

PROPOSED TURING HOUSE FREE SCHOOL HOSPITAL BRIDGE ROAD, TWICKENHAM TW2 6LH

PHASE 2 ENVIRONMENTAL AND GEOTECHNICAL SITE INVESTIGATION REPORT

FOR

EDUCATION FUNDING AGENCY



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EXECUTIVE SUMMARY

RPS Health, Safety & Environment (RPS) was commissioned by The Education Funding Agency to undertake a Phase 2 Environmental and Geotechnical Site Investigation at Bridge Farm Nursery, Hospital Bridge Road, Twickenham TW2 6LH, in relation to its proposed redevelopment as a school.

A Geoenvironmental & Geotechnical Desk Study was undertaken for the site by Campbell Reith Consulting Engineers in June 2017 (reference 11677-14). The report concluded that, based on ongoing and historical site uses, the site represented a low risk to identified receptors associated with the site. However, given the sensitive proposed site use, a Phase 2 intrusive site investigation was recommended in order to confirm this and to provide geotechnical parameters on underlying soils for the purposes of foundation design.

The site investigation comprised three cable percussion boreholes (BH1 to BH3) to depths of approximately 7.00m below ground level (bgl); in situ geotechnical testing including Standard Penetration Testing (SPT) and sampling throughout the depth of each borehole; the installation of groundwater/gas monitoring wells in each borehole, dynamic cone penetrometer (DCP) testing in eight locations (DCP1 to DCP8) and the excavation of 12 hand dug trial pits to depths of up to 0.50m bgl.

Made Ground / poor quality topsoil was encountered from the ground surface at each exploratory hole location on site. This was underlain by the Taplow Gravel Formation, overlying the London Clay Formation.

Asbestos fibres were recorded within a sample of Made Ground / poor quality topsoil collected from hand pit HP8, located in the southwest corner of the site. Material representative of this sample of shallow Made Ground / poor quality topsoil analysed from the location of hand pit HP8 should be excavated and segregated for disposal off site. No other contaminants of concern were recorded within samples collected from beneath the site at concentrations in excess of adopted assessment criteria (AC).

Based on the available information and the recommended mitigation measures being implemented, the potential risk to human health receptors from concentrations of contaminants of concern detected within soil and groundwater sampled from beneath the site is considered to be **LOW**.

Contaminants of concern were not recorded within groundwater samples analysed from beneath the site at concentrations in excess of adopted AC. Based on the available information, the potential risk to controlled water receptors from concentrations of contaminants of concern detected within groundwater sampled from beneath the site is considered to be **LOW**.

Based on ground gas monitoring undertaken on site as part of the current investigation CIRIA Characteristic Situation 1 (CS1) is considered applicable to the site, whereby ground gas protection measures are not



required for new buildings. The risk posed by ground gas to human health receptors and infrastructure is therefore considered to be **LOW**.

Based upon SPT results, the Taplow Gravel Formation is likely to provide a suitable bearing stratum for traditional foundations for light to moderately loaded structures, where it is at least medium dense granular material at formation level and it is present at relatively shallow depth below the ground surface.

The Taplow Gravel Formation is anticipated to be present at floor slab formation level beneath the proposed school building and sports centre at an assumed depth of approximately 0.60m bgl, which should be suitable to support a ground bearing floor slab, subject to confirmatory proof rolling and localised soft spot removal and replacement.

The results of in situ California Bearing Ratio (CBR) testing, using DCP methods, indicate that ground conditions at the likely founding depth for pavements on site (assumed to be at approximately 0.50m to 0.60m bgl) range from approximately 5% to 130%. A design CBR value of 5% is therefore recommended.

Testing has indicated a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) Classification of AC-1 would be appropriate for all buried concrete structures.

The proposed school building is situated adjacent to the cutting slope, located within the adjacent Network Rail land. When the structural design is available and the foundation arrangement known, the influence of those foundations to the stability of the slope should be assessed. Network Rail may require confirmation that the proposed work does not impair the stability of the cutting.

Where to be disposed of to landfill, the two samples from the Taplow Gravel Formation that were submitted for waste acceptance criteria (WAC) analysis would be considered suitable for disposal as inert waste. The two samples from the Made Ground / poor quality topsoil submitted for WAC testing would be considered suitable for disposal as inert and non-hazardous waste, respectively.

Any soils encountered during excavation works which display visual and/or olfactory evidence of significant contamination and are to be disposed of off-site should also be segregated for further analysis prior to disposal. These measures should keep any disposal costs to a minimum.



1 INTRODUCTION

1.1 Preamble

RPS Health, Safety & Environment (RPS) was commissioned by *The Education Funding Agency* to undertake a Phase 2 Environmental and Geotechnical Site Investigation at Bridge Farm Nursery, Hospital Bridge Road, Twickenham TW2 6LH, in relation to its proposed redevelopment as a school.

1.2 Objectives

The principal objectives of this assessment were as follows:

- To determine the contamination status of soil and groundwater beneath the site;
- To assess whether contamination is present within soil and/or groundwater beneath the site at concentrations that could impact future site users/occupiers and the wider environment;
- To assess the suitability of the site for its proposed end-use; and
- To determine the engineering properties of the underlying soils and to provide geotechnical parameters to assist preliminary foundation and ground slab design.

1.3 Legislation and Guidance

This report has been produced in general accordance with:

- Contaminated Land (England) Regulations 2006 (as amended);
- DEFRA Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (2012);
- DEFRA and Environment Agency (2004) Contaminated Land Report 11 (CLR 11): *Model Procedures for the Management of Land Contamination*;
- National Planning Policy Framework (2012);
- British Standard requirements for the 'Investigation of potentially contaminated sites Code of practice' (ref. BS10175:2011+A1:2013);
- CIRIA Document C665 Assessing risks posed by hazardous ground gases to buildings (2007); and
- British Standard requirements for the 'Code of practice for ground investigations' (ref. BS5930:2015).

Where appropriate, consideration has also been given to the following:



- The potential for environmental liabilities to occur under other associated regimes, for example the *Water Resources Act (1991)* and the *Environmental Damage Regulations (2009)*; and
- Key constraints on site redevelopment.

Details of the limitations of this type of assessment are described in Appendix A.



2 BACKGROUND INFORMATION

2.1 Site Location & Description

The site is located on Hospital Bridge Road, Twickenham TW2 6LH, at National Grid Coordinates 173592, 513325. The majority of the site is rectangular with an extended L-shaped arm at the northeast corner and has an approximate area of 6.8ha. At the time of the investigation, the site predominantly comprised open fields. A small area in the east of the site was used as a storage area for an adjacent garden centre.

A site location plan is provided as Figure 1 and a site boundary plan as Figure 2. A detailed site description is provided with a previous Geoenvironmental & Geotechnical Desk Study, by Campbell Reith Consulting Engineers in June 2017 (summarised in Section 2.2 below).

2.2 Previous Reports

A Geoenvironmental & Geotechnical Desk Study was undertaken for the site by Campbell Reith Consulting Engineers in June 2017 (reference 11677-14).

The report stated that the site comprised predominantly open fields, with a number of small, isolated structures that were previously used to house livestock. A small area in the east of the site was used as a storage area for an adjacent garden centre. The report also stated that the site had not been subject to previous development. Bunds comprising unknown materials were noted to the south of the storage area, the southwest corner and centre of the site.

The report listed neighbouring site uses as; a cemetery to the west, a garden centre to the east; and a railway line which formed the northeastern boundary of the site.

The report concluded that, based on ongoing and historical site uses, the site represented a low risk to identified receptors associated with the site. However, given the sensitive proposed site use, a Phase 2 intrusive site investigation was recommended in order to confirm this and to provide geotechnical parameters on underlying soils for the purposes of foundation design.

RPS cannot vouch for the accuracy of information provided by other consultancies and legal reliance should be sought from the original author of the report where its content is considered material to the characterisation of the site.



2.3 Proposed Development

The proposed works comprise the construction of a three storey teaching block, a two storey sports centre, an all-weather sports pitch and hard and soft surfaced play / sports areas. The proposed development plan is indicated on Figure 2.

2.4 Environmental Setting

2.4.1 Geology

Based on British Geological Survey (BGS) mapping (1:50,000-scale) and the Environment Agency (EA) Groundwater Vulnerability mapping (1:100,000-scale), the stratigraphic sequence and aquifer classifications beneath the site are as follows:

Table 1 – Descriptions of Geological Strata

Strata Description & approximate thickness		Aquifer Classification
Taplow Gravel Formation	Sand and gravel. Likely to be up to several metres in thickness in the vicinity of the site.	Principal
London Clay Formation	Clay, sand and silt and gravel. Likely to be up to 70m in thickness beneath the site.	Unproductive Stratum

In addition to the strata detailed above, a limited thickness of Made Ground is likely to be present beneath the site as a result of previous construction and demolition activities. No site investigation reports have been reviewed to verify this.

2.4.2 Hydrogeology

The site is located above a Principal Aquifer, relating to the Taplow Gravel Formation. These are layers of rock or drift deposits that have high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

The London Clay Formation is classified as an Unproductive Stratum. These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

According to EA data, the site is not located within a groundwater Source Protection Zone (SPZ).



Information provided by the EA indicates that there are no records of active licensed groundwater abstraction within 1km of the site.

The chemical quality of groundwater beneath the site has been classified as <u>g</u>oodqunder the EA Local River Basin Management Plan.

2.4.3 Surface Water

Under the Water Framework Directive, the EA identifies one watercourse within 1km of the site which is classified within the local River Basin Management Plan. This relates to the River Crane, located approximately 695m to the southwest of the site, which is indicated to have <u>good</u> qchemical quality and poorqecological quality.

An unnamed drainage ditch is also present approximately 10m to the north of the site. This is not classified under the local River Basin Management Plan.

Information provided by the EA indicates that there are no records of any active licensed surface water abstractions within 1km of the site.



3 PRELIMINARY CONCEPTUAL SITE MODEL

3.1 Background

A preliminary conceptual site model (CSM) consists of an appraisal of the *source-pathway-receptor* ±ontaminant linkages' which is central to the approach used to determine the existence of ±ontaminated land' according to the definition set out under Part 2A of the Environmental Protection Act 1990. For a risk to exist (under Part 2A), all three of the following components must be present to facilitate a potential 'pollutant linkage'.

- **Source** referring to the source of contamination (Hazard).
- **Pathway** for the contaminant to move/migrate to receptor(s).
- **Receptor** (Target) that could be affected by the contaminant(s).

Receptors include human beings, other living organisms, crops, controlled waters and buildings / structures. The National Planning Policy Framework, used to address contaminated land through the planning process, follows the same principles as those set out under Part 2A. Further details on the Part 2A regime are presented within Appendix B.

3.2 Potential Pollutant Linkages

Each stage of the potential pollutant linkages have been assessed individually on the basis of information presented within Campbell Reith Consulting Engineersq Geoenvironmental and Geotechnical Desk Study (reference 11677-14) and are discussed in the following section.

3.2.1 Potential Contaminant Sources

The current and historical use of the site as open fields is not considered to represent a potential source of contaminants of concern. However, Made Ground beneath the site and material present in bunds identified as part of the previous assessment by Cambell Reith may represent a potential source of contaminants of concern and / or ground gas. *It should be noted that the soil bunds were not identified by RPS during subsequent environmental site investigation works in July 2017.*

Neighbouring potentially contaminative site uses comprise the railway line, which forms the northeastern boundary of the site and the garden centre to the east.



3.2.2 Potential Pathways

Following redevelopment, the potential risks to future site users via the dermal contact and ingestion pathways in areas of the site comprising building cover and hardstanding will be mitigated. In areas of soft landscaping, the dermal contact and ingestion pathways could still be active. Furthermore, there would be potential for the airborne off-site migration of soil/dust from these areas.

There is the potential for ground gas and volatile contaminants of concern in soil and/or groundwater (if present) beneath the site to impact future site users *via* the inhalation pathway in indoor areas.

Shallow groundwater within granular horizons of the Made Ground and underlying Taplow Gravel Formation may constitute a potential pathway for the on or off-site migration of contaminants of concern. The pathways of dermal contact, ingestion and vapour inhalation to off-site human health receptors from potential contaminants of concern originating from the site may therefore also be active.

3.2.3 Potential Receptors

Potential human health receptors include future site users and neighbouring commercial and residential properties.

Provided construction workers adopt appropriate levels of hygiene and personal protection equipment, they are not considered to be at significant risk from potential contaminants of concern and have not been considered further as part of this assessment.

The site is situated above Principal Aquifer, relating to the Taplow Gravel Formation. However, the site is not located within a groundwater SPZ and no licensed groundwater abstractions are indicated to be present within 1km of the site.

The nearest surface water feature is an unnamed drainage ditch, located approximately 10m to the north of the site. The River Crane is located approximately 695m to the southwest. However, given its distance from the site, the River Crane is not considered a potential receptor and has therefore not been considered further.

3.3 Preliminary Conceptual Site Model

A preliminary CSM has been developed on the basis of the information presented above. The CSM is used to identify potential sources, pathways and receptors (i.e. potential pollutant linkages) on site and is summarised in the table below:



Table 2 – Preliminary Conceptual Site Model

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors
			Direct contact/ingestion	✓	Future site users
			Inhalation of volatiles	\checkmark	
		Soil	Airborne migration of soil or dust	~	Off-site users
On site – current and historical:	Metals,		Leaching of mobile contaminants	✓	Taplow Gravel Formation Principal Aquifer
Made Ground and bunds of unknown	hydrocarbons		Direct contact/ingestion	✓	Future site users
material (now	and asbestos	ater	Direct contact/ingestion	\checkmark	Off-site users
removed)		qwp	Inhalation of volatiles	v	Future site users
		Groundwater		✓	Off-site users
			Vertical and lateral migration in permeable	\checkmark	Taplow Gravel Formation Principal Aquifer
			strata	✓	Unnamed drainage ditch
Off site – current and historical:	Metals, hydrocarbons	Groundwater	Direct contact/ingestion	V	Future site users
Railway and garden centre	and asbestos	Groui	Inhalation of volatiles	~	Future site users
On and off-site –		Gas	Inhalation of ground gas	√	Future site users
Made Ground / bunds / natural	Carbon	Ŭ	Initial autori or ground gas	~	Off-site users
strata or bio-degradation of contamination	dioxide and methane	Ground	Explosive risks	√ √	Future site users Off-site users



4 INTRUSIVE SITE INVESTIGATION

4.1 Introduction

An intrusive site investigation has been carried out in order to provide an assessment of whether pollutant linkages identified within the preliminary CSM (presented as Table 2) are currently active or will be made active upon redevelopment of the site. The investigation also provided information on ground conditions and data for the assessment of geotechnical properties of the strata underlying the site.

4.2 Description of Works

The site investigation was carried out from 28th and 29th June 2017 and comprised:

- Three cable percussion boreholes (BH1 to BH3) to depths of approximately 7.00m below ground level (bgl);
- Standard Penetration Testing (SPT) and geotechnical soil sampling throughout the depth of each borehole;
- Installation of groundwater/gas monitoring wells in each borehole;
- Dynamic Cone Penetrometer (DCP) in eight locations; and
- 12 hand dug pits to depths of up to 0.50m bgl.

An exploratory hole location plan is provided as Figure 2.

The rationale for the exploratory hole locations was as follows:

- Boreholes BH1 to BH3 were positions within the footprint of the proposed school building and sports hall in order to provide contamination data on soils, to install groundwater and ground gas monitoring wells and to provide geotechnical soil parameters to enable foundation and floor slab design;
- DCP1 to DCP8 were undertaken in the location of the proposed car parking, hard surfaced play areas and an all-weather sports pitch in order to calculate California Bearing Ratio (CBR) values to enable pavement design by others; and
- Hand pits HP1 to HP12 were positioned in proposed soft landscaped areas in order to provide contamination data on shallow soils.



The soil arisings from each exploratory hole were carefully examined for visual and olfactory evidence of contamination. Headspace testing was undertaken on site for ionisable volatile organic compounds (iVOCs) using a portable Photo-Ionisation Detector (PID).

A return visit for groundwater sampling was carried out on 19th July 2017. The monitoring wells were inspected for the presence of free-phase hydrocarbon product using an oil/water interface probe and the depth to groundwater was recorded prior to sampling.

Ground gas monitoring was undertaken on three occasions, from 11th to 27th July 2017. Installations were monitored for concentrations of methane, carbon dioxide, oxygen and iVOCs. In addition, the flow rate and barometric pressure were recorded.

4.3 Laboratory Testing

4.3.1 Environmental Laboratory Testing - Soil

15 samples of Made Ground / poor quality topsoil and and two samples of the Taplow Gravel Formation were submitted to a UKAS/MCERTS accredited laboratory and analysed for a number of determinands including:

Inorganic Determinands:

pH, arsenic, cadmium, chromium, hexavalent chromium, copper, lead, mercury, nickel, sulphide, total cyanide, sulphate, sulphur, selenium, zinc and asbestos.

Organic Determinands:

Speciated polycyclic aromatic hydrocarbons (PAH), speciated total petroleum hydrocarbons (TPH CWG) including benzene, toluene, ethylbenzene and xylenes (BTEX) and methyl tert-butyl ether (MTBE) and monohydric phenol.

4.3.2 Waste Classification

Two samples of Made Ground / poor quality topsoil and and two samples of the Taplow Gravel Formation were submitted for Waste Acceptance Criteria (WAC) analysis.



4.3.3 Environmental Laboratory Testing - Groundwater

Groundwater samples were collected from monitoring wells BH1 to BH3 during the second monitoring visit. Monitoring wells were screened across the Taplow Gravel Formation. The groundwater samples were analysed by a UKAS/MCERTS accredited laboratory for a number of determinands including:

Inorganic Determinands:

pH, arsenic, cadmium, chromium, hexavalent chromium, copper, lead, mercury, nickel, selenium, zinc, sulphate, sulphide and total cyanide.

Organic Determinands:

Speciated PAH, TPH CWG including BTEX and MTBE and monohydric phenol.

4.3.4 Geotechnical Laboratory Testing

Samples of the Taplow Gravel Formation and London Clay Formation were submitted to a UKAS accredited geotechnical testing laboratory and analysed for soil classification, total stress parameters, consolidation characteristics, pH and water soluble sulphate content.



5 SITE INVESTIGATION FINDINGS

5.1 Ground Conditions

5.1.1 Geology

The strata encountered during the intrusive investigation are summarised in the table below, and described in the following section.

Strata	Depth to Top of Strata m bgl (m AOD)	Thickness (m)
Made Ground / Poor Quality Topsoil	Ground level (18.75 to 20.01)	0.30 to 0.45
Taplow Gravel Formation	0.30 to 0.45 (18.55 to 19.56)	3.05 to 4.30 (where proven)
London Clay Formation	3.40 to 4.70 (14.25 to 15.66)	Proven to a maximum depth of 7.00m bgl (11.85m AOD)

Table 3 – Encountered Strata

Made Ground / poor quality topsoil was encountered from the ground surface at each exploratory hole location on site. This was underlain by the Taplow Gravel Formation, overlying the London Clay Formation.

General descriptions of the strata encountered during the intrusive investigation are summarised below. Reference should be made to the exploratory hole logs within Appendix C of this report for full descriptions of ground conditions underlying the site.

Made Ground / Poor Quality Topsoil

Made Ground / Poor Quality Topsoil was encountered at each exploratory hole location and ranged in thickness from 0.30m to 0.45m. The stratum was variable in nature but generally comprised light brown gravelly clayey fine to medium sand. Gravel comprised fine to medium, angular to subrounded flint and brick.

Taplow Gravel Formation

The Taplow Gravel Formation was encountered underlying Made Ground / Poor Quality Topsoil across the site and ranged in thickness from 3.05m to 4.30m. The stratum generally comprised orange-brown sandy fine to coarse subrounded to rounded flint gravel. A clayey layer, ranging in thickness from 0.20m to 0.25m (where proven), was encountered at the surface of the stratum in the majority of exploratory hole positons.

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11 SPTs undertaken within the Taplow Gravel Formation at depths ranging from approximately 1.20m to 4.00m bgl (14.85m to 17.86m AOD) gave results ranging from N = 19 to in excess of N = 50, which is indicative of medium dense, ranging to very dense granular material. A plot of SPT value against depth is presented as Figure 3 of this report.

Particle Size Distribution (PSD) testing was undertaken on four samples collected from the Taplow Gravel Formation at depths ranging from approximately 0.50m to 4.50m bgl (14.51m to 18.56m AOD). The constituents of the samples are summarised below:

- Gravel: 46% to 94%
- Sand: 5% to 42%
- Silt and Clay: 1% to 12%

Geotechnical laboratory certificates are presented as Appendix D.

London Clay Formation

The London Clay Formation was encountered beneath the Taplow Gravel Formation within boreholes BH1 to BH3 at depths ranging from approximately 3.40m to 4.70m bgl (14.25m to 15.66m AOD) and was proven to a maximum depth of approximately 7.00m bgl (11.85m AOD). The stratum generally comprised grey clay. A weathered, brown layer, ranging in thickness from approximately 0.30m to 0.40m, was encountered at the surface of the stratum in each borehole.

Atterberg Limit testing was undertaken on six soil samples collected from the London Clay Formation at depths ranging from approximately 4.70m to 7.00m bgl (12.06m to 14.31m AOD). This testing was undertaken to determine values for Liquid Limit (LL), Plastic Limit (PL) and Plasticity Index (PI). The results for LL ranged from 59% to 69%. The results for PL ranged from 24% to 28%. The results for PI ranged from 35% to 41%. This is indicative of a high plasticity clay. Modified plasticity index values indicate that samples of the London Clay Formation analysed have a moderate, ranging to a high volume change potential.

Seven SPT results obtained from within the London Clay Formation at depths ranging from approximately 4.00m bgl to 7.00m bgl (11.85 m to 15.06m AOD) generally gave results ranging from N = 11 to N = 25.

Approximate undrained shear strengths were calculated from SPT results using the correlation by Stroud:

 $C = f_1 \times N$



Where, a conservative value for high plasticity clays, $f_1 = 4.5$.

The SPT results correspond approximately to undrained shear strength values ranging from 50kN/m² to 113kN/m², which is indicative of a medium, ranging to a high strength cohesive material. A plot of undrained shear strength against depth is presented as Figure 4 of this report.

One SPT result, obtained at a depth of approximately 4.00m bgl (15.06m AOD) within borehole BH1 gave a result of N = 50. It is considered that this is representative of a claystone band, or large flint at the base of the Taplow Gravel Formation, rather than of very high strength clay.

Three quick undrained triaxial compression tests undertaken on samples collected from the London Clay Formation at depths ranging from approximately 5.00m to 6.95m bgl (12.06m to 14.06m AOD) gave results ranging from 84kN/m² to 115kN/m². This is indicative of a high strength material. The results of triaxial tests were consistent with those derived from SPTs. The natural moisture content of these samples ranged from 27% to 29%. Bulk density ranged from 1.99Mg/m³ to 2.13Mg/m³. Dry density ranged from 1.57Mg/m³ to 1.67Mg/m³.

One oedometer consolidation test was undertaken on a sample collected from the London Clay Formation at a depth of approximately 6.00m bgl (13.01m AOD) within borehole BH2. Between a pressure range of 100kN/m² to 200kN/m², a coefficient of compression (m_v) value of 0.148m²/MN was recorded. This is indicative of a low compressibility material.

5.2 Groundwater

The depth to water strikes during intrusive works could not be determined due to water added to aid drilling through granular strata.

Groundwater levels recorded during subsequent monitoring visits to site are summarised in the table below:

Monitoring Well ID	Well Screen Depth m bgl (m AOD)	Strata	Depth to Groundwater m bgl (m AOD) 11 ^տ July 2017 19 ^տ July 2017 27 ⁿ July 201			
BH1	1.00 to 4.00 (15.06 to 18.06)	Taplow Gravel Formation	2.50 (16.56)	2.56 (16.50)	2.51 (16.55)	
BH2	1.00 to 5.00 (14.01 to 18.01)	Taplow Gravel Formation	2.40 (16.61)	2.62 (16.49)	2.58 (16.53)	
BH3	1.00 to 5.00 (13.85 to 17.85)	Taplow Gravel Formation	2.54 (16.31)	2.48 (16.37)	2.44 (16.41)	

Table 4 - Groundwater Data

Free-phase product was not observed on groundwater in any of the monitoring wells during the



monitoring visits.

The results are considered indicative of a continuous groundwater table within the Taplow Gravel Formation. No discernible groundwater flow direction could be determined from the groundwater elevation data.

5.3 Field Evidence of Contamination

5.3.1 Visual and Olfactory Evidence of Contamination

No visual or olfactory evidence of contamination was encountered within other exploratory holes during the intrusive investigation. No visual or olfactory evidence of contamination was observed in the groundwater sampled from monitoring wells beneath the site.

5.3.2 Photo-Ionisation Detector Readings

Soil arisings from each borehole and hand pit were screened for the presence of iVOCs using a PID. All readings were below the instrument limit of detection (<0.1ppm).

5.4 Ground Gas Monitoring

Ground gas monitoring has been undertaken on three occasions from 11th to 27th July 2017. Installations were monitored for concentrations of methane, carbon dioxide and oxygen. In addition, the flow rate and barometric pressure were recorded. The results of the ground gas monitoring are presented in Appendix E.

Methane was not recorded at above the instrument limit of detection (0.1% by volume (v/v)) in any of the monitoring wells during any of the three monitoring rounds. Carbon dioxide was recorded at a maximum concentration of 4.6% v/v in monitoring well BH1 (screened in the Taplow Gravel Formation) on 19th July 2017. The lowest recorded oxygen concentration was 15.7% v/v within monitoring well BH3 (screened in the Taplow gravel Formation) on 19th July 2017.

Ground gas flow rates of up to 0.3 litres per hours were recorded within monitoring well BH3 on 27th July 2017. Atmospheric pressure ranged from 1010mb to 1002mb during the monitoring visits.

During the monitoring, each monitoring well was measured for the presence of iVOCs using a PID. iVOCs were not recorded at levels in excess of the instrument limit of detection (<0.1ppm).



The CIRIA Report C665 Assessing risks posed by hazardous ground gases to buildings' outlines indicative guideline concentrations for carbon dioxide and methane in association with gas flow rates for which gas protection measures may be required in new residential or commercial developments. The methodology is based on the Modified Wilson and Card approach that characterises the gas regime into a series of Characteristic Situations (1 to 5), with corresponding indicative gas protection measures. Using this methodology, the ground gas regime assessment for the site corresponds to Characteristic Situation 1 (CS1), whereby no specific gas protection measures are required.



6 CHEMICAL RESULTS AND ASSESSMENT

The field investigation findings indicate that pathways are present by which contaminants of concern can impact identified receptors. Chemical analysis has been carried out on soil and groundwater sampled from beneath the site. The concentrations of contaminants of concern within soil and groundwater can be compared to assessment criteria (AC) to determine whether these represent an unacceptable risk to identified receptors. The derivation of AC to be used and the comparison of these criteria to the results of the chemical analyses are presented below.

6.1 Human Health Assessment Criteria

In order to assess risks to future site users, concentrations of contaminants of concern have been compared to Suitable 4 Use Levels (S4UL) generic AC published by Land Quality Management: Chartered Institute of Environmental Health (LQM:CIEH) in 2015. In accordance with the copyright notice the Publication Number for RPS Group is S4UL3177.

It is proposed to redevelop the site as a school. In the area of proposed sports fields in the west of the site, contaminant concentrations within soil samples analysed from hand pits HP1 to HP12 have been compared to criteria protective of public open space (parks). Given the limited duration that future site users will occupy this area (likely for physical education lessons and sports matches only), these criteria are considered more appropriate than the more conservative public open space (residential) criteria . which would be applied for more sustained land use.

In areas closer to school buildings, where there is considered to be potential for growing of produce, as a conservative measure, contaminant concentrations within soil samples collected from boreholes BH1 to BH3 have been compared to criteria protective of residential site users (with plant uptake).

Soil Organic Matter (SOM) for soil samples collected in the location of proposed soft landscaped sports pitches ranged from 2.40% to 4.90%, with an average of 3.50%. Therefore, concentrations of contaminants of concern within these samples have been compared to S4UL (2.50% SOM) values for public open space (parks). SOM for soil samples collected in the vicinity of the proposed school building and sports ranged from 1.30% to 6.60%, with an average of 3.88%. Therefore, concentrations of contaminants of concern within these samples have been compared to S4UL (2.50% SOM) values for residential land use (with plant uptake).

A notable exclusion from the S4ULs is lead. In the absence of a S4UL for lead, the Category 4 Screening Level (C4SL) has been selected, published by DEFRA in 2014. Again, lead concentrations within soil samples collected in the location of proposed soft landscaped sports pitches have been



compared to C4SL (2.50% SOM) values for public open space (parks). Lead concentrations within soil samples collected in the vicinity of the proposed school building and sports hall have been compared to C4SL (2.50% SOM) values for residential land use (with plant uptake).

It is noted that the C4SL are based on the acceptance of a low level of toxicological concern, rather than the more conservative standard adopted in the derivation of S4ULs, which are based on a tolerable or minimal level of risk.

The potential risk posed to controlled waters from contaminants of concern within soils beneath the site is not addressed by these screening criteria.

6.2 Comparison of Soil Analyses to Assessment Criteria

Chemical analysis was undertaken on 15 samples of Made Ground / poor quality topsoil and two samples of the Taplow Gravel Formation. A comparison of soil analyses to the relevant assessment criteria is summarised below and presented as Appendix F. Analytical certificates for soils are presented in Appendix G.

6.2.1 Inorganic Determinands

Inorganic contaminants of concern were not recorded within soil samples analysed from beneath the area of proposed sports pitches, or the area of the proposed school building and sports hall, at concentrations in excess of their respective AC.

6.2.2 PAH

PAH contaminants of concern were not recorded within soil samples analysed from beneath the area of proposed sports pitches, or the area of the proposed school building and sports hall, at concentrations in excess of their respective AC.

6.2.3 TPH CWG (incl. BTEX/MTBE)

TPH CWG contaminants of concern were not recorded within soil samples analysed from beneath the area of proposed sports pitches, or the area of the proposed school building and sports hall, at concentrations in excess of their respective AC.



6.2.4 Other Organic Determinands

Total phenols were not recorded within soil samples analysed from beneath the area of proposed sports pitches, or the area of the proposed school building and sports hall, at concentrations in excess of their respective AC.

6.2.5 Asbestos

Chrysotile asbestos fibres were recorded in a sample of Made Ground / poor quality topsoil collected from hand pit HP8, located in the southwest corner of the site, at a depth of approximately 0.25m bgl (19.38m AOD).

Asbestos containing materials (ACMs) were not identified in any of the other 16 soil samples submitted for screening.

6.3 Groundwater Assessment Criteria

The site is situated above a Secondary A Aquifer, relating to the Taplow Gravel Formation. The site is not located within a groundwater SPZ and no licensed groundwater abstractions are indicated to be present within 1km of the site. As such, the results of the groundwater analysis have therefore been compared to the Environmental Quality Standards (EQS) values for inland freshwater. Where such values are not available, the UK Drinking Water Standards (DWS) have been used.

The potential risk to on site human health receptors from contaminants of concern in groundwater is not addressed by these screening values.

6.4 Comparison of Groundwater Analysis to Controlled Waters Assessment Criteria

Chemical analysis was undertaken on groundwater samples collected from monitoring wells BH1 to BH3, screened across the Taplow Gravel Formation. Analytical certificates for the groundwater sample are presented in Appendix F. A comparison of groundwater analyses to the relevant assessment criteria is summarised below and presented as Appendix G.

No contaminants were recorded at concentrations in excess of their relevant AC.



7 REVISED CONCEPTUAL SITE MODEL

7.1 Introduction

The UK approach to the management of land contamination through the development process is riskbased, as was formerly implemented by Planning Policy Statement Number 23 (PPS23). PPS23 was formally withdrawn on 27th March 2012 and replaced by the National Planning Policy Framework.

The Local Authority is likely to have based their strategy for the implementation of the National Planning Policy Framework on the withdrawn PPS23. Therefore, this risk assessment will be based primarily on the withdrawn PPS23, with broad consideration for the contents of the National Planning Policy Framework.

The risk assessment methods adopted by PPS23 reflected those adopted by Part 2A of the Environmental Protection Act (1990). Part 2A identifies that harm to human health and the environment arises not solely from the presence of contaminating substances or \pm ourcesq but from their migration along a \pm pathwayqto where they can impact a \pm eceptorq

The potential pollutant linkages identified as part of the outline CSM have been assessed in light of the findings of the site investigation and are discussed below for each of the individual receptors identified.

7.2 Future Site Users

Asbestos fibres were recorded within a sample of Made Ground / poor quality topsoil collected from hand pit HP8, located in the southwest corner of the site. Material representative of this sample of shallow Made Ground / poor quality topsoil analysed from the location of hand pit HP8 should be excavated and segregated for disposal off site.

No other contaminants of concern were recorded within samples collected from beneath the site at concentrations in excess of adopted AC.

Concentrations of contaminants of concern considered to represent a significant risk to future site users were not recorded within groundwater samples analysed from beneath the site.

Based on the available information, and subject to the recommended mitigation measures being implemented, the potential risk to future site users from concentrations of contaminants of concern detected within soils and groundwater sampled from beneath the site is considered to be **LOW**.



7.3 Off-site Human Health Receptors

Following redevelopment, for areas of the site covered by building footprint or hardstanding there is limited potential for the air-borne migration of soil or dust to impact neighbouring receptors. Material representative of the sample of shallow Made Ground / poor quality topsoil analysed from the location of hand pit HP8 should be excavated and segregated for disposal off site.

No other contaminants of concern were recorded within samples collected from beneath the site at concentrations in excess of adopted AC, protective of human health receptors.

Concentrations of contaminants of concern considered to represent a significant risk to neighbouring site users were not recorded within groundwater samples analysed from beneath the site.

Based on the available information, and subject to the recommended mitigation measures being implemented, the potential risk to off-site human health receptors from concentrations of contaminants of concern detected within soils and groundwater sampled from beneath the site is considered to be **LOW**.

7.4 Construction/Maintenance Workers

Contaminants of concern were not recorded within samples collected from beneath the site at concentrations in excess of S4UL screening criteria. S4UL screening criteria cannot be used to assess the acute (short term exposure) risk that personnel in close contact with exposed soils may experience during construction/site maintenance duties.

Potential risks to construction/maintenance workers can be controlled by the use of appropriate personal protection equipment (e.g. disposable coveralls, gloves and particulate/vapour masks) and by adopting high levels of personal hygiene.

Asbestos fibres were recorded within a sample of Made Ground / poor quality topsoil collected in the southwest corner of the site. Therefore, it is recommended that a formal Asbestos Management Plan is implemented prior to work commencing on site and that any Made Ground material to be removed from site should be disposed of appropriately.

Depleted oxygen and elevated methane and carbon dioxide levels may represent a risk to ground workers and appropriate precautions should be applied for personnel entering below ground confined spaces.



Providing construction/maintenance workers undertake and implement a site specific risk assessment and such measures are taken, based on the available information, the potential risk is considered to be **LOW**.

7.5 Groundwater

Contaminants of concern were not recorded within groundwater samples analysed from beneath the site at concentrations in excess of adopted AC.

Based on the available information, the potential risk to groundwater receptors from concentrations of contaminants of concern detected within groundwater sampled from beneath the site is considered to be **LOW**.

7.6 Surface Water

Contaminants of concern were not recorded within groundwater samples analysed from beneath the site at concentrations in excess of adopted AC. Therefore, the potential risk posed by the site to the drainage ditch located approximately 10m to the north of the site is considered to be **LOW**.

7.7 Structures and Infrastructure

7.7.1 Buildings (on site and off site)

Based on ground gas monitoring undertaken on site as part of the current investigation CIRIA CS1 is considered applicable to the site, whereby ground gas protection measures are not required for new buildings.

The risk posed by ground gas to human health receptors and infrastructure is therefore considered to be **LOW**.

7.7.2 Polymeric Utility Pipes

Elevated concentrations of hydrocarbon contaminants were recorded within a sample of Made Ground / poor quality topsoil collected from hand pit HP11, located in the southeast corner of the site. Standard polymeric utility pipes may therefore be unsuitable in this area. Proposed development in this area is understood to be limited. However, barriers may be required for new underground utilities, should they be required, or service pipes laid in dedicated trenches and backfilled with clean, inert material.



Standard polymeric utility pipes are considered likely to be suitable in remaining areas of the site.

Requirements for buried utility pipes should be discussed with service providers before the development stage. Provided the recommended mitigation measures are adopted, the risk posed to buried services is considered to be **LOW**.

7.8 Conceptual Model

The potential source-pathway-receptor linkages and associated risks upon completion of the proposed development at the site, as identified following completion of the assessment, are summarised in the table below.

Potential Source	Via	Potential Pathways	Linkage Potentially Active?	Receptors
		Direct contact/ingestion x		Future site users
	-	Inhalation of volatiles	x	
	Soil	Airborne migration of soil or dust	x	Off-site users
On site – current and historical:		Leaching of mobile contaminants	x	Taplow Gravel Formation Principal Aquifer
Made Ground and bunds of unknown material (now	ater	Direct contact/ingestion	x x	Future site users Off-site users
removed)	Groundwater	Inhalation of volatiles	x x	Future site users Off-site users
	Gro	Vertical and lateral migration in	X	Taplow Gravel Formation Principal Aquifer
		permeable strata	X	Unnamed drainage ditch
Off site – current and historical:	Groundwater	Direct contact/ingestion	x	Future site users
Railway and garden centre	Groui	Inhalation of volatiles	x	Future site users
On and off-site – Made Ground / bunds / natural	d Gas	Inhalation of ground gas	x x	Future site users Off-site users
strata or bio-degradation of contamination	Ground	Explosive risks	x x	Future site users Off-site users

Table 5 - Revised Conceptual Site Model

The risk assessment is based upon the available information relating to the site and recommended mitigation measures being implemented. Should ground conditions inconsistent with those outlined in this report be encountered RPS should be contacted to enable further assessment. The findings of the CSM should be confirmed upon finalisation of the proposed redevelopment plans.



8 GEOTECHNICAL ANALYSIS

8.1 Introduction

The proposed works comprise the construction of a three storey teaching block, a two storey sports centre, an all-weather sports pitch and hard and soft surfaced play / sports areas. A proposed development plan is indicated on Figure 2.

No preliminary structural loads have been received. Therefore, the preliminary recommendations below will need to be reviewed in light of subsequent detailed design.

8.2 Preliminary Geotechnical Risk Register

The table below summarises the potential geotechnical hazards associated with the development. The table provides an assessment of whether the site is likely to be affected by the hazard and the possible consequences and engineering considerations.

