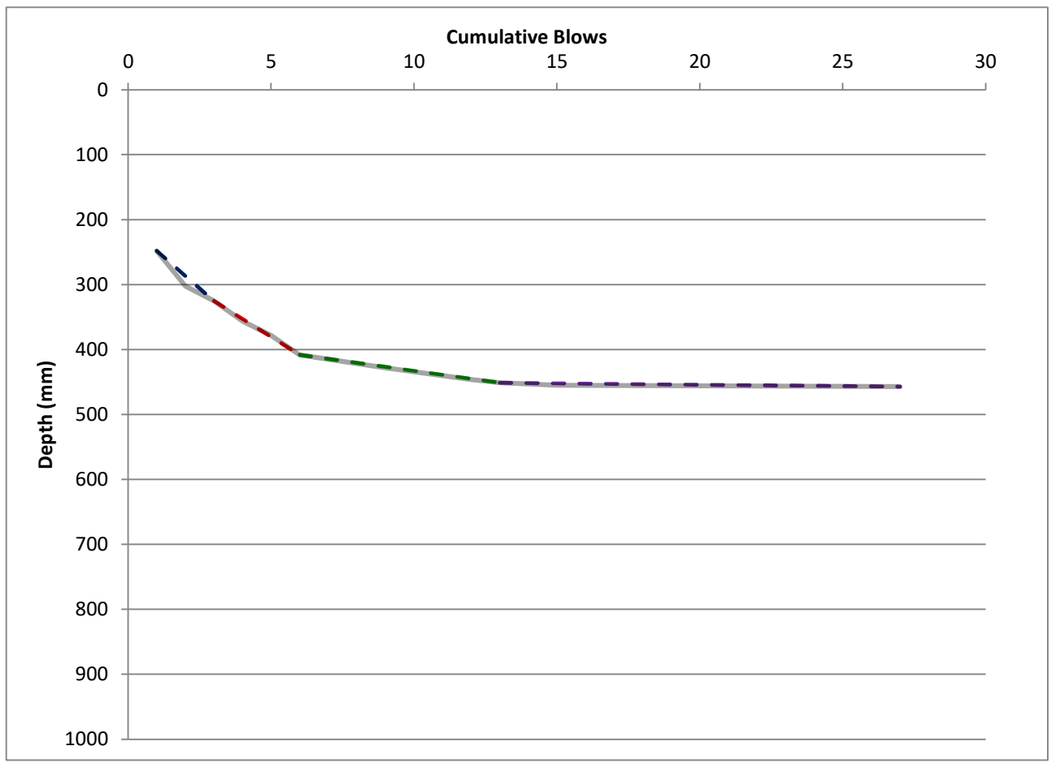
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP5
Date of Test: 27/07/2025

Calculating Engineer: JMH
Approved by: DG

Date: 02/07/2025
Date: 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
296	1	1
430	1	2
486	1	3
520	1	4
553	2	6
581	2	8
602	2	10
633	2	12
658	2	14
684	4	18
701	2	20
758	2	22
796	2	24
850	2	26
893	2	28
909	2	30

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP5-Test 1	296	486	95.0	2.5	2.8	31.64
DCP5-Test 2	486	581	19.0	13.4	13.8	92.65
DCP5-Test 3	581	684	10.3	25.7	25.1	140.56
DCP5-Test 4	684	909	18.8	13.6	14	93.54