Hazard Description	Is hazard likely to be present / affect the site? (H / M / L / NA?)	Comments / possible engineering requirements where hazard present
Sudden lateral / vertical changes in ground conditions	L	Ground conditions beneath the site are consistent with a limited thickness of Made Ground / poor quality topsoil, overlying the Taplow Gravel Formation. The London Clay Formation was present at depth. The main variations in ground conditions (if present) are likely to be associated with the depth and composition of the Made Ground / topsoil. This stratum is considered unsuitable to support foundations and it is recommended that footings are taken deeper to bear upon the more competent Taplow Gravel Formation.
Highly compressible / low bearing capacity soils, (including peat and soft clay)	L	Although the Made Ground / topsoil is likely to be highly compressible, it is of limited thickness. The formation level of foundations, floor slabs and hardstanding for the proposed development should be taken deeper to bear within the medium dense granular soil of the Taplow Gravel Formation.
Ground dissolution features / natural cavities	L	Ground conditions beneath the site are not consistent with these features.
Shrinking and swelling clays	L	Near surface soils were granular in nature and therefore not susceptible to shrinking or swelling due to changes in moisture content.
Slope stability/retaining wall issues	L	Whilst no significant slopes or retaining walls are present on site, any temporary or permanent slopes created as part of the development should be subject to appropriate geotechnical design based on site-specific site investigation information. A railway cutting is present beyond the northern boundary of the site.

Table 6 – Geotechnical Risk Register



Hazard Description	Is hazard likely to be present / affect the site? (H / M / L / NA?)	Comments / possible engineering requirements where hazard present
High groundwater table (including waterlogged ground)	L	Groundwater was encountered within the Taplow Gravel Formation beneath the site at depths from approximately 2.40m bgl (16.61m AOD) during monitoring visits. No basements are proposed as part of the development. Significant groundwater control measures are therefore unlikely to be required during excavations above this level on site as part of the proposed development.
Filled and Made Ground (including embankments)	L	A limited thickness of Made Ground / poor quality topsoil was encountered within exploratory holes beneath the site, ranging from 0.30m to 0.45m. Bunds of unknown material were identified as part of the previous assessment by Cambell Reith. However, these were not observed by RPS during subsequent environmental site investigation works in July 2017.
Obstructions (including foundations, services, basements, tunnels and adjacent sub-structures)	L	Previous development of the site has been limited. Should relic foundations or services be encountered during the proposed development, it is likely that these may be removed using standard construction plant. Bulkier obstructions may be present in the former landfill, requiring heavier plant to remove. However, it is understood that little development is proposed in this area.
Underground mining	L	Ground conditions beneath the site are not consistent with this feature.
Concrete classification	L	Testing has indicated a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) Classification of AC-1 would be appropriate for all buried concrete structures.
Seismic Activity	L	The Eurocode 8 seismic hazard zoning maps for the UK (Musson and Sargeant, 2007) indicate that horizontal Peak Ground Acceleration (PGA) values with 10% probability of being exceeded in 50 years (475 year return period) are between 0.00g and 0.02g, which is considered very low.

8.3 Foundation Solutions

8.3.1 Traditional Foundations

Based upon SPT results, the Taplow Gravel Formation is likely to provide a suitable bearing stratum for traditional foundations for light to moderately loaded structures, where it is at least medium dense granular material at formation level and it is present at relatively shallow depth below the ground surface.

In accordance with the guidance set out in Eurocode 7, a 1.00m wide pad concrete foundation placed at a depth of 1.00m bgl (or at least 300mm into the Taplow Gravel Formation) should be capable of supporting building loads of up to 200kN/m² where the stratum is at least medium dense granular material at formation level.



In accordance with the guidance set out in Eurocode 7 to satisfy Ultimate Limit State (ULS) and Serviceability Limit State (SLS) design, settlement underlying a 1.00m wide pad foundation, constructed in the manner discussed above, is estimated to be within acceptable limits (<25mm).

The formation should be inspected by the site engineer before placing foundations. Whilst the investigation indicated that the Taplow Gravel Formation was at shallow depth, if Made Ground, low strength cohesive or loose granular material is encountered at the target bearing depth, foundations should be taken deeper to an appropriate formation level or unsuitable material should be excavated and replaced with compacted granular fill. Should it be found that the depth to the formation layer is in excess of approximately 3.00m bgl (not anticipated beneath the site), traditional or trench fill foundations are unlikely to be technically or economically feasible and alternative foundation solutions should be sought.

The ingress of perched groundwater into foundation excavations may cause loosening of granular deposits and significantly reduce bearing capacity. If this occurs, appropriate groundwater control measures should be adopted.

8.3.2 Ground Improvement/Piling

Should the structural design of structures on site indicate that significantly higher ground bearing loads are required, ground improvement techniques, or piling may be considered.

The potential for the adoption of ground improvement techniques or piles to support the proposed development should be assessed by a specialist contractor, if it is considered potentially advantageous to the proposed development

8.4 Floor Slabs

The Taplow Gravel Formation is anticipated to be present at floor slab formation level beneath the proposed school building and sports centre at an assumed depth of approximately 0.60m bgl, which should be suitable to support a ground bearing floor slab, subject to confirmatory proof rolling and localised soft spot removal and replacement.

8.5 Pavements

DCP testing was undertaken at eight locations on site, as indicated in Figure 2. CBR results were calculated for each test location using the method set out by the Transport Research Laboratory (TRL):



$Log_{10}(CBR) = 2.48 . 1.057Log_{10}(mm/blow)$

A summary of the calculated results for each 100mm interval is presented in the table below.

				DCP Tes	t Number			
Depth	DCP1	DCP2	DCP3	DCP4	DCP5	DCP6	DCP7	DCP8
(mm)			C	alculated C	BR Value (%	6)		
0-100	-	-	-	-	-	-	-	-
100-200	10.1	29.3	4.8	18.2	18.2	20.9	18.2	10.1
200-300	20.9	18.2	20.9	37.8	34.9	34.9	58.0	26.5
300-400	10.1	12.7	40.7	55.1	37.8	46.4	69.8	26.5
400-500	7.4	12.7	52.2	145.1	34.9	49.3	145.1	26.5
500-600	12.7	4.8	93.6	-	129.9	129.9	-	23.7
600-700	12.7	15.4	120.7	-	145.1	111.6	-	34.9
700-800	10.1	52.2	78.6	-	-	60.9	-	78.6
800-900	4.8	72.7	120.7	-	-	46.4	-	81.6
900-1000	4.8	102.6	78.6	-	-	52.2	-	58.0

Table 7 – Summary of DCP Testing Results

The results of in situ CBR testing, using DCP methods, indicate that ground conditions at the likely founding depth for pavements on site (assumed to be at approximately 0.50m to 0.60m bgl) range from approximately 5% to 130%. A design CBR value of 5% is therefore recommended.

8.6 Chemical Attack on Buried Concrete

Samples from the Made Ground / poor quality topsoil and Taplow Gravel Formation were tested for pH and sulphate content. The results are presented below:

Stratum	No. Samples	Range of pH	Characteristic pH	Range of Sulphate (mg/kg)	Characteristic Sulphate (mg/kg)	Design Sulphate Class	ACEC Class
Made Ground / Poor Quality Topsoil	14	5.95 to 8.01	6.15	<1.5 to 42.3	19.8	DS1	AC1
Taplow Gravel Formation	4	7.06 to 8.30	7.06	<1.5 to 11	11	DS1	AC1
London Clay Formation	2	8.30 and 8.40	8.30	100 and 120	120	DS1	AC1

Table 8 – Results of pH and sulphate testing

The data was used to assess appropriate concrete classification for buried concrete in accordance with BRE Special Digest 1, based on the following assumptions:

- Brownfield ground conditions;
- Mobile groundwater conditions;



- For a dataset of one to four samples, the characteristic value for water soluble sulphate has been calculated from the highest of the results, while the characteristic value for pH is taken as the lowest of pH results. The characteristic values for the Taplow Gravel Formation are therefore taken as 11mg/l for water soluble sulphate and 7.05 for pH value. The characteristic values for the London Clay Formation are taken as 120mg/l for water soluble sulphate and 8.30 for pH value; and
- For a data set of ten or more samples, the characteristic value for water soluble sulphate has been calculated from the average of the highest 20% of results, while the characteristic value for pH is taken as the average of the lowest 20% of pH results. The characteristic values for the Made Ground / poor quality topsoil are therefore taken as 19.80mg/l for soluble sulphate and 6.15 for pH value.

Based on the above, it is considered that a Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) Classification of AC-1 would be appropriate for all buried concrete structures.

8.7 Temporary Works and Excavations

Previous development of the site has been limited. Whilst not anticipated, should relic foundations or services be encountered during the proposed development, it is likely that these may be removed using standard construction plant.

Groundwater was encountered within the Taplow Gravel Formation beneath the site at depths from approximately 2.40m bgl (16.61m AOD) during monitoring visits. Significant groundwater control measures are therefore unlikely to be required during excavations above this level on site as part of the proposed development.

If groundwater is encountered during excavation, degradation of the formation may occur. The formation should therefore be adequately protected from seepages and protected from adverse weather conditions. If the formation layer becomes wet resulting in loosening of the surface materials, then excavation may have to be taken deeper in order to find a suitable bearing layer. Instability of excavations in granular material should be expected, especially during periods of adverse weather. Suitable shoring measures or battering back of slopes may be required for any excavations greater than 1.20m bgl. All temporary excavations should be undertaken in accordance with CIRIA Report 97. Trenching Practice.

Groundwater levels are likely to vary seasonally. Additional groundwater monitoring is recommended prior to construction.



8.8 Drainage Infiltration Testing

Rising head tests were undertaken within monitoring wells installed within boreholes BH1 to BH3, screened across the Taplow Gravel Formation.

The rising head tests were proposed to comply fully with the methodology detailed within BS5930:2015. The methodology recommends that the test is repeated three times, with the most conservative result selected.

The results of testing performed within monitoring wells BH1 to BH3 are presented in the table below:

Test	Stratum	Response Zone	Hydraulic Conductivity (m/s)			
Location		m bgl (m AOD)	Test Result 1	Test Result 2	Test Result 3	
BH1	Taplow Gravel Formation	1.00 to 4.00 (15.06 to 18.06)	5.04x10 ⁻⁰⁵	5.92x10 ⁻⁰⁵	5.70x10 ⁻⁰⁵	
BH2	Taplow Gravel Formation	1.00 to 5.00 (14.01 to 18.01)	1.89x10 ⁻⁰⁴	1.17x10 ⁻⁰⁴	3.45x10 ⁻⁰⁴	
BH3	Taplow Gravel Formation	1.00 to 5.00 (13.85 to 17.85)	3.29x10 ⁻⁰⁶	8.01x10 ⁻⁰⁶	6.01x10 ⁻⁰⁶	

Table 9 – Results of Rising Head Tests

Infiltration test calculation sheets are presented as Appendix H.

The feasibility of adopting infiltration drainage for the proposed development, along with the size and type of any soakaway should be assessed by a specialist drainage engineer.

8.9 Slope Stability

The proposed school building is situated adjacent to the cutting slope, located within the adjacent Network Rail land. When the structural design is available and the foundation arrangement known, the influence of those foundations to the stability of the slope should be assessed. Network Rail may require confirmation that the proposed work does not impair the stability of the cutting.



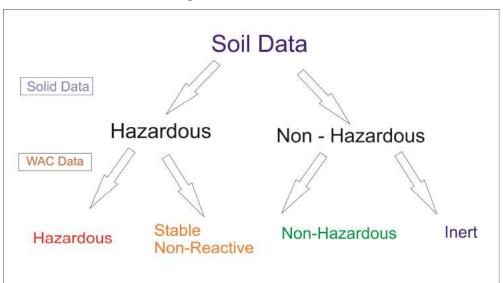
9 MATERIAL RE-USE AND WASTE CHARACTERISATION

9.1 Assessment Criteria

A school building and sports centre are proposed in the eastern part of the site. As part of the redevelopment, soil arisings will be generated from the foundation excavations. Since there is limited potential for on-site re-use of this material, it is likely that soil arisings will require removal from site. Should no suitable off-site re-use options be available, disposal to landfill may need to be considered. If contaminated material is to be disposed of, use of soil treatment facilities should also be considered.

If disposal to landfill is required, the excavated material would be considered as waste and should be classified in line with the Hazardous Waste Directive - HWD, Council Directive 91/689/EC. This legislation divides waste into two categories, hazardous and non-hazardous. These two categories can then be subdivided into a number of classes relating to the type of landfill/cell to which the material can be sent; these are illustrated below.

In order to provide an indication of the likely waste characterisation of soils excavated from the site, should disposal be required, a waste characterisation exercise has been carried out. This is summarised in Sections 9.2 to 9.5 below. Any material sent to landfill should be accompanied by the appropriate duty of care documentation and the chemical data should be forwarded to the accepting landfill for approval prior to removal of the soil from site.



Waste Characterisation Categories



9.2 Soil Sampling and Testing

Solid Suite of Analysis

Chemical analysis was undertaken on 15 samples of Made Ground / poor quality topsoil and two samples of the Taplow Gravel Formation. All soil samples were analysed for the following solid suite of analysis:

pH, arsenic, asbestos, boron, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc, sulphide, sulphate, cyanide, phenols, PAH, BTEX, MTBE and TPH CWG.

WAC Testing

Two samples of Made Ground / poor quality topsoil and two samples of the Taplow Gravel Formation were also submitted for the solid WAC suite of analysis.

The solid WAC suite of analysis included testing for the following determinands:

Total organic carbon (TOC), loss on ignition (LOI), BTEX, sum of PCBs, mineral oil and total PAH, acid neutralisation capacity and pH.

WAC single stage leachate analysis was also carried out on the above samples. The analysis included testing for the following determinands:

Arsenic, barium, cadmium, chromium, copper, mercury, molybdenum, nickel, lead, antimony, selenium, zinc, chloride, fluoride, sulphate, total dissolved solids (TDS), phenol index and dissolved organic carbon.

All soil analysis and WAC results are provided in Appendix G.

9.3 Solid Soil Data

Results of the solid suite were analysed using HazWasteOnline Software which allows users to classify waste as defined in the EWC (European Waste Catalogue 2002) based on the regulatory framework for the Classification Labelling and Packaging of Substances and mixtures Regulation, (EC) No 172/2008 and the latest Environment Agency guidance (Technical Guidance WM3).

Contaminant concentrations within the soil samples analysed did not exceed thresholds for hazardous waste.



Chrysotile asbestos fibres were recorded in a sample of Made Ground / poor quality topsoil collected from hand pit HP8, located in the southwest corner of the site, at a depth of approximately 0.25m bgl (19.38m AOD). According to *WM3 Guidance on the Classification and Assessment of Waste* if the waste contains fibres that are free and dispersed then the waste would be characterised as Hazardous if, as a whole, it contains 0.1% or more asbestos. The mass of asbestos in the sample did not exceed the 0.1% threshold. As such this sample should be considered suitable for disposal as non-hazardous waste.

9.4 WAC Data

9.4.1 Solid Data

Two samples of Made Ground / poor quality topsoil and two samples of the Taplow Gravel Formation were subject to the WAC solid suite of analysis all of which were characterised as non-hazardous waste.

9.4.2 Leachate Data

Two samples of Made Ground / poor quality topsoil and two samples of the Taplow Gravel Formation were subject to the WAC leachate suite of analysis.

One exceedance was recorded of the inert (leachate) WAC threshold for antinomy in a sample collected from HP1 at 0.20m bgl (19.22m AOD).

9.5 Summary of Results

The results of the waste characterisation exercise are provided in Appendix I and summarised in the table below.

Position	Depth (m bgl)	Strata	Solid Suite of Analysis	Exceedance of Corresponding Inert, SNRHW and Hazardous waste WAC Limit Value?	WAC Analysis Results
BH1	0.30	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
BH1	0.40	Taplow Gravel Formation	Non-Hazardous	N/A	Inert
BH2	0.20	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
BH2	0.50	Made Ground / poor	Non-Hazardous	N/A	N/A

Table 10 – Summary of Waste Characterisation Exercise

<u>RPS</u>

Position	Depth (m bgl)	Strata	Solid Suite of Analysis	Exceedance of Corresponding Inert, SNRHW and Hazardous waste WAC Limit Value?	WAC Analysis Results
		quality topsoil			
BH3	0.20	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP1	0.20	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP2	0.20	Made Ground / poor quality topsoil	Non-Hazardous	N/A	Non-Hazardous
HP3	0.30	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP4	0.25	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP5	0.45	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP6	0.30	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP7	0.25	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP8	0.25	Made Ground / poor quality topsoil	Non-Hazardous	No	N/A
HP9	0.35	Taplow Gravel Formation	Non-Hazardous	N/A	Inert
HP10	0.20	Made Ground / poor quality topsoil	Non-Hazardous	No	N/A
HP11	0.25	Made Ground / poor quality topsoil	Non-Hazardous	N/A	N/A
HP12	0.30	Made Ground / poor quality topsoil	Non-Hazardous	No	Inert

N/A . Additional WAC analysis not carried out on sample

- All 15 samples of Made Ground / poor quality topsoil analysed for the solid suite of analysis were characterized as non-hazardous waste. WAC testing was undertaken on two of these samples one of which was suitable for disposal to a non-hazardous waste landfill and one of which would be suitable for disposal to an inert waste landfill; and
- Both samples of the Taplow Gravel Formation analysed for the solid suite of analysis were characterised as non-hazardous waste. WAC testing was undertaken on these samples indicated that they would be suitable for disposal to an inert waste landfill.

More detailed waste characterisation should be carried out where significant volumes of material are to be disposed of off-site. Any material sent to landfill should be accompanied by the appropriate duty of care documentation and the chemical data should be forwarded to the accepting landfill for approval prior to removal of the soil from site.



9.6 Conclusions

Where to be disposed of to landfill, the samples analysed from the Taplow Gravel Formation would be considered suitable for disposal as inert waste. The samples analysed from the Made Ground / poor quality topsoil would be considered suitable for disposal as either inert or non-hazardous waste.

Any soils encountered during excavation works which display visual and/or olfactory evidence of significant contamination and are to be disposed of off-site should also be segregated for further analysis prior to disposal. These measures should keep any disposal costs to a minimum.

RPS

10 CONCLUSIONS AND RECOMMENDATIONS

Asbestos fibres were recorded within a sample of Made Ground / poor quality topsoil collected from hand pit HP8, located in the southwest corner of the site. Material representative of this sample of shallow Made Ground / poor quality topsoil analysed from the location of hand pit HP8 should be excavated and segregated for disposal off site. No other contaminants of concern were recorded within samples collected from beneath the site at concentrations in excess of adopted AC.

Based on the available information and the recommended mitigation measures being implemented, the potential risk to human health receptors from concentrations of contaminants of concern detected within soil and groundwater sampled from beneath the site is considered to be **LOW**.

Contaminants of concern were not recorded within groundwater samples analysed from beneath the site at concentrations in excess of adopted AC. Based on the available information, the potential risk to controlled water receptors from concentrations of contaminants of concern detected within groundwater sampled from beneath the site is considered to be **LOW**.

Based on ground gas monitoring undertaken on site as part of the current investigation CIRIA CS1 is considered applicable to the site, whereby ground gas protection measures are not required for new buildings. The risk posed by ground gas to human health receptors and infrastructure is therefore considered to be **LOW**.

Based upon SPT results, the Taplow Gravel Formation is likely to provide a suitable bearing stratum for traditional foundations for light to moderately loaded structures, where it is at least medium dense granular material at formation level and it is present at relatively shallow depth below the ground surface.

The Taplow Gravel Formation is anticipated to be present at floor slab formation level beneath the proposed school building and sports centre at an assumed depth of approximately 0.60m bgl, which should be suitable to support a ground bearing floor slab, subject to confirmatory proof rolling and localised soft spot removal and replacement.

The results of in situ CBR testing, using DCP methods, indicate that ground conditions at the likely founding depth for pavements on site (assumed to be at approximately 0.50m to 0.60m bgl) range from approximately 5% to 130%. A design CBR value of 5% is therefore recommended.

Testing has indicated a Design Sulphate Class of DS-1 and an ACEC Classification of AC-1 would be appropriate for all buried concrete structures.



The proposed school building is situated adjacent to the cutting slope, located within the adjacent Network Rail land. When the structural design is available and the foundation arrangement known, the influence of those foundations to the stability of the slope should be assessed. Network Rail may require confirmation that the proposed work does not impair the stability of the cutting.

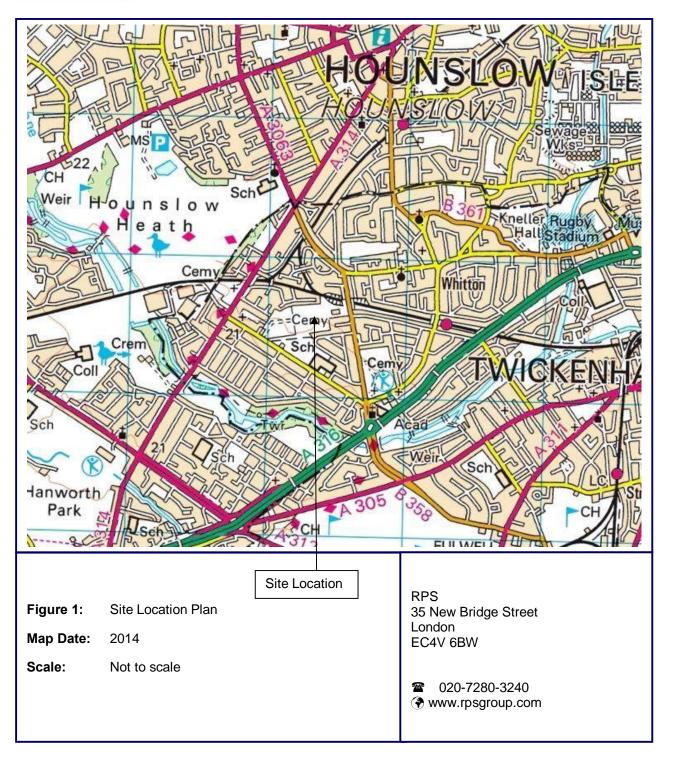
Where to be disposed of to landfill, the two samples from the Taplow Gravel Formation that were submitted for waste acceptance criteria (WAC) analysis would be considered suitable for disposal as inert waste. The two samples from the Made Ground / poor quality topsoil submitted for WAC testing would be considered suitable for disposal as inert and non-hazardous waste, respectively.

Any soils encountered during excavation works which display visual and/or olfactory evidence of significant contamination and are to be disposed of off-site should also be segregated for further analysis prior to disposal. These measures should keep any disposal costs to a minimum.

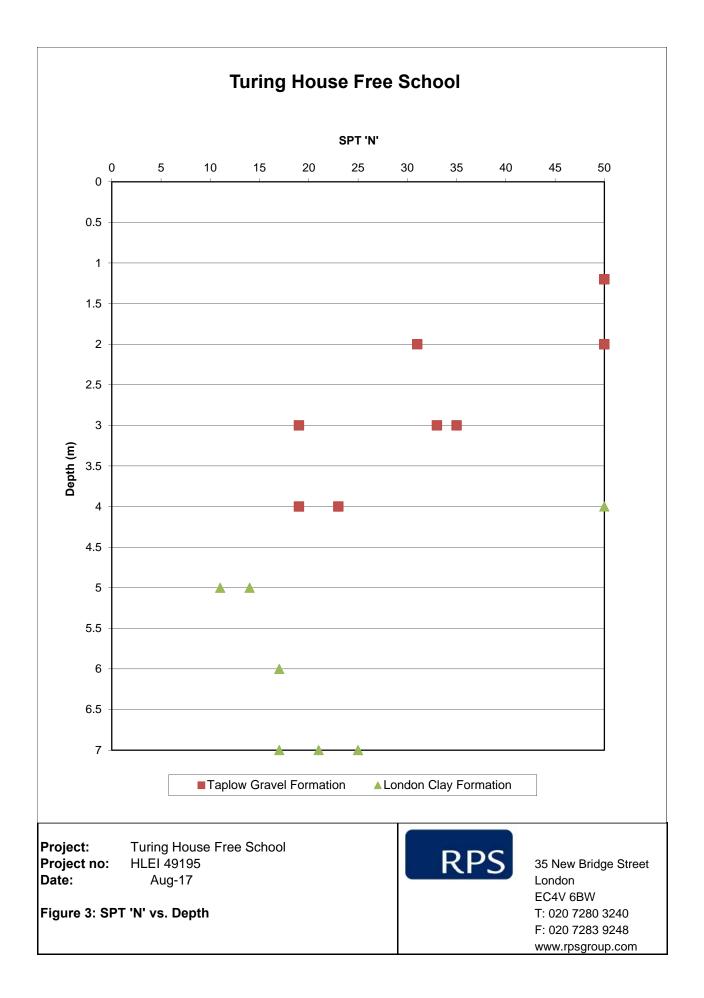


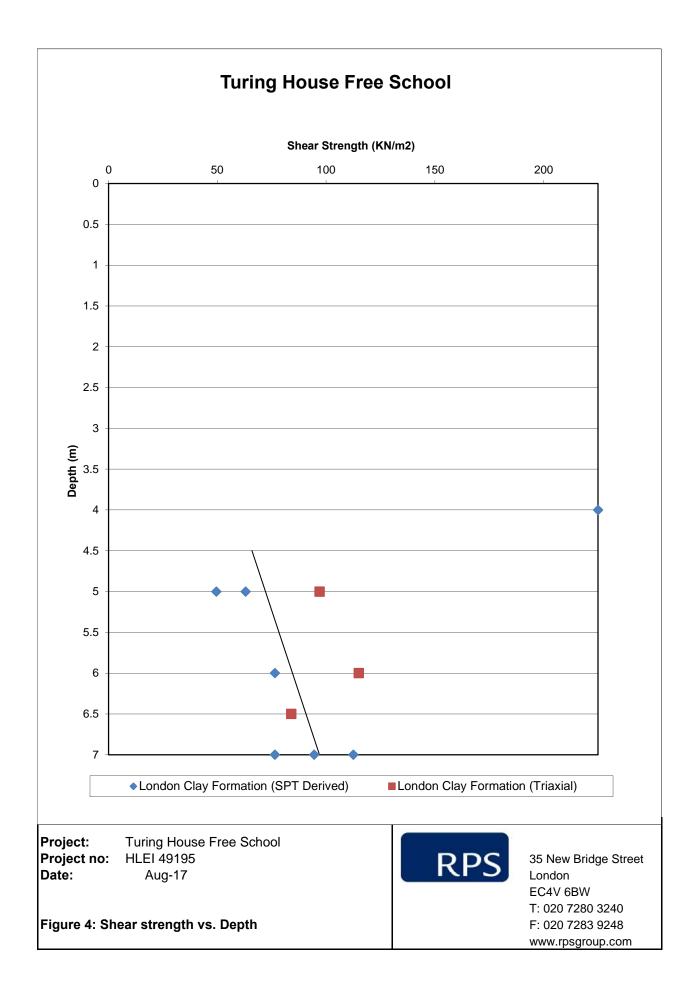
FIGURES













APPENDIX A

General Notes



RPS HEALTH, SAFETY & ENVIRONMENT

Phase 1 - Environmental Risk Assessment / Desk Study Environmental Review

General Notes

- 1. A "desk study" means that no site visits have been carried out as any part thereof, unless otherwise specified.
- 2. This report provides available factual data for the site obtained only from the sources described in the text and related to the site on the basis of the location information provided by the Client.
- 3. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.
- 4. The accuracy of maps cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map surveys.
- 5. No sampling or analysis has been undertaken in relation to this desk study.
- 6. Any borehole data from British Geological Survey sources is included on the basis that: "The British Geological Survey accept no responsibility for omissions or misinterpretation of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation".
- 7. Where any data supplied by the Client or from other sources, including that from previous site investigations, have been used it has been assumed that the information is correct. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.
- 8. This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in legislation may necessitate a re-interpretation of the report in whole or in part after its original submission.
- 9. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the Client deemed to be granted on payment in full to the RPS Company by the Client of the outstanding amounts.
- 10. The report is provided for sole use by the Client and is confidential to them, their professional advisors, no responsibility whatsoever for the contents of the report will be accepted to any person other than the Client. [Unless otherwise agreed]
- 11. These terms apply in addition to the RPS HSED "Standard Terms & Conditions" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms & Conditions the said Standard Terms & Conditions shall prevail.) In the absence of such a written contract the Standard Terms & Conditions will apply.



RPS HEALTH, SAFETY & ENVIRONMENT

Phase 2 – Site Investigations

General Notes

- 1. The assessments made in this report are based on the ground conditions as revealed by intrusive investigations, together with the results of any field or laboratory testing or chemical analysis undertaken and other relevant data which may have been obtained including previous site investigations. In any event, ground contamination often exists as small discrete areas of contamination ("hot spots") and there can be no certainty that any or all such areas have been located and/or sampled.
- 2. There may be special conditions appertaining to the site which have not been taken into account in the report. The assessment may be subject to amendment in the light of additional information becoming available.
- 3. Where any data supplied by the Client or from other sources, including that from previous site investigations, have been used it has been assumed that the information is correct. No responsibility can be accepted by RPS Companies for inaccuracies within the data supplied by other parties.
- 4. Whilst the report may express an opinion on possible ground conditions between or beyond trial pit or borehole locations, or on the possible presence of features based on either visual, verbal or published evidence this is for guidance only and no liability can be accepted for the accuracy thereof.
- 5. Comments on groundwater conditions are based on observations made at the time of the investigation unless otherwise stated. Groundwater conditions may vary due to seasonal or other effects.
- 6. This report is prepared and written in the context of the agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in legislation may necessitate a re-interpretation of the report in whole or part after its original submission.
- 7. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.
- 8. The report is provided for sole use by the Client and is confidential to them and their professional advisors. No responsibility whatsoever for the contents of the report will be accepted to any person other than the Client.
- 9. These terms apply in addition to the RPS Group "Standard Terms of Business" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms of Business the said Standard Terms of Business shall prevail). In the absence of such a written contract the Standard Terms of Business will apply.



APPENDIX B

Part 2A (The Contaminated Land Regime)



Contaminated Land Definition

Under Section 57 of the Environmental Act 1995, Part 2A was inserted into the Environmental Protection Act 1990 to include provisions for the management of contaminated land.

Subsequent regulations were first implemented in England in April 2000, Scotland in July 2000 and Wales in July 2001¹, providing a definition of *±*ontaminated landqand setting out the nature of liabilities that can be incurred by owners of contaminated land and groundwater.

According to the Act, contaminated land is defined as <u>any</u> land which appears to the local authority in whose area the land is situated to be in such a condition, by reason of substances in, on or under the land that:

- a) significant harm is being caused or there is a significant possibility of such harm being caused; or
- b) *significant pollution* of controlled waters² is being caused or there is a significant possibility of such pollution being caused³q

The guidance on determining whether a particular possibility is significant is based on the principles of risk assessment and in particular on considerations of the magnitude or consequences of the different types of significant harm caused. The term possibility of significant harm being causedqshould be taken, as referring to a measure of the probability, or frequency, of the occurrence of circumstances that could lead to significant harm being caused.

The following situations are defined where harm is to be regarded as significant:

- i. Chronic or acute toxic effect, serious injury or death to humans
- ii. Irreversible or other adverse harm to the ecological system
- iii. Substantial damage to, or failure of, buildings
- iv. Disease, other physical damage or death of livestock or crops
- v. The pollution of controlled waters⁴.

¹ In England by The Contaminated Land (England) Regulations 2000, updated by The Contaminated Land (England) (Amendment) Regulations 2012; in Scotland by The Contaminated Land (Scotland) Regulations 2000, updated by the Contaminated Land (Scotland) Regulations 2005; and in Wales by The Contaminated Land (Wales) Regulations 2001, updated by the Contaminated Land (Wales) Regulations 2006.

² In Scotland the term ‰ontrolled water+has been updated to ‰ater environment+under the Contaminated Land (Scotland) Regulations 2005 in line with the Water Environment and Water Services (Scotland) Act 2003.

³ The definition was amended in 2012 by implementation of the Water Act 2003.

⁴ Groundwater in this context does not include waters within underground strata but above the saturated zone.



With regard to radioactivity, contaminated land is defined as <u>any</u> land which appears to be in such a condition, by reason of substances in, on or under the land that harm is being caused, or there is a *significant possibility of such harm being caused*⁵q

The Risk Assessment Methodology

Risk assessment is the process of collating known information on a hazard or set of hazards in order to estimate actual or potential risks to receptors. The receptor may be humans, a water resource, a sensitive local ecosystem or future construction materials. Receptors can be connected with the hazard via one or several exposure pathways (e.g. the pathway of direct contact). Risks are generally managed by isolating or removing the hazard, isolating the receptor, or by intercepting the exposure pathway. Without the three essential components of a source (hazard), pathway and receptor, there can be no risk. Thus, the mere presence of a hazard at a site does not mean that there will necessarily be attendant risks.

The Risk Assessment

By considering where a viable pathway exists which connects a source with a receptor, this assessment will identify where pollutant linkages may exist. A pollutant linkage is the term used by the DEFRA in their standard procedure on risk assessment. If there is no pollutant linkage, then there is no risk. Therefore, only where a viable pollutant linkage is established does this assessment go on to consider the level of risk. Risk should be based on a consideration of both:

- The likelihood of an event (probability) takes into account both the presence of the hazard and receptor and the integrity of the pathway.
- The severity of the potential consequence takes into account both the potential severity of the hazard and the sensitivity of the receptor.

For further information please see the Contaminated Land section on the DEFRA website (www.defra.gov.uk).

⁵ The Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006 and Contaminated Land (Wales) Regulations 2006.



APPENDIX C

Exploratory Hole Logs

	RP						REH						BH1 Sheet 1 of	
rojec	t Name	: Turing	House	Free School	Co-or	dinate	es:		D	ate(s):	29/06/2017		Final Dep	oth:
rojec	t No:	HLEI4	9195		Easting	j :	513373	D	rilling Meth		-	eter: 50mm	7.00m	
ocatio	on:	Twicke	enham		Northin	-	173651	Cable	Percuss	ion Rig	Casing Diameter (mm) 150	Casing Depth (m) 3.80	Scale:	
lient:			& Towr		Ground L (mAOD):	evel	19.06	Log	ged By:	MH			1:25	
Well	Water Strike(s)	Sam Depth (m)	ples & In Type	Situ Testing Results		Depth mbGL)	Thickness (m)	Level (mAOD)	Legend		Stra	tum Description		Sc
		0.30 0.30 0.40 0.40 0.50 - 1.00 1.20 - 1.70 1.20 - 1.70 1.20	ES PID1 ES PID2 B PID3 B	0.0ppm 0.0ppm 0.0ppm 50 (25 for 110m for 95mm) 50 (7,18/50 ft 140mm)	m/50	0.35	(0.35) (0.25) (2.80)	19.06 18.71 18.46		Gravel i brick. (TOPSC) Grey or rounded (TAPLO) Medium subrour	is fine to medium, OIL) ange clayey sand d flint GRAVEL. S DW GRAVEL FOR	brown orange sandy lint GRAVEL.	ded flint and rounded to m.	1
		3.00 - 3.50 3.00 3.00	B PID4 SPT(C)	0.0ppm N=19 (3,4/6,5,4		3.40	(0.40)	15.66		Brown ((LONDO	CLAY. ON CLAY FORMA	NTION)		3
		4.00 - 4.45 4.00	SPTLS SPT(S)	50 (25 for 80mm for 110mm)	n/50	3.80		15.26			rength grey CLAY. ON CLAY FORMA			4
		4.50 5.00 - 5.45 5.00	D U PID5	Blows=52 0.0ppm							Conti	nued on next sheet		- 5
marks ater ac		0.50m to 3.40	m bgl to a	id drilling.			Depth S		Depth Casing (m)	-		Chiselling p Depth (m) Base Depth	M AG	ı S

	®												Borehole N	0.
RP	c			R	OR	EH	OI F	= (C				BH1	
	S												Sheet 2 of	2
Project Name	e: Turin	g House	Free School	Co-	ordinate	es:		Da	ate(s): 29	9/06/2017			Final Dep	
Project No:		49195		East	ing:	513373	Dri	lling Metho			ameter: 50)mm	7.00m	
Location:	Twick	kenham		Norti	hing:	173651	Cable	Percussi	on Rig	asing Diameter (r 150	mm) Casing I	Depth (m) .80	Scale:	
Client:	Turne	er & Towr	nsend	Groun (mAO	nd Level D):	19.06		ed By: N					1:25	
Well Water Strike(s)			Situ Testing		Depth	Thickness	Level	Legend	I	s	tratum Desc	ription		Scale
VVeli Strike(s)	Depth (m) 5.50 6.00 - 6.50 6.00 6.50 - 6.95 7.00 7.00 - 7.45 7.00	D SPTLS SPT(S) U D SPTLS SPT(C)	Results N=17 (2,2/3,4 Blows=62 N=25 (3,5/6,5		(mbGL)	(m) (3.20)					Id of Borehole a			Scale
Remarks:							Gr	oundwater			Chiselling			
Water added from	m 0.50m to 3.4	10m bgl to a	aid drilling.			Depth S		epth Casing	Level After		Top Depth (m)	1	m)	
								(m)	Mins	(hh:mm)			AG	S

	RP	S			ים		EH				,		BH2 Sheet 1 of	i 2
ojec	t Name	e: Turing	House	Free School	Co-o	rdinate	es:		[Date(s):	28/06/2017		Final Dep	oth:
ojec	t No:	HLEI4	9195		Eastin	ıg:	513461	D	rilling Met	hod:	Pipe Diam	eter: 50mm	7.00m	
catio	on:	Twicke	enham		Northi	ng:	173671	Cable	e Percus	sion Rig	Casing Diameter (mm) 150	Casing Depth (m) 4.90	Scale:	
ient:		Turnei	& Towr	isend	Ground (mAOD	Level):	19.01	Log	ged By:	MH			1:25	
Vell	Water Strike(s)	Sam Depth (m)	1	Situ Testing Results		Depth (mbGL)	Thickness (m)	Level (mAOD)	Legend		Strat	um Description		s
		Deptil (III)	Туре	Results		0.00	()	19.00	/ }	Grass	over light brown gr	avelly clayey fine to angular to subround	medium sand.	-
		0.20 0.20	ES PID1	0.0ppm		0.40	(0.40)	40.00		brick. (TOPS)			ded hint and	
		0.50 0.50 0.50	B ES PID2	0.0ppm		0.40 0.60	(0.20)	18.60 18.40		rounde (TAPLC Mediun subrou coarse.	d flint GRAVEL. Sa <u>DW GRAVEL FOR</u> n dense to dense I nded to rounded fl	prown orange sandy int GRAVEL. Sand i	n.	_
	•	1.00	PID3	0.0ppm										
	• • •	1.20 - 1.70 1.20	B SPT(C)	10 (25,40/10 5mm)	for									
2		2.00 - 2.50 2.00	B SPT(C)	N=50 (4,7/50 226mm)	for									:
		3.00 - 3.50 3.00 3.00	B PID4 SPT(C)	0.0ppm N=35 (4,6/8,8,9	9,10)		(4.10)							
	4 4 4 4	4.00 - 4.50 4.00	B SPT(C)	N=23 (4,5/5,6,	5,7)									
		4.70	D			4.70	(0.30)	14.30		Brown (LOND	CLAY. ON CLAY FORMA	TION)		_
.		5.00 - 5.45 5.00	SPTLS PID5	0.0ppm		5.00		14.00	<u> </u>		Contir	nued on next sheet		-
narks ter ac		n 0.50m to 4.50	m bgl to a				Depth		Groundwate			Chiselling p Depth (m) Base Depth	(m)	

RP	PS			В	OR	EH	OL	EL	OG				Borehole No BH2	
Project Name		House	Free School	Co-	ordinate	<i>.</i>			ate(s): 2	8/06/2017			Sheet 2 of Final Dept	
Project No:	HLEI4			East		513461		Drilling Meth			ameter: 50	mm	7.00m	
Location:	Twicke			North		173671				asing Diameter (r 150	nm) Casing [Depth (m) 90	Scale:	
Client:		& Town	send		nd Level	19.01		iged By:		150	4.	90	1:25	
			Situ Testing		Depth	Thickness	Level				tratum Descr	intion		Scale
Well Strike(s)	Sam Depth (m) 5.00 6.00 - 6.45 6.50 7.00 - 7.45 7.00	ples & In S Type SPT(S) U D SPTLS SPT(S)	Situ Testing Results N=14 (2,2/2,4, Blows=62 N=17 (1,2/3,4,		Depth (mbGL)	(2.00)	Level (mAOD) Legend	Medium to (LONDON	o high streng N CLAY FOR	tratum Descr th grey CLAN MATION)	Γ.		Scale
Remarks:								Groundwate	r		Chiselling			
Water added from	m 0.50m to 4.50	m bgl to a	id drilling.			Depth	Strike (m)	Depth Casing (m)	Level After Mins	20 Duration (hh:mm)	Top Depth (m)		n)	
													AG	S

	RP	[®]			BO	REI	HO	LE	L(ЭG			BH3 Sheet 1 of	
roject	t Name	e: Turing	House	Free School	Co-ordir	nates:			D	ate(s): 28	8/06/2017		Final Dep	oth:
roject	t No:	HLEI4	9195		Easting:	513	511	Drilling I	Meth	od:	Pipe Dia	ameter: 50mm	7.00m	1
ocatio	on:	Twick	enham		Northing:	1736	675 C	able Perc	cussi	ion Rig	sing Diameter (r 150	nm) Casing Depth (m) 4.90	Scale:	
lient:		Turne	r & Towr	send	Ground Leve (mAOD):	¹ 18.	85	Logged By	y: N	ИН			1:25	
Well	Water	Sam	ples & In	Situ Testing	Dep			evel Lege	end		S	tratum Description		Sc
	Strike(s)	Depth (m) 0.00 - 0.50	Туре В	Results	(mb) 0.0	· ·		AOD) Lege		Grass over		gravelly clayey fine to	medium sand.	
		0.20 0.20	ES PID1	0.0ppm	0.3	(0.2	0)	9.55		Gravel is fin brick. (TOPSOIL) Grey orang rounded flin (TAPLOW Medium de	ne to mediu) ge clayey sa nt GRAVEL <u>GRAVEL F(</u> ense to dense	m, angular to subrour	orounded to y fine to coarse	_
	6 6 6 6	1.00 1.20 - 1.70 1.20	PID2 B SPT(C)	0.0ppm 50 (25 for 90mi for 85mm)							GRAVEL F	ORMATION)		1
		2.00 - 2.50 2.00	B SPT(C)	N=31 (3,5/7,8,	7,9)									2
		3.00 - 3.50 3.00 3.00	B PID3 SPT(C)	0.0ppm N=33 (5,6/7,8,8	3,10)	(4.1	0)							3
	4 4 4 4 4 4 4	4.00 - 4.50 4.00	B SPT(C)	N=19 (2,2/5,5,	4,5)									4
	• • •				4.6	(0.3)	0)	.25		Brown CLA (LONDON	AY. CLAY FOR	MATION)		-
B		5.00 - 5.45	SPTLS		4.9	0	13	.95	_	Medium to		th grey CLAY.		5
<u> </u>		5.00	PID4	0.0ppm							Co	onunuea on next sheet		
marks ater ad		n 0.50m to 4.50)m bgl to a	id drilling.				Ground		1	0 Duration	Chiselling		7
			-	-		[Depth Strike	(m) Depth C (m)		Level After 2 Mins	0 Duration (hh:mm)	Top Depth (m) Base Depth		
													$\Delta(-$	i.S

					R	OR	ЕН		E L	$\cap G$				Borehole N BH3	0.
K	PS				D									Sheet 2 of	2
Project Na	ame:	Turing	House	Free School	Co-	ordinate	es:		D	ate(s): 2	8/06/2017			Final Dept	
Project No	0:	HLEI49	9195		East	ing:	513511	1	Drilling Meth	od:	Pipe Dia	ameter: 50	mm	7.00m	
Location:		Twicke	nham		Nort	hing:	173675	Cab	e Percuss	ion Rig	asing Diameter (n 150	nm) Casing E 4.	Depth (m) 90	Scale:	
Client:		Turner	& Town	isend	Grour (mAO	nd Level D):	18.85	Lo	gged By:	МН				1:25	
Well Wa	/ater ike(s)			Situ Testing	1	Depth	Thickness		Legend		Si	tratum Descr	iption		Scale
	6.	00 - 6.45 6.50 6.70 00 - 7.45 7.00	Type SPT(S) U D SPTLS SPT(S)	Results N=11 (1,2/3,2, Blows=52		(mbGL)	(m) (2.10)) Legend	(LONDON	N CLAY FOR				Scale
Remarka:															
Remarks: Water added	d from 0.5	50m to 4.50	m bgl to a	id drilling.			Denth	Strike (m)	Groundwate Depth Casing	Level After	20 Duration	Chiselling Top Depth (m)			
									(m)	Mins	(hh:mm)	-F 20km (m)		AG	S

	RP	®		Н	AND	DU	GI	PIT	LC)G	Pit No. HP01 Sheet 1 of	1
Project	Name	: Turing	House Fi	ree School	Co-ordinate	es:		C	Date(s):	28/06/2017	Final Dep	th:
Project	No:	HLEI49	9195		Easting:	513199		Equipme	nt:	_	0.35m	
Locatio	n:	Twicke			Northing:	173628		Hand D	ug	Pit Length: 0.40 m	Scale:	
Client:			& Towns		Ground Level (mAOD):	19.42	Logo	ged By:	MH	Pit Width: 0.40 m	1:10	
Backfill	Water Strike(s)	Samı Depth (m)	oles & In Sit	tu Testing Results	Depth (mbGL)	Thickness (m)	Level (mAOD)	Legend		Stratum Description		Scale
		0.20 0.30	ES PID1 ES	0.0ppm	0.00	(0.30)	19.42		Gravel (TOPS) Orange coarse	over light brown gravelly clayey fine t is fine to coarse angular to rounded f OIL) a grey sandy gravel CLAY. Gravel is r angular to subrounded flint. Sand is <u>DW GRAVEL FORMATION</u> End of Pit at 0.35m	flint. Rootlets.	
Remark	ks:		I		1							2 -
Ground Stability		No groundwat Stable	er encounte	erred.							AG	S

	RP	®		Н		DU C	G١	PIT	LC)G	Pit No. HP02 Sheet 1 of	
Project	Name	: Turing	House I	Free School	Co-ordina	ates:		[Date(s):	28/06/2017	Final Dep	th:
Project	No:	HLEI49	9195		Easting:	513243		Equipme	nt:		0.40m	
Locatio	n:	Twicke	nham		Northing:	173635		Hand D	ug	Pit Length: 0.40 m	Scale:	
Client:		Turner	& Town	isend	Ground Level (mAOD):	19.27	Log	ged By:	MH	Pit Width: 0.40 m	1:10	
Backfill	Water Strike(s)			Situ Testing	Dept	h Thickness	Level	Legend		Stratum Description		Scale
	Strike(s)	0.20 0.20	ES PID1	0.0ppm	(mbGi 0.00	(0.35)	(mAOD) 19.26		Grass c Gravel Rootlet: (TOPSC	over light brown gravelly clayey fine to is fine to coarse angular to rounded for a s.		
Remarl Grounc Stabilit <u>y</u>	lwater:	No groundwat Stable	er encour	nterred.							AG	

		®										Pit No.	
F	R P	S		H	A	ND	DU	GI	PIT	LC)G	HP03	
					-							Sheet 1 of	
Project N				Free School	-						28/06/2017	Final Dept	th:
Project N		HLEI4			Eastir		513304		Equipmer			0.45m	
Location	1:		enham		North Ground		173639	-	Hand D		Pit Length: 0.40 m	Scale:	
Client:			r & Town	Situ Testing	(mAOD)) <u>:</u>	19.27		ged By:	MH	Pit Width: 0.40 m	1:10	
Backfill _S	Water Strike(s)	Depth (m)	Туре	Results		Depth (mbGL)	Thickness (m)	Level (mAOD)	Legend		Stratum Description		Scale
		0.30	ES PID1	0.0ppm		0.00	(0.40)	19.27		Gravel Rootlet (TOPS)		lint and brick.	
Remarks Groundv Stability:	water:	No groundwa Stable	ater encour	nterred.								AG	S

Project Name: Turing House Free School Co-ordinates: Date(s): 2808/2017 Final Depth: Project Name: Turing House Free School Co-ordinates: Date(s): 2808/2017 Final Depth: Project Name: Turing House Free School Starrar 51373 Excumeration 0.50m Coattor: Twickenham Starrar 51373 Excumeration 0.50m 0.50m Coattor: Twickenham Starrar 51373 Excumeration 0.50m 0.50m Ext: Turing & Torsend Records Torsend Records Market Market Market Market Market 0.60m 1.10 Ext: Turing Records Starrar Starrar Starrar Starrar Starrar PDD Date(s): Starrar Starrar Starrar Starrar Starrar Starrar Starrar Star												Pit No.	
Beach Site if of 1 Site if of 1 Project Name: Turing House Free School Co-ordinates: Data(s): 28/06/2017 Final Depth: Street Name: Turing House Free School Co-ordinates: Data(s): 28/06/2017 Final Depth: Street Name: Turing House Free School Normality 173530 Hand Dug Pit Length: 0.40 m Science Street Name: Turing House Free School Ormality Trans A Street Name: Street Name: Science Street Name: Turing House Free School Ormality Trans A Street Name: Street Name: Science Street Name: Turing House Free School Ormality Turing House Free School Science Science Science Street Name: Turing House Free School Ormality Science Science Science Science Science Science Science Science Science Science Science Science Science Science Science Science Science Science Science Science	DD	C		Н	A	ND	DIJ	GI	ΡΙΤ)G	HP04	
Based Start Date(s): 20:03:2017 Final Dept:: Orgent Name: Turing House Free School Co-ordinates: Estimation: Start Start <t< td=""><td>RP</td><td>2</td><td></td><td>•</td><td></td><td></td><td></td><td>\smile .</td><td></td><td></td><td></td><td>Sheet 1 of</td><td>1</td></t<>	R P	2		•				\smile .				Sheet 1 of	1
Project No: HLE149195 Easing: 513173 Equipment: P1 Length: 0.40 m Scale: Client: Turner & Townsend 20:001 20:001 logges By P1 Length: 0.40 m Scale: Diant: Turner & Townsend 20:001 20:001 logges By P1 Length: 0.40 m Scale: Diant: Turner & Townsend 20:001 10:000 Logges By P1 WH P1 Wddi: 0.40 m 11:0 Basedia Ward: Depth (m) Tore Depth (m) Depth (m) Scale: Scale: Cereor one I/M Homogenethy depty free to rendom tand Scale: P1 Wddi: 0.40 m 11:0 Scale: P1 Wddi: 0.40 m P1 Wddi: 0.40 m P1 Wddi: 0.40 m P1 Wddi: 0.40 m Scale: P1 Wddi: 0.40 m Scale: P1 Wddi: 0.40 m <t< td=""><td>Project Name</td><td>: Turing</td><td>House I</td><td>Free School</td><td>Co-</td><td>ordinate</td><td>es:</td><td></td><td>C</td><td>Date(s):</td><td>28/06/2017</td><td></td><td></td></t<>	Project Name	: Turing	House I	Free School	Co-	ordinate	es:		C	Date(s):	28/06/2017		
Client: Turner & Townsend Classes 20.01 Logare By: Mit Pit Width: 0.40 m 1:10 Beach Brand Back In Situ Testing Upgen Thouses Level Legen Classes explaine browned only find broader and the client of the second only of the broader and the client of the second only of the broader and the client of the broader and the client of the broader and the client on the second only of the broader and the client on the second on the broader and the client of the broader and the client on the second on the broader and the client on the second on the broader and the client on the second on the broader and the client on the second on the broader and the client on the second on the broader and the client on the second on the broader and the client on the second on t	Project No:				-	ing:	513173						
Jahma Turbusta Low Sector Turbusta Jone Statum Statum Sector Science Sector	Location:	Twicke	nham		Norti	hing:	173530		Hand D	ug	Pit Length: 0.40 m	Scale:	
Backhini Street Depth (m) Type Results 0.00 20.01 Cores over lpht beer speed/dawy fine to module and tind.	Client:	Turner	& Town	send	Groun (mAO	nd Level D):	20.01	Log	ged By:	MH	Pit Width: 0.40 m	1:10	
0.00101 0.00	Backfill Water					Depth	Thickness	Level	Legend		Stratum Description		Scale
Groundwater: No groundwater encounterred.	Backfill Water Strike(s)	Depth (m)	Type	Results		(mbGL) 0.00	(m) (0.45)	(mAOD) 20.01		Gravel Rootlet (TOPS)	over light brown gravelly clayey fine to is fine to coarse angular to rounded f s. OIL) e grey gravel CLAY. Gravel is medium r to subrounded flint. JW GRAVEL FORMATION)	lint and brick.	
			er encour	nterred.								AG	ı S

F	RP	®		Н	ANC	DU (GI	PIT	LO	G	Pit No. HP05 Sheet 1 of	
Project	Name	: Turing	House Fr	ee School	Co-ordinat	tes:		[Date(s):	29/06/2017	Final Dep	th:
Project	No:	HLEI49	9195		Easting:	513238		Equipme	nt:		0.50m	
Locatio	n:	Twicke	nham		Northing:	173537		Hand D	ug	Pit Length: 0.40 m	Scale:	
Client:		Turner	& Townse	end	Ground Level (mAOD):	19.68	Log	ged By:	MH	Pit Width: 0.40 m	1:10	
Backfill	Water		oles & In Siti		Depth	Thickness	Level	Legend		Stratum Description	I	Scale
	Strike(s)	0.45 0.45	ES PID1	Results 0.0ppm) (m) (0.45) (0.05)	(mAOD) 19.68		Gravel is tile. Roo (TOPSC Orange coarse a	ver light brown gravelly clayey fine to s fine to coarse angular to rounded f ttlets.	lint, brick and	Scale
Remark Ground [®] Stability	water:	No groundwat	er encounte	erred.							AG	1 S

		®										Pit No.	
	RP	Č		H	IAI	ND	DU	GI	PIT	C)G	HP06	
	ΧP	2		•	.,			\smile .				Sheet 1 of	1
Project	Name	: Turi	ng House	Free School	Co-c	ordinate	es:		Γ	Date(s):	29/06/2017	Final Dept	
Project	No:	HLE	149195		Eastir	ng:	513297		Equipmer	nt:		0.45m	
Locatio	n:	Twic	kenham		North	ing:	173545		Hand D	ug	Pit Length: 0.40 m	Scale:	
Client:		Turr	ner & Towr	nsend	Ground (mAOD	d Level	19.60		ged By:		Pit Width: 0.40 m	1:10	
Backfill	Water	S	amples & In	Situ Testing		Depth	Thickness	Level	Legend		I Stratum Description		Scale
	Strike(s)	Depth (m) Type	Results		(mbGL) 0.00	(m)	(mAOD) 19.60	Cegena	Grass	over light brown gravelly clayey fine to	o medium sand	Ocale
		0.30	ES PID1	0.0ppm		0.40	(0.40)	19.20		Gravel tile. Ro (TOPS)	is fine to coarse angular to rounded f otlets.	lint, brick and	
													2
Remari Ground Stabilit	dwater:	No ground Stable	water encou	nterred.								AG	I S

	RP	®		H	IA	ND	DU	GI	ΡIT	LC)G	Pit No. HP07	
Project				Free School	Co	ordinate					29/06/2017	Sheet 1 of Final Dept	
Project			El49195	Fiee School	Easti		513351		Equipmer			0.45m	.11.
Locatio			ckenham		-		173559		Hand D		Bit Longth: 0.40 m	Scale:	
	11 .		ner & Towi		North Groun	d Level				-	Pit Length: 0.40 m		
Client:			amples & In		(mAOI	D): Depth	19.59 Thickness		ged By:		Pit Width: 0.40 m	1:10	
Backfill	Water Strike(s)	Depth (m		Results		(mbGL)	(m)	(mAOD)	Legend		Stratum Description		Scale
		0.25	ES PID1	0.0ppm		0.00	(0.40)	19.59		Gravel Rootlet (TOPS)		lint and brick.	
Remar	ks:												
Ground Stabilit		No ground Stable	lwater encou	interred.								AG	S

		®											Pit No.	
	RP	٢			H	A	ND	DU	GI	ΡΙΤ	LC)G	HP08	
													Sheet 1 of	1
Project	Name	: Tu	ring Ho	ouse l	Free School	Co-	ordinate	es:		0	Date(s):	29/06/2017	Final Dept	th:
Project	No:	HL	EI491	95		East	ing:	513220		Equipme	nt:		0.40m	
Locatio	n:	Tw	lickenh	nam		Nort	hing:	173479		Hand D	ug	Pit Length: 0.30 m	Scale:	
Client:		Tu	rner &	Town	send	Grour (mAO	nd Level D):	19.63	Log	ged By:	MH	Pit Width: 0.30 m	1:10	
Backfill	Water				Situ Testing		Depth	Thickness	Level	Legend		Stratum Description		Scale
	Strike(s)	Depth (I	m) ⁻	Туре	Results		(mbGL) 0.00	(m)	(mAOD) 19.63		Grass of	over light brown gravelly clayey fine to	o medium sand.	
		0.25	F	ES PID1	0.0ppm		0.35	(0.35)	19.28		Rootlet (TOPS)	OIL) grey sandy gravel CLAY. Gravel is n angular to subrounded flint and brick	nedium to	
Remar	ks:									L	L			
	lwater:	No grour Stable	ndwater	encour	nterred.								AG	S

	RP	®		Н	ANE	DU C	GI	PIT	LC	G	Pit No. HP09 Sheet 1 of	
Project	Name	e: Turing	House F	ree School	Co-ordina	ites:		C	Date(s):	29/06/2017	Final Depth:	
Project	No:	HLEI4	9195		Easting:	513272		Equipme	nt:		0.40m	
Locatio	n:	Twicke	enham		Northing:	173475		Hand D	ug	Pit Length: 0.40 m	Scale:	
Client:		Turner	& Towns	end	Ground Level (mAOD):	19.64	Log	ged By:	ΜΗ	Pit Width: 0.40 m	1:10	
Backfill	Water		ples & In Si	tu Testing	Depti	n Thickness	Level	Legend		Stratum Description		Scale
Backfill	Water Strike(s)	 Depth (m) 0.15 0.20 0.35	ES PID1 ES	UTesting Results	Depti (mbGl 0.00	L) (m)	Level (mAOD) 19.64	Legend	Gravel i Rootlets (TOPSC		lint and brick.	Scale
Remarl	<s:< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>2</th></s:<>											2
Grounc Stabilit <u>y</u>		No groundwa Stable	ter encount	erred.							AG	S

		®										Pit No.	
	RP			-	A	ND	DU	GI	Π	LC)G	HP10	
		5										Sheet 1 of	1
Project	Name	: Turin	g House	Free School	Co-	ordinate	es:		C	Date(s):	29/06/2017	Final Dep	th:
Project	No:	HLEI	49195		Easti	ing:	513333		Equipme	nt:		0.35m	
Locatio	on:	Twick	kenham		North	ning:	173486		Hand D	ug	Pit Length: 0.40 m	Scale:	
Client:		Turne	er & Towr	nsend	Groun (mAOI	id Level D):	19.66	Logo	ged By:	MH	Pit Width: 0.40 m	1:10	
Backfill	Water Strike(s)			Situ Testing			Thickness	Level	Legend		Stratum Description		Scale
	Water Strike(s)	Sa Depth (m) 0.20 0.20	ES PID1	Situ Testing Results 0.0ppm					Legend	Grass of Gravel ceramic (TOPS(<i>Black f</i>	over light brown gravelly clayey fine to is fine to coarse angular to rounded fl c. Rootlets.	int, brick and	Scale
Remar		No groundw	l	nterred									2 -
Stabilit		Stable										AG	S

		®		-				-				Pit No.	
	RP			H	A	ND	DU	G	ЪЦ	LC)G	HP11	
												Sheet 1 of	
Project			-	Free School	-						29/06/2017	Final Dep	th:
Project			49195		Eastii		513393		Equipme		-	0.25m	
Locatio	on:		kenham		North		173550		Hand D	-	Pit Length: 0.40 m	Scale:	
Client:			er & Towr		(mAOE	d Level D):	19.89		ged By:	MH	Pit Width: 0.40 m	1:10	
Backfill	Water Strike(s)	Depth (m)	Type	Situ Testing Results		Depth (mbGL)	Thickness (m)	Level (mAOD)	Legend		Stratum Description		Scale
		0.25 0.25	ES PID1	0.0ppm		0.00	(0.25)	19.89		subang	rey slightly clayey sandy fine to coarse ular gravel of flint, brick, concrete and GROUND) End of Pit at 0.25m	e angular to I tile.	
Remar Ground		No groundv	vater encou	nterred.								AG	
Stabilit	y:	Stable										AG	3

	RP	®		Н	HAND DUG PIT					LOG H		
Project	Name	e: Turing	House F	ree School	Co-ordina	ites:		Ľ	Date(s):	29/06/2017	Final Dept	
Project	No:	HLEI4	9195		Easting:	513403		Equipme	nt:		0.40m	
Locatio	n:	Twicke	enham		Northing:	173491		Hand D	ug	Pit Length: 0.30 m	Scale:	
Client:		Turner	· & Towns	end	Ground Level (mAOD):	19.65	Log	ged By:	MH	Pit Width: 0.30 m	1:10	
Backfill	Water Strike(s)	Sam Depth (m)	ples & In Si Type	tu Testing Results	Depti (mbGl	n Thickness L) (m)	Level (mAOD)	Legend		Stratum Description		Scale
		0.20 0.30 0.40	ES ES PID1	0.0ppm	0.00	(0.35)	19.65		Orange coarse a		nedium to	
Remari Grounc Stabilit <u>i</u>	lwater	: No groundwa Stable	ter encount	erred.							∎ AG	ı S



APPENDIX D

Geotechnical Laboratory Certificates



LABORATORY REPORT



4043

Contract Number: PSL17/3193

Report Date: 19 July 2017

Client's Reference: HLEI 49195

Client Name: RPS Health, Safety and Environment 14 Cornhill London EC3V 3ND

For the attention of: Matthew Hemus

Contract Title:Turing House Free SchoolDate Received:4/7/2017Date Commenced:4/7/2017Date Completed:19/7/2017

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson (Director) A Watkins (Director) R Berriman (Quality Manager)

L Knight (Senior Technician) S Eyre (Senior Technician)

A Fry (Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe, Doncaster DN4 0AR tel: +44 (0)844 815 6641 fax: +44 (0)844 815 6642 e-mail: rgunson@prosoils.co.uk awatkins@prosoils.co.uk Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH1		В	0.50	1.00	Brown clayey SAND & GRAVEL.
BH1		В	3.00	3.50	Brown very sandy GRAVEL.
BH1		D	5.50		Brown slightly sandy CLAY.
BH1		D	7.00		Brown slightly sandy CLAY.
BH1		U	5.00	5.45	Stiff brown slightly sandy CLAY.
BH1		U	6.50	6.95	Stiff brown slightly sandy CLAY.
BH2		В	4.00	4.50	Brown sandy slightly silty GRAVEL.
BH2		D	4.70		Brown slightly sandy CLAY.
BH2		U	6.00	6.45	Brown slightly sandy CLAY.
BH3		В	2.00	2.50	Brown slightly sandy slightly silty GRAVEL.
BH3		D	5.00	5.45	Brown slightly sandy CLAY.
BH3		D	6.50		Brown slightly sandy CLAY.
BH3		U	6.00	6.45	Stiff brown sandy CLAY.

cia a			Contract No:
		Turing House Free School	PSL17/3193
	Distancional Saila Laboratory	Turing House Free School	Client Ref:
4043	Professional Soils Laboratory		HLEI 49195

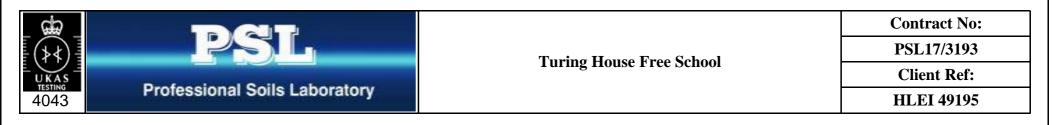
SUMMARY OF SOIL CLASSIFICATION TESTS

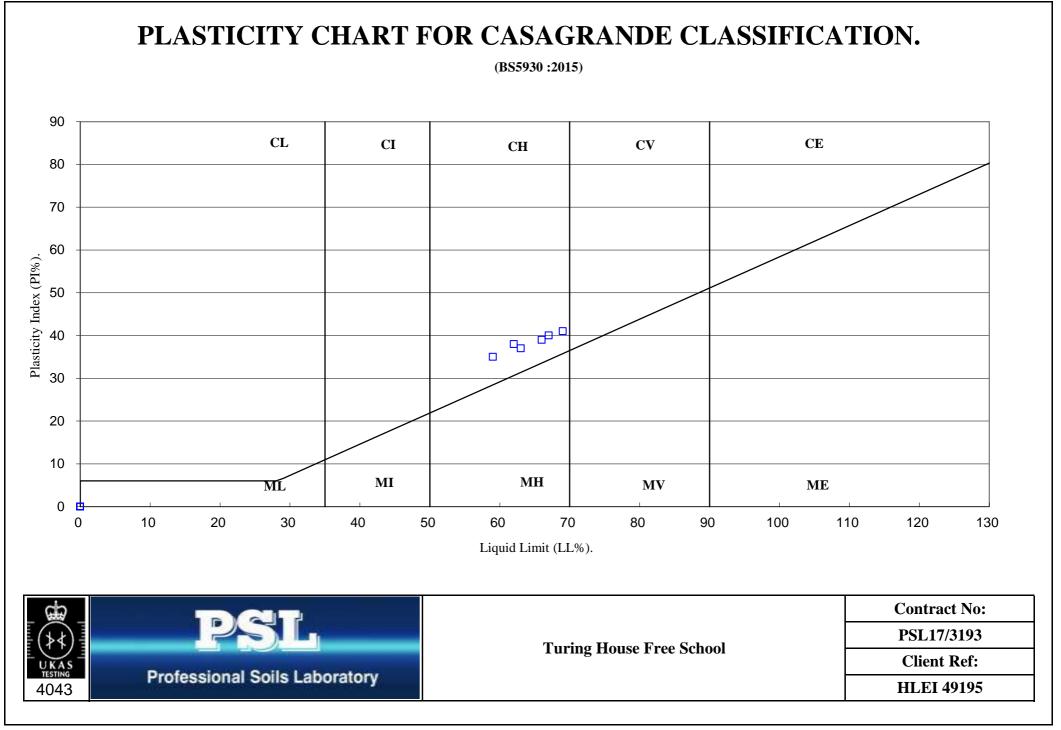
(BS1377 : PART 2 : 1990)

					Moisture	Linear	Particle	Liquid	Plastic	Plasticity	Passing	
Hole	Sample	Sample	Тор	Base	Content	Shrinkage	Density	Limit	Limit	Index	.425mm	Remarks
Number	Number	Туре	Depth	Depth	%	%	Mg/m ³	%	%	%	%	
			m	m	Clause 3.2	Clause 6.5	Clause 8.2	Clause 4.3/4	Clause 5.3	Clause 5.4		
BH1		D	5.50		27			63	26	37	100	High plasticity CH.
BH1		D	7.00		29			67	27	40	100	High plasticity CH.
BH2		D	4.70		30			59	24	35	100	High plasticity CH.
BH2		U	6.00	6.45	30			62	24	38	100	High plasticity CH.
BH3		D	5.00	5.45	25			66	27	39	100	High plasticity CH.
BH3		D	6.50		29			69	28	41	100	High plasticity CH.

SYMBOLS : NP : Non Plastic

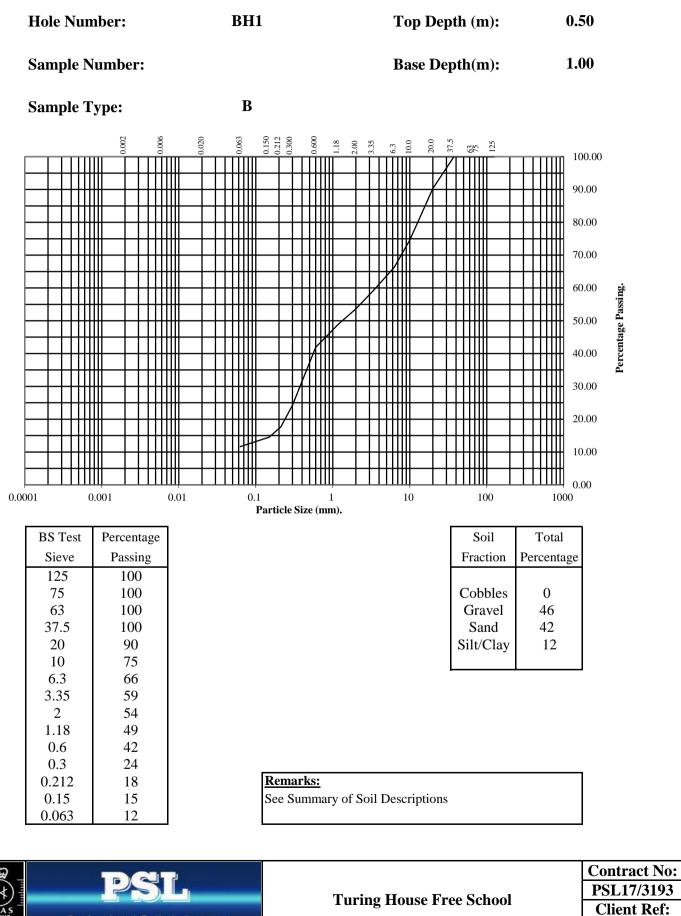
*: Liquid Limit and Plastic Limit Wet Sieved.





BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2



Professional Soils Laboratory

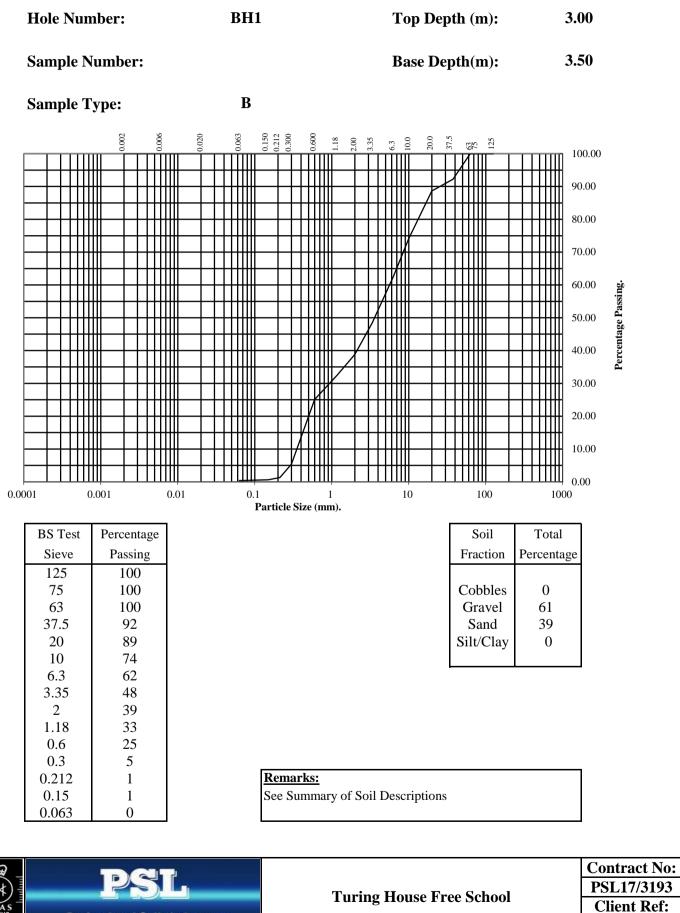
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HLEI 49195

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BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2



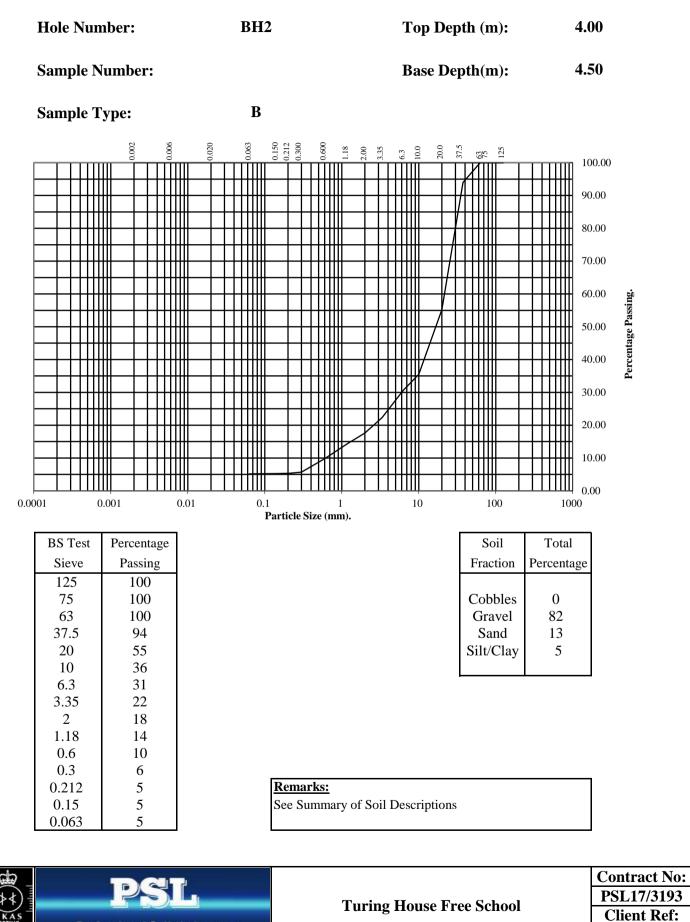
Professional Soils Laboratory

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HLEI 49195

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2



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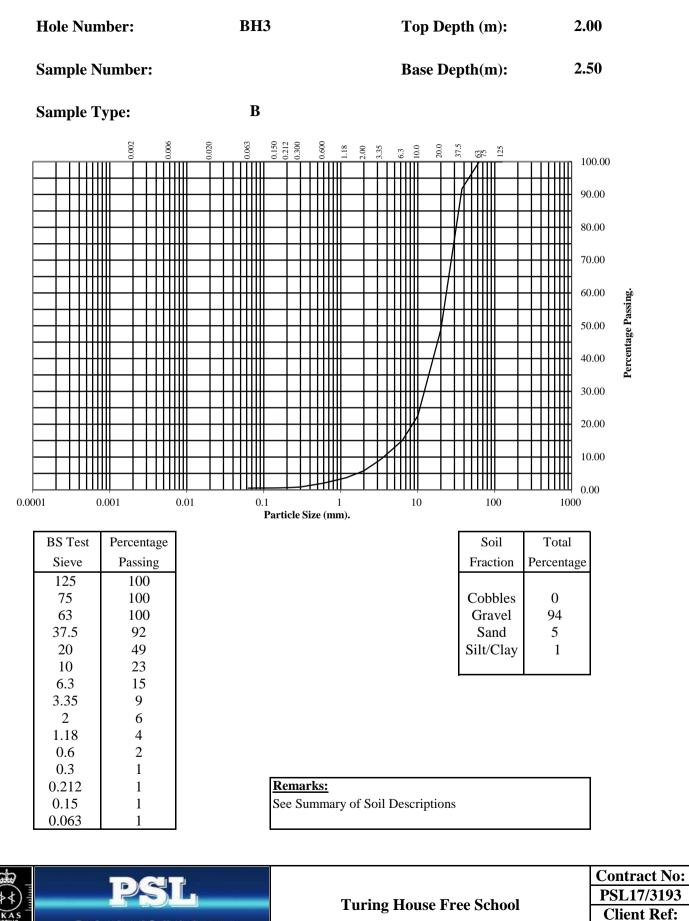
Professional Soils Laboratory

of

HLEI 49195

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2



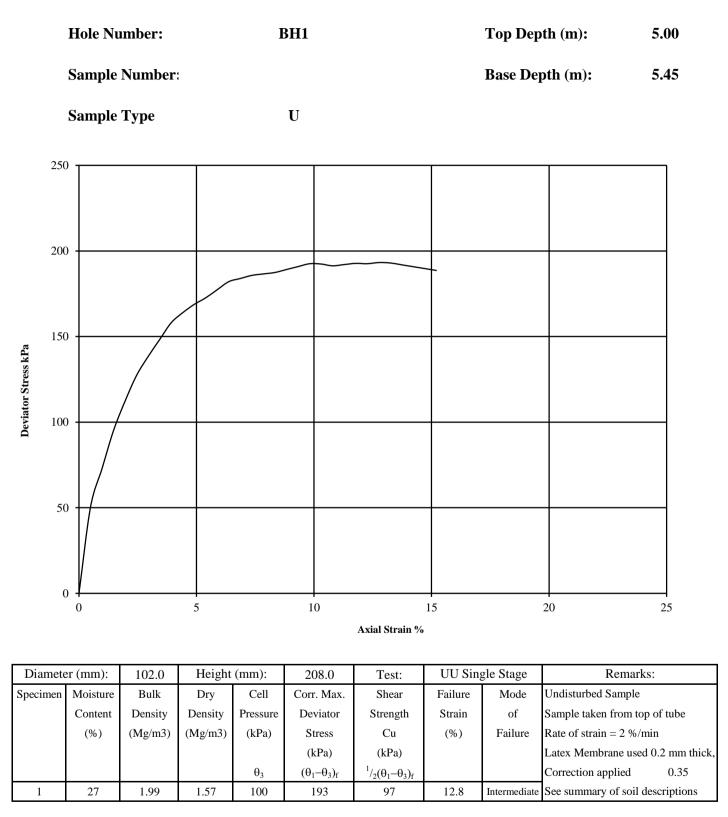
HLEI 49195

4043

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

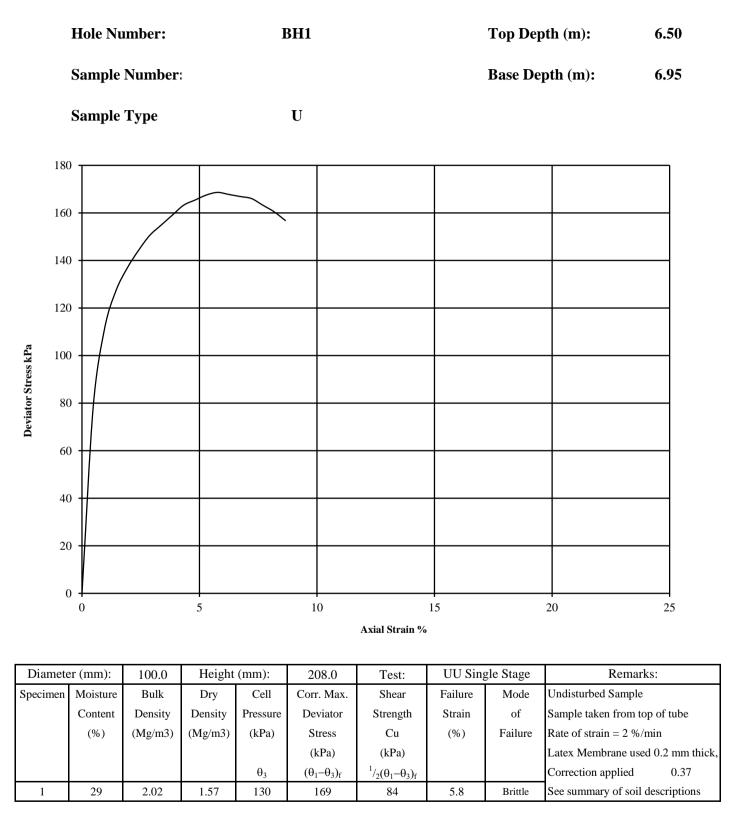


	DAL		Contract No:
	251	Turing House Free School	PSL17/3193
UKAS	Desfectional Calls Laboratory	Turing house Free School	Client Ref:
TESTING 4043	Professional Soils Laboratory		HLEI 49195