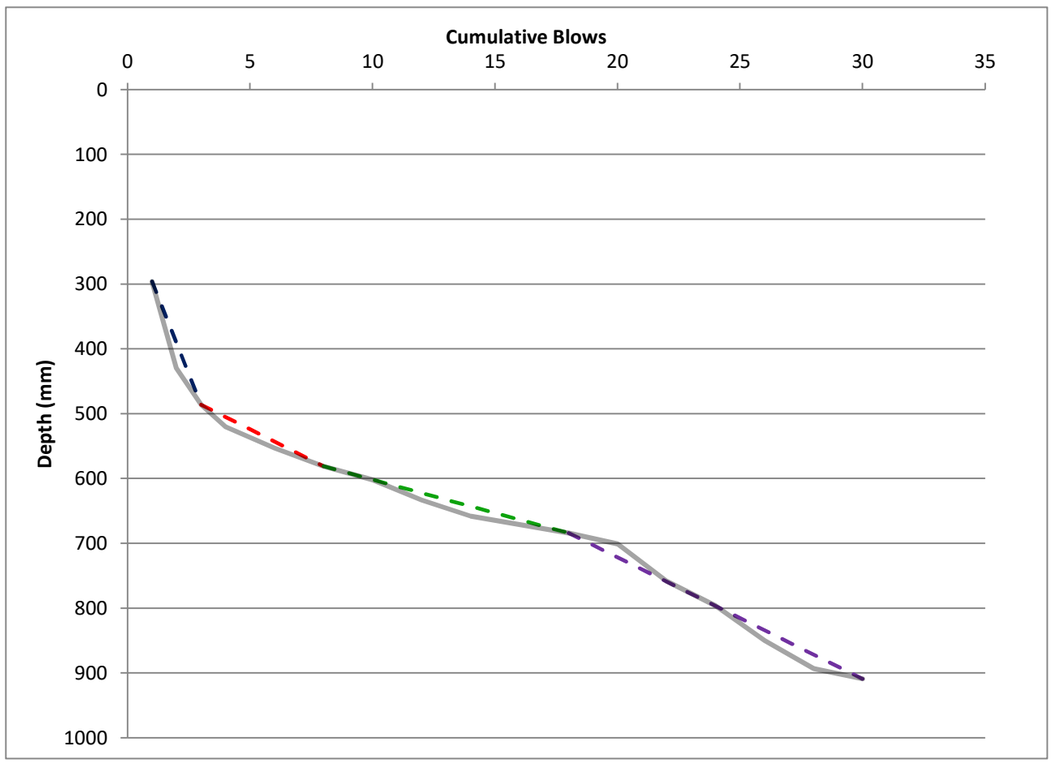
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



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CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP6
Date of Test: 27/07/2025

Calculating Engineer: JMH
Approved by: DG

Date: 02/07/2025
Date: 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
294	1	1
361	1	2
410	1	3
440	1	4
467	2	6
480	1	7
509	2	9
533	6	15
548	4	19
600	8	27
640	8	35
665	5	40
690	5	45
730	4	49
780	4	53
827	2	55
900	2	57

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP6-Test 1	294	467	34.6	7.1	7.7	61.7
DCP6-Test 2	467	600	6.3	42.9	40.5	195.11
DCP6-Test 3	600	730	5.9	46.2	43.3	204.59
DCP6-Test 4	730	900	21.3	11.9	12.4	85.87