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

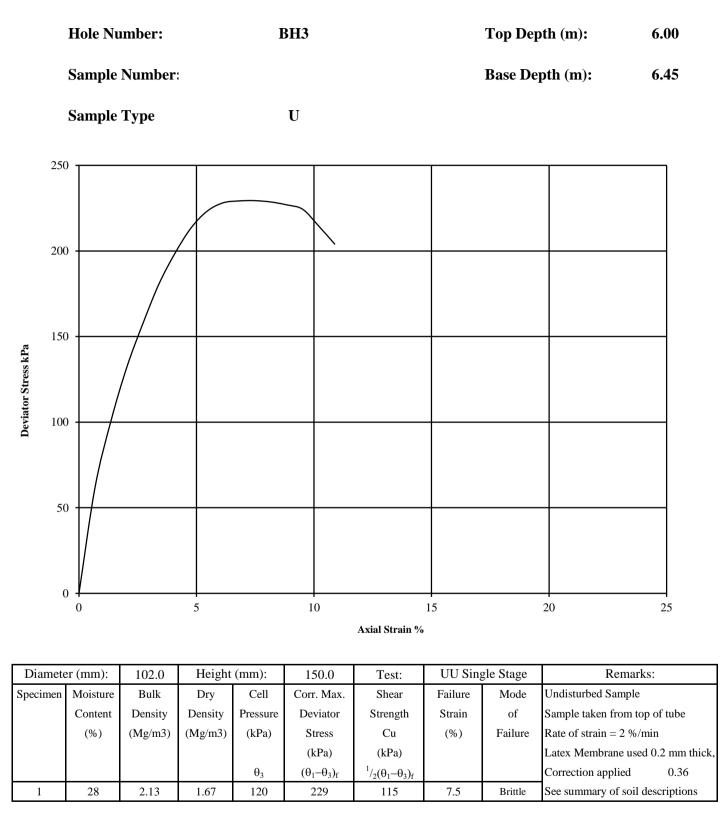


ය්ත			Contract No:
		Turing House Free School	PSL17/3193
UKAS	Drefessional Saila Laboratory	Turing House Free School	Client Ref:
TESTING 4043	Professional Soils Laboratory		HLEI 49195

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

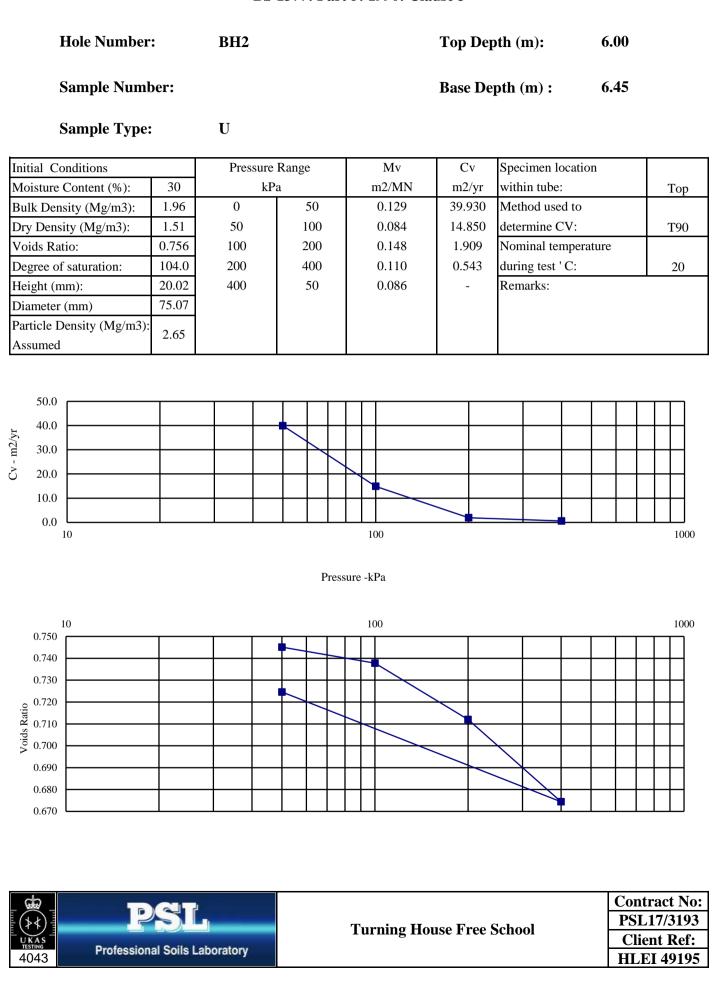
BS1377 : Part7 : 1990: Clause 8



	PSL	Turing House Free School	Contract No: PSL17/3193 Client Ref:
UKAS TESTING 4043	Professional Soils Laboratory	Turing House Free School	Client Ref: HLEI 49195

ONE DIMENSIONAL CONSOLIDATION TEST

BS 1377: Part 5: 1990: Clause 3





Certificate Number 17-04753

Client Professional Soils Laboratory Ltd 5/7 Hexthorpe Road Hexthorpe DN4 0AR

Our Reference 17-04753

- Client Reference PSL17/3193
 - Order No (not supplied)
 - Contract Title Turing House Free School
 - Description 4 Soil samples.
 - Date Received 08-Jul-17
 - Date Started 08-Jul-17
- Date Completed 13-Jul-17

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 10725 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Hur

Adam Fenwick Contracts Manager



13-Jul-17



Summary of Chemical Analysis Soil Samples

Our Ref 17-04753 Client Ref PSL17/3193 Contract Title Turing House Free School

			Lab No	1201448	1201449	1201450	1201451
		Sa	ample ID	BH1	BH1	BH2	BH3
			Depth	2.00-2.45	4.50	6.50	1.20-1.70
		(Other ID				
		Sam	ple Type	В	D	D	В
		Sampl	ing Date	n/s	n/s	n/s	n/s
		Sampl	ing Time	n/s	n/s	n/s	n/s
Test	Method	LOD	Units				
Inorganics							
рН	DETSC 2008#			8.1	8.3	8.4	8.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	10	100	120	11



Inappropriate

Information in Support of the Analytical Results

Our Ref 17-04753 Client Ref PSL17/3193 Contract Turing House Free School

Containers Received & Deviating Samples

		Date			container for
Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	tests
1201448	BH1 2.00-2.45 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (365 days), pH + Conductivity (7 days)	
1201449	BH1 4.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (365 days), pH + Conductivity (7 days)	
1201450	BH2 6.50 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (365 days), pH + Conductivity (7 days)	
1201451	BH3 1.20-1.70 SOIL		PT 1L	Sample date not supplied, Anions 2:1 (365 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



APPENDIX E

Field Monitoring Data



Ground Gas Monitoring Results

Ground Gas Concentrations 11th July 2017

Monitoring well ID	Flow R	ate (I/hr)	Methane (% vol)		Carbon Dioxide (% vol)		Oxygen	iVOCs
weil ID	Peak	Steady	Peak	Steady	Peak	Steady	(% vol)	(ppm)
BH1	<0.1	<0.1	<0.1	<0.1	4.1	4.0	16.2	<0.1
BH2	<0.1	<0.1	<0.1	<0.1	2.6	2.6	18.3	<0.1
BH3	<0.1	<0.1	<0.1	<0.1	1.2	1.2	19.7	<0.1

Atmospheric Pressure: 1010mb

Ground Gas Concentrations 19th July 2017

Monitoring well ID	Flow Rate (I/hr)		Methane (% vol)		Carbon Dioxide (% vol)		Oxygen (% vol)	iVOCs
	Peak	Steady	Peak	Steady	Peak	Steady	(% VOI)	(ppm)
BH1	<0.1	<0.1	<0.1	<0.1	4.6	4.6	19.5	1.9
BH2	<0.1	<0.1	<0.1	<0.1	2.4	2.4	18.6	2.6
BH3	<0.1	<0.1	<0.1	<0.1	1.9	1.9	15.7	1.0

Atmospheric Pressure: 1003mb to 1002mb

Ground Gas Concentrations 27th July 2017

Monitoring well ID	Flow Rate (I/hr)		Methane (% vol)		Carbon Dioxide (% vol)		Oxygen	iVOCs
	Peak	Steady	Peak	Steady	Peak	Steady	(% vol)	(ppm)
BH1	0.2	<0.1	<0.1	<0.1	4.1	4.1	16.3	<0.1
BH2	<0.1	<0.1	<0.1	<0.1	1.7	1.7	19.6	<0.1
BH3	0.3	<0.1	<0.1	<0.1	1.9	1.9	19.5	<0.1

Atmospheric Pressure: 1004mb to 1003mb

Groundwater Monitoring Results

Monitoring Well ID	Well Screen Depth m bgl (m AOD)	Strata	Depth to Groundwater m bgl (m AOD) 11 ^m July 2017 19 ^m July 2017 27 ^m July 2017					
BH1	1.00 to 4.00 (15.06 to 18.06)	Taplow Gravel Formation	2.50 (16.56)	2.56 (16.50)	2.51 (16.55)			
BH2	1.00 to 5.00 (14.01 to 18.01)	Taplow Gravel Formation	2.40 (16.61)	2.62 (16.49)	2.58 (16.53)			
BH3	1.00 to 5.00 (13.85 to 17.85)	Taplow Gravel Formation	2.54 (16.31)	2.48 (16.37)	2.44 (16.41)			



APPENDIX F

Comparison of Analytical Data to Assessment Criteria

Exova Jones E	nvironmental																						
Report:	Solid					Sample ID Depth	BH1 0.30	BH1 0.40	BH2 0.20	BH2 0.50	BH3 0.20	HP1 0.20	HP2 0.20	HP3 0.30	HP4 0.25	HP5 0.45	HP6 0.30	HP7 0.25	HP8 0.25	HP9 0.35	HP10 0.20	HP11 0.25	HP12 0.30
JE Job No: Client:	17/11245 RPS					COC No / misc Containers	VJ	VJT	٧J	VJ	VJ	VJT	٧J	VJ	٧J	٧J	VJ	VJ	VJ	TLV	VJ	VJ	TLV
Client ref: Location:	HLEI 49195					Sample Type Sampled Date	Soil 29/06/2017	Soil 29/06/2017	Soil 28/06/2017	Soil 28/06/2017	Soll 28/06/2017	Soil 28/06/2017	Soil 28/06/2017	Soil 28/06/2017	Soil 28/06/2017	Soil 29/06/2017	Soil 29/06/2017	Soil 29/06/2017	Soil 29/06/2017	Soil 29/06/2017	Soil 29/06/2017	Soil 29/06/2017	Soil 29/06/2017
Contact	Turing House Free School Rob Philip				Sam	nple Received Date	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017
						J E Sample No Batch Number	1-2 1	3-5 1	6-7 1	8-9	10-11	14-16 1	17-18 1	19-20 1	21-22 1	23-24 1	25-26 1	27-28 1	29-30 1	33-35 1	36-37 1	38-39 1	42-44 1
CAS Number	Test		11-3-	100	0.000	0415 (0++5)																	
7440-38-2 7440-43-9	Cadmium*	TM30/PM15	mg-xg mg-kg	<0.1	560	11	13.4	23.5	3	0.3	2.5	1.6	0.4	1.3	1.1	3.3	4.2	2.4	NA	3.5	3.3	0.2	2.2
7440-47-3	Chromium*	TM30/PM15	mg/kg	<0.5	33000	910			83.4	69.7	82.5	61.5	71	69.5	61.3	63.2	75.4	76.6	NA	73.6	68.8	74.3	66.6
7440-50-8 7439-92-1	Copper" Lead"	TM30/PM15	mg/kg	<1 -6	1300				186	14 38				44 580			212	45	NA NA	46	44 106	129	
7439-97-6	Mercury *	TM30/PM15	mg/kg	<0.1	240	40			1.1	0.2	0.9	1.4	0.6	0.6	0.7	0.9	0.7	0.5	NA	0.7	0.5	0.4	0.5
7440-02-0 7782-49-2	Nickel" Selenium"						18.8	20.9				16.9									18.3		
7440-66-6	Zinc*	TM30/PM15	mg/kg	-6	170000	3700	155	56	176	44	134	128	82	119	188	399	164	131	NA	120	119	90	114
7440-38-2 7440-43-9	Arsenic Cadmium																						
7440-47-3	Chromium	TM30/PM62	mg/kg	<0.5			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	35.1	NA	NA.	NA	NA
7440-50-8 7439-92-1	Copper Lead		mg/kg mg/kg																				
7439-97-6	Mercury	TM30/PM62	mg/kg	<0.1			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.6	NA	NA	NA	NA
7440-02-0 7782-49-2	Nickel Selenium																						
7440-66-6	Zinc	TM30/PM62	mg/kg	-6			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	123	NA	NA	NA	NA
91-20-3	PAH MS	TMAIDAR	malka	-0.01	1900		-0.04	-0.04	-0.04	-0.01	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	0.06	-0.04	-0.04	-0.04	0.95	1.29
208-96-8	Acenaphthylene																						
83-32-9 86-73-7	Acenaphthene*			<0.05																			
85-01-8	Phenanthrene*	TM4/PM8		<0.03	6200	220	0.28	0.03	0.17	<0.03	0.22	0.19	0.17	0.25	0.15	0.46	0.21	0.22	0.14	0.14	0.32	6.13	0.35
120-12-7 206-44-0	Anthracene*								0.06														
129-00-0	Purene	TM4/PM8				1200		0.05	0.37		0.44	0.34	0.36	0.39	0.28	0.83				0.28			0.27
56-55-3	Benzo(a)anthracene*		mg/kg	<0.06	56	11	0.41	<0.06	0.29	<0.06		0.25	0.28	0.31	0.21	0.63	0.3	0.26	0.2	0.19	0.46	8.18	0.19
218-01-9 BEN-BK-FLUORAN	Chrysene Benzo(bk)fluoranthene																						
50-32-8	Benzo(a)pyrene*		mg/kg	<0.04				<0.04	0.34	<0.04	0.39	0.26	0.25	0.39	0.24	0.59	0.31	0.26	0.18	0.19		7.75	
193-39-5 53-70-3	Dibenzo(at)anthracene																						
191-24-2	Benzo(ghi)perylene*				1500	340																	
191-07-1 PAH_16_TOTAL	PAH 16 Total																						
P1858	PAH 17 Total		mg/kg																				
205-99-2 207-08-9	Benzo(b)fluoranthene Benzo(k)fluoranthene																						
PAH_SUR_REC	PAH Surrogate % Recovery	TM4/PM8		<0			113	90	110	114	112	113	105	114	124	118	110	129	104	104	100	110	111
P1406	Mineral Oil (C10-C40)	TM5/PM16	mg/kg	<30			NA	<30	NA	NA	NA	<30	NA	<30	NA	NA	<30						
	TPH CWG																						
GTC05C06AL	Aliphatics	TM26/RM12	malka	-0.1	130000	79	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-01	-0.1	-0.1	-0.1	-0.1
GTC06C0BAL	>C6-C8"	TM36/PM12		<0.1	220000	230	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GTC08C10AL GTC10C12AL	>C8-C10																						
GTC12C16AL	>C12-C16	TM5/PM16																					
GTC16C21AL	>C16-C21																						
GTC21C35AL GTC05C35AL	>C21-C35" Total aliphatics C5-35				480000	92000																	
GTEC05EC07AR GTEC07EC08AR	>C5-EC7*																						
GTEC08EC10AR	>EC8-EC10																						
GTEC10EC12AR GTEC12EC16AR	>EC10-EC12" >EC12-EC16"																						
GTEC16EC21AR	>EC16-EC21																						
GTEC21EC35AR GTEC05EC35AR	>EC21-EC35" Total aromatics C5-35"				7800	1500																	
GTC05C35ALAR	Total alphatics and aromatics(CS-35)	TM5/TM36/PM12/PM16	mg/kg	<38			45	<38	48	<38	<38	<38	<38	<38	<38	<38	<38	<38	<38	<38	67	285	<38
1634-04-4 71-43-2	MTBE				400																		
108-88-3	Benzene* Toluene*																						
100-41-4	Ethy/benzene*		ug/kg	-6			<5	<5	<5	<5	<5	<5	<5	-6	<5	<5	<5	<5	<5	<5	-6	<5	-6
P_M_XYLENE 95-47-6	m/p-Xylene" o-Xylene"																						
7012-37-5	PCB 28"	TM17/PM8	ug/kg	-6			NA	<5	NA	NA	NA	<5	NA	<5	NA	NA	6						
35693-99-3	PCB 52																						
37680-73-2 31508-00-6	PCB 101 - PCB 118																						
35065-28-2 35065-27-1	PCB 138		ug/kg	-6			NA.	<5				<5								5			
35065-29-3	PCB 180 *																						
PCB_7_CON_TOTAL	Total 7 PCBs*	TM17/PM8	ug/kg	<35			NA	<35	NA	NA	NA	<35	NA	<35	NA	NA	<35						
PHENOLS_TOT	Total Phenois HPLC	TM26/PM21	mg/kg	<0.15	690	200	0.2	<0.15	<0.15	<0.15	0.23	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
MOIST_CONT_DRY	Natural Moisture Content	PM4/PM0	%	<0.1			11.8	8.8	10.7	8.7	10.3	5	3.7	5.4	6.3	2.9	4.1	2.8	NA	4.2	4.3	8.6	5
P1942	Natural Moisture Content	PM4/PM0	%	<0.1			NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	6.1	NA	NA	NA	
P1942 P1831	Molature Content 105C (% Dry Weight) Dry Matter Content Ratio 105°C																						
18540-29-9	the second se	TM20 DM20	malka	-0.3	220		-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
P1272	Sulphate as SO4 (2:1 Ext) *	TM38/PM20	9/1	<0.0015	220	6	0.0054	<0.0015	0.0087	<0.0015	0.0057	0.0016	<0.0015	0.0029	<0.0015	0.0024	<0.0015	<0.0015	NA	<0.0015	<0.0015	0.0423	0.0021
P1272	Sulphate as SO4 (2:1 Ext)	TM38/PM60	91	<0.0015			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0015	NA	NA	NA	NA
57-12-5	Total Cyanide*	TM89/PM45	mg/kg	<0.5	50	50	1.1	<0.5	0.7	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	1.4	1.8	0.8	0.7	1.4	<0.5	1.4	0.7
P1340	Total Organic Carbon	TM21/PM24	%	<0.02			NA	0.91	NA	NA	NA	2.11	NA	1.54	NA	NA	1.81						
ORG_MATTER	Organic Matter	TM21/PM24	%	<0.2			5.4	1.6	6.6	1.3	4.5	3.6	2.4	3.8	2.9	4.9	3.6	3.3	NDP	2.7	3.8	4.4	3.1
SULPHIDE	Sulphide	TM106/PM119	mg/kg	<10			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
P1114	ANC at pH4	TM77/PM0 TM77/PM0	mol/kg	<0.03			NA	0.03 NDP	NA NA	NA NA	NA NA	0.03 NDP	NA NA	0.03 NDP	NA NA	NA NA	<0.03 NDP						
P1115 P1226	ANC at pH7 Loss on Ignition*	TM22/PM0	mol/kg %	<0.03 <1.0			NA NA	3.5	NA	NA	NA	6.2	NA	NA	NA	NA	NA	NA.	NA	5.9	NA.	NA	6.7
P1334	pH*	TM73/PM11	pH units	<0.01			6.7	7.06	6.52	7.15	6.73	6.36	6.17	6.73	7.06	6.6	6.7	6.41	5.95	6.37	6.56	8.01	6.47
ASB_GEN_DESC	Asbestos Screen & Identification General Description (Bulk Analysis)	n TM65/PM42	None				soil/stone	NA	soil-stones	half	soil/stone	Sol/Stones	soil-stones	soil-stones	Soil/Stones	believes	halphar	help-or	soil-stones	Soil/Stones	Soil/Stones	soil/stone	soil/stone
ASB_GEN_DESC ASB_FIB	General Description (Bulk Analysis) Asbestos Fibres	TM65/PM42	None				soil/stone NAD	NA	soil-stones NAD	NAD	 soil/stone NAD 	Soll/Stones NAD	soil-stones NAD	soil-stones NAD	Soil/Stones NAD	NAD	NAD	NAD	 soil-stones Fibre Bundles 		Soll/Stones NAD	soil/stone NAD	NAD
ASB_FIB2	Asbestos Fibres (2)	TM65/PM42 TM65/PM42	None				NAD	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NA	NAD	NAD	NAD	NAD
ASB_ACM ASB_ACM_2	Asbestos ACM Asbestos ACM (2)	TM65/PM42 TM65/PM42	None None				NAD NAD	NA NA	NAD NAD	NAD NAD	NAD	NAD NAD	NAD NAD	NAD NAD	NAD NAD	NAD NAD	NAD NAD	NAD	NAD NA	NAD NAD	NAD NAD	NAD NAD	NAD NAD
ASB_TYPE ASB_TYPE_2	Asbestos Type Asbestos Type (2)	TM65/PM42 TM65/PM42	None None				NAD NAD	NA NA	NAD NAD	NAD NAD	NAD	NAD NAD	NAD NAD	NAD NAD	NAD NAD	NAD NAD	NAD NAD	NAD	Chrysotile NA	NAD NAD	NAD NAD	NAD NAD	NAD NAD
ASB_LEV_SCN	Asbestos Level Screen	TM65/PM42 TM65/PM42	None				NAD	NA	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NA <0.1%	NAD	NAD	NAD	NAD
* C4SL used in absence of S4	UL.																						

E Job No: 17/12453 COC No / misc Illent: RPS Containers V N Z P G<	Ponort:	Liquid				Sample ID	BH1	BH2	BH3
marting and a set of the set	Report:	Liquid				Depth			
martial matrix and a set of the set of t							VNZPG	VNZPG	VNZPG
mathsymmesymmesetups		FLEI 49 195							
Link mark Link mark <thlink mark<="" th=""> Link mark <thlink mark<="" th=""> Link mark <thlink mark<="" th=""> <thlink mark<="" th=""> <thlin< th=""><th>Contact</th><th>Lugy Eletters</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></thlin<></thlink></thlink></thlink></thlink>	Contact	Lugy Eletters							
AddamintaMark(bit(1)(D)(D)(D)Non-NormalNameNa		Laby Hanolo						8-14	15-21
Nuclear <						Batch Number	1	1	1
Nuclear <									
Nord-34 Display Contrain NAXMAA up -0.5 0.5	CAS Number	Test	Method	Units	LOD	UK DWS or EQS			
Mather MaterialTable MaterialTable MaterialTable MaterialA.S.A.S.A.S.A.S.A.S.Material 				ug/l					
Markas Distance loging TAXAPPIA opt d-2 200 d-7 d-2 d-2 Markas Distance Mainey TAXAPPIA 001 d-1 d-1 d-1 d-1 d-1 Markas Distance Mainey TAXAPPIA 001 d-3 d-0 d-3 d-3 d-3 Markas Distance Mainey TAXAPPIA 001 d-3 d-0 d-3									
No.92.1Diskate land TABE/TM4 VIEWmp1d d dd d dd d d dd d d d dd b d d <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
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ProblemDiskust Nature Tradeport Diskust StatuteTodoPM14 Tradeportup1d 									
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746066Decked ZieTade Mathup1d.d.f.d.f.d.				-					
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9.9.3.3NambanéTMAPRADup-0.10.10.10.10.10.120-03AnargahipanéTMAPRADup-0.0130.11-0.0130.01-0.01366-73PlazmeTMAPRADup-0.0140.11-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.015-0.013-0.01-0.0	7440-66-6	Dissolved Zinc	TM30/PM14	ug/l	<3	75	<3	3	<3
BosesAccention Accention Bit Accention Bit Accention 									
88-39AnalysineTMAPROup1-0.014-0.01-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014-0.015-0.014		•							
66-77 66-74ParameThatPhO MathRO 061-0014-014-0014									
Besch 100 PrimeTMAPPRO MAPPRO 100 PrimeColor				-					
13.1-27 Americane TMARPIAG op/l -0.013 0.11 -0.013 -0.013 204-04 Provention-accere TMARPIAG 0.01 -0.013 <td< td=""><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></td<>				-					
924-40 Processity and matches TMARPAD0 op1 4.012 0.11 4.0121 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0123 4.0131 4.0131 4.011 4.0111									
19-000 Pyrns TMAPMAD upd 4.013 0.1 4.013 0.013 0.015									
Seb-3Besudguirfingere Compare Depare 11 MARPAGTMARPAG MARPAGAD14AD15AD16AD16AD17BEINERFLUERAR BEINERFLUERAR SOL3ABesudguirria Besudguirria MARPAGTMARPAG MARPAGAD16AD16AD16AD16AD16SOL3A SOL3ABesudguirria Besudguirria MARPAGTMARPAG MARPAGAD16AD11AD11AD11AD11SOL3A SOL3ADescriptionprime MARPAGTMARPAG MARPAGAD11AD11AD11AD11AD11SOL3A SOL3ADescriptionprime MARPAGTMARPAG MARPAGAD1AD11AD11AD11AD11PMLM, TOTAL PMLM, TOTAL SOL3APM14 Filtinger MARPAGTMARPAG MARPAGAD11AD11AD11AD11AD11PMLSUR, TOTAL SOL3AL CITCUSCIMAL CITCUSCIMAL CITCUSCIMAL AC663TMARPAG TMARPAGAD1AD1AD11AD11AD11AD11CITCUSCIMAL CITC									
SEP-19 Chapses TMAP MOD op1 -0.011 -0.011 -0.011 -0.011 BR1 NAFL LUCK Brock All Luck Brock All Luck -0.018 -0.018 -0.018 -0.018 -0.018 -0.018 -0.018 -0.018 -0.011									
BBR MG K-LUORAN Berezskylucaminen TMA PMO0 of -0.018 0.01 -0.018 -0.018 133.365 Inderx123cdjayrene TMA PMO3 0.01 -0.011<									
Bis-29-8 Bis-20-30 (Second private Marke Marko) upd -0.016 -0.011 -0.010 -0.011 557-53 Disence Calcing interfaceone TMME Marko upd -0.011				ug/l					
1939-95 Index (2204)prive TMAF PAD0 up1 -0.011 -0.011 -0.011 -0.011 193-94 Desc (201)prive TMAF PAD0 up1 -0.011 0.01 -0.011		Benzo(bk)fluoranthene		ug/l					
Sh733 Descripting/memory TM44PM20 up1 -0.01 0.01 -0.	50-32-8		TM4/PM30	ug/l	<0.016	0.1	<0.016	<0.016	<0.016
P19-242 Beroclybiopyme TM4PTM00 up1 -0.011 0.1 -0.01 -0.01 -0.0	193-39-5	Indeno(123cd)pyrene	TM4/PM30	ug/l	<0.011	0.1	<0.011	<0.011	<0.011
PAH (S) TOTAL PAH (S) TOTAL TAH (S) TOTAL TAH (S) TOTAL OL (S)	53-70-3	Dibenzo(ah)anthracene	TM4/PM30	ug/l	<0.01	0.1	<0.01	<0.01	<0.01
29:99-29 PAH_SURF Bescolg/Mocrathene PAH_SURFAC TM4PM30 PAH_SURFAC op1 sold d.01 sold	191-24-2	Benzo(ghi)perylene	TM4/PM30	ug/l	<0.011	0.1	<0.011	<0.011	<0.011
207.089 PML_SUR.REC Bencylythoranthon PMLSUR.REC TMLPMAD0 PMLMPMAD0 vgl % -0.01 -0.01 -0.01 70 -0.01 70 -0.01 70 Definition GTC00500AL CS-CS TMLSPMD2 vgl MMPMD3 vgl 40 -10 10 -0.01 -0.01 GTC00500AL CS-CS TMLSPMD2 vgl 40 -10 10 -1	PAH_16_TOTAL	PAH 16 Total	TM4/PM30	ug/l	<0.195	0.1	<0.195	<0.195	<0.195
PAH, SUR, REC PAH Sungato % Recovery TM4PM00 % -0 70	205-99-2	Benzo(b)fluoranthene	TM4/PM30	ug/l	<0.01	0.1	<0.01	<0.01	<0.01
Drugen Name 1000000000000000000000000000000000000	207-08-9	Benzo(k)fluoranthene	TM4/PM30	ug/l	<0.01	0.1	<0.01	<0.01	<0.01
Aphate Sec	PAH_SUR_REC	PAH Surrogate % Recovery	TM4/PM30	%	<0		70	76	71
GTCOSCOGAL SGC 6 TMSRPM12 up1 <10 10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10									
GTC08C08AL >C6C-8 TM88PM12 up	0700500001		T100/D1440			10		10	40
GTCQ6C10AL xC8C10 TM36/PM12 up x10									
GTC 10212AL SC10-C12 TMSPMS0 ug1 -d-5 10 -d-5 -d-5 -d-0 GTC 102 C16AL SC12-C16 TMSPMS0 ug1 -0 10 -10 -10 -10 GTC 102 C16AL SC12-C15 TMSPMS0 ug1 -10 10 -10 -10 -10 GTC 102 C16AL SC12-C35 TMSPMS0/PM12 ug1 -10 <									
GTC12C16AL >C12 C16 TMSPM30 up <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10									
GTC16C21AL GTC21C3SAL >C16-C21 TMSPM30 up1 <10									
GTC21C3SAL >C21-C3S TMSIPM30 ug1 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10									
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GTEC07EC08AR >EC7-EC8 TM36/PM12 ug1 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	GTC05C35AL		TM5/TM36/PM30/PM12	ug/l	<10	10	<10	<10	<10
GTEC07EC08AR >EC7-EC8 TM36/PM12 ug/l <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <td>GTEC05EC07AR</td> <td>>C5-EC7</td> <td>TM36/PM12</td> <td>ug/l</td> <td><10</td> <td>10</td> <td><10</td> <td><10</td> <td><10</td>	GTEC05EC07AR	>C5-EC7	TM36/PM12	ug/l	<10	10	<10	<10	<10
GTEC08EC10AR >EC8-EC10 TM38/PM12 ug/l <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <td>GTEC07EC08AR</td> <td>>EC7-EC8</td> <td>TM36/PM12</td> <td></td> <td><10</td> <td>10</td> <td><10</td> <td><10</td> <td><10</td>	GTEC07EC08AR	>EC7-EC8	TM36/PM12		<10	10	<10	<10	<10
GTEC10EC12AR >EC10-EC12 TMS/PM30 ug/l									
GTEC12EC16AR >EC12-EC16 TMS/PM30 ug/l <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <td></td> <td>>EC10-EC12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		>EC10-EC12							
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GTEC21EC35AR >EC21-EC35 TMS/PM30 ug1 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
GTECOSEC3SAR Total arromatics CS-35 TMS/TM36/PM30/PM12 ug/l <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
GTC05C35ALAR Total alphatics and acomatics(C5-36) TM5/TM36/PM12 ug/l <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10 <		Total aromatics C5-35							
71-43-2 Benzene TM31/PM12 ug1 <5 1 <5 <5 <5 108-88-3 Toluene TM31/PM12 ug1 <5		Total aliphatics and aromatics(C5-35)							
71-43-2 Benzene TM31/PM12 ug1 <5 1 <5 <5 <5 108-88-3 Toluene TM31/PM12 ug1 <5	1634-04-4	MTBE	TM31/PM12	ug/l	<5		<5	<5	<5
108-88-3 Toluene TM31/PM12 ug1 <5 50 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td>						1			
100-41-4 Ethylbenzene TM31/PM12 ug/l -5 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
P.M.XYLENE 9547-6 m/p-Xylene o-Xylene TM31/PM12 TM31/PM12 ugit ugit <5 (5) 30 <5 (5) <5 (5) <5 (5) 108-95-2 Phenol TM26/PM0 mg/l <0.01			TM31/PM12	-					
95-47-6 o-Xylene TM31/PM12 ugl <5 30 <5 <5 <5 108-95-2 Phenol TM26/PM0 mg/l <0.01	P_M_XYLENE	m/p-Xylene	TM31/PM12		<5	30	<5	<5	<5
P1272 Sulphate as SO4 TM38/PM0 mg/l <0.5 250 68 81.4 102.6 57-12-5 Total Cyanide TM89/PM0 mg/l <0.01			TM31/PM12		<5	30	<5	<5	<5
57-12-5 Total Cyanide TM89/PM0 mg/l <0.01 50 <0.01 0.02 <0.01 18540-29-9 Hexavalent Chromium TM38/PM0 mg/l <0.006	108-95-2	Phenol	TM26/PM0	mg/l	<0.01	0.5	<0.01	<0.01	<0.01
18540-29-9 Hexavalent Chromium TM38/PM0 mg/l <0.006 50 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006	P1272	Sulphate as SO4	TM38/PM0	mg/l	<0.5	250	68	81.4	102.6
18540-29-9 Hexavalent Chromium TM38/PM0 mg/l <0.006 50 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006 <0.006	57-12-5	Total Cyanide	TM89/PM0	mg/l	<0.01	50	<0.01	0.02	<0.01
- SULPHIDE Sulphide TM106/PM0 mg/l <0.01 <0.01 <0.01 <0.01		Hexavalent Chromium	TM38/PM0	mg/l	<0.006	50	<0.006	<0.006	<0.006
	18540-29-9			-					
		Sulphide	TM106/PM0	mg/l	<0.01		<0.01	<0.01	<0.01



APPENDIX G

Laboratory Analytical Certificates



RPS

London,

EC4V 6BW

35 New Bridge Street,

Exova Jones Environmental

Registered Address : Exova (UK) Ltd, Lochend Industrial Estate, Newbridge, Midlothian, EH28 8P

Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA

Tel: +44 (0) 1244 833780 Fax: +44 (0) 1244 833781



Attention :	Rob Philip
Date :	11th July, 2017
Your reference :	HLEI 49195
Our reference :	Test Report 17/11245 Batch 1
Location :	Turing House Free School
Date samples received :	30th June, 2017
Status :	Final report
Issue :	1

Twenty samples were received for analysis on 30th June, 2017 of which seventeen were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Compiled By:

6 June

Bruce Leslie Project Co-ordinator

Client Name:
Reference:
Location:
Contact:
JE Job No.:

HLEI 49195 Turing House Free School Rob Philip 17/11245

RPS

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

	17/11245												
J E Sample No.	1-2	3-5	6-7	8-9	10-11	14-16	17-18	19-20	21-22	23-24			
Sample ID	BH1	BH1	BH2	BH2	BH3	HP1	HP2	HP3	HP4	HP5			
Depth	0.30	0.40	0.20	0.50	0.20	0.20	0.20	0.30	0.25	0.45	Please se	e attached n	otes for all
COC No / misc												ations and a	
Containers	٧J	VJT	٧J	٧J	νJ	VJT	٧J	٧J	٧J	٧J			
Sample Date	29/06/2017	29/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	29/06/2017			
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt		30/06/2017		30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	LOD/LOR	Units	Method No.
Arsenic [#]	13.4	23.5	10.2	13.5	11.9	11.5	12.3	11.7	11.5	15.4	<0.5	mg/kg	TM30/PM15
Cadmium [#]	3.0	0.5	3.0	0.3	2.5	1.6	0.4	1.3	1.1	3.3	<0.1	mg/kg	TM30/PM15
Chromium [#]	77.4	92.6	83.4	69.7	82.5	61.5	71.0	69.5	61.3	63.2	<0.5	mg/kg	TM30/PM15
Copper [#]	48	14	53	14	40	40	26	44	78	150	<1	mg/kg	TM30/PM15
Lead [#]	219	62	186	38	178	178	144	580	832	1257	<5	mg/kg	TM30/PM15
Mercury [#]	1.2	0.2	1.1	0.2	0.9	1.4	0.6	0.6	0.7	0.9	<0.1	mg/kg	TM30/PM15
Nickel [#]	18.8	20.9	16.6	14.5	16.4	16.9	12.6	16.1	15.2	22.0	<0.7	mg/kg	TM30/PM15
Selenium #	<1	1	<1	<1	<1	1	<1	<1	<1	<1	<1	mg/kg	TM30/PM15
Zinc [#]	155	56	176	44	134	128	82	119	188	399	<5	mg/kg	TM30/PM15
Arsenic	-	-	-	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM62
Cadmium	-	-	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM62
Chromium	-	-	-	-	-	-	-	-	-	-	<0.5	mg/kg	TM30/PM62
Copper	-	-	-	-	-	-	-	-	-	-	<1	mg/kg	TM30/PM62
Lead	-	-	-	-	-	-	-	-	-	-	<5	mg/kg	TM30/PM62
Mercury	-	-	-	-	-	-	-	-	-	-	<0.1	mg/kg	TM30/PM62
Nickel Selenium	-	-	-	-	-	-	-	-	-	-	<0.7 <1	mg/kg	TM30/PM62 TM30/PM62
Zinc	-	-	-	-	-	-	-	-	-	-	<1	mg/kg mg/kg	TM30/PM62
2.110											~0	iiig/iig	11100/111102
PAH MS													
Naphthalene [#]	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.06	<0.03	0.07	<0.03	0.07	0.05	0.04	0.04	0.04	0.08	<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene [#]	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.28	0.03	0.17	<0.03	0.22	0.19	0.17	0.25	0.15	0.46	<0.03	mg/kg	TM4/PM8
Anthracene #	0.08	<0.04	0.06	<0.04	0.07	0.06	0.07	0.06	0.04	0.14	<0.04	mg/kg	TM4/PM8
Fluoranthene #	0.61	0.07	0.44	0.03	0.53	0.41	0.41	0.46	0.33	1.01	<0.03	mg/kg	TM4/PM8
Pyrene [#]	0.52	0.05	0.37	<0.03	0.44	0.34	0.36	0.39	0.28	0.83	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.41	<0.06	0.29	<0.06	0.35	0.25	0.28	0.31	0.21	0.63	<0.06	mg/kg	TM4/PM8
Chrysene [#]	0.45	0.05	0.30	0.03	0.35	0.29	0.30	0.32	0.22	0.59	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	0.88	<0.07	0.65	<0.07	0.73	0.56	0.56	0.68	0.46	1.15	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene [#]	0.47	<0.04	0.34	<0.04	0.39	0.26	0.25	0.39	0.24	0.59	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene [#]	0.47	0.04	0.37	<0.04	0.42	0.30	0.27	0.40	0.24	0.56	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.09	<0.04	0.07	<0.04	0.07	0.05	0.05	0.09	0.04	0.11	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	0.32	<0.04	0.28	<0.04	0.28	0.20	0.20	0.27	0.17	0.40	<0.04	mg/kg	TM4/PM8
Coronene PAH 16 Total	- 4.6	<0.04 <0.6	- 3.4	- <0.6	- 3.9	0.10 3.0	- 3.0	- 3.7	- 2.4	- 6.6	<0.04 <0.6	mg/kg mg/kg	TM4/PM8 TM4/PM8
PAH 17 Total	-	<0.64	-	-	-	3.06	-	-	-	-	<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.63	<0.04	0.47	<0.05	0.53	0.40	0.40	0.49	0.33	0.83	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.25	<0.02	0.18	<0.02	0.20	0.16	0.16	0.19	0.13	0.32	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	113	90	110	114	112	113	105	114	124	118	<0	%	TM4/PM8
Mineral Oil (C10-C40)	-	<30	-	-	-	<30	-	-	-	-	<30	mg/kg	TM5/PM16

Client Name:	RPS HLEI 4919	25					Report :	Solid					
Reference: Location:		eo Iuse Free S	School						r I_250a al	ass jar, T=p	loctic tub		
Contact:	Rob Philip		CIIOOI				5011dS: V=	bug voc ja	r, J=250g gi	ass jar, 1=p	astic tud		
JE Job No.:	17/11245	,											
											Ì		
J E Sample No.	1-2	3-5	6-7	8-9	10-11	14-16	17-18	19-20	21-22	23-24			
Sample ID	BH1	BH1	BH2	BH2	BH3	HP1	HP2	HP3	HP4	HP5			
Depth		0.40	0.20	0.50	0.20	0.20	0.20	0.30	0.25	0.45		e attached r ations and a	
COC No / misc Containers		VJT	VJ	VJ	V J	VJT	VJ	VJ	VJ	VJ	abbrevi	allons and a	CIONYINS
Sample Date		29/06/2017	28/06/2017		28/06/2017		28/06/2017		28/06/2017				
-													
Sample Type		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil			
Batch Number	1	1	1	1	1	1	1	1	1	1	LOD/LOR	Units	Method
Date of Receipt	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017			No.
TPH CWG													
Aliphatics													
>C5-C6 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C6-C8 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>C8-C10 >C10-C12 [#]	<0.1	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	mg/kg mg/kg	TM36/PM12 TM5/PM16
>C10-C12 >C12-C16 [#]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM16 TM5/PM16
>C12-C18	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM16
>C21-C35#	17	<7	18	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM16
Total aliphatics C5-35	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	<19	mg/kg	TM5/TM36/PM12/PM16
Aromatics													
>C5-EC7#	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC7-EC8 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC8-EC10 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM36/PM12
>EC10-EC12 [#]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	TM5/PM16
>EC12-EC16 [#]	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	mg/kg	TM5/PM16
>EC16-EC21 #	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	mg/kg	TM5/PM16
>EC21-EC35#	45	<7	48	<7	24	12	16	<7	<7	27	<7	mg/kg	TM5/PM16
Total aromatics C5-35 [#] Total aliphatics and aromatics(C5-35)	45 45	<19 <38	48 48	<19 <38	24 <38	<19 <38	<19 <38	<19 <38	<19 <38	27 <38	<19 <38	mg/kg mg/kg	TM5/TM36/PM12/PM16
		<50	40	<50	<00	<00	<00	<00	<00	<00	<00	ing/kg	
MTBE [#]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Benzene [#]	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Toluene #	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12
Ethylbenzene#	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/kg	TM31/PM12 TM31/PM12
m/p-Xylene [#] o-Xylene [#]	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	<5 <5	ug/kg ug/kg	TM31/PM12 TM31/PM12
o Aylono	~0	~0	~0	~~	~5	~5	~5	~5	~5	~5	~5	ug/ng	
PCB 28 [#]	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 52#	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 101 [#]	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 118 [#]	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 138 [#]	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 153 [#]	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
PCB 180 [#]	-	<5	-	-	-	<5	-	-	-	-	<5	ug/kg	TM17/PM8
Total 7 PCBs [#]	-	<35	-	-	-	<35	-	-	-	-	<35	ug/kg	TM17/PM8
Total Phenols HPLC	0.20	<0.15	<0.15	<0.15	0.23	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	mg/kg	TM26/PM21
Natural Moisture Content	11.8	8.8	10.7	8.7	10.3	5.0	3.7	5.4	6.3	2.9	<0.1	%	PM4/PM0
Natural Moisture Content	-	-	-	-	-	-	-	-	-	-	<0.1	%	PM4/PM0
Hexavalent Chromium *	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	mg/kg	TM38/PM20
Sulphate as SO4 (2:1 Ext) #	0.0054	<0.0015	0.0087	<0.0015	0.0057	0.0016	<0.0015	0.0029	<0.0015	0.0024	<0.0015	g/l	TM38/PM20

Client Name:	RPS						Report :	Solid					
	HLEI 4919	95											
	-	use Free S	School				Solids: V=	60g VOC ja	r, J=250g gl	ass jar, T=p	lastic tub		
	Rob Philip												
JE Job No.:	17/11245									1			
J E Sample No.	1-2	3-5	6-7	8-9	10-11	14-16	17-18	19-20	21-22	23-24			
Sample ID	BH1	BH1	BH2	BH2	BH3	HP1	HP2	HP3	HP4	HP5			
Depth		0.40	0.20	0.50	0.20	0.20	0.20	0.30	0.25	0.45		e attached n ations and a	
COC No / misc Containers		VJT	٧J	٧J	VJ	VJT	٧J	٧J	٧J	٧J			
Sample Date	29/06/2017	29/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	28/06/2017	29/06/2017			
Sample Type		Soil	Soil										
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt				30/06/2017			30/06/2017			30/06/2017	LOD/LOR	Units	Method No.
Sulphate as SO4 (2:1 Ext)	-	-	-	-	-	-	-	-	-	-	<0.0015	a/l	TM38/PM60
Supriale as 304 (2.1 Exi)	-	-	-	-	-	-	-	-	-	-	<0.0015	g/l	110136/F10100
Total Cyanide [#]	1.1	<0.5	0.7	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	mg/kg	TM89/PM45
Total Organic Carbon [#]	-	0.91	-	-	-	2.11	-	-	-	-	<0.02	%	TM21/PM24
Organic Matter	5.4	1.6	6.6	1.3	4.5	3.6	2.4	3.8	2.9	4.9	<0.2	%	TM21/PM24
Sulphide	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	mg/kg	TM106/PM119
ANC at pH4	-	0.03	-	-	-	0.03	-	-	-	-	< 0.03	mol/kg	TM77/PM0
ANC at pH7	-	NDP	-	-	-	NDP	-	-	-	-	<0.03	mol/kg	TM77/PM0
Loss on Ignition [#]	-	3.5	-	-	-	6.2	-	-	-	-	<1.0	%	TM22/PM0
рН *	6.70	7.06	6.52	7.15	6.73	6.36	6.17	6.73	7.06	6.60	<0.01	pH units	TM73/PM11

Client Name:
Reference:
Location:
Contact:
JE Job No.:

HLEI 49195 Turing House Free School Rob Philip 17/11245

RPS

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

JE Job No.:	17/11245								_		
J E Sample No.	25-26	27-28	29-30	33-35	36-37	38-39	42-44				
Sample ID	HP6	HP7	HP8	HP9	HP10	HP11	HP12				
Depth	0.30	0.25	0.25	0.35	0.20	0.25	0.30		Please se	e attached n	otes for all
COC No / misc										ations and a	
Containers	VJ	٧J	٧J	VJT	٧J	νJ	VJT				
Sample Date	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1				
Date of Receipt		30/06/2017		30/06/2017	30/06/2017	30/06/2017	30/06/2017		LOD/LOR	Units	Method No.
Arsenic [#]	13.3	11.1	-	10.8	12.6	10.1	11.8		<0.5	mg/kg	TM30/PM15
Cadmium [#]	4.2	2.4	-	3.5	3.3	0.2	2.2		<0.1	mg/kg	TM30/PM15
Chromium [#]	75.4	76.6	-	73.6	68.8	74.3	66.6		<0.5	mg/kg	TM30/PM15
Copper [#]	61	45	-	46	44	27	37		<1	mg/kg	TM30/PM15
Lead [#]	212	187	-	118	106	129	130		<5	mg/kg	TM30/PM15
Mercury [#]	0.7	0.5	-	0.7	0.5	0.4	0.5		<0.1	mg/kg	TM30/PM15
Nickel [#]	19.2	17.2	-	17.1	18.3	14.1	15.7		<0.7	mg/kg	TM30/PM15
Selenium [#]	<1	<1	-	<1	10.5	<1	<1		<1	mg/kg	TM30/PM15
Zinc [#]	164	131	-	120	119	90	114		<5		TM30/PM15
	-	-		-	-	-	-		<0.5	mg/kg	TM30/PM62
Arsenic Cadmium	-	-	12.0 1.8	-	-	-	-		<0.5	mg/kg	TM30/PM62
Chromium	-			-	-	-				mg/kg	TM30/PM62
	-	-	35.1			-	-		<0.5	mg/kg	TM30/PM62 TM30/PM62
Copper	-	-	38	-	-	-	-		<1	mg/kg	
Lead	-	-	202	-	-	-	-		<5	mg/kg	TM30/PM62
Mercury	-	-	0.6	-	-	-	-		<0.1	mg/kg	TM30/PM62
Nickel	-	-	17.6	-	-	-	-		<0.7	mg/kg	TM30/PM62
Selenium	-	-	<1	-	-	-	-		<1	mg/kg	TM30/PM62
Zinc	-	-	123	-	-	-	-		<5	mg/kg	TM30/PM62
PAH MS							4.00				T1 / / D1 / 0
Naphthalene #	<0.04	0.06	<0.04	<0.04	<0.04	0.35	1.38		<0.04	mg/kg	TM4/PM8
Acenaphthylene	0.05	0.05	0.04	0.04	0.07	1.63	0.07		<0.03	mg/kg	TM4/PM8
Acenaphthene #	<0.05	<0.05	<0.05	<0.05	<0.05	0.55	<0.05		<0.05	mg/kg	TM4/PM8
Fluorene [#]	<0.04	<0.04	<0.04	<0.04	<0.04	0.65	<0.04		<0.04	mg/kg	TM4/PM8
Phenanthrene #	0.21	0.22	0.14	0.14	0.32	6.13	0.35		<0.03	mg/kg	TM4/PM8
Anthracene #	0.07	0.06	<0.04	0.04	0.17	2.08	0.05		<0.04	mg/kg	TM4/PM8
Fluoranthene [#]	0.51	0.45	0.31	0.33	0.76	14.12	0.32		<0.03	mg/kg	TM4/PM8
Pyrene [#]	0.42	0.38	0.24	0.28	0.65	11.88	0.27		<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	0.30	0.26	0.20	0.19	0.46	8.18	0.19		<0.06	mg/kg	TM4/PM8
Chrysene #	0.32	0.27	0.22	0.22	0.52	6.42	0.21		<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #	0.66	0.55	0.38	0.40	1.07	14.37	0.36		<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene [#]	0.31	0.26	0.18	0.19	0.45	7.75	0.18		<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene#	0.35	0.31	0.21	0.24	0.53	6.73	0.20		<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	0.06	0.04	<0.04	0.04	0.11	1.25	<0.04		<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene [#]	0.24	0.21	0.15	0.17	0.41	4.71	0.15		<0.04	mg/kg	TM4/PM8
Coronene	-	-	-	0.06	-	-	0.06		<0.04	mg/kg	TM4/PM8
PAH 16 Total	3.5	3.1	2.1	2.3	5.5	86.8	3.7		<0.6	mg/kg	TM4/PM8
PAH 17 Total	-	-	-	2.34	-	-	3.79		<0.64	mg/kg	TM4/PM8
Benzo(b)fluoranthene	0.48	0.40	0.27	0.29	0.77	10.35	0.26		<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	0.18	0.15	0.11	0.11	0.30	4.02	0.10		<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	110	129	104	104	100	110	111		<0	%	TM4/PM8
Mineral Oil (C10-C40)	-	-	-	<30	-	-	<30		<30	mg/kg	TM5/PM16

Client Name:	RPS HLEI 4919	25					Report :	Solid					
Reference: Location: Contact:		use Free S	School				Solids: V=	60g VOC ja	r, J=250g g	ass jar, T=p	plastic tub		
JE Job No.:	17/11245												
J E Sample No.	25-26	27-28	29-30	33-35	36-37	38-39	42-44]		
Sample ID	HP6	HP7	HP8	HP9	HP10	HP11	HP12						
Depth	0.30	0.25	0.25	0.35	0.20	0.25	0.30				Please se	e attached r	notes for all
COC No / misc												ations and a	
Containers	٧J	٧J	٧J	VJT	νJ	V J	VJT						
Sample Date	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017						
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Batch Number	1	1	1	1	1	1	1						
Date of Receipt			30/06/2017		30/06/2017	30/06/2017					LOD/LOR	Units	Method No.
PH CWG													
Aliphatics													
·C5-C6 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM
•C6-C8 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM
•C8-C10 •C10-C12 [#]	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2	<0.1 <0.2				<0.1 <0.2	mg/kg mg/kg	TM36/PM TM5/PM1
•C12-C16 [#]	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	mg/kg	TM5/PM1
•C16-C21 #	<7	<7	<7	<7	<7	<7	<7				<7	mg/kg	TM5/PM1
•C21-C35 [#]	<7	<7	<7	<7	<7	<7	11				<7	mg/kg	TM5/PM1
Total aliphatics C5-35	<19	<19	<19	<19	<19	<19	<19				<19	mg/kg	TM5/TM36/PM12/PI
Aromatics													
•C5-EC7 #	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM
EC7-EC8 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM
EC8-EC10 [#]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1	mg/kg	TM36/PM
EC10-EC12#	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2				<0.2	mg/kg	TM5/PM1
EC12-EC16 [#]	<4	<4	<4	<4	<4	<4	<4				<4	mg/kg	TM5/PM1
EC16-EC21 #	<7	<7	<7	<7	<7	60	<7				<7	mg/kg	TM5/PM1
>EC21-EC35 [#] Fotal aromatics C5-35 [#]	25 25	21 21	<7 <19	17 <19	67 67	225 285	13 <19				<7 <19	mg/kg mg/kg	TM5/PM1
otal aliphatics and aromatics(C5-35)	<38	<38	<38	<38	67	285	<38				<38	mg/kg	TM5/TM36/PM12/P
	100	100	100	100	01	200	100				100		
MTBE [#]	<5	<5	<5	<5	<5	<5	<5				<5	ug/kg	TM31/PM
Benzene [#]	<5	<5	<5	<5	<5	<5	<5				<5	ug/kg	TM31/PM
Foluene #	<5	<5	<5	<5	<5	<5	<5				<5	ug/kg	TM31/PM
Ethylbenzene #	<5	<5	<5	<5	<5	<5	<5				<5	ug/kg	TM31/PM
m/p-Xylene #	<5	<5	<5	<5	<5	<5	<5				<5	ug/kg	TM31/PM
o-Xylene [#]	<5	<5	<5	<5	<5	<5	<5				<5	ug/kg	TM31/PM
PCB 28 #	-	-	-	<5	-	-	<5				<5	ug/kg	TM17/PM
PCB 28	-	-	-	<5	-	-	<5				<5	ug/kg	TM17/PM
PCB 101 #	-	-	-	<5	-	-	<5				<5	ug/kg	TM17/PM
PCB 118 [#]	-	-	-	<5	-	-	<5				<5	ug/kg	TM17/PM
PCB 138 [#]	-	-	-	5	-	-	<5				<5	ug/kg	TM17/PM
PCB 153 #	-	-	-	<5	-	-	<5				<5	ug/kg	TM17/PM
PCB 180 [#]	-	-	-	<5	-	-	<5				<5	ug/kg	TM17/PM
otal 7 PCBs [#]	-	-	-	<35	-	-	<35				<35	ug/kg	TM17/PM
Total Phenols HPLC	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15				<0.15	mg/kg	TM26/PM
Vatural Moisture Content	4.1	2.8	-	4.2	4.3	8.6	5.0				<0.1	%	PM4/PM
Natural Moisture Content	-	-	6.1	-	-	-	-				<0.1	%	PM4/PM
lexavalent Chromium #	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3				<0.3	mg/kg	TM38/PM
Sulphate as SO4 (2:1 Ext) #	<0.0015	<0.3	-	<0.3	<0.3	0.0423	0.0021				<0.0015	g/l	TM38/PM

Client Name:	RPS
Reference:	HLEI 49195
Location:	Turing House Free School
Contact:	Rob Philip
JE Job No.:	17/11245

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

Contact: JE Job No.:	Rob Philip 17/11245)							_		
J E Sample No.	25-26	27-28	29-30	33-35	36-37	38-39	42-44				
Sample ID	HP6	HP7	HP8	HP9	HP10	HP11	HP12				
Depth	0.30	0.25	0.25	0.35	0.20	0.25	0.30		Please se	e attached n	otes for all
COC No / misc									abbrevi	ations and a	cronyms
Containers	٧J	νJ	νJ	VJT	νJ	νJ	VJT				
Sample Date	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017	29/06/2017				
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil				
Batch Number	1	1	1	1	1	1	1		LOD/LOR	Units	Method
Date of Receipt	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017	30/06/2017		LOD/LOK	Offiles	No.
Sulphate as SO4 (2:1 Ext)	-	-	<0.0015	-	-	-	-		<0.0015	g/l	TM38/PM60
Total Cyanide [#]	1.8	0.8	0.7	1.4	<0.5	1.4	0.7		<0.5	mg/kg	TM89/PM45
		0.0		,		,	0		.0.0		
Total Organic Carbon #	-	-	-	1.54	-	-	1.81		<0.02	%	TM21/PM24
Organic Matter	3.6	3.3	NDP	2.7	3.8	4.4	3.1		<0.2	%	TM21/PM24
Sulphide	<10	<10	<10	<10	<10	<10	<10		<10	mg/kg	TM106/PM119
ANC at pH4	-	-	-	0.03	-	-	<0.03		<0.03	mol/kg	TM77/PM0
ANC at pH7	-	-	-	NDP	-	-	NDP		<0.03	mol/kg	TM77/PM0
Loss on Ignition [#] pH [#]	- 6.70	- 6.41	- 5.95	5.9 6.37	- 6.56	- 8.01	6.7 6.47		<1.0 <0.01	% pH units	TM22/PM0 TM73/PM11

CEN 10:1 LEACHATE RESULTS PrEN 12547-2

Mass of sample taken (kg)	-		Moisture Content Ratio (%) =		16.9	
Mass of dry sample (kg) =	0.09		Dry Matter Content Ratio (%) =		85.5	
Particle Size <4mm =	>95%					
JEFL Job No			17/11245	Landf	ill Waste Ac	ceptance
Sample No			5		Criteria Lim	its
Client Sample No			BH1		Stable	
Depth/Other			0.40	Inert	Non-reactive	Hazardous
Sample Date			29/06/2017	Waste	Hazardous Waste in Non-	Waste
Batch No			1	Landfill	Hazardous	Landfill
Solid Waste Analysis					Landfill	
Total Organic Carbon (%)	0.91			3	5	6
Loss on Ignition (%)	3.5			-	-	10
Sum of BTEX (mg/kg)	<0.025			6	-	-
Sum of 7 PCBs (mg/kg)	<0.035			1	-	-
Mineral Oil (mg/kg)	<30			500	-	-
PAH Sum of 17(mg/kg)	<0.64			100	-	-
pH (pH Units)	7.06			-	>6	-
ANC to pH 7 (mol/kg)	NDP			-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	0.03			-	to be evaluated	to be evaluated
Eluate Analysis	10:1 conc ⁿ leached C ₁₀ A ₁₀			Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 I/kg		using
	mg/l	mg/kg			mg/kg	
Arsenic	< 0.0025	< 0.025		0.5	2	25
Barium	<0.003	<0.03		20	100	300
Cadmium	< 0.0005	<0.005		0.04	1	5
Chromium	< 0.0015	<0.015		0.5	10	70
Copper	0.010	0.10		2	50	100
Mercury	<0.001	<0.01		0.01	0.2	2
Molybdenum	<0.002	<0.02		0.5	10	30
Nickel	0.003	0.03		0.4	10	40
Lead	<0.005	<0.05		0.5	10	50
Antimony	<0.002	<0.02		0.06	0.7	5
Selenium	<0.003	<0.03		0.1	0.5	7
Zinc	0.007	0.07		4	50	200
Chloride	0.7	7		800	15000	25000
Fluoride	<0.3	<3		10	150	500
Sulphate as SO4	<0.05	<0.5		1000	20000	50000
Total Dissolved Solids	124	1240		4000	60000	100000
Phenol	<0.01	<0.1		1	-	-
Dissolved Organic Carbon	8	80		500	800	1000

CEN 10:1 LEACHATE RESULTS PrEN 12547-2

Mass of sample taken (kg) -Mass of dry sample (kg) = Particle Size <4mm =

0.09 >95% Moisture Content Ratio (%) = Dry Matter Content Ratio (%) = 7.8 92.8

JEFL Job No			17/11245	Land	Landfill Waste Acceptance			
Sample No			16		Criteria Lin	nits		
Client Sample No			HP1		Stable			
Depth/Other			0.20	Inert	Non-reactive	Hazardous		
Sample Date			28/06/2017	Waste	Hazardous Waste in Non-	Waste		
Batch No			1	Landfill	Hazardous	Landfill		
Solid Waste Analysis					Landfill			
Total Organic Carbon (%)	2.11			3	5	6		
Loss on Ignition (%)	6.2			-	-	10		
Sum of BTEX (mg/kg)	<0.025			6	-	-		
Sum of 7 PCBs (mg/kg)	<0.035			1	-	-		
Mineral Oil (mg/kg)	<30			500	-	-		
PAH Sum of 17(mg/kg)	3.06			100	-	-		
pH (pH Units)	6.36			-	>6	-		
ANC to pH 7 (mol/kg)	NDP			-	to be evaluated	to be evaluate		
ANC to pH 4 (mol/kg)	0.03			-	to be evaluated	to be evaluate		
	C ₁₀ mg/l	A ₁₀ mg/kg			mg/kg			
Arsenic	<0.0025	<0.025		0.5	2	25		
Barium	0.003	0.03		20	100	300		
Cadmium	< 0.0005	< 0.005		0.04	1	5		
Chromium	< 0.0015	<0.015		0.5	10	70		
Copper	0.020	0.20		2	50	100		
Mercury	<0.001	<0.01		0.01	0.2	2		
Molybdenum	<0.002	<0.02		0.5	10	30		
Nickel	0.003	0.03		0.4	10	40		
Lead	< 0.005	<0.05		0.5	10	50		
Antimony	0.007	0.07		0.06	0.7	5		
Selenium	< 0.003	<0.03		0.1	0.5	7		
Zinc	0.022	0.22		4	50	200		
Chloride	0.5	5		800	15000	25000		
Fluoride	<0.3	<3		10	150	500		
Sulphate as SO4	<0.05	<0.5		1000	20000	50000		
Total Dissolved Solids	35	350		4000	60000	100000		
Total Dissolved Solids								
Phenol	<0.01	<0.1		1	-	-		

CEN 10:1 LEACHATE RESULTS PrEN 12547-2

Mass of sample taken (kg) -Mass of dry sample (kg) = Particle Size <4mm =

0.09 >95% Moisture Content Ratio (%) = Dry Matter Content Ratio (%) = 6.5 93.9

JEFL Job No			Landfill Waste Acceptance			
Sample No			35		Criteria Lin	nits
Client Sample No			HP9		Stable	
Depth/Other			0.35	Inert	Non-reactive	Hazardous
Sample Date			29/06/2017	Waste	Hazardous Waste in Non-	Waste
Batch No			1	Landfill	Hazardous	Landfill
Solid Waste Analysis		_			Landfill	
Total Organic Carbon (%)	1.54			3	5	6
Loss on Ignition (%)	5.9			-	-	10
Sum of BTEX (mg/kg)	<0.025			6	-	-
Sum of 7 PCBs (mg/kg)	<0.035			1	-	-
Mineral Oil (mg/kg)	<30			500	-	-
PAH Sum of 17(mg/kg)	2.34			100	-	-
pH (pH Units)	6.37			-	>6	-
ANC to pH 7 (mol/kg)	NDP			-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	0.03			-	to be evaluated	to be evaluated
	C ₁₀ mg/l	A ₁₀ mg/kg			12457-2 at mg/kg	_/3 10 l/kg
Arsenic	<0.0025	<0.025		0.5	2	25
Barium	0.009	0.09		20	100	300
Cadmium	0.0008	0.008		0.04	1	5
Chromium	0.0030	0.030		0.5	10	70
Copper	0.046	0.46		2	50	100
Mercury	<0.001	<0.01		0.01	0.2	2
Molybdenum	<0.002	<0.02		0.5	10	30
Nickel	0.012	0.12		0.4	10	40
Lead	<0.005	<0.05		0.5	10	50
Antimony	0.003	0.03		0.06	0.7	5
Selenium	< 0.003	<0.03		0.1	0.5	7
Zinc	0.032	0.32		4	50	200
Chloride	0.6	6		800	15000	25000
Fluoride	<0.3	<3		10	150	500
Sulphate as SO4	<0.05	<0.5		1000	20000	50000
	62	620		4000	60000	100000
Total Dissolved Solids	02	020				
Total Dissolved Solids Phenol	<0.01	<0.1		1	-	-

CEN 10:1 LEACHATE RESULTS PrEN 12547-2

Mass of sample taken (kg) -Mass of dry sample (kg) = 0.09 Particle Size <4mm = >95%

Moisture Content Ratio (%) = Dry Matter Content Ratio (%) = 7.3 93.2

JEFL Job No			17/11245	Land	Ifill Waste Ac	ceptance
Sample No			44		Criteria Lin	nits
Client Sample No			HP12		Stable	
Depth/Other			0.30	Inert	Non-reactive	Hazardous
Sample Date			29/06/2017	Waste	Hazardous Waste in Non-	Waste
Batch No			1	Landfill	Hazardous	Landfill
Solid Waste Analysis					Landfill	
Total Organic Carbon (%)	1.81			3	5	6
Loss on Ignition (%)	6.7			-	-	10
Sum of BTEX (mg/kg)	<0.025			6	-	-
Sum of 7 PCBs (mg/kg)	<0.035			1	-	-
Mineral Oil (mg/kg)	<30			500	-	-
PAH Sum of 17(mg/kg)	3.79			100	-	-
pH (pH Units)	6.47			-	>6	-
ANC to pH 7 (mol/kg)	NDP			-	to be evaluated	to be evaluated
ANC to pH 4 (mol/kg)	<0.03			-	to be evaluated	to be evaluated
Eluate Analysis	C ₁₀	A ₁₀		BS EI	N 12457-2 at	L/S 10 l/kg
	mg/l	mg/kg			mg/kg	
Arsenic	<0.0025	<0.025		0.5	2	25
Barium	0.012	0.12		20	100	300
Cadmium	0.0008	0.008		0.04	1	5
Chromium	0.0042	0.042		0.5	10	70
Copper	0.038	0.38		2	50	100
Mercury	<0.001	<0.01		0.01	0.2	2
Molybdenum	<0.002	<0.02		0.5	10	30
Nickel	0.010	0.10		0.4	10	40
Lead	0.006	0.06		0.5	10	50
Antimony	0.002	<0.02		0.06	0.7	5
Selenium	< 0.003	<0.03		0.1	0.5	7
Zinc	0.032	0.32		4	50	200
Chloride	0.8	8		800	15000	25000
Fluoride	<0.3	<3		10	150	500
Sulphate as SO4	<0.05	<0.5		1000	20000	50000
Total Dissolved Solids	<35	<350		4000	60000	100000
Phenol	<0.01	<0.1		1	-	-
Dissolved Organic Carbon	18	180				

Client Name:	RPS
Reference:	HLEI 49195
Location:	Turing House Free School
Contact:	Rob Philip

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Samples are retained for not less than 6 months from the date of analysis unless specifically requested.

Opinions, including ACM type and Asbestos level, lie outside the scope of our UKAS accreditation.

Where the sample is not taken by a Jones Environmental Laboratory consultant, Jones Environmental Laboratory cannot be responsible for inaccurate or unrepresentative sampling.

Signed on behalf of Jones Environmental Laboratory:

ATT.

Ryan Butterworth Asbestos Team Leader

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
17/11245	1	BH1	0.30	2	05/07/2017	General Description (Bulk Analysis)	soil/stone
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	BH2	0.20	7	05/07/2017	General Description (Bulk Analysis)	soil-stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	BH2	0.50	9	05/07/2017	General Description (Bulk Analysis)	Soil-Silt/Clay/Brick/Stone
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	BH3	0.20	11	05/07/2017	General Description (Bulk Analysis)	soil/stone
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP1	0.20	15	05/07/2017	General Description (Bulk Analysis)	Soil/Stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD

Jones Environmental Laboratory

Client Name:
Reference:
Location:
Contact:

RPS HLEI 49195 Turing House Free School Rob Philip

Contact							
J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
17/11245	1	HP1	0.20	15	05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP2	0.20	18	05/07/2017	General Description (Bulk Analysis)	soil-stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
							NAD
					05/07/2017	Asbestos Type (2)	
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP3	0.30	20	05/07/2017	General Description (Bulk Analysis)	soil-stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
					05/07/2017	Aspestos Level Screen	NAD
17/11245	1	HP4	0.25	22	05/07/2017	General Description (Bulk Analysis)	Soil/Stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP5	0.45	24	05/07/2017	General Description (Bulk Analysis)	Soil-Silt/Clay/Brick/Stone
17/11243		1110	0.45	24		,	-
					05/07/2017	Asbestos Fibres	NAD
						Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
						Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP6	0.30	26	05/07/2017	General Description (Bulk Analysis)	Soil-Silt/Clay/Brick/Stone
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017		NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP7	0.25	28	05/07/2017	General Description (Bulk Analysis)	Soil-Silt/Clay/Brick/Stone
					05/07/2017	Asbestos Fibres	NAD
			1				

Jones Environmental Laboratory

Client Name:
Reference:
Location:
Contact:

RPS HLEI 49195 Turing House Free School Rob Philip

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Date Of Analysis	Analysis	Result
17/11245	1	HP7	0.25	28	05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
					03/07/2017	Asbestos Level Screen	
17/11245	1	HP8	0.25	30	05/07/2017	General Description (Bulk Analysis)	soil-stones
17/11245		TIFO	0.25	30		Asbestos Fibres	
					05/07/2017		Fibre Bundles
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos Type	Chrysotile
					05/07/2017	Asbestos Level Screen	<0.1%
17/11245	1	HP9	0.35	34		General Description (Bulk Analysis)	Soil/Stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP10	0.20	37	05/07/2017	General Description (Bulk Analysis)	Soil/Stones
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
						Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
					03/01/2011		
17/11245	1	HP11	0.25	39	05/07/2017	General Description (Bulk Analysis)	soil/stone
17/11243			0.25	35			
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
						Asbestos ACM (2)	NAD
						Asbestos Type	NAD
						Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
17/11245	1	HP12	0.30	43		General Description (Bulk Analysis)	soil/stone
					05/07/2017	Asbestos Fibres	NAD
					05/07/2017	Asbestos Fibres (2)	NAD
					05/07/2017	Asbestos ACM	NAD
					05/07/2017	Asbestos ACM (2)	NAD
					05/07/2017	Asbestos Type	NAD
					05/07/2017	Asbestos Type (2)	NAD
					05/07/2017	Asbestos Level Screen	NAD
						I	l

NDP	Reason	Report
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Matrix : Solid

Client Name:	RPS
Reference:	HLEI 49195
Location:	Turing House Free School
Contact:	Rob Philip

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	NDP Reason
17/11245	1	BH1	0.40	3-5	Sample received is below pH7
17/11245	1	HP1	0.20	14-16	Sample received is below pH7
17/11245	1	HP8	0.25	29-30	Asbestos detected in sample
17/11245	1	HP9	0.35	33-35	Sample received is below pH7
17/11245	1	HP12	0.30	42-44	Sample received is below pH7

Client Name:RPSReference:HLEI 49195Location:Turing House Free SchoolContact:Rob Philip

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
					No deviating sample report results for job 17/11245	

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

JE Job No.: 17/11245

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS) accredited - UK.
SA	ISO17025 (SANAS) accredited - South Africa.
В	Indicates analyte found in associated method blank.
DR	Dilution required.
М	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
++	Result outside calibration range, results should be considered as indicative only and are not accredited.
*	Analysis subcontracted to a Jones Environmental approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
Ν	Client Sample
ТВ	Trip Blank Sample
OC	Outside Calibration Range

Method Code Appendix

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.				
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM16	Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM5/TM36	Hydrocarbons (EPH) including column fractionation of solvent Extractable Fetroleum Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.			AR	Yes
TM5/TM36	PIECSandcaled disc FA-00h35 bedimmator or solvent Extractable Fedoration Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of BTEX and calculating of Albehotic fractions	PM12/PM16	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis./Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE.	Yes		AR	Yes
TM17	Modified US EPA method 8270. Determination of specific Polychlorinated Biphenyl congeners by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM20	Modified BS 1377-3: 1990/USEPA 160.3 Gravimetric determination of Total Dissolved Solids/Total Solids	PM0	No preparation is required.			AR	Yes

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM21	Modified USEPA 415.1. Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.			AD	Yes
TM21	Modified USEPA 415.1. Determination of Total Organic Carbon or Total Carbon by combustion in an Eltra TOC furnace/analyser in the presence of oxygen. The CO2 generated is quantified using infra-red detection.	PM24	Dried and ground solid samples are washed with hydrochloric acid, then rinsed with deionised water to remove the mineral carbon before TOC analysis.	Yes		AD	Yes
TM22	Modified USEPA 160.4. Gravimetric determination of Loss on Ignition by temperature controlled Muffle Furnace (450°C)	PM0	No preparation is required.	Yes		AD	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.			AR	Yes
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM21	As received solid or water samples are extracted in Methanol: Sodium Hydroxide (0.1M NaOH) (60:40) by orbital shaker.			AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes		AD	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM17	Modified method EN12457-2 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM62	Acid digestion of as received solid samples using Aqua Regia refluxed at 112.5 °C.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM31	Modified USEPA 8015B. Determination of Methyltertbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes

Method Code Appendix

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.			AR	Yes
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM0	No preparation is required.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AD	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM20	Extraction of dried and ground or as received samples with deionised water in a 2:1 water to solid ratio using a reciprocal shaker for all analytes except hexavalent chromium. Extraction of as received sample using 10:1 ratio of 0.2M sodium hydroxide to soil for hexavalent chromium using a reciprocal shaker.	Yes		AR	Yes
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM60	As received solid samples are extracted with deionised water in a 2:1 ratio of water to solid.			AR	Yes
ТМ60	Modified USEPA 9060. Determination of TOC by calculation from Total Carbon and Inorganic Carbon using a TOC analyser, the carbon in the sample is converted to CO2 and then passed through a non-dispersive infrared gas analyser (NDIR).	PM0	No preparation is required.			AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.			AR	
TM65	Asbestos Bulk Identification method based on HSG 248.	PM42	Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM11	Extraction of as received solid samples using one part solid to 2.5 parts deionised water.	Yes		AR	No

Method Code Appendix

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM77	Modified DDCEN/TS method 15364:2006. Determination of Acid Neutralization Capacity by Metrohm automated probe analyser.	PM0	No preparation is required.			AR	No
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM45	As received solid samples are extracted with 1M NaOH by orbital shaker for Cyanide and Thiocyanate analysis.	Yes		AR	Yes
TM106	Determination of Sulphide by Skalar Continuous Flow Analyser	PM119	As received solid samples are extracted with 1M NaOH by orbital shaker for Sulphide and Thiocyanate analysis.			AR	Yes
TM173	Analysis of fluoride by ISE (Ion Selective Electrode) using modified ISE method 340.2	PM0	No preparation is required.			AR	Yes
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465 and BS1377.			AR	



Registered Address : Exova (UK) Ltd, Lochend Industrial Estate, Newbridge, Midlothian, EH28 8PI

Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA

RPS 35 New Bridge Street, London, EC4V 6BW

Tel: +44 (0) 1244 833780 Fax: +44 (0) 1244 833781

Attention :	Lucy Flatters
Date :	1st August, 2017
Your reference :	HLEI 49195
Our reference :	Test Report 17/12453 Batch 1
Location :	
Date samples received :	21st July, 2017
Status :	Final report
Issue :	1

Three samples were received for analysis on 21st July, 2017 of which three were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Compiled By:

Phil Sommerton BSc Project Manager

Client Name:	RPS	~~			Report :	Liquid					
Reference: Location:	HLEI 4919	90									
Contact:	Lucy Flatt	ers			Liquids/pr	oducts: V	=40ml vial, G	i=glass bott	le, P=plastic	bottle	
JE Job No.:	17/12453				H=H ₂ SO ₄ ,	Z=ZnAc, N⊧	=NaOH, HN=	HN0 ₃			
J E Sample No.	1-7	8-14	15-21								
Sample ID	BH1	BH2	BH3								
Depth									Please se	e attached r	notes for all
COC No / misc										ations and a	
Containers	VNZPG	VNZPG	VNZPG								
Sample Date	20/07/2017	20/07/2017	20/07/2017								
Sample Type	Liquid	Liquid	Liquid								
Batch Number	1	1	1						LOD/LOR	Units	Method
Date of Receipt	21/07/2017	21/07/2017	21/07/2017								No.
Dissolved Arsenic	2.7	<2.5	5.1						<2.5	ug/l	TM30/PM14
Dissolved Cadmium Total Dissolved Chromium	<0.5 <1.5	<0.5 <1.5	<0.5 <1.5						<0.5 <1.5	ug/l ug/l	TM30/PM14 TM30/PM14
Dissolved Copper	<7	<7	<7						<7	ug/l	TM30/PM14
Dissolved Lead	<5	<5	<5						<5	ug/l	TM30/PM14
Dissolved Mercury	<1	<1	<1						<1	ug/l	TM30/PM14
Dissolved Nickel	8	27	10						<2	ug/l	TM30/PM14
Dissolved Selenium	<3	<3	<3						<3	ug/l	TM30/PM14
Dissolved Zinc	<3	3	<3						<3	ug/l	TM30/PM14
PAH MS											
Naphthalene	<0.1	<0.1	<0.1						<0.1	ug/l	TM4/PM30
Acenaphthylene	<0.013	<0.013	<0.013						<0.013	ug/l	TM4/PM30
Acenaphthene	<0.013	<0.013	<0.013						<0.013	ug/l	TM4/PM30
Fluorene Phenanthrene	<0.014 <0.011	<0.014 <0.011	<0.014 <0.011						<0.014 <0.011	ug/l ug/l	TM4/PM30 TM4/PM30
Anthracene	<0.013	<0.013	<0.013						<0.013	ug/l	TM4/PM30
Fluoranthene	<0.012	<0.012	<0.012						<0.012	ug/l	TM4/PM30
Pyrene	<0.013	<0.013	<0.013						<0.013	ug/l	TM4/PM30
Benzo(a)anthracene	<0.015	<0.015	<0.015						<0.015	ug/l	TM4/PM30
Chrysene	<0.011	<0.011	<0.011						<0.011	ug/l	TM4/PM30
Benzo(bk)fluoranthene Benzo(a)pyrene	<0.018 <0.016	<0.018 <0.016	<0.018 <0.016						<0.018 <0.016	ug/l ug/l	TM4/PM30 TM4/PM30
Indeno(123cd)pyrene	<0.011	<0.011	<0.011						<0.010	ug/l	TM4/PM30
Dibenzo(ah)anthracene	<0.01	<0.01	<0.01						<0.01	ug/l	TM4/PM30
Benzo(ghi)perylene	<0.011	<0.011	<0.011						<0.011	ug/l	TM4/PM30
PAH 16 Total	<0.195	<0.195	<0.195						<0.195	ug/l	TM4/PM30
Benzo(b)fluoranthene	<0.01	<0.01	<0.01						<0.01	ug/l	TM4/PM30 TM4/PM30
Benzo(k)fluoranthene PAH Surrogate % Recovery	<0.01 70	<0.01 76	<0.01 71						<0.01 <0	ug/l %	TM4/PM30
·····											
TPH CWG											
Aliphatics											
>C5-C6	<10 <10	<10	<10 <10						<10	ug/l	TM36/PM12 TM36/PM12
>C6-C8 >C8-C10	<10	<10 <10	<10						<10 <10	ug/l ug/l	TM36/PM12
>C10-C12	<5	<5	<5						<5	ug/l	TM5/PM30
>C12-C16	<10	<10	<10						<10	ug/l	TM5/PM30
>C16-C21	<10	<10	<10						<10	ug/l	TM5/PM30
>C21-C35	<10	<10	<10						<10	ug/l	TM5/PM30
Total aliphatics C5-35	<10	<10	<10						<10	ug/l	TM5/TM36/PM30/PM1:

Exova Jones Enviro	onmenta	al											
Client Name: Reference: Location:	RPS HLEI 4919	95			Report : Liquid								
Contact: JE Job No.:	Lucy Flatt 17/12453	ers				oducts: V= Z=ZnAc, N=		ttle, P=plastic bottle					
J E Sample No.	1-7	8-14	15-21						1				
Sample ID	BH1	BH2	BH3										
Depth									Please se	e attached n	otes for all		
COC No / misc									abbreviations and acronyms				
		VNZPG											
Sample Date													
Sample Type Batch Number	Liquid 1	Liquid 1	Liquid 1										
Date of Receipt									LOD/LOR	Units	Method No.		
TPH CWG Aromatics													
>C5-EC7	<10	<10	<10						<10	ug/l	TM36/PM12		
>EC7-EC8	<10	<10	<10						<10	ug/l	TM36/PM12		
>EC8-EC10	<10	<10	<10						<10	ug/l	TM36/PM12		
>EC10-EC12 >EC12-EC16	<5 <10	<5 <10	<5 <10						<5 <10	ug/l	TM5/PM30 TM5/PM30		
>EC12-EC18	<10	<10	<10						<10	ug/l ug/l	TM5/PM30		
>EC21-EC35	<10	<10	<10						<10	ug/l	TM5/PM30		
Total aromatics C5-35	<10	<10	<10						<10	ug/l	TM5/TM36/PM30/PM1		
Total aliphatics and aromatics(C5-35)	<10	<10	<10						<10	ug/l	TM5/TM36/PM30/PM1		
МТВЕ	<5	<5	<5						<5	ug/l	TM31/PM12		
Benzene	<5	<5	<5						<5	ug/l	TM31/PM12		
Toluene	<5	<5	<5						<5	ug/l	TM31/PM12		
Ethylbenzene m/p-Xylene	<5 <5	<5 <5	<5 <5						<5 <5	ug/l	TM31/PM12 TM31/PM12		
o-Xylene	<5	<5	<5						<5	ug/l ug/l	TM31/PM12		
Phenol	<0.01	<0.01	<0.01						<0.01	mg/l	TM26/PM0		
Sulphate as SO4	68.0	81.4	102.6						<0.5	mg/l	TM38/PM0		
Total Cyanide	<0.01	0.02	<0.01						<0.01	mg/l	TM89/PM0		
Hexavalent Chromium	<0.006	<0.006	<0.006						<0.006	mg/l	TM38/PM0		
Sulphide	<0.01	<0.01	<0.01						<0.01	mg/l	TM106/PM0		
рН	6.71	6.53	7.12						<0.01	pH units	TM73/PM0		
Total Organic Carbon	844	844	10 _{AA}						<2	mg/l	TM60/PM0		

Client Name: RPS

Reference: HLEI 49195

Location:

Contact: Lucy Flatters

J E Job No.	Batch	Sample ID	Depth	J E Sample No.	Analysis	Reason
					No deviating sample report results for job 17/12453	

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

JE Job No.: 17/12453

SOILS

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

DEVIATING SAMPLES

Samples must be received in a condition appropriate to the requested analyses. All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. If this is not the case you will be informed and any test results that may be compromised highlighted on your deviating samples report.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.

ABBREVIATIONS and ACRONYMS USED

ISO17025 (UKAS) accredited - UK.
ISO17025 (SANAS) accredited - South Africa.
Indicates analyte found in associated method blank.
Dilution required.
MCERTS accredited.
Not applicable
No Asbestos Detected.
None Detected (usually refers to VOC and/SVOC TICs).
No Determination Possible
Calibrated against a single substance
Surrogate recovery outside performance criteria. This may be due to a matrix effect.
Results expressed on as received basis.
AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
Result outside calibration range, results should be considered as indicative only and are not accredited.
Analysis subcontracted to a Jones Environmental approved laboratory.
Samples are dried at 35°C ±5°C
Suspected carry over
Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
Matrix Effect
No Fibres Detected
AQC Sample
Blank Sample
Client Sample
Trip Blank Sample
Outside Calibration Range
x2 Dilution

Method Code Appendix

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM4	Modified USEPA 8270 method for the solvent extraction and determination of 16 PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5	Modified USEPA 8015B method for the determination of solvent Extractable Petroleum Hydrocarbons (EPH) with carbon banding within the range C8-C40 GC-FID.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.				
TM5/TM36	TM005: Modified USEPA 8015B. Determination of solvent Extractable Petroleum Hydrocarbons (EPH) including column fractionation in the carbon range of C10-35 into aliphatic and aromatic fractions by GC-FID. TM036: Modified USEPA 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C5-10 by headspace GC-FID. Including determination of	PM30/PM12	CWG GC-FID				
TM26	Determination of phenols by Reversed Phased High Performance Liquid Chromatography and Electro-Chemical Detection.	PM0	No preparation is required.				
TM30	Determination of Trace Metal elements by ICP-OES (Inductively Coupled Plasma - Optical Emission Spectrometry). Modified US EPA Method 200.7, 6010B and BS EN ISO 11885 2009	PM14	Analysis of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for dissolved metals and acidified if required.				
TM31	Modified USEPA 8015B. Determination of Methyltenbutylether, Benzene, Toluene, Ethylbenzene and Xylene by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.				
TM36	Modified US EPA method 8015B. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID.	PM12	Modified US EPA method 5021. Preparation of solid and liquid samples for GC headspace analysis.				
TM38	Soluble Ion analysis using the Thermo Aquakem Photometric Automatic Analyser. Modified US EPA methods 325.2, 375.4, 365.2, 353.1, 354.1	PM0	No preparation is required.				
TM60	Modified USEPA 9060. Determination of TOC by calculation from Total Carbon and Inorganic Carbon using a TOC analyser, the carbon in the sample is converted to CO2 and then passed through a non-dispersive infrared gas analyser (NDIR).	PM0	No preparation is required.				
TM73	Modified US EPA methods 150.1 and 9045D and BS1377:1990. Determination of pH by Metrohm automated probe analyser.	PM0	No preparation is required.				

Method Code Appendix

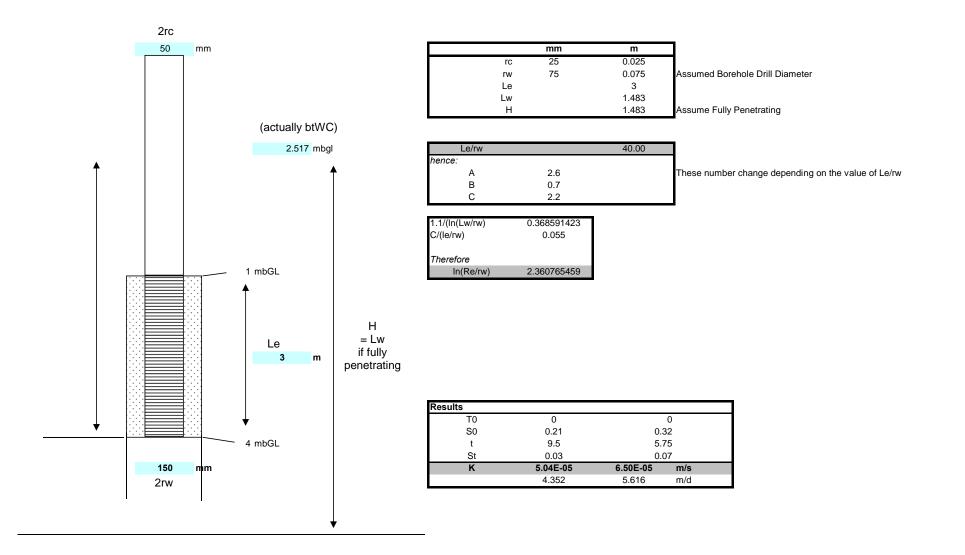
Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/S ANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM89	Modified USEPA method OIA-1667. Determination of cyanide by Flow Injection Analyser. Where WAD cyanides are required a Ligand displacement step is carried out before analysis.	PM0	No preparation is required.				
TM106	Determination of Sulphide by Skalar Continuous Flow Analyser	PM0	No preparation is required.				



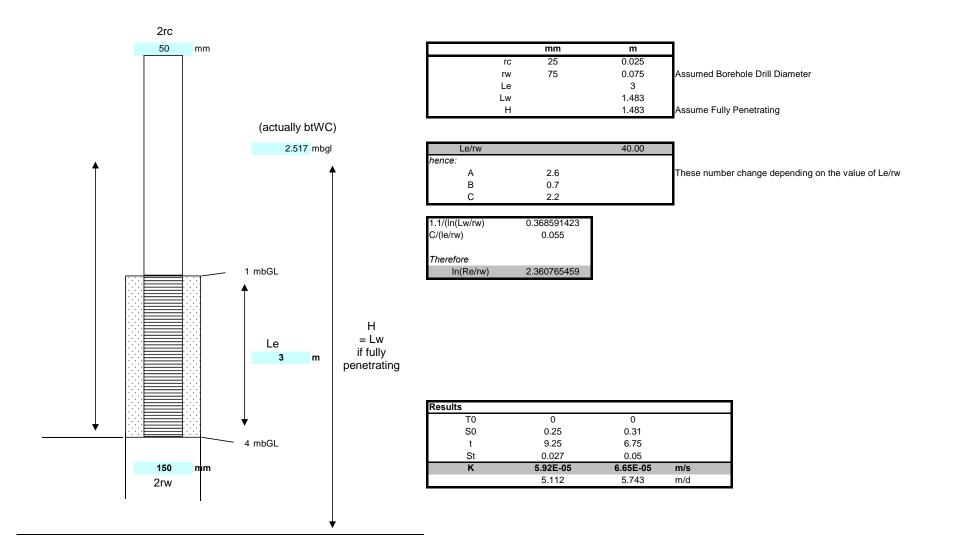
APPENDIX H

Results of Rising Head Tests

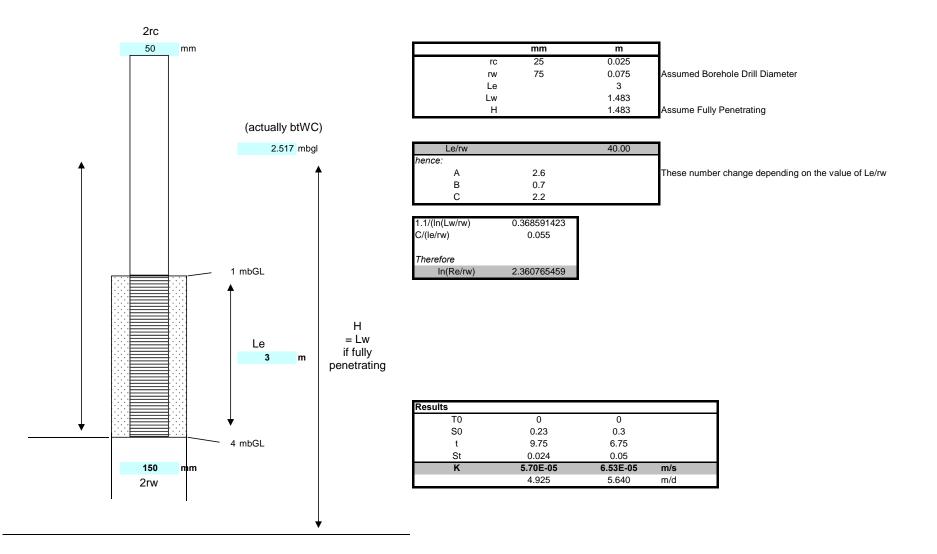
Borehole BH1 - Test 1



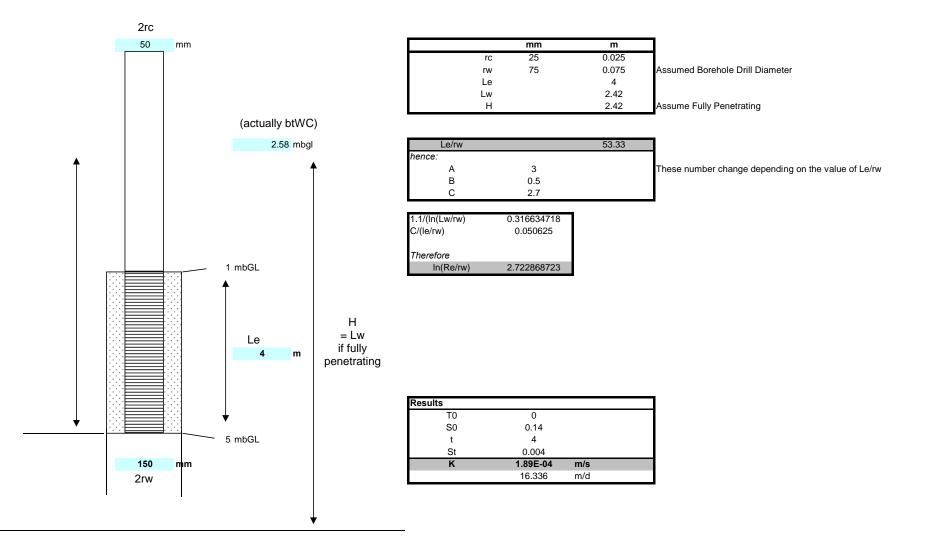
Borehole BH1 - Test 2



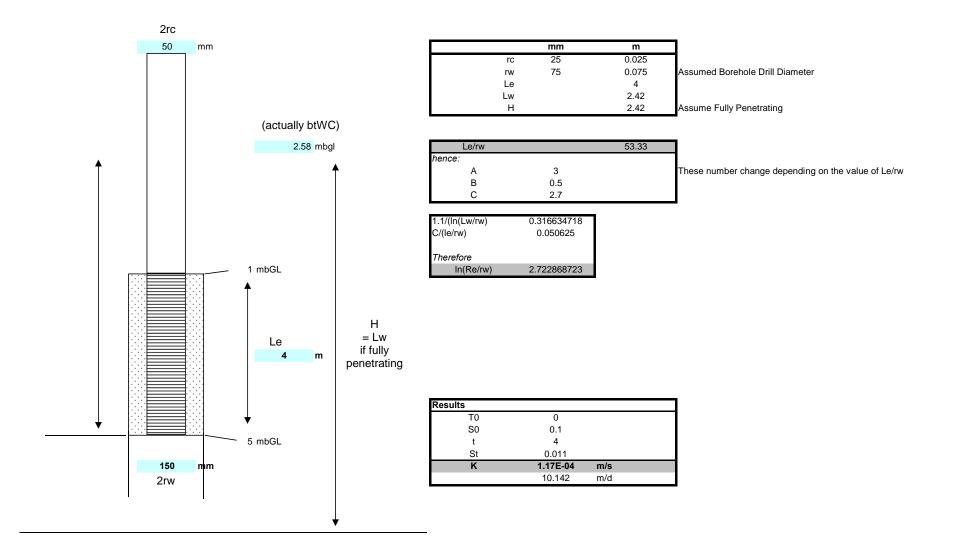
Borehole BH1 - Test 3



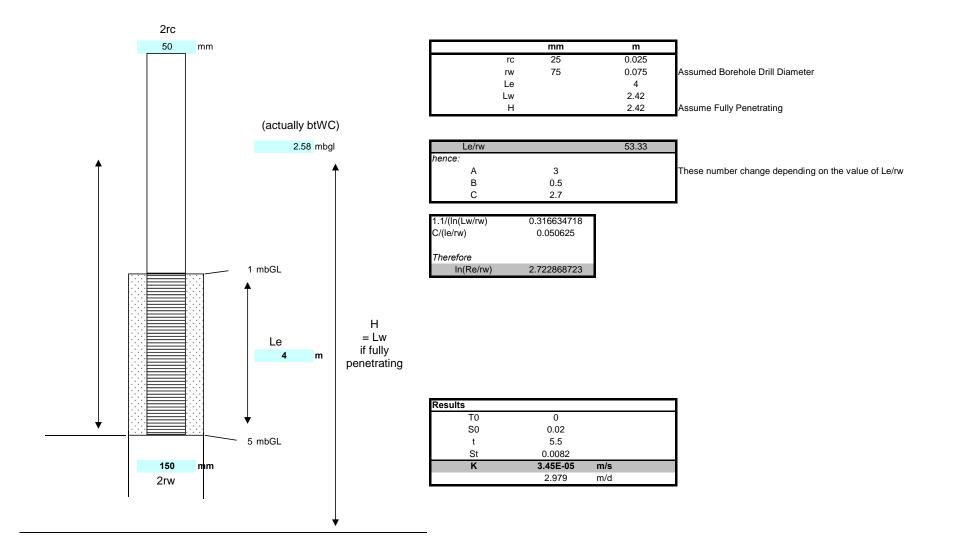
Borehole BH2 - Test 1



Borehole BH2 - Test 2



Borehole BH2 - Test 2



	Va	ariable F	lead Permeability Test	
Project No.:	HLEI49195		TEST RESPONSE ZONE DETAI	LS:
Project Name:	Turing House			
Client:	Education Fur	nding Agency	Top (mbgl):	1.00
Borehole No.:	BH3 - Test 1		Bottom (mbgl):	5.00
Compiled By	MH		Length (m):	4.00
Date	28/07/2017		Diameter (m):	0.050
Checked By	LH		Initial Standing Water Level	2.44
Date	28/07/2017		(m below top of casing):	
Elapsed Time	Depth to Water*	Ht/Ho	Height of casing or standpipe :	0.00
			above ground level (m)	Falling
(mins)	(m)	1.00	Falling or Rising Head Test?	Falling
0 0.5 1 2 3 4 5	2.449 2.446 2.444 2.442 2.441 2.411	0.63 0.63 0.38 0.13		
			0.00 2.00 4.00	6.00
			Time (min)	
			Cross Sectional Area of Test Zone A=	
			Shape Factor (Case C) F=	
			Time to reach Ht/Ho = 0.37 (sec)	= 121
			Permeability (m/s) K=	= 3.29E-06
			<u>Comments</u>	
3	RPS 35 New Bridge Stree London EC4V 6BW	et		

	Variable	Head Permeability Test	
Project No.:	HLEI49195	TEST RESPONSE ZONE DETAILS:	
Project Name:	Turing House		
Client:	Education Funding Agenc		1.00
Borehole No.:	BH3 - Test 2	Bottom (mbgl):	5.00
Compiled By	MH	Length (m):	4.00
Date	28/07/2017	Diameter (m):	0.050
Checked By	LH	Initial Standing Water Level	2.44
Date	28/07/2017	(m below top of casing):	
Elapsed Time	Depth Ht/Ho to Water*	Height of casing or standpipe : above ground level (m)	0.00
(mins)	(m)	Falling or Rising Head Test?	Falling
	2.461 1.00		Failing
0 1 1.5 2 3 4 5 6 7	2.447 0.30 2.446 0.25 2.446 0.25 2.445 0.20 2.445 0.20 2.443 0.10 2.441 2.441	Pt 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.1	8.00
		Shape Factor (Case C)F=Time to reach Ht/Ho = 0.37 (sec)T=	4.94602 50
		Permeability (m/s) K=	8.01E-06
3	IS New Bridge Street London EC4V 6BW	<u>Comments</u>	

	Va	ariable H	lead Permeability Test	
Project No.:	HLEI49195		TEST RESPONSE ZONE DETAILS	
Project Name:	Turing House			
Client:	Education Fur	nding Agency	Top (mbgl):	1.00
Borehole No.:	BH3 - Test 3		Bottom (mbgl):	5.00
Compiled By	MH		Length (m):	4.00
Date	28/07/2017		Diameter (m):	0.050
Checked By	LH 28/07/2017		Initial Standing Water Level	2.44
Date			(m below top of casing):	
Elapsed Time	Depth to Water*	Ht/Ho	Height of casing or standpipe : above ground level (m)	0.00
(mins)	(m)		Falling or Rising Head Test?	Falling
(IIIIIS) 0	2.462	1.00	Failing of Rising flead fest?	Failing
1 2 3 4 5 6	2.449 2.447 2.445 2.442 2.441 2.441	0.38 0.29 0.19 0.05		
			0.00 2.00 4.00 6.00	8.00
			Time (min)	
			Cross Sectional Area of Test ZoneA=Shape Factor (Case C)F=Time to reach Ht/Ho = 0.37 (sec)T=	0.00196 4.94602 66
			Permeability (m/s) K=	6.01E-06
3	RPS 35 New Bridge Stree London EC4V 6BW	et	<u>Comments</u>	



APPENDIX I

Hazwasteonline Results



Waste Classification Report



Job name	
Turing House F	
Description/Comments	
Project	
HLEI49195	
Site	
Hospital Bridge Road, Twickenham	
Waste Stream Template	
RPS Suite 2017	

Classified by

Name:
Michael Andrews
Date:
8/3/2017 8:36:41 AM UTC
Telephone:
02071803200

Company: RPS Group 14 Cornhill London EC3V 3ND

Report

Created by: Michael Andrews Created date: 8/3/2017 08:36 UTC

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	BH1	0.3	Non Hazardous		3
2	BH1[1]	0.4	Non Hazardous		5
3	BH2	0.2	Non Hazardous		7
4	BH2[1]	0.5	Non Hazardous		10
5	BH3	0.2	Non Hazardous		13
6	HP1	0.2	Non Hazardous		16
7	HP2	0.2	Non Hazardous		19
8	HP3	0.3	Non Hazardous		22
9	HP4	0.25	Non Hazardous		25
10	HP5	0.45	Non Hazardous		28
11	HP6	0.3	Non Hazardous		31
12	HP7	0.25	Non Hazardous		34
13	HP8	0.25	Non Hazardous		37
14	HP9	0.35	Non Hazardous		39
15	HP10	0.2	Non Hazardous		42
16	HP11	0.25	Non Hazardous		45



HazWasteOnline[™] Report created by Michael Andrews on 8/3/2017

# Sample Name	Depth [m]	Classification Result	Hazard properties	Page
17 HP12	0.3	Non Hazardous		48
Appendices				Page
••	CLP determinands			Page 51
Appendices Appendix A: Classifier defined and non Appendix B: Rationale for selection of n				



Classification of sample: BH1

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

Sample details

Sample Name: BH1 Sample Depth: 0.3 m Moisture content: 11.8%	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated so from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 11.8% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	l data	Conv. Factor	Compound con	c.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>oxide</mark>	1327-53-3		13.4	mg/kg	1.32	17.692 m	g/kg	0.00177 %	<	
2	4	chromium in chrom <mark>oxide</mark> }		1		<0.3	mg/kg	1.923	<0.577 m	g/kg	<0.0000577 %		<lod< th=""></lod<>
3	~	nickel { nickel chror 028-035-00-7	nate } 238-766-5	14721-18-7		18.8	mg/kg	2.976	55.954 m	g/kg	0.0056 %		
4	4	cadmium sulphoselenide and those specified elsewhere in this Annex }				<1	mg/kg	2.554	<2.554 m	g/kg	<0.000255 %		<lod< th=""></lod<>
5	4		} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		155	mg/kg	2.469	382.741 m	g/kg	0.0383 %		
6	4	cyanides { salts exception of complete ferricyanides and m specified elsewhere 006-007-00-5	of hydrogen cyanid ex cyanides such a nercuric oxycyanide	e with the s ferrocyanides,		1.1	mg/kg	1.884	2.072 m	g/kg	0.000207 %		
7	9	TPH (C6 to C40) po	etroleum group	ТРН		45	mg/kg		45 m	g/kg	0.0045 %		
8		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005 m	g/kg	<0.000005 %		<lod< th=""></lod<>
9		toluene 601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005 m	g/kg	<0.0000005 %		<lod< th=""></lod<>
10	Θ	ethylbenzene 601-023-00-4	202-849-4	100-41-4		<0.005	mg/kg		<0.005 m	g/kg	<0.0000005 %		<lod< th=""></lod<>
11			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]		<0.005	mg/kg		<0.005 m	g/kg	<0.0000005 %		<lod< th=""></lod<>



HazWasteOnline[™] Report created by Michael Andrews on 8/3/2017

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
12		tert-butyl methyl eth 2-methoxy-2-methy		·		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< th=""></lod<>
		603-181-00-X	216-653-1	1634-04-4									
13	0	рН		PH		6.7	pН		6.7	рН	6.7 pH		
14		naphthalene		1		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %	Ĺ	<lod< td=""></lod<>
		601-052-00-2	202-049-5	91-20-3									
15	۲	acenaphthylene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
			205-917-1	208-96-8	-							-	
16	8	acenaphthene	201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
17	0	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			201-695-5	86-73-7	-							_	
18	0	phenanthrene	201-581-5	85-01-8		0.28	mg/kg		0.28	mg/kg	0.000028 %		
19	0	anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %		
			204-371-1	120-12-7	-								
20	۲	fluoranthene			1	0.61	mg/kg		0.61	mg/kg	0.000061 %		
			205-912-4	206-44-0									
21	۲	pyrene	204-927-3	129-00-0		0.52	mg/kg		0.52	mg/kg	0.000052 %		
		benzo[a]anthracene		123-00-0	+							+	
22			200-280-6	56-55-3	-	0.41	mg/kg		0.41	mg/kg	0.000041 %		
		chrysene	200 200 0									+	
23			205-923-4	218-01-9		0.45	mg/kg		0.45	mg/kg	0.000045 %		
		benzo[b]fluoranther		210 01 0								+	
24			205-911-9	205-99-2		0.88	mg/kg		0.88	mg/kg	0.000088 %		
		benzo[k]fluoranther										1	
25			205-916-6	207-08-9	-	0.88	mg/kg		0.88	mg/kg	0.000088 %		
26		benzo[a]pyrene; be	nzo[def]chrysene	1		0.47	mg/kg		0.47	mg/kg	0.000047 %	1	
20		601-032-00-3	200-028-5	50-32-8	1	0.47	шу/ку		0.47	шу/ку	0.000047 /8		
27	0	indeno[123-cd]pyre				0.47	mg/kg		0.47	mg/kg	0.000047 %		
			205-893-2	193-39-5	_							_	
28		dibenz[a,h]anthrace 601-041-00-2	ene 200-181-8	53-70-3		0.09	mg/kg		0.09	mg/kg	0.000009 %		
		benzo[ghi]perylene			+							+	
29	-		205-883-8	191-24-2	-	0.32	mg/kg		0.32	mg/kg	0.000032 %		
30		phenol		1		0.2	mg/kg		0.2	mg/kg	0.00002 %	1	
Ľ		604-001-00-2	203-632-7	108-95-2	1	0.2							
										Total:	0.0512 %	1	

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 4 concentration <LOD Below limit of detection

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because Extremely low flammability risk.



Classification of sample: BH1[1]

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

Sample details

Sample Name: BH1[1] Sample Depth: 0.4 m Moisture content: 8.8%	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated so from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.8% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	l data	Conv. Factor	Compound c	onc.	Classification value	MC Applied	Conc. Not Used
1	4	arsenic { arsenic tri 033-003-00-0	<mark>oxide</mark>	1327-53-3		23.5	mg/kg	1.32	31.028	mg/kg	0.0031 %		
2	4	chromium in chrom oxide } 024-001-00-0	ium(VI) compounds 215-607-8	1		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<lod< th=""></lod<>
3	4	nickel { nickel chron		14721-18-7		20.9	mg/kg	2.976	62.204	mg/kg	0.00622 %		
4	4	cadmium sulphoselenide and those specified elsewhere in this Annex }				1	mg/kg	2.554	2.554	mg/kg	0.000255 %		
5	4		} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	-	56	mg/kg	2.469	138.281	mg/kg	0.0138 %		
6	4	cyanides { salts of exception of complete ferricyanides and methods and methods are consistent of the specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanide	s ferrocyanides,	_	<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<lod< th=""></lod<>
7	0	TPH (C6 to C40) pe	etroleum group	ТРН		<38	mg/kg		<38	mg/kg	<0.0038 %		<lod< th=""></lod<>
8		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< th=""></lod<>
9		toluene 601-021-00-3	203-625-9	108-88-3	-	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< th=""></lod<>
10		ethylbenzene 601-023-00-4	202-849-4	100-41-4	_	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< th=""></lod<>
11			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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< th=""></lod<>



HazWasteOnline[™] Report created by Michael Andrews on 8/3/2017

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
12		tert-butyl methyl eth 2-methoxy-2-methyl	propane			<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
			216-653-1	1634-04-4									
13	۵	pН		PH		7.06	рН		7.06	pН	7.06 pH		
14		naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
45	0	601-052-00-2 2 acenaphthylene	202-049-5	91-20-3	$\left \right $	0.00			0.00		0.00000.0/		
15	-	2	205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<lod< td=""></lod<>
16	8	acenaphthene	201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
17	8	fluorene	201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
18	0	phenanthrene		85-01-8		0.03	mg/kg		0.03	mg/kg	0.000003 %		
19	0	anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20	0	fluoranthene	204-371-1	120-12-7		0.07	mg/kg		0.07	mg/kg	0.000007 %		
		pyrene	205-912-4	206-44-0	-							-	
21	8		204-927-3	129-00-0		0.05	mg/kg		0.05	mg/kg	0.000005 %		
22		benzo[a]anthracene 601-033-00-9		56-55-3		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		<lod< td=""></lod<>
23		chrysene		218-01-9		0.05	mg/kg		0.05	mg/kg	0.000005 %		
24		benzo[b]fluoranthen	e			<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<lod< td=""></lod<>
05		601-034-00-4 2 benzo[k]fluoranthen		205-99-2	-	0.07			0.07		0.00007.0/		1.00
25		601-036-00-5 2	205-916-6	207-08-9	1	<0.07	mg/kg		<0.07	mg/kg	<0.00007 %		<lod< td=""></lod<>
26		benzo[a]pyrene; ber	,			<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
27	0	601-032-00-3 2 indeno[123-cd]pyrei		50-32-8		0.04			0.04		0.000004.0/		
21				193-39-5	1	0.04	mg/kg		0.04	mg/kg	0.000004 %		
28		dibenz[a,h]anthrace		53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
29	0	benzo[ghi]perylene			Ţ	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
30		phenol	205-883-8	191-24-2	\vdash	<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
50		604-001-00-2 2	203-632-7	108-95-2	1	\$0.10			NO.10	Total:	0.0275 %	-	

...

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)
4	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<lod< th=""><th>Below limit of detection</th></lod<>	Below limit of detection

<LOD Below limit of detection



Classification of sample: BH2

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

Sample details

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)
	Chapter:

Hazard properties

None identified

Determinands

Moisture content: 10.7% No Moisture Correction applied (MC)

#		CLP index number EC Number CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	*	arsenic { arsenic trioxide } 033-003-00-0 215-481-4 1327-53-3	_	10.2 mg/kg	1.32	13.467 mg/kg	0.00135 %		
2	4	cadmium { cadmium oxide } 048-002-00-0 231-152-8 [1] 7440-43-9 [1] 215-146-2 [2] 1306-19-0 [2]	-	3 mg/kg	1.142	3.427 mg/kg	0.000343 %		
3	\$	chromium in chromium(III) compounds { Chromium(III) oxide } 215-160-9 1308-38-9		83.4 mg/kg	1.462	121.894 mg/kg	0.0122 %		
4	*	chromium in chromium(VI) compounds { chromium(VI) oxide } oxide } 024-001-00-0 /215-607-8 /1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<lod< th=""></lod<>
5	4	copper { dicopper oxide; copper (I) oxide } 029-002-00-X 215-270-7 1317-39-1	_	53 mg/kg	1.126	59.672 mg/kg	0.00597 %		
6	4	lead { Icad compounds with the exception of those specified elsewhere in this Annex }	1	186 mg/kg		186 mg/kg	0.0186 %		
7	*	mercury { mercury dichloride } 080-010-00-X 231-299-8 7487-94-7	_	1.1 mg/kg	1.353	1.489 mg/kg	0.000149 %		
8	\$	nickel { nickel chromate } 028-035-00-7 238-766-5 14721-18-7	_	16.6 mg/kg	2.976	49.406 mg/kg	0.00494 %		
9	\$	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate } 030-006-00-9 231-793-3 [1] 7446-19-7 [1] 231-793-3 [2] 7733-02-0 [2]		176 mg/kg	2.469	434.596 mg/kg	0.0435 %		
11	4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }		0.7 mg/kg	1.884	1.319 mg/kg	0.000132 %		



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#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	СГР							MC /	
12	8	TPH (C6 to C40) pe	etroleum group	1		48	mg/kg		48	mg/kg	0.0048 %	~	
				ТРН								\square	
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
14		toluene	000.005.0	400.00.0		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
15	0	601-021-00-3 ethylbenzene	203-625-9	108-88-3		<0.005	mg/kg		<0.005	ma/ka	<0.0000005 %	H	<lod< td=""></lod<>
			202-849-4	100-41-4	-							H	
16			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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane	4004.04.4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
18	۵	603-181-00-Х рН	216-653-1	1634-04-4	╞	6.52	pН		6.52	pН	6.52 pH		
				PH							· ·		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20	۲	acenaphthylene				0.07	mg/kg		0.07	mg/kg	0.000007 %	Π	
20			205-917-1	208-96-8		0.07	iiig/kg		0.07	iiig/kg	0.000007 /8		
21	8	acenaphthene	201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22	8	fluorene		1		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
	8	phenanthrene	201-695-5	86-73-7	-								
23	9	·	201-581-5	85-01-8		0.17	mg/kg		0.17	mg/kg	0.000017 %		
24		anthracene	204-371-1	120-12-7		0.06	mg/kg		0.06	mg/kg	0.000006 %		
25	۲	fluoranthene	205-912-4	206-44-0		0.44	mg/kg		0.44	mg/kg	0.000044 %		
26		pyrene	204-927-3	129-00-0		0.37	mg/kg		0.37	mg/kg	0.000037 %		
27		benzo[a]anthracene	Э			0.29	mg/kg		0.29	mg/kg	0.000029 %		
28		chrysene	200-280-6	56-55-3	+	0.3	mg/kg		0.3	mg/kg	0.00003 %		
				218-01-9	1_		39			9			
29		benzo[b]fluoranther 601-034-00-4	ne 205-911-9	205-99-2	-	0.65	mg/kg		0.65	mg/kg	0.000065 %		
30		benzo[k]fluoranther		207.09.0		0.65	mg/kg		0.65	mg/kg	0.000065 %		
		601-036-00-5 benzo[a]pyrene; be	205-916-6 nzo[def]chrysene	207-08-9	+	0.04	m c.//.		0.04		0.000004.0/	$\left \right $	
31		601-032-00-3	200-028-5	50-32-8		0.34	mg/kg		0.34	mg/kg	0.000034 %		
32	8	indeno[123-cd]pyre	ne 205-893-2	193-39-5	-	0.37	mg/kg		0.37	mg/kg	0.000037 %		
33		dibenz[a,h]anthrace	ene			0.07	mg/kg		0.07	mg/kg	0.000007 %		
		601-041-00-2 benzo[ghi]perylene	200-181-8	53-70-3	+							+	
34			205-883-8	191-24-2	-	0.28	mg/kg		0.28	mg/kg	0.000028 %		
35		phenol	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
		00+-001-00-2	200-002-1	100-30-2						Total:	0.0927 %	\square	



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)
4	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<lod< th=""><th>Below limit of detection</th></lod<>	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because Extremely low flammability risk.



HazWasteOnline[™] Report created by Michael Andrews on 8/3/2017

Classification of sample: BH2[1]

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

Sample details

Sample Name: BH2[1]	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth: 0.5 m		from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:	,	03)
8.7% (no correction)		

Hazard properties

None identified

Determinands

Moisture content: 8.7% No Moisture Correction applied (MC)

#		CLP index number EC Number CAS Number			CLP Note	User entered data		Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	-	arsenic { arsenic trioxide }				13.5 mg/	kg	1.32	17.824 mg/ł	g 0.00178 %		
2	4	cadmium { cadmiun 048-002-00-0		7440-43-9 [1] 1306-19-0 [2]		0.3 mg/	kg	1.142	0.343 mg/ł	g 0.0000343 %		
3	4	chromium in chromium(III) compounds { Chromium(III) oxide }				69.7 mg/	kg	1.462	101.87 mg/ł	g 0.0102 %		
4	4					<0.3 mg/	kg	1.923	<0.577 mg/ł	g <0.0000577 %		<lod< th=""></lod<>
5	4	copper {	<mark>er oxide; copper (I)</mark> 215-270-7	<mark>oxide</mark> } 1317-39-1		14 mg/	kg	1.126	15.762 mg/ł	g 0.00158 %		
6	4	lead { lead compounds with the exception of those specified elsewhere in this Annex }			1	38 mg/	kg		38 mg/ł	g 0.0038 %		
7	~	mercury { mercury 080-010-00-X		0.2 mg/	kg	1.353	0.271 mg/ł	g 0.0000271 %				
8	~	080-010-00-X 231-299-8 7487-94-7 nickel { nickel chromate } 028-035-00-7 238-766-5 14721-18-7				14.5 mg/	kg	2.976	43.156 mg/ł	g 0.00432 %		
9	4	cadmium sulphoselenide and those specified elsewhere in this Annex }				<1 mg/	kg	2.554	<2.554 mg/ł	g <0.000255 %		<lod< th=""></lod<>
10	4		231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		44 mg/	kg	2.469	108.649 mg/ł	g 0.0109 %		
11	4	cyanides { Salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<0.5 mg/	kg	1.884	<0.942 mg/ł	g <0.0000942 %		<lod< th=""></lod<>



#			Determinand		CLP Note	User entered	d data	Conv. Factor	Compound of	conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	E D			I actor			value	IC A	Useu
12	0	TPH (C6 to C40) p	etroleum group			<38	mg/kg		<38	mg/kg	<0.0038 %	2	<lod< td=""></lod<>
		-		TPH								_	
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
14		toluene 601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
15		ethylbenzene	203-023-9	100-00-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
			202-849-4	100-41-4]								
16			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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
18		603-181-00-Х рН	216-653-1	1634-04-4		7.15	рН		7.15	pН	7.15 pH		
				PH	-						•		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20	0	acenaphthylene	205-917-1	208-96-8	_	<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<lod< td=""></lod<>
04		acenaphthene				0.05			0.05		0.000005.0/		1.00
21			201-469-6	83-32-9	_	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22	Θ	fluorene	201-695-5	86-73-7	-	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
23	8	phenanthrene	201-581-5	85-01-8	-	<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		< LOD
24	8	anthracene	204-371-1	120-12-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
25	۲	fluoranthene	205-912-4	206-44-0		0.03	mg/kg		0.03	mg/kg	0.000003 %		
26	۲	pyrene	204-927-3	129-00-0		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<lod< td=""></lod<>
27		benzo[a]anthracene	e			<0.06	mg/kg		<0.06	mg/kg	<0.000006 %	F	<lod< td=""></lod<>
		601-033-00-9 chrysene	200-280-6	56-55-3	+							-	
28			205-923-4	218-01-9		0.03	mg/kg		0.03	mg/kg	0.000003 %		
29		benzo[b]fluoranthei 601-034-00-4	ne 205-911-9	205-99-2	-	<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<lod< td=""></lod<>
30		benzo[k]fluoranther		207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		<lod< td=""></lod<>
31		benzo[a]pyrene; be	nzo[def]chrysene			<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
32	۵	indeno[123-cd]pyre		50-32-8		<0.04	mg/kg		<0.04	ma/ka	<0.000004 %		<lod< td=""></lod<>
		dibenz[a,h]anthrace	205-893-2 ene	193-39-5								┝	
33		601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
34	۲	benzo[ghi]perylene	205-883-8	191-24-2		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
				x				·l		Total:	0.0369 %	1	

RPS



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



Classification of sample: BH3

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

Sample details

0.2 m Entry: 17 05 04 (Soil and stones other than those mentioned in 03) 10.3% (no correction)	10.3%	LoW Code: Chapter: Entry:	17: Construction and Demolition Wastes (including excavated s from contaminated sites) 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
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Hazard properties

None identified

Determinands

Moisture content: 10.3% No Moisture Correction applied (MC)

#		Determinand CLP index number EC Number CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	4	arsenic { arsenic trioxide } 033-003-00-0 215-481-4 1327-53-3		11.9 mg/kg	1.32	15.712 mg/kg	0.00157 %		
2	4	cadmium { cadmium oxide } 7440-43-9 [1] 048-002-00-0 231-152-8 [1] 7440-43-9 [1] 215-146-2 [2] 1306-19-0 [2]	-	2.5 mg/kg	1.142	2.856 mg/kg	0.000286 %		
3	4	chromium in chromium(III) compounds { chromium(III) oxide }		82.5 mg/kg	1.462	120.578 mg/kg	0.0121 %		
4	4	chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 [215-607-8] 1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<lod< td=""></lod<>
5	4	copper { dicopper oxide; copper (I) oxide } 029-002-00-X 215-270-7 1317-39-1		40 mg/kg	1.126	45.036 mg/kg	0.0045 %		
6	4	lead { lead compounds with the exception of those specified elsewhere in this Annex }	1	178 mg/kg		178 mg/kg	0.0178 %		
7		mercury { mercury dichloride } 080-010-00-X 231-299-8 7487-94-7	_	0.9 mg/kg	1.353	1.218 mg/kg	0.000122 %		
8	~	nickel { nickel chromate } 028-035-00-7 238-766-5 14721-18-7		16.4 mg/kg	2.976	48.811 mg/kg	0.00488 %		
9	4	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<lod< td=""></lod<>
10	4	zinc { zinc sulphate } 030-006-00-9 231-793-3 [1] 7446-19-7 [1] 231-793-3 [2] 7733-02-0 [2]		134 mg/kg	2.469	330.886 mg/kg	0.0331 %		
11	4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }		1.1 mg/kg	1.884	2.072 mg/kg	0.000207 %		



#			Determinand		Note	User entered	l data	Conv. Factor	Compound c	onc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	CLP Note			Factor			value	AC A	Used
12	8	TPH (C6 to C40) p	etroleum group	1		<38	mg/kg		<38	mg/kg	<0.0038 %		<lod< td=""></lod<>
				ТРН									
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
14		toluene	200 100 1	11 10 2		<0.005	mg/kg		<0.005	ma/ka	<0.0000005 %	H	<lod< td=""></lod<>
			203-625-9	108-88-3	-	<0.000				iiig/kg			
15	8	ethylbenzene 601-023-00-4	202-849-4	100-41-4	-	<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
16		xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl et 2-methoxy-2-methy	Ipropane	1634-04-4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
18	0	603-181-00-Х рН	216-653-1	PH		6.73	pН		6.73	рН	6.73 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20	0	acenaphthylene	205-917-1	208-96-8		0.07	mg/kg		0.07	mg/kg	0.000007 %		
21	8	acenaphthene	201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22	0	fluorene	201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
23	8	phenanthrene	201-581-5	85-01-8		0.22	mg/kg		0.22	mg/kg	0.000022 %		
24	0	anthracene	204-371-1	120-12-7		0.07	mg/kg		0.07	mg/kg	0.000007 %		
25	0	fluoranthene	205-912-4	206-44-0		0.53	mg/kg		0.53	mg/kg	0.000053 %		
26	0	pyrene	204-927-3	129-00-0		0.44	mg/kg		0.44	mg/kg	0.000044 %		
27		benzo[a]anthracen 601-033-00-9	e 200-280-6	56-55-3		0.35	mg/kg		0.35	mg/kg	0.000035 %		
28		chrysene 601-048-00-0	205-923-4	218-01-9		0.35	mg/kg		0.35	mg/kg	0.000035 %		
29		benzo[b]fluoranthe 601-034-00-4	ne 205-911-9	205-99-2		0.73	mg/kg		0.73	mg/kg	0.000073 %		
30		benzo[k]fluoranther 601-036-00-5	ne 205-916-6	207-08-9		0.73	mg/kg		0.73	mg/kg	0.000073 %		
31		benzo[a]pyrene; be		50-32-8		0.39	mg/kg		0.39	mg/kg	0.000039 %		
32	0	indeno[123-cd]pyre	ene 205-893-2	193-39-5		0.42	mg/kg		0.42	mg/kg	0.000042 %		
33		dibenz[a,h]anthrac 601-041-00-2	ene 200-181-8	53-70-3		0.07	mg/kg		0.07	mg/kg	0.000007 %		
34	0	benzo[ghi]perylene		191-24-2		0.28	mg/kg		0.28	mg/kg	0.000028 %		
35		phenol 604-001-00-2	203-632-7	108-95-2		0.23	mg/kg		0.23	mg/kg	0.000023 %		
			·							Total:	0.0791 %	Γ	





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)
4	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<lod< th=""><th>Below limit of detection</th></lod<>	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: HP1

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

Sample details

Sample Name: HP1	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
5%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 5% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered d	lata	Conv. Factor	Compound co	onc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>oxide</mark>	1327-53-3		11.5 n	ng/kg	1.32	15.184	mg/kg	0.00152 %		
2	~		<mark>n oxide</mark> } 231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		1.6 n	ng/kg	1.142	1.828	mg/kg	0.000183 %		
3		oxide }	ium(III) compound 215-160-9	s {		61.5 n	ng/kg	1.462	89.886	mg/kg	0.00899 %		
4	~	chromium in chrom <mark>oxide</mark> }				<0.3 n	ng/kg	1.923	<0.577	mg/kg	<0.0000577 %		<lod< th=""></lod<>
5	4	copper { • dicoppe		1		40 n	ng/kg	1.126	45.036	mg/kg	0.0045 %		
6		lead { [•] lead comp specified elsewhere 082-001-00-6		ception of those	1	178 n	ng/kg		178	mg/kg	0.0178 %		
7	4	mercury { mercury	<mark>dichloride</mark> } 231-299-8	7487-94-7		1.4 n	ng/kg	1.353	1.895	mg/kg	0.000189 %		
8	~	nickel { nickel chror 028-035-00-7	<mark>nate</mark> } 238-766-5	14721-18-7		16.9 n	ng/kg	2.976	50.299	mg/kg	0.00503 %		
9		selenium { seleniun cadmium sulphosel in this Annex 034-002-00-8				1 n	ng/kg	2.554	2.554	mg/kg	0.000255 %		
10	4	zinc { zinc sulphate 030-006-00-9	} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		128 n	ng/kg	2.469	316.07	mg/kg	0.0316 %		
11		cyanides { salts exception of comple ferricyanides and m specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanide	s ferrocyanides,		<0.5 n	ng/kg	1.884	<0.942	mg/kg	<0.0000942 %		<lod< th=""></lod<>



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	Applied	Conc. No Used
		CLP index number	EC Number	CAS Number	CLP							MC	
12		TPH (C6 to C40) pe	etroleum group		Ť	<38	mg/kg		<38	mg/kg	<0.0038 %		<lod< td=""></lod<>
12				TPH		<00	mg/kg		<00	iiig/kg	<0.0030 78		
13	i	benzene 601-020-00-8	200-753-7	71-43-2	_	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
14		toluene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
	-		203-625-9	108-88-3								_	
15		ethylbenzene				<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
			202-849-4	100-41-4	_					-		-	
16	ĺ		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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane	1004 04 4	_	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
	-	603-181-00-Х рН	216-653-1	1634-04-4	+							-	
18				PH		6.36	pН		6.36	рН	6.36 pH		
19	Ì	naphthalene	l		\uparrow	-0.04	m m/l		.0.04	m m //	-0.000004.0/	t	<lod< td=""></lod<>
19	Ī	601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20		acenaphthylene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
			205-917-1	208-96-8									
21	•	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
			201-469-6	83-32-9	_							_	
22	9	fluorene		00.70.7	_	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
_	_		201-695-5	86-73-7	_				1				
23		phenanthrene	201-581-5	85-01-8	_	0.19	mg/kg		0.19	mg/kg	0.000019 %		
24		anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %		
_	_		204-371-1	120-12-7	_								
25		fluoranthene	205-912-4	206-44-0	_	0.41	mg/kg		0.41	mg/kg	0.000041 %		
	•	pyrene	203-912-4	200-44-0									
26			204-927-3	129-00-0	-	0.34	mg/kg		0.34	mg/kg	0.000034 %		
27		benzo[a]anthracene	9			0.05			0.05		0.000025 %		
21	Ī	601-033-00-9	200-280-6	56-55-3		0.25	mg/kg		0.25	mg/kg	0.000025 %		
28	Π	chrysene				0.29	mg/kg		0.29	mg/kg	0.000029 %		
			205-923-4	218-01-9	1				5.20				
29		benzo[b]fluoranther		205 00 2		0.56	mg/kg		0.56	mg/kg	0.000056 %		
	-	601-034-00-4 benzo[k]fluoranther	205-911-9	205-99-2	+						<u> </u>	-	
30			1e 205-916-6	207-08-9	_	0.56	mg/kg		0.56	mg/kg	0.000056 %		
	-	benzo[a]pyrene; be		<u></u>	┼							+	
31			200-028-5	50-32-8	-	0.26	mg/kg		0.26	mg/kg	0.000026 %		
32		indeno[123-cd]pyre	ne	·		0.3	mg/kg		0.3	mg/kg	0.00003 %		
			205-893-2	193-39-5		0.0	ing/kg		0.0	iiig/kg	0.00000 /0		
33		dibenz[a,h]anthrace				0.05	mg/kg		0.05	mg/kg	0.000005 %		
-	-		200-181-8	53-70-3	1		59					-	
34		benzo[ghi]perylene		404.04.0		0.2	mg/kg		0.2	mg/kg	0.00002 %		
_	-		205-883-8	191-24-2	+								
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
		00-+-001-00-2	200-002-1	100-30-2						Total:	0.0744 %	-	



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



Classification of sample: HP2

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

Sample details

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)
	Chapter:

Hazard properties

None identified

Determinands

Moisture content: 3.7% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered o	data	Conv. Factor	Compound co	onc.	Classification value	MC Applied	Conc. Not Used
1	4		<mark>oxide</mark>	1327-53-3		12.3	ng/kg	1.32	16.24	mg/kg	0.00162 %		
2	4	cadmium { cadmium 048-002-00-0	n oxide } 231-152-8 [1]	7440-43-9 [1] 1306-19-0 [2]	-	0.4	ng/kg	1.142	0.457	mg/kg	0.0000457 %		
3	4	chromium in chromi oxide }		{ [•] chromium(III)	_	71	ng/kg	1.462	103.77	mg/kg	0.0104 %		
4	4	chromium in chromi oxide 024-001-00-0		{ chromium(VI)	-	<0.3	ng/kg	1.923	<0.577	mg/kg	<0.0000577 %		<lod< td=""></lod<>
5	~	copper {		<mark>xide</mark> } 1317-39-1	_	26	ng/kg	1.126	29.273	mg/kg	0.00293 %		
6	4	lead { lead comp specified elsewhere 082-001-00-6		eption of those	1	144	ng/kg		144	mg/kg	0.0144 %		
7	~	mercury { mercury of m	<mark>dichloride</mark> } 231-299-8	7487-94-7		0.6	ng/kg	1.353	0.812	mg/kg	0.0000812 %		
8	4	nickel { nickel chron 028-035-00-7	•	14721-18-7		12.6	ng/kg	2.976	37.501	mg/kg	0.00375 %		
9	4	selenium { selenium cadmium sulphosele in this Annex 034-002-00-8				<1	ng/kg	2.554	<2.554	mg/kg	<0.000255 %		<lod< td=""></lod<>
10	4	zinc { zinc sulphate 030-006-00-9	231-793-3 [1]	7446-19-7 [1] 7733-02-0 [2]	-	82	mg/kg	2.469	202.482	mg/kg	0.0202 %		
11	4	cyanides { [®] salts c exception of comple ferricyanides and m specified elsewhere 006-007-00-5	ex cyanides such as ercuric oxycyanide	s ferrocyanides,		<0.5	ng/kg	1.884	<0.942	mg/kg	<0.0000942 %		<lod< td=""></lod<>



#			Determinand		CLP Note	User entered	data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	ГЪ			1 00101			Value	1C ⊿	0300
12	8	TPH (C6 to C40) p	etroleum group	1		<38	mg/kg		<38	mg/kg	<0.0038 %	_	<lod< td=""></lod<>
12				TPH		<50	iiig/kg		<u> </u>	iiig/kg	<0.0030 78		
13		benzene	000 750 7	74 40 0		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		601-020-00-8 toluene	200-753-7	71-43-2	+							Н	
14		601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
15		ethylbenzene		1		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		601-023-00-4	202-849-4	100-41-4	1_								
16		xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl et 2-methoxy-2-methy	/lpropane	1004.04.4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
	_	603-181-00-Х рН	216-653-1	1634-04-4	+							\mathbb{H}	
18	٥			PH		6.17	рН		6.17	pН	6.17 pH		
19		naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
		601-052-00-2	202-049-5	91-20-3									
20	۲	acenaphthylene	205-917-1	208-96-8		0.04	mg/kg		0.04	mg/kg	0.000004 %		
-		acenaphthene	203-317-1	200-30-0	+							H	
21			201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22	8	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			201-695-5	86-73-7	-							Ц	
23	8	phenanthrene	201-581-5	85-01-8		0.17	mg/kg		0.17	mg/kg	0.000017 %		
24	0	anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		fluoranthene	204-371-1	120-12-7	-							\square	
25	-		205-912-4	206-44-0		0.41	mg/kg		0.41	mg/kg	0.000041 %		
26		pyrene		1		0.36	mg/kg		0.36	mg/kg	0.000036 %		
			204-927-3	129-00-0		0.00			0.00		0.000000 /0		
27		benzo[a]anthracen				0.28	mg/kg		0.28	mg/kg	0.000028 %		
		601-033-00-9 chrysene	200-280-6	56-55-3	-							\square	
28			205-923-4	218-01-9		0.3	mg/kg		0.3	mg/kg	0.00003 %		
29		benzo[b]fluoranthe		1		0.56	mg/kg		0.56	mg/kg	0.000056 %		
			205-911-9	205-99-2									
30		benzo[k]fluoranthe 601-036-00-5	ne 205-916-6	207-08-9		0.56	mg/kg		0.56	mg/kg	0.000056 %		
31		benzo[a]pyrene; be				0.25	malka		0.25	malka	0.000025.%	H	
31		601-032-00-3	200-028-5	50-32-8		0.25	mg/kg		0.25	mg/kg	0.000025 %		
32	0	indeno[123-cd]pyre		102 20 5		0.27	mg/kg		0.27	mg/kg	0.000027 %		
		dibenz[a,h]anthrac	205-893-2 ene	193-39-5	+							\parallel	
33			200-181-8	53-70-3		0.05	mg/kg		0.05	mg/kg	0.000005 %		
34		benzo[ghi]perylene	9			0.2	ma/ka		0.2	ma/ka	0.00002 %	П	
54			205-883-8	191-24-2	1_	0.2	mg/kg		0.2	mg/kg	0.00002 %	Ц	
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
			1	1						Total:	0.058 %	Γ	





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)
4	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<lod< th=""><th>Below limit of detection</th></lod<>	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: HP3

Non Hazardous Wast	e
Classified as 17 05 04	
in the List of Waste	
·	

Sample details

Sample Name:	LoW Code:	
HP3	Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
5.4%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 5.4% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	data	Conv. Factor	Compound c	onc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>ioxide</mark> } 215-481-4	1327-53-3		11.7	mg/kg	1.32	15.448	mg/kg	0.00154 %		
2	~		<mark>m oxide</mark> } 231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		1.3	mg/kg	1.142	1.485	mg/kg	0.000149 %		
3	4	oxide }	hium(III) compound	s {		69.5	mg/kg	1.462	101.578	mg/kg	0.0102 %		
4	4	chromium in chrom <mark>oxide</mark> } 024-001-00-0	hium(VI) compound 215-607-8	s { chromium(VI)		<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<lod< th=""></lod<>
5		copper { ^e dicoppe 029-002-00-X	<mark>er oxide; copper (I)</mark> 215-270-7	<mark>oxide</mark> } 1317-39-1		44	mg/kg	1.126	49.539	mg/kg	0.00495 %		
6	4	lead { [•] lead comp specified elsewhere 082-001-00-6		eption of those	1	580	mg/kg		580	mg/kg	0.058 %		
7		mercury { mercury 080-010-00-X	dichloride } 231-299-8	7487-94-7		0.6	mg/kg	1.353	0.812	mg/kg	0.0000812 %		
8	4	nickel { nickel chron		14721-18-7		16.1	mg/kg	2.976	47.918	mg/kg	0.00479 %		
9	~	selenium { seleniur cadmium sulphose in this Annex 034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate 030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	-	119	mg/kg	2.469	293.846	mg/kg	0.0294 %		
11	4	cyanides { salts exception of compl ferricyanides and n specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanide	s ferrocyanides,		<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<lod< th=""></lod<>



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound of	conc.	Classification value	Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	ЦР.							MC /	
12		TPH (C6 to C40) pe	etroleum group	-		<38	mg/kg		<38	mg/kg	<0.0038 %		<lod< td=""></lod<>
_		h		ТРН	+								
13		benzene 601-020-00-8	200-753-7	71-43-2	_	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
14		toluene 601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
	_	ethylbenzene	200 020 0	100 00 0	-	·							
15		-	202-849-4	100-41-4		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
16			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]	_	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane	1004.04.4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
18	-	603-181-00-Х рН	216-653-1	1634-04-4 PH	+	6.73	pН		6.73	рН	6.73 pH		
19		naphthalene		ГП		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
13		601-052-00-2	202-049-5	91-20-3		<0.04	шу/ку		<0.04	mg/kg	<0.000004 78		
20	0	acenaphthylene	205-917-1	208-96-8		0.04	mg/kg		0.04	mg/kg	0.000004 %		
24		acenaphthene	200-017-1	200-30-0		-0.05			-0.05		-0.000005.0/		
21			201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22	•	fluorene	201-695-5	86-73-7	_	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
23	9	phenanthrene	201-595-5	85-01-8	_	0.25	mg/kg		0.25	mg/kg	0.000025 %		
24	0	anthracene	204-371-1	120-12-7		0.06	mg/kg		0.06	mg/kg	0.000006 %		
25		fluoranthene	205-912-4	206-44-0		0.46	mg/kg		0.46	mg/kg	0.000046 %		
26	•	pyrene	204-927-3	129-00-0		0.39	mg/kg		0.39	mg/kg	0.000039 %		
27		benzo[a]anthracene 601-033-00-9	e 200-280-6	56-55-3		0.31	mg/kg		0.31	mg/kg	0.000031 %		
28		chrysene 601-048-00-0	205-923-4	218-01-9		0.32	mg/kg		0.32	mg/kg	0.000032 %		
29		benzo[b]fluoranther 601-034-00-4	ne 205-911-9	205-99-2		0.68	mg/kg		0.68	mg/kg	0.000068 %		
30		benzo[k]fluoranther 601-036-00-5	ne 205-916-6	207-08-9		0.68	mg/kg		0.68	mg/kg	0.000068 %		
31		benzo[a]pyrene; be	nzo[def]chrysene 200-028-5	50-32-8		0.39	mg/kg		0.39	mg/kg	0.000039 %		
32	0	indeno[123-cd]pyre	ne 205-893-2	193-39-5		0.4	mg/kg		0.4	mg/kg	0.00004 %		
33		dibenz[a,h]anthrace 601-041-00-2	ene 200-181-8	53-70-3		0.09	mg/kg		0.09	mg/kg	0.000009 %		
34	۲	benzo[ghi]perylene	205-883-8	191-24-2		0.27	mg/kg		0.27	mg/kg	0.000027 %		
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
										Total:	0.114 %		



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



Classification of sample: HP4

🕅 New Herendeus Weste	
🥝 Non Hazardous Waste	
Classified as 17 05 04	
in the List of Waste	

Sample details

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

Hazard properties

None identified

Determinands

Moisture content: 6.3% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>oxide</mark> } 215-481-4	1327-53-3		11.5	mg/kg	1.32	15.184	mg/kg	0.00152 %	<	
2	8	cadmium { cadmiur 048-002-00-0	n oxide } 231-152-8 [1]	7440-43-9 [1] 1306-19-0 [2]	-	1.1	mg/kg	1.142	1.257	mg/kg	0.000126 %		
3	4	oxide }	chromium in chromium(III) compounds { <mark>chromium(III)</mark> oxide } 215-160-9				mg/kg	1.462	89.593	mg/kg	0.00896 %		
4	4	chromium in chrom <mark>oxide</mark> }	ium(VI) compounds			<0.3	mg/kg	1.923	<0.577	mg/kg	<0.0000577 %		<lod< th=""></lod<>
5	4	copper { • dicoppe	er oxide; copper (I) o		_	78	mg/kg	1.126	87.819	mg/kg	0.00878 %		
6	Å	lead { [•] lead comp specified elsewhere		eption of those	1	832	mg/kg		832	mg/kg	0.0832 %		
7	~	mercury { mercury		7487-94-7	-	0.7	mg/kg	1.353	0.947	mg/kg	0.0000947 %		
8	~	nickel { nickel chron 028-035-00-7		14721-18-7		15.2	mg/kg	2.976	45.239	mg/kg	0.00452 %		
9	*	selenium { <mark>seleniun</mark> cadmium sulphosel in this Annex }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<lod< th=""></lod<>
10	~		231-793-3 [1]	7446-19-7 [1] 7733-02-0 [2]	-	188	mg/kg	2.469	464.228	mg/kg	0.0464 %		
11	*	cyanides { salts of exception of completion of completion of completion of completion of completion of the salts of the sa	ex cyanides such as hercuric oxycyanide	s ferrocyanides,		<0.5	mg/kg	1.884	<0.942	mg/kg	<0.0000942 %		<lod< th=""></lod<>



#			Determinand		CLP Note	User entered	data	Conv. Factor	Compound o	conc.	Classification value	Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	LP 1			i actor			value	MC A	Useu
12	8	TPH (C6 to C40) pe	• •	ТРН		<38	mg/kg		<38	mg/kg	<0.0038 %	2	<lod< td=""></lod<>
	_	benzene			+								
13			200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
14		toluene		1		<0.005	mg/kg		<0.005	ma/ka	<0.0000005 %		<lod< td=""></lod<>
14		601-021-00-3	203-625-9	108-88-3			iiig/kg			ing/kg	<0.0000000 /0		
15	۲	ethylbenzene		T		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
			202-849-4	100-41-4									
16			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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane	4004.04.4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
$\left - \right $		603-181-00-X pH	216-653-1	1634-04-4	+							$\left \right $	
18	8	P. 1		PH	-	7.06	pН		7.06	pН	7.06 pH		
19		naphthalene 601-052-00-2	202-049-5	91-20-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20		acenaphthylene			1	0.04	malka		0.04	malka	0.000004 %		
20			205-917-1	208-96-8		0.04	mg/kg		0.04	mg/kg	0.000004 %		
21	8	acenaphthene	201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
	8	fluorene	201-409-0	03-32-9	+								
22	9		201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
23		phenanthrene		1		0.15	mg/kg		0.15	mg/kg	0.000015 %		
23			201-581-5	85-01-8		0.13	iiig/kg		0.15	iiig/kg	0.000013 /8		
24	Θ	anthracene				0.04	mg/kg		0.04	mg/kg	0.000004 %		
		fluoranthene	204-371-1	120-12-7									
25	۵		205-912-4	206-44-0	-	0.33	mg/kg		0.33	mg/kg	0.000033 %		
00		pyrene	200 012 1			0.00					0.00000.0/		
26			204-927-3	129-00-0		0.28	mg/kg		0.28	mg/kg	0.000028 %		
27		benzo[a]anthracene	e			0.21	mg/kg		0.21	mg/kg	0.000021 %		
			200-280-6	56-55-3]								
28		chrysene	205 022 4	b10 01 0		0.22	mg/kg		0.22	mg/kg	0.000022 %		
$\left - \right $		601-048-00-0 benzo[b]fluoranther		218-01-9								$\left \right $	
29			205-911-9	205-99-2		0.46	mg/kg		0.46	mg/kg	0.000046 %		
30		benzo[k]fluoranther				0.46	ma/ka		0.46	malka	0.000046.9/		
30		• •	205-916-6	207-08-9		0.46	mg/kg		0.46	mg/kg	0.000046 %		
31		benzo[a]pyrene; be	,			0.24	mg/kg		0.24	mg/kg	0.000024 %		
				50-32-8			5.5			5.5			
32	8	indeno[123-cd]pyre	ne 205-893-2	193-39-5		0.24	mg/kg		0.24	mg/kg	0.000024 %		
	_	dibenz[a,h]anthrace			+								
33			200-181-8	53-70-3	1	0.04	mg/kg		0.04	mg/kg	0.000004 %		
34	0	benzo[ghi]perylene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
Ŭ,			205-883-8	191-24-2	1	5.17			5.17			Ц	
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
										Total:	0.158 %		





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



Classification of sample: HP5

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

Sample details

Sample Name:	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.45 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
2.9%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 2.9% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered d	lata	Conv. Factor	Compound c	onc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>ioxide</mark> } 215-481-4	1327-53-3		15.4 n	ng/kg	1.32	20.333	mg/kg	0.00203 %		
2			<mark>m oxide</mark> } 231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		3.3 n	ng/kg	1.142	3.77	mg/kg	0.000377 %		
3	4	chromium in chromium(III) compounds { Chromium(III) oxide } 215-160-9 1308-38-9				63.2 n	ng/kg	1.462	92.37	mg/kg	0.00924 %		
4	4	chromium in chrom <mark>oxide</mark> } 024-001-00-0	hium(VI) compound 215-607-8	s { chromium(VI)		<0.3 n	ng/kg	1.923	<0.577	mg/kg	<0.0000577 %		<lod< th=""></lod<>
5		copper {	<mark>er oxide; copper (I)</mark> 215-270-7	<mark>oxide</mark> } 1317-39-1		150 n	ng/kg	1.126	168.883	mg/kg	0.0169 %		
6	4	lead { [•] lead comp specified elsewhere 082-001-00-6		eption of those	1	1257 n	ng/kg		1257	mg/kg	0.126 %		
7		mercury { mercury 080-010-00-X	dichloride } 231-299-8	7487-94-7		0.9 n	ng/kg	1.353	1.218	mg/kg	0.000122 %		
8	4	nickel { nickel chron		14721-18-7		22 n	ng/kg	2.976	65.478	mg/kg	0.00655 %		
9	~	selenium { seleniur cadmium sulphose in this Annex 034-002-00-8				<1 n	ng/kg	2.554	<2.554	mg/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate 030-006-00-9	} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	-	399 n	ng/kg	2.469	985.249	mg/kg	0.0985 %		
11	4	cyanides { salts exception of compl ferricyanides and n specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanide	s ferrocyanides,		1.4 n	ng/kg	1.884	2.638	mg/kg	0.000264 %		



#			Determinand		CLP Note	User entered	User entered data		Compound	conc.	Classification value	Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	CLP CL							MC	
12	8	TPH (C6 to C40) p	etroleum group	1	Ĭ	<38	mg/kg		<38	ma/ka	<0.0038 %		<lod< td=""></lod<>
12				TPH		<30	тту/ку		<30	mg/kg	<0.0036 %		
13		benzene		H (0.0		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
_		601-020-00-8 toluene	200-753-7	71-43-2								-	
14			203-625-9	108-88-3	_	<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
		ethylbenzene	203-023-3	100-00-3									
15			202-849-4	100-41-4	-	<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
	_	xylene	202 0 10 1										
16		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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane	4004.04.4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
			216-653-1	1634-04-4	+							-	
18	۲	pН		PH	-	6.6	pН		6.6	рН	6.6 pH		
		naphthalene		<u> </u>									
19		•	202-049-5	91-20-3	_	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
20	0	acenaphthylene				0.08	malka		0.08	malka	0.000008 %		
20			205-917-1	208-96-8		0.08	mg/kg		0.08	mg/kg	0.000008 /8		
21	8	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
			201-469-6	83-32-9									
22	8	fluorene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			201-695-5	86-73-7								_	
23	8	phenanthrene		05.04.0	_	0.46	mg/kg		0.46	mg/kg	0.000046 %		
-		anthracene	201-581-5	85-01-8									
24	۵		204-371-1	120-12-7	-	0.14	mg/kg		0.14	mg/kg	0.000014 %		
		fluoranthene											
25			205-912-4	206-44-0	-	1.01	mg/kg		1.01	mg/kg	0.000101 %		
26		pyrene		·		0.83	mg/kg		0.83	mg/kg	0.000083 %		
20			204-927-3	129-00-0		0.00	iiig/kg		0.00	iiig/kg	0.000003 /8		
27		benzo[a]anthracene	9			0.63	mg/kg		0.63	mg/kg	0.000063 %		
		601-033-00-9	200-280-6	56-55-3									
28		chrysene	I			0.59	mg/kg		0.59	mg/kg	0.000059 %		
			205-923-4	218-01-9	-							_	
29		benzo[b]fluoranther		005 00 0	_	1.15	mg/kg		1.15	mg/kg	0.000115 %		
	_	601-034-00-4 benzo[k]fluoranther	205-911-9	205-99-2	╋							+	
30			205-916-6	207-08-9	-	1.15	mg/kg		1.15	mg/kg	0.000115 %		
		benzo[a]pyrene; be			+				c			+	
31			200-028-5	50-32-8	-	0.59	mg/kg		0.59	mg/kg	0.000059 %		
32	_	indeno[123-cd]pyre		*	\uparrow	0.56	ma/ka		0.56	ma/ka	0.000056.9/	\top	
52			205-893-2	193-39-5		0.56	mg/kg		0.56	mg/kg	0.000056 %		
33		dibenz[a,h]anthrace				0.11	mg/kg		0.11	mg/kg	0.000011 %		
		601-041-00-2	200-181-8	53-70-3	1_	0.11			0.11				
34	0	benzo[ghi]perylene				0.4	mg/kg		0.4	mg/kg	0.00004 %		
			205-883-8	191-24-2	-							-	
~		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
35													



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



Classification of sample: HP6

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

Sample details

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

Hazard properties

None identified

Determinands

Moisture content: 4.1% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	4			1327-53-3		13.3 mg/kg	1.32	17.56 mg/kg	0.00176 %		
2	4	cadmium { cadmium 048-002-00-0 23	oxide } 31-152-8 [1]	7440-43-9 [1] 1306-19-0 [2]		4.2 mg/kg	1.142	4.798 mg/kg	0.00048 %		
3	4	chromium in chromium(III) compounds { Chromium(III) oxide } 215-160-9 1308-38-9				75.4 mg/kg	1.462	110.201 mg/kg	0.011 %		
4	4	chromium in chromiu oxide }	m(VI) compounds			<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<lod< th=""></lod<>
5	4	copper {		<mark>xide</mark> } 1317-39-1		61 mg/kg	1.126	68.679 mg/kg	0.00687 %		
6	4	lead { • lead compor specified elsewhere in 082-001-00-6		eption of those	1	212 mg/kg		212 mg/kg	0.0212 %		
7	~		-	7487-94-7		0.7 mg/kg	1.353	0.947 mg/kg	0.0000947 %		
8	4		•	14721-18-7		19.2 mg/kg	2.976	57.144 mg/kg	0.00571 %		
9	4	selenium { selenium (cadmium sulphoseler in this Annex } 034-002-00-8				<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate } 030-006-00-9 23	31-793-3 [1]	7446-19-7 [1] 7733-02-0 [2]		164 mg/kg	2.469	404.965 mg/kg	0.0405 %		
11	4	cyanides { salts of exception of complex ferricyanides and me specified elsewhere in 006-007-00-5	cyanides such as rcuric oxycyanide	ferrocyanides,		1.8 mg/kg	1.884	3.391 mg/kg	0.000339 %		



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	ГЪ			1 00101			Value	1C ⊿	0300
12		TPH (C6 to C40) p	etroleum group	1		<38	mg/kg		<38	mg/kg	<0.0038 %	_	<lod< td=""></lod<>
				TPH			ing/kg			iiig/kg			.200
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
		toluene	200-753-7	/1-43-2		0.005			0.005		0.000005.0/	H	
14		601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
15	0	ethylbenzene		400 44 4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		601-023-00-4 xylene	202-849-4	100-41-4	-							Н	
16		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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl et 2-methoxy-2-methy	ylpropane			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
-	-	603-181-00-Х рН	216-653-1	1634-04-4	-							Н	
18	۳			PH		6.7	рН		6.7	pН	6.7 pH		
19		naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
		601-052-00-2	202-049-5	91-20-3	-								
20	۲	acenaphthylene	205-917-1	208-96-8		0.05	mg/kg		0.05	mg/kg	0.000005 %		
	-	acenaphthene	205-317-1	200-90-0	+							H	
21			201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22	8	fluorene		1		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			201-695-5	86-73-7	_	10.04			<0.04	iiig/itg	<0.000004 70		~LOD
23	Θ	phenanthrene	201-581-5	85-01-8	-	0.21	mg/kg		0.21	mg/kg	0.000021 %		
24	0	anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
		fluoranthene	204-371-1	120-12-7	-							\square	
25	۲	liuorantiiene	205-912-4	206-44-0		0.51	mg/kg		0.51	mg/kg	0.000051 %		
26		pyrene		1		0.42	mg/kg		0.42	mg/kg	0.000042 %		
20			204-927-3	129-00-0		0.42	ing/kg		0.42	iiig/itg	0.000042 /0		
27		benzo[a]anthracen				0.3	mg/kg		0.3	mg/kg	0.00003 %		
		601-033-00-9 chrysene	200-280-6	56-55-3	-							Н	
28			205-923-4	218-01-9		0.32	mg/kg		0.32	mg/kg	0.000032 %		
29		benzo[b]fluoranthe	ne	1		0.66	mg/kg		0.66	mg/kg	0.000066 %		
-		601-034-00-4 benzo[k]fluoranthe	205-911-9	205-99-2	+							$\left \right $	
30			205-916-6	207-08-9		0.66	mg/kg		0.66	mg/kg	0.000066 %		
31		benzo[a]pyrene; be	1			0.31	mg/kg		0.31	mg/kg	0.000031 %	Н	
			200-028-5	50-32-8	1_	0.01	mg/rkg		0.01	iiig/kg	0.000001 /0		
32	8	indeno[123-cd]pyre	ene 205-893-2	193-39-5		0.35	mg/kg		0.35	mg/kg	0.000035 %		
22	1	dibenz[a,h]anthrac		1.00-00-0	+	0.00			0.00		0.000000.0/	\square	
33			200-181-8	53-70-3		0.06	mg/kg		0.06	mg/kg	0.000006 %		
34	0	benzo[ghi]perylene				0.24	mg/kg		0.24	mg/kg	0.000024 %		
			205-883-8	191-24-2			39			39		Ц	
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
				1				!		Total:	0.0925 %	Γ	





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)
4	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<lod< th=""><th>Below limit of detection</th></lod<>	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification



Classification of sample: HP7

Non Hazardous Wast	e
Classified as 17 05 04	
in the List of Waste	
·	

Sample details

Sample Name:	LoW Code:	
HP7	Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.25 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
2.8%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 2.8% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered d	lata	Conv. Factor	Compound co	nc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>ioxide</mark>	1327-53-3		11.1 r	ng/kg	1.32	14.656 r	ng/kg	0.00147 %		
2	-	cadmium { cadmiur 048-002-00-0		7440-43-9 [1] 1306-19-0 [2]	-	2.4 r	ng/kg	1.142	2.742 r	ng/kg	0.000274 %		
3	4	oxide }	hium(III) compound	s {		76.6 r	ng/kg	1.462	111.955 r	ng/kg	0.0112 %		
4	4	chromium in chrom <mark>oxide</mark> } 024-001-00-0	hium(VI) compound 215-607-8	s { chromium(VI)		<0.3 r	ng/kg	1.923	<0.577 r	ng/kg	<0.0000577 %		<lod< th=""></lod<>
5		copper { [●] dicoppe 029-002-00-X	<mark>er oxide; copper (I)</mark> 215-270-7	<mark>oxide</mark> } 1317-39-1		45 r	ng/kg	1.126	50.665 r	ng/kg	0.00507 %		
6	4	lead { [•] lead comp specified elsewhere 082-001-00-6		eption of those	1	187 r	ng/kg		187 r	ng/kg	0.0187 %		
7		mercury { mercury 080-010-00-X	dichloride } 231-299-8	7487-94-7		0.5 n	ng/kg	1.353	0.677 r	ng/kg	0.0000677 %		
8	4	nickel { nickel chron		14721-18-7		17.2 r	ng/kg	2.976	51.192 r	ng/kg	0.00512 %		
9	~	selenium { seleniur cadmium sulphose in this Annex 034-002-00-8			-	<1 r	ng/kg	2.554	<2.554 r	ng/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate 030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	-	131 r	ng/kg	2.469	323.478 r	ng/kg	0.0323 %		
11	*	cyanides { salts exception of compl ferricyanides and n specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanide	s ferrocyanides,		0.8 r	ng/kg	1.884	1.507 r	ng/kg	0.000151 %		



#			Determinand		CLP Note	User entered	d data	Conv. Factor	Compound	conc.	Classification value	Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	CLP							MC	
12	•	TPH (C6 to C40) pe	etroleum group	1		<38	mg/kg		<38	malka	<0.0038 %		<lod< td=""></lod<>
12				TPH		<30	тту/ку		<30	mg/kg	<0.0036 %		
13		benzene	000 750 7	74 40 0		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
_			200-753-7	71-43-2	-								
14		toluene 601-021-00-3	203-625-9	108-88-3	_	<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
	_	ethylbenzene	203-023-3	100-00-0						_			
15	•	-	202-849-4	100-41-4	-	<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
		xylene											
16		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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane			<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
_	-		216-653-1	1634-04-4	-							-	
18	۹	pН		PH		6.41	рН		6.41	pН	6.41 pH		
19		naphthalene	I	1		0.06	mg/kg		0.06	mg/kg	0.000006 %	1	
19		601-052-00-2	202-049-5	91-20-3		0.00	шу/ку		0.00	шу/ку	0.000000 /8		
20	•	acenaphthylene				0.05	mg/kg		0.05	mg/kg	0.000005 %		
			205-917-1	208-96-8									
21	•	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
	_		201-469-6	83-32-9	_							-	
22	•	fluorene		00.70.7	_	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			201-695-5	86-73-7	-							-	
23	8	phenanthrene	201-581-5	85-01-8	-	0.22	mg/kg		0.22	mg/kg	0.000022 %		
24	٥	anthracene	204-371-1	120-12-7		0.06	mg/kg		0.06	mg/kg	0.000006 %		
		fluoranthene	2010/11	120 12 1									
25			205-912-4	206-44-0	-	0.45	mg/kg		0.45	mg/kg	0.000045 %		
26		pyrene				0.20			0.20		0.000038.0/		
26			204-927-3	129-00-0		0.38	mg/kg		0.38	mg/kg	0.000038 %		
27		benzo[a]anthracene	Э			0.26	mg/kg		0.26	mg/kg	0.000026 %		
		601-033-00-9	200-280-6	56-55-3		0.20							
28		chrysene	1			0.27	mg/kg		0.27	mg/kg	0.000027 %		
_	_		205-923-4	218-01-9									
29		benzo[b]fluoranther 601-034-00-4	ne 205-911-9	205-99-2	_	0.55	mg/kg		0.55	mg/kg	0.000055 %		
	-	benzo[k]fluoranther		L00-00-2	+						<u> </u>	+	
30			205-916-6	207-08-9	-	0.55	mg/kg		0.55	mg/kg	0.000055 %		
31	-	benzo[a]pyrene; be				0.26	mg/kg		0.26	mg/kg	0.000026 %	1	
51		601-032-00-3	200-028-5	50-32-8		0.20	ing/kg		0.20	iiig/kg	0.00020 //		
32	•	indeno[123-cd]pyre				0.31	mg/kg		0.31	mg/kg	0.000031 %		
_			205-893-2	193-39-5	-							-	
33		dibenz[a,h]anthrace		E0 70 0		0.04	mg/kg		0.04	mg/kg	0.000004 %		
			200-181-8	53-70-3	-							+	
34	٥	benzo[ghi]perylene	205-883-8	191-24-2		0.21	mg/kg		0.21	mg/kg	0.000021 %		
		phenol	200-000-0	191-27-2	+							+	
35		•	203-632-7	108-95-2	-	<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
		-		1						Total:	0.0789 %		



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



Classification of sample: HP8

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

Sample details

Sample Name:	LoW Code:	17. Construction and Demolition Waster (including everyoted onit
		17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.25 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
		03)

Hazard properties

None identified

Determinands

Moisture content: 0% No Moisture Correction applied (MC)

#		Determina CLP index number EC Numb		CLP Note	User entere	d data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	4	chromium in chromium(VI) comp oxide } 024-001-00-0 215-607-8	ounds { chromium(VI)		<0.3	mg/kg	1.923	<0.577 mg/	<g %<="" <0.0000577="" th=""><th></th><th><lod< th=""></lod<></th></g>		<lod< th=""></lod<>
2	4	cyanides { salts of hydrogen c exception of complex cyanides s ferricyanides and mercuric oxycy specified elsewhere in this Anner 006-007-00-5	yanide with the uch as ferrocyanides, ranide and those		0.7	mg/kg	1.884	1.319 mg/	kg 0.000132 %		
3		TPH (C6 to C40) petroleum grou	•		<38	mg/kg		<38 mg/	<pre><q %<="" <0.0038="" pre=""></q></pre>		<lod< th=""></lod<>
			TPH								
4		benzene 601-020-00-8 200-753-7	71-43-2	_	<0.005	mg/kg		<0.005 mg/	kg <0.0000005 %		<lod< td=""></lod<>
5		toluene			<0.005	mg/kg		<0.005 mg/	(q <0.0000005 %		<lod< td=""></lod<>
5		601-021-00-3 203-625-9	108-88-3		<0.005	шу/ку		<0.003 mg/	(g) <0.0000003 /8		
6		ethylbenzene			<0.005	mg/kg		<0.005 mg/	(g <0.0000005 %		<lod< td=""></lod<>
Ľ		601-023-00-4 202-849-4	100-41-4								
7		xylene 601-022-00-9 202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	106-42-3 [2] 108-38-3 [3]		<0.005	mg/kg		<0.005 mg/	kg <0.0000005 %		<lod< td=""></lod<>
8		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane			<0.005	mg/kg		<0.005 mg/	<g %<="" <0.0000005="" td=""><td></td><td><lod< td=""></lod<></td></g>		<lod< td=""></lod<>
<u> </u>		603-181-00-X 216-653-1	1634-04-4								
9	0	рН	PH		5.95	рН		5.95 pH	5.95 pH		
10		naphthalene	, ,		<0.04	mg/kg		<0.04 mg/	kg <0.000004 %		<lod< td=""></lod<>
		601-052-00-2 202-049-5	91-20-3			ing/ing		(0.01 mg/	.9		
11	۵	acenaphthylene 205-917-1	208-96-8		0.04	mg/kg		0.04 mg/	kg 0.000004 %		
12		acenaphthene	200-30-0	+	-0.05			-0.05	(a) 000005 0(
12		201-469-6	83-32-9		<0.05	mg/kg		<0.05 mg/	<g %<="" <0.000005="" td=""><td></td><td><lod< td=""></lod<></td></g>		<lod< td=""></lod<>
13	0	fluorene			<0.04	mg/kg		<0.04 mg/	<g %<="" <0.000004="" p=""></g>		<lod< td=""></lod<>
		201-695-5	86-73-7								



#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered	d data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
		phenanthrene			U U							Σ	
14	۲	•	201-581-5	85-01-8	-	0.14	mg/kg		0.14	mg/kg	0.000014 %		
		anthracene	201 001 0	00 01 0	-								
15			204-371-1	120-12-7	-	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
		fluoranthene										t-	
16			205-912-4	206-44-0	-	0.31	mg/kg		0.31	mg/kg	0.000031 %		
		pyrene											
17			204-927-3	129-00-0	-	0.24	mg/kg		0.24	mg/kg	0.000024 %		
18		benzo[a]anthracene)	1		0.0			0.0		0.00000.0/		
18		601-033-00-9	200-280-6	56-55-3	1	0.2	mg/kg		0.2	mg/kg	0.00002 %		
19		chrysene				0.22	ma/ka		0.22	malka	0.000022 %		
19		601-048-00-0	205-923-4	218-01-9	1	0.22	mg/kg		0.22	mg/kg	0.000022 %		
20		benzo[b]fluoranther	ne			0.38	mg/kg		0.38	ma/ka	0.000038 %		
20		601-034-00-4	205-911-9	205-99-2		0.30	шу/ку		0.38	шу/ку	0.000038 /8		
21		benzo[k]fluoranthen	ie			0.38	mg/kg		0.38	mg/kg	0.000038 %		
21		601-036-00-5	205-916-6	207-08-9		0.00	iiig/itg		0.00	iiig/kg	0.000000 /0		
22		benzo[a]pyrene; be	nzo[def]chrysene			0.18	mg/kg		0.18	ma/ka	0.000018 %		
		601-032-00-3	200-028-5	50-32-8		0.10				iiig/kg	0.000010 /0		
23		indeno[123-cd]pyre	ne			0.21	mg/kg		0.21	mg/kg	0.000021 %		
			205-893-2	193-39-5	1								
24		dibenz[a,h]anthrace				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			200-181-8	53-70-3									
25	۲	benzo[ghi]perylene				0.15	mg/kg		0.15	mg/kg	0.000015 %		
Ľ			205-883-8	191-24-2						5.5			
26		phenol				<0.15	mg/kg		<0.15	mg/ka	<0.000015 %		<lod< td=""></lod<>
Ĺ		604-001-00-2	203-632-7	108-95-2			55					<u> </u>	-
										Total:	0.00427 %		

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) 0 Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound 4 concentration

<LOD Below limit of detection



Classification of sample: HP9

🕅 New Herendeus Weste	
🥝 Non Hazardous Waste	
Classified as 17 05 04	
in the List of Waste	

Sample details

Sample Name:	LoW Code:	
HP9	Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.35 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
4.2%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 4.2% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1			<mark>oxide</mark>	1327-53-3		10.8 mg/kg	1.32	14.26 mg/kg	0.00143 %		
2	4	cadmium { cadmiun 048-002-00-0		7440-43-9 [1] 1306-19-0 [2]	-	3.5 mg/kg	1.142	3.998 mg/kg	0.0004 %		
3	4	chromium in chrom <mark>oxide</mark> }	, , , , , , , , , , , , , , , , , , ,	{ [•] chromium(III)		73.6 mg/kg	1.462	107.571 mg/kg	0.0108 %		
4	4	chromium in chrom <mark>oxide</mark> }	ium(VI) compounds			<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<lod< th=""></lod<>
5	4	copper {	, 11 ()	<mark>oxide</mark> } 1317-39-1		46 mg/kg	1.126	51.791 mg/kg	0.00518 %		
6	4	lead { [•] lead comp specified elsewhere 082-001-00-6		eption of those	1	118 mg/kg		118 mg/kg	0.0118 %		
7	4	mercury { mercury	dichloride } 231-299-8	7487-94-7		0.7 mg/kg	1.353	0.947 mg/kg	0.0000947 %		
8	~	nickel { nickel chron 028-035-00-7	<mark>nate</mark> } 238-766-5	14721-18-7	_	17.1 mg/kg	2.976	50.894 mg/kg	0.00509 %		
9	4	selenium { selenium cadmium sulphosel in this Annex 034-002-00-8			_	<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate 030-006-00-9	} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		120 mg/kg	2.469	296.316 mg/kg	0.0296 %		
11	4	cyanides { satise exception of comple ferricyanides and m specified elsewhere 006-007-00-5	ex cyanides such as hercuric oxycyanide	s ferrocyanides,		1.4 mg/kg	1.884	2.638 mg/kg	0.000264 %		



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	Api	Conc. Not Used
		CLP index number	EC Number	CAS Number	CLP							MC	
12	9	TPH (C6 to C40) pe	etroleum group	1		<38	mg/kg		<38	ma/ka	<0.0038 %		<lod< td=""></lod<>
				TPH						ing/kg			
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
		toluene	200-755-7	11-43-2								H	
14			203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
15	8	ethylbenzene		400.44.4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
			202-849-4	100-41-4								H	
16			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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
\vdash			216-653-1	1634-04-4	+							H	
18	8	pН		PH		6.37	рН		6.37	рН	6.37 pH		
19		naphthalene	000.040.5	64.00.0		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
		601-052-00-2 acenaphthylene	202-049-5	91-20-3	-								
20	۲		205-917-1	208-96-8	4	0.04	mg/kg		0.04	mg/kg	0.000004 %		
	_	acenaphthene	203-317-1	200-30-0	+								
21			201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
22		fluorene		,		-0.04			.0.04		-0.000004.9/		
22			201-695-5	86-73-7		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
23		phenanthrene				0.14	mg/kg		0.14	mg/kg	0.000014 %		
			201-581-5	85-01-8	1								
24	۲	anthracene	204-371-1	120-12-7		0.04	mg/kg		0.04	mg/kg	0.000004 %		
25	0	fluoranthene				0.33	mg/kg		0.33	mg/kg	0.000033 %		
			205-912-4	206-44-0									
26	۵	pyrene	204-927-3	129-00-0		0.28	mg/kg		0.28	mg/kg	0.000028 %		
		benzo[a]anthracene		129-00-0									
27			200-280-6	56-55-3	-	0.19	mg/kg		0.19	mg/kg	0.000019 %		
		chrysene	- / /		+	0.00			0.00		0.000000.0/	Н	
28		-	205-923-4	218-01-9		0.22	mg/kg		0.22	mg/kg	0.000022 %		
29		benzo[b]fluoranther		005.00.0		0.4	mg/kg		0.4	mg/kg	0.00004 %		
			205-911-9	205-99-2	+							$\left \right $	
30		benzo[k]fluoranther 601-036-00-5	ne 205-916-6	207-08-9	-	0.4	mg/kg		0.4	mg/kg	0.00004 %		
		benzo[a]pyrene; be		-01 00 0	+							\vdash	
31				50-32-8		0.19	mg/kg		0.19	mg/kg	0.000019 %		
32		indeno[123-cd]pyre				0.24	mg/kg		0.24	mg/kg	0.000024 %		
			205-893-2	193-39-5	1_	0.24	ing/kg		0.24	iiig/kg	0.000024 /0		
33		dibenz[a,h]anthrace				0.04	mg/kg		0.04	mg/kg	0.000004 %		
			200-181-8	53-70-3	\vdash							Ц	
34	۲	benzo[ghi]perylene				0.17	mg/kg		0.17	mg/kg	0.000017 %		
		phenol	205-883-8	191-24-2	+							\vdash	
35		·	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
										Total:	0.0691 %		





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



Classification of sample: HP10

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

Sample details

Sample Name:	LoW Code:	
HP10	Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.2 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
4.3%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 4.3% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>ioxide</mark>	1327-53-3		12.6 mg/kg	1.32	16.636 mg/kg	0.00166 %		
2		cadmium { <mark>cadmiur</mark> 048-002-00-0	l	7440-43-9 [1] 1306-19-0 [2]		3.3 mg/kg	1.142	3.77 mg/kg	0.000377 %		
3	4	oxide }	hium(III) compound	s { Chromium(III)		68.8 mg/kg	1.462	100.555 mg/kg	0.0101 %		
4	4	chromium in chrom <mark>oxide</mark> }		s { chromium(VI)		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<lod< th=""></lod<>
5		copper { [●] dicoppe 029-002-00-X	<mark>er oxide; copper (I)</mark> 215-270-7	<mark>oxide</mark> } 1317-39-1		44 mg/kg	1.126	49.539 mg/kg	0.00495 %		
6	4	lead { [•] lead comp specified elsewhere 082-001-00-6		ception of those	1	106 mg/kg	3	106 mg/kg	0.0106 %		
7		mercury { mercury 080-010-00-X	<mark>dichloride</mark> } 231-299-8	7487-94-7		0.5 mg/kg	1.353	0.677 mg/kg	0.0000677 %		
8		nickel {	<mark>mate</mark> } 238-766-5	14721-18-7		18.3 mg/kg	2.976	54.466 mg/kg	0.00545 %		
9	4	selenium { seleniur cadmium sulphose in this Annex }				1 mg/kg	2.554	2.554 mg/kg	0.000255 %		
10	-		} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]	-	119 mg/kg	2.469	 293.846 mg/kg	0.0294 %		
11	4	cyanides { salts exception of compl ferricyanides and n specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanide	s ferrocyanides,		<0.5 mg/kg	1.884	<0.942 mg/kg	<0.0000942 %		<lod< th=""></lod<>



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	CLP							MC	
12	8	TPH (C6 to C40) pe	etroleum group		Ĭ	67	mg/kg		67	mg/kg	0.0067 %		
12				TPH			iiig/kg				0.0007 78		
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		toluene	200-133-1	11-43-2									
14			203-625-9	108-88-3	-	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
4.5	0	ethylbenzene				0.005			0.005		0.000005.0/		1.00
15		601-023-00-4	202-849-4	100-41-4	-	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
16			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]	_	<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
			216-653-1	1634-04-4								-	
18	۲	pН		PH		6.56	pН		6.56	pН	6.56 pH		
19		naphthalene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
19		601-052-00-2	202-049-5	91-20-3		<0.04	тту/ку		<0.04	тту/ку	<0.000004 %		<lod< td=""></lod<>
20	0	acenaphthylene				0.07	mg/kg		0.07	mg/kg	0.000007 %		
20			205-917-1	208-96-8		0.07	ing/ng						
21	8	acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
		,	201-469-6	83-32-9								_	
22	8	fluorene			_	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
			201-695-5	86-73-7								_	
23	۲	phenanthrene	201-581-5	85-01-8	_	0.32	mg/kg		0.32	mg/kg	0.000032 %		
24	8	anthracene	204-371-1	120-12-7		0.17	mg/kg		0.17	mg/kg	0.000017 %		
25	0	fluoranthene				0.76	mg/kg		0.76	mg/kg	0.000076 %		
20			205-912-4	206-44-0		0.10	ing/ng						
26	۲	pyrene	204-927-3	129-00-0	_	0.65	mg/kg		0.65	mg/kg	0.000065 %		
		benzo[a]anthracene		129-00-0									
27			200-280-6	56-55-3	-	0.46	mg/kg		0.46	mg/kg	0.000046 %		
		chrysene				0.50			0.50		0.000050.0/	1	
28		601-048-00-0	205-923-4	218-01-9	-	0.52	mg/kg		0.52	mg/kg	0.000052 %		
29		benzo[b]fluoranther 601-034-00-4		205-99-2	_	1.07	mg/kg		1.07	mg/kg	0.000107 %		
20		benzo[k]fluoranther	205-911-9 ne	200-33-2	+	4.07			4.07		0.000407.0/	+	
30			205-916-6	207-08-9		1.07	mg/kg		1.07	mg/kg	0.000107 %		
31		benzo[a]pyrene; be		50.00.0		0.45	mg/kg		0.45	mg/kg	0.000045 %		
	_		200-028-5	50-32-8	+							-	
32	0	indeno[123-cd]pyre	205-893-2	193-39-5		0.53	mg/kg		0.53	mg/kg	0.000053 %		
33		dibenz[a,h]anthrace				0.11	mg/kg		0.11	mg/kg	0.000011 %		
55		601-041-00-2	200-181-8	53-70-3		0.11	ing/kg		0.11	iiig/kg	5.00011 /0		
34	0	benzo[ghi]perylene		404.04		0.41	mg/kg		0.41	mg/kg	0.000041 %		
			205-883-8	191-24-2	-							-	
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
								L		Total:	0.0703 %		



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

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because Extremely low flammability risk.



Classification of sample: HP11

🕅 New Herendeus Weste	
🥝 Non Hazardous Waste	
Classified as 17 05 04	
in the List of Waste	

Sample details

Sample Name: HP11 Sample Depth:	LoW Code: Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.25 m Moisture content:	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
8.6% (no correction)		,

Hazard properties

None identified

Determinands

Moisture content: 8.6% No Moisture Correction applied (MC)

#		Determinand CLP index number EC Number CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	_	10.1 mg/kg	1.32	13.335 mg/kg	0.00133 %		
2	4	cadmium { cadmium oxide } 048-002-00-0 231-152-8 [1] 7440-43-9 [1] 215-146-2 [2] 1306-19-0 [2]	_	0.2 mg/kg	1.142	0.228 mg/kg	0.0000228 %		
3	*	chromium in chromium(III) compounds { Chromium(III) oxide }		74.3 mg/kg	1.462	108.594 mg/kg	0.0109 %		
4	4	chromium in chromium(VI) compounds { chromium(VI) oxide } 024-001-00-0 215-607-8 1333-82-0		<0.3 mg/kg	1.923	<0.577 mg/kg	<0.0000577 %		<lod< th=""></lod<>
5	*	copper { dicopper oxide; copper (I) oxide } 029-002-00-X 215-270-7 1317-39-1		27 mg/kg	1.126	30.399 mg/kg	0.00304 %		
6	4	lead { Icad compounds with the exception of those specified elsewhere in this Annex }	1	129 mg/kg		129 mg/kg	0.0129 %		
7	*	mercury { mercury dichloride } 080-010-00-X 231-299-8 7487-94-7		0.4 mg/kg	1.353	0.541 mg/kg	0.0000541 %		
8	4	nickel { nickel chromate } 028-035-00-7 238-766-5 [14721-18-7		14.1 mg/kg	2.976	41.965 mg/kg	0.0042 %		
9	Å	selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<lod< th=""></lod<>
10	4	zinc { zinc sulphate } 030-006-00-9 231-793-3 [1] 7446-19-7 [1] 231-793-3 [2] 7733-02-0 [2]	-	90 mg/kg	2.469	222.237 mg/kg	0.0222 %		
11	4	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5		1.4 mg/kg	1.884	2.638 mg/kg	0.000264 %		



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number	ГЪ						Value	1C ⊳	0300
12	8	TPH (C6 to C40) p	etroleum group	1		285	mg/kg		285	mg/kg	0.0285 %	<	
				TPH		200							
13		benzene 601-020-00-8	200-753-7	71-43-2		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		toluene	200-755-7	11-43-2		0.005			0.005		0.000005.0/	H	1.00
14		601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/кg	<0.0000005 %		<lod< td=""></lod<>
15	۲	ethylbenzene	000 040 4	400 44 4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		601-023-00-4 xylene	202-849-4	100-41-4	-							H	
16		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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl et 2-methoxy-2-methy	ylpropane			<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
		603-181-00-X	216-653-1	1634-04-4									
18	۲	pH		PH		8.01	рН		8.01	pН	8.01 pH		
19		naphthalene				0.35	mg/kg		0.35	mg/kg	0.000035 %		
		601-052-00-2	202-049-5	91-20-3	-								
20	۲	acenaphthylene	205-917-1	208-96-8		1.63	mg/kg		1.63	mg/kg	0.000163 %		
		acenaphthene	205-317-1	200-90-0								+	
21			201-469-6	83-32-9		0.55	mg/kg		0.55	mg/kg	0.000055 %		
22	8	fluorene		1		0.65	mg/kg		0.65	mg/kg	0.000065 %		
		phenanthrene	201-695-5	86-73-7	-	0.00							
23	8	phenantinene	201-581-5	85-01-8		6.13	mg/kg		6.13	mg/kg	0.000613 %		
24	۲	anthracene	204-371-1	120-12-7		2.08	mg/kg		2.08	mg/kg	0.000208 %		
25		fluoranthene				14.12	mg/kg		14.12	mg/kg	0.00141 %		
			205-912-4	206-44-0									
26	۲	pyrene	204-927-3	129-00-0		11.88	mg/kg		11.88	mg/kg	0.00119 %		
		benzo[a]anthracen		120 00 0									
27		601-033-00-9	200-280-6	56-55-3		8.18	mg/kg		8.18	mg/kg	0.000818 %		
28		chrysene	bas and 4	640.04.0		6.42	mg/kg		6.42	mg/kg	0.000642 %		
		601-048-00-0 benzo[b]fluoranthe	205-923-4	218-01-9	+							+	
29			205-911-9	205-99-2		14.37	mg/kg		14.37	mg/kg	0.00144 %		
30		benzo[k]fluoranthe	ne			14.37	mg/kg		14.37	mg/kg	0.00144 %		
			205-916-6	207-08-9	\vdash				-				
31		benzo[a]pyrene; be 601-032-00-3	enzo[def]chrysene 200-028-5	50-32-8		7.75	mg/kg		7.75	mg/kg	0.000775 %		
32	۲	indeno[123-cd]pyre	ene	1		6.73	mg/kg		6.73	mg/kg	0.000673 %		
			205-893-2	193-39-5	1	50			50				
33		dibenz[a,h]anthrac 601-041-00-2	ene 200-181-8	53-70-3		1.25	mg/kg		1.25	mg/kg	0.000125 %		
	6	benzo[ghi]perylene		po-70-0	+							+	
34	9		205-883-8	191-24-2	1	4.71	mg/kg		4.71	mg/kg	0.000471 %		
35		phenol 604-001-00-2	203-632-7	108-95-2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
	L							1		Total:	0.0938 %	1	



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)
4	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<lod< th=""><th>Below limit of detection</th></lod<>	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i) on Flam. Liq. 1; H224, Flam. Liq. 2; H225, Flam. Liq. 3; H226: Force this Hazardous property to non hazardous because Extremely low flammability risk.



Classification of sample: HP12

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

Sample details

Sample Name:	LoW Code:	
HP12	Chapter:	17: Construction and Demolition Wastes (including excavated soil
Sample Depth:		from contaminated sites)
0.3 m	Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05
Moisture content:		03)
5%		
(no correction)		

Hazard properties

None identified

Determinands

Moisture content: 5% No Moisture Correction applied (MC)

#		CLP index number	Determinand EC Number	CAS Number	CLP Note	User entered d	lata	Conv. Factor	Compound co	nc.	Classification value	MC Applied	Conc. Not Used
1	~	arsenic { arsenic tri 033-003-00-0	<mark>ioxide</mark> } 215-481-4	1327-53-3		11.8 n	ng/kg	1.32	15.58 r	ng/kg	0.00156 %		
2	4		<mark>n oxide</mark> } 231-152-8 [1] 215-146-2 [2]	7440-43-9 [1] 1306-19-0 [2]		2.2 n	ng/kg	1.142	2.513 r	mg/kg	0.000251 %		
3	4	oxide }	ium(III) compound	Is { Chromium(III)		66.6 n	ng/kg	1.462	97.34 r	ng/kg	0.00973 %		
4	4	chromium in chrom <mark>oxide</mark> }				<0.3 n	ng/kg	1.923	<0.577 r	ng/kg	<0.0000577 %		<lod< th=""></lod<>
5		copper { [●] dicoppe 029-002-00-X	er oxide; copper (I) 215-270-7	oxide }		37 n	ng/kg	1.126	41.658 r	ng/kg	0.00417 %		
6	4	lead { [•] lead comp specified elsewhere 082-001-00-6		ception of those	1	130 n	ng/kg		130 r	ng/kg	0.013 %		
7	~	mercury { mercury	<mark>dichloride</mark> } 231-299-8	7487-94-7		0.5 n	ng/kg	1.353	0.677 r	mg/kg	0.0000677 %		
8	-	nickel { nickel chror 028-035-00-7	<mark>nate</mark> } 238-766-5	14721-18-7		15.7 n	ng/kg	2.976	46.727 r	mg/kg	0.00467 %		
9	~	selenium { seleniur cadmium sulphose in this Annex } 034-002-00-8				<1 n	ng/kg	2.554	<2.554 r	ng/kg	<0.000255 %		<lod< th=""></lod<>
10	-	zinc { zinc sulphate 030-006-00-9	} 231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		114 n	ng/kg	2.469	281.5 r	mg/kg	0.0281 %		
11		cyanides { salts exception of compl ferricyanides and n specified elsewhere 006-007-00-5	ex cyanides such a nercuric oxycyanid	as ferrocyanides,		0.7 n	ng/kg	1.884	1.319 r	mg/kg	0.000132 %		



#			Determinand		CLP Note	User entered	l data	Conv. Factor	Compound	conc.	Classification value	Applied	Conc. No Used
		CLP index number	EC Number	CAS Number	ĽЪ							MC	
12	8	TPH (C6 to C40) pe	etroleum group			<38	mg/kg		<38	mg/kg	<0.0038 %		<lod< td=""></lod<>
				TPH									
13	ī	benzene 601-020-00-8	200-753-7	71-43-2	_	<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
	-	toluene				0.005			0.005		0.000005.0/		1.00
14	Ī	601-021-00-3	203-625-9	108-88-3		<0.005	mg/kg		<0.005	mg/kg	<0.000005 %		<lod< td=""></lod<>
15	•	ethylbenzene				<0.005	mg/kg		<0.005	ma/ka	<0.0000005 %		<lod< td=""></lod<>
13		601-023-00-4	202-849-4	100-41-4		<0.005	шу/ку		<0.005	шу/ку	<0.0000003 /8		LOD
16	Ĩ		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]		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
17		tert-butyl methyl eth 2-methoxy-2-methy	Ipropane	4004 04 4		<0.005	mg/kg		<0.005	mg/kg	<0.0000005 %		<lod< td=""></lod<>
+	-		216-653-1	1634-04-4	+							⊢	
18	•	pН		PH	-	6.47	pН		6.47	pН	6.47 pH		
19		naphthalene				1.38	mg/kg		1.38	mg/kg	0.000138 %		
_	-		202-049-5	91-20-3	_								
20	•	acenaphthylene	005 047 4		_	0.07	mg/kg		0.07	mg/kg	0.000007 %		
			205-917-1	208-96-8									
21 '	•	acenaphthene	201 460 6	02.22.0	_	<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<lod< td=""></lod<>
		fluorene	201-469-6	83-32-9	-								
22 '	•		201-695-5	86-73-7	_	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
		phenanthrene	201-035-5	00-73-7	-								
23		•	201-581-5	85-01-8	_	0.35	mg/kg		0.35	mg/kg	0.000035 %		
24	0	anthracene	204-371-1	120-12-7		0.05	mg/kg		0.05	mg/kg	0.000005 %		
	•	fluoranthene	2010/11	120 12 1	-								
25 '			205-912-4	206-44-0	_	0.32	mg/kg		0.32	mg/kg	0.000032 %		
20		pyrene				0.07			0.07		0.000027 %		
26	ľ		204-927-3	129-00-0		0.27	mg/kg		0.27	mg/kg	0.000027 %		
27		benzo[a]anthracene	Э			0.19	mg/kg		0.19	mg/kg	0.000019 %		
	Ī	601-033-00-9	200-280-6	56-55-3									
28		chrysene	1			0.21	mg/kg		0.21	mg/kg	0.000021 %		
_			205-923-4	218-01-9							<u>.</u>		
29		benzo[b]fluoranther 601-034-00-4		205-99-2		0.36	mg/kg		0.36	mg/kg	0.000036 %		
-	-	benzo[k]fluoranther	205-911-9 ne	200-99-2	+							+	
30			205-916-6	207-08-9	-	0.36	mg/kg		0.36	mg/kg	0.000036 %		
31		benzo[a]pyrene; be	nzo[def]chrysene			0.18	mg/kg		0.18	mg/kg	0.000018 %	1	
	-		200-028-5	50-32-8	_							-	
32	•	indeno[123-cd]pyre	ne 205-893-2	193-39-5	_	0.2	mg/kg		0.2	mg/kg	0.00002 %		
		dibenz[a,h]anthrace			1						0.00000.4.04		
33	i		200-181-8	53-70-3	-	<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		<lod< td=""></lod<>
34	-	benzo[ghi]perylene			\uparrow	0.15	malka		0.15	malka	0.000015 %		
			205-883-8	191-24-2		0.15	mg/kg		0.15	mg/kg	0.00013 %		
35		phenol	202 622 7	109.05.2		<0.15	mg/kg		<0.15	mg/kg	<0.000015 %		<lod< td=""></lod<>
		604-001-00-2	203-632-7	108-95-2						Total:	0.0663 %		



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



Appendix A: Classifier defined and non CLP determinands

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

CLP index number: 006-007-00-5

Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)

Additional Risk Phrases: None.

Additional Hazard Statement(s): EUH032 >= 0.2 % Reason for additional Hazards Statement(s)/Risk Phrase(s):

12/14/2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

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

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013 Data source: WM3 1st Edition 2015 Data source date: 5/25/2015 Risk Phrases: R10, R45, R46, R51/53, R63, R65 Hazard Statements: Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT RE 2 H373, Muta. 1B H340, Carc. 1B H350, Repr. 2 H361d, Aquatic Chronic 2 H411

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

CLP index number: 601-023-00-4 Data source: Commission Regulation (EU) No 605/2014 – 6th Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP6) Additional Risk Phrases: None. Additional Hazard Statement(s): Carc. 2 H351 Reason for additional Hazards Statement(s)/Risk Phrase(s): 6/3/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2B (77) 2000

pH (CAS Number: PH)

Description/Comments: Appendix C4 Data source: WM3 1st Edition 2015 Data source date: 5/25/2015 Risk Phrases: None. Hazard Statements: None.

• acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database Data source date: 7/17/2015 Risk Phrases: R22, R26, R27, R36, R37, R38 Hazard Statements: Acute Tox. 4 H302, Acute Tox. 1 H330, Acute Tox. 1 H310, Eye Irrit. 2 H319, STOT SE 3 H335, Skin Irrit. 2 H315

• acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database Data source date: 7/17/2015 Risk Phrases: R36, R37, R38, N R50/53, N R51/53 Hazard Statements: Eye Irrit. 2 H319, STOT SE 3 H335, Skin Irrit. 2 H315, Aquatic Acute 1 H400, Aquatic Chronic 1 H410, Aquatic Chronic 2 H411

• fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database Data source date: 8/6/2015 Risk Phrases: N R50/53 Hazard Statements: Aquatic Acute 1 H400 , Aquatic Chronic 1 H410

^e 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: 8/6/2015 Risk Phrases: R22, R36, R37, R38, R40, R43, N R50/53 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



Description/Comments: Data from	371-1, CAS Number: 120-12-7)
	J/web/guest/information-on-chemicals/cl-inventory-database
ata source date: 7/17/2015	
isk Phrases: R36 , R37 , R38 , R	43 , N R50/53
azard Statements: Eye Irrit. 2 H3	19, STOT SE 3 H335, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400, Aquatic
hronic 1 H410	
fluoranthene (EC Number: 205	-912-4, CAS Number: 206-44-0)
escription/Comments: Data from	•
	u/web/guest/information-on-chemicals/cl-inventory-database
ata source date: 8/21/2015	
tisk Phrases: Xn R22, N R50/53	H302 , Aquatic Acute 1 H400 , Aquatic Chronic 1 H410
azaru Statements. Acute 10x. 41	1502; Aqualic Acule 1 11400; Aqualic Chronic 1 11410
pyrene (EC Number: 204-927-3	
	C&L Inventory Database; SDS Sigma Aldrich 2014 u/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 8/21/2015	web/guesimilormation-on-chemicals/ci-inventory-database
Risk Phrases: Xi R36/37/38 , N R5	50/53
	315, Eye Irrit. 2 H319, STOT SE 3 H335, Aquatic Acute 1 H400, Aquatic Chronic 1 H410
escription/Comments: Data from	mber: 205-893-2, CAS Number: 193-39-5)
	J/web/guest/information-on-chemicals/cl-inventory-database
ata source date: 8/6/2015	
isk Phrases: R40	
lazard Statements: Carc. 2 H351	
benzo[ghi]perylene (EC Numb	er: 205-883-8, CAS Number: 191-24-2)
	C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
	u/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 7/23/2015	
lisk Phrases: N R50/53	1 H400 Aquatia Chronia 1 H410
azard Statements. Aquatic Acute	1 H400 , Aquatic Chronic 1 H410
	er: 215-160-9, CAS Number: 1308-38-9)
Conversion factor: 1.462 Description/Comments: Data from	C8L Inventory Database
•	J/web/guest/information-on-chemicals/cl-inventory-database
ata source date: 7/17/2015	a new gasser institution on onormoulo, or montory databado
isk Phrases: R20 , R22 , R36 , R	37 , R38 , R42 , R43 , R50/53 , R60 , R61
azard Statements: Acute Tox. 4 H	H332 , Acute Tox. 4 H302 , Eye Irrit. 2 H319 , STOT SE 3 H335 , Skin Irrit. 2 H315 , Resp. Sens. 1
334, Skin Sens. 1 H317, Repr.	1B H360FD, Aquatic Acute 1 H400, Aquatic Chronic 1 H410
dicopper oxide; copper (I) oxi	de (EC Number: 215-270-7, CAS Number: 1317-39-1)
LP index number: 029-002-00-X	
ata source: Regulation (EU) 2010	
dditional Risk Phrases: N R50/53	
dditional Hazard Statement(s): N	
eason for additional Hazards Sta	tement(s)/Risk Phrase(s): e sourced from: WM3 v1 still uses ecotoxic risk phrases
•	risk phrase sourced from: WM3 v1 still uses ecotoxic risk phrases
lead compounds with the exce	eption of those specified elsewhere in this Annex

CLP index number: 082-001-00-6 Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP) Additional Risk Phrases: None. Additional Hazard Statement(s): Carc. 2 H351 Reason for additional Hazards Statement(s)/Risk Phrase(s): 6/3/2015 - Carc. 2 H351 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html. Review date 29/09/2015



Report created by Michael Andrews on 8/3/2017

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

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

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

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

nickel {nickel chromate}

Worst case CLP species based on hazard statements/molecular weight.

selenium (selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex)

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

zinc {zinc sulphate}

Cr(VI) not detected above laboratory limit of detection. Worst case compound Zinc Chromate can be discounted. Zinc sulphate selected as most likely species.

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

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

cadmium {cadmium oxide}

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

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

Reasonable case species based on hazard statements/molecular weight. Industrial sources include: tanning, pigment in paint, inks and glass.

copper {dicopper oxide; copper (I) oxide}

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

lead {lead compounds with the exception of those specified elsewhere in this Annex}

Cr(VI) was not detected above the laboratory detection limit. Worst case compound Lead Chromate can be discounted.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight.

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition, May 2015 HazWasteOnline Classification Engine Version