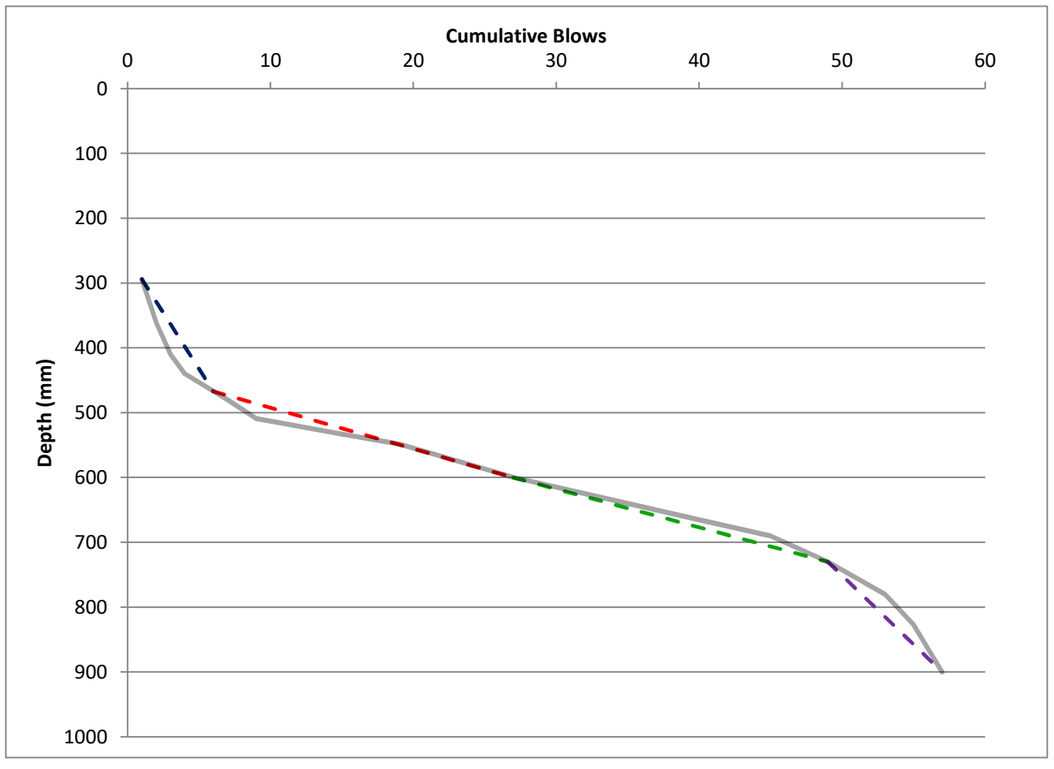
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



JOMAS | ENGINEERING ENVIRONMENTAL LAND REMEDIATION

CBR Calculation

Jomas Job: Meadow Road, Reading
Jomas Job No.: J3196

Test Location: DCP7
Date of Test: 27/07/2025

Calculating Engineer: JMH
Approved by: DG

Date: 02/07/2025
Date: 13/08/2025

Depth (mm)	Nr Blow	Cumulative blows
150	1	1
390	1	2
480	1	3
515	1	4
535	1	5
557	1	6
582	1	7
620	1	8
656	1	9
708	1	10
750	1	11
850	1	12
970	1	13

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%) IAN 73/06	CBR (%) TRL 587	E (MPa)
DCP7-Test 1	150	390	240.0	0.9	1.1	16.45
DCP7-Test 2	390	480	90.0	2.6	3.0	32.44
DCP7-Test 3	480	750	33.8	7.3	7.9	62.81
DCP7-Test 4	750	970	110.0	2.1	2.5	28.3

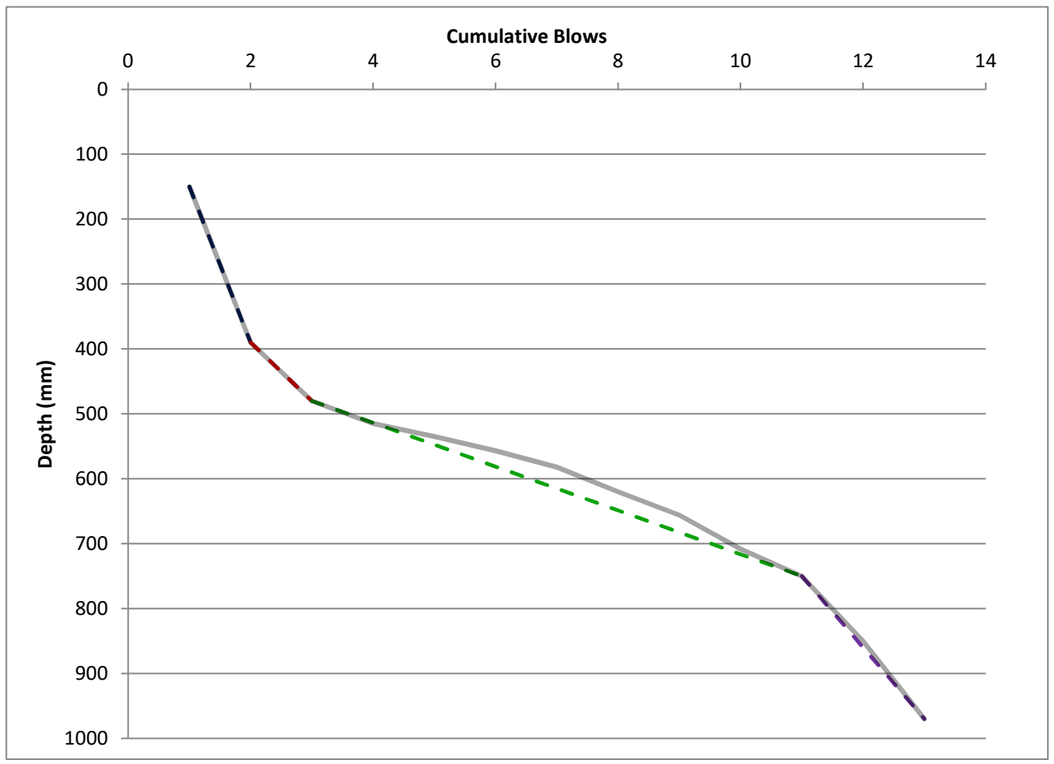
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodologies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



APPENDIX 9 – SOIL INFILTRATION TESTING RESULTS

BRE 365 INFILTRATION TESTS

JOMAS JOB NAME: Meadow Road, Reading

JOMAS JOB NO.: J3196

TEST LOCATION: TP1

DATE OF TEST: 27 June 2025

Pit Details

Length	2.2 m	
Breadth	0.6 m	
Depth	3.3 m	
Groundwater?	Y	3.3 m bgl
Filled With Gravel?	N	

CALCULATING ENGINEER: JMH **DATE:** 02 July 2025

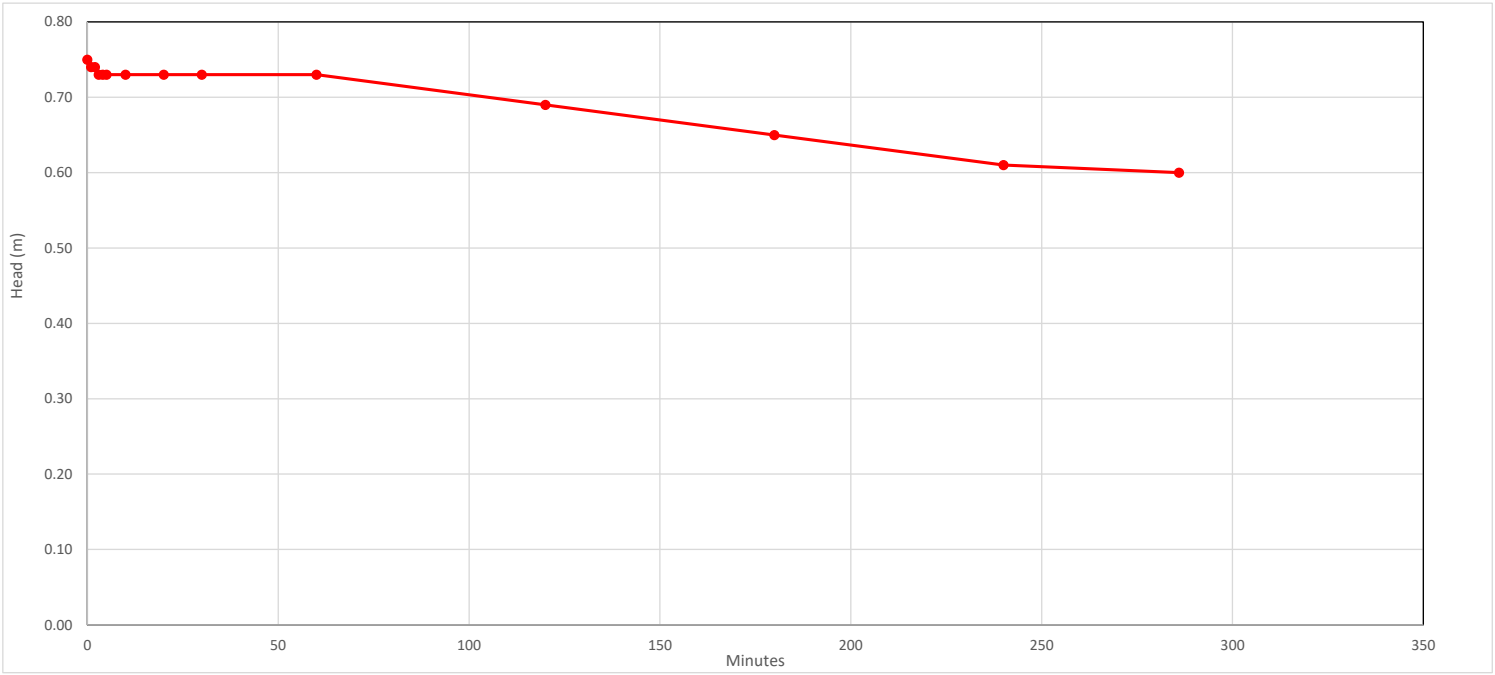
APPROVED BY: DG **DATE:** 13 August 2025

	TP1 - Test 1	TP1 - Test 2	TP1 - Test 3
Dg 75% (m)	0.56		
Tp 75%			
Dg 25%	0.19		
Tp 25%			
Vp75% - Vp25% (m^3)	0.50		
ap50% (m^2)	3.42		
Tp75-Tp25 (min)			
Soil infiltration rate (m/sec)	Insuff. Drain		
Permeability Description			
Drainage Condtions			

Notes:

Dw = depth to water

Dg = head of water in the pit



TP1 - Test 1			TP1 - Test 2			TP1 - Test 3		
Min	Dw	Dg	Min	Dw	Dg	Min	Dw	Dg
0	2.55	0.75						
1	2.56	0.74						
2	2.56	0.74						
3	2.57	0.73						
4	2.57	0.73						
5	2.57	0.73						
10	2.57	0.73						
20	2.57	0.73						
30	2.57	0.73						
60	2.57	0.73						
120	2.61	0.69						
180	2.65	0.65						
240	2.69	0.61						
286	2.70	0.60						

	Min	Dg		Min	Dg		Min	Dg
	Insuff. Drain							
75%		0.563	75%			75%		
	Insuff. Drain							
25%		0.188	25%			25%		

BRE 365 INFILTRATION TESTS

JOMAS JOB NAME: Meadow Road, Reading

JOMAS JOB NO.: J3196

TEST LOCATION: TP3

DATE OF TEST: 27 June 2025

Pit Details

Length	1.6 m	
Breadth	0.6 m	
Depth	3.1 m	
Groundwater?	Y	2.4 m bgl
Filled With Gravel?	N	

CALCULATING ENGINEER: JMH **DATE:** 02 July 2025

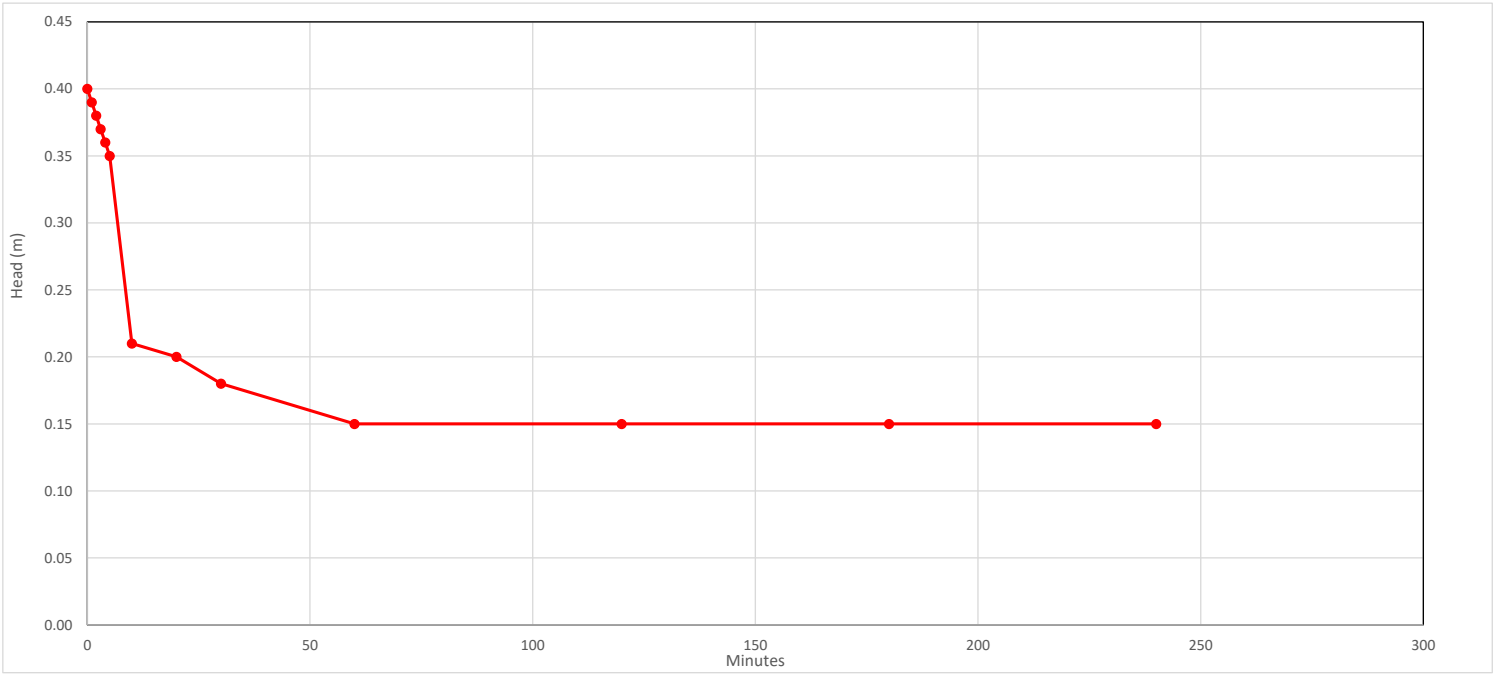
APPROVED BY: DG **DATE:** 13 August 2025

	TP3 - Test 1	TP3 - Test 2	TP3 - Test 3
Dg 75% (m)	0.30		
Tp 75%	6.79		
Dg 25%	0.10		
Tp 25%	180.00		
Vp75% - Vp25% (m^3)	0.19		
ap50% (m^2)	1.84		
Tp75-Tp25 (min)	173.21		
Soil infiltration rate (m/sec)	1.00E-05		
Permeability Description	Medium		
Drainage Condtions	Good		

Notes:

Dw = depth to water

Dg = head of water in the pit



TP3 - Test 1			TP3 - Test 2			TP3 - Test 3		
Min	Dw	Dg	Min	Dw	Dg	Min	Dw	Dg
0	2.00	0.40						
1	2.01	0.39						
2	2.02	0.38						
3	2.03	0.37						
4	2.04	0.36						
5	2.05	0.35						
10	2.19	0.21						
20	2.20	0.20						
30	2.22	0.18						
60	2.25	0.15						
120	2.25	0.15						
180	2.25	0.15						
240	2.25	0.15						

	Min	Dg		Min	Dg		Min	Dg
	Interpolated							
75%	6.786	0.3	75%			75%		
	Extrapolated							
25%	180	0.1	25%			25%		

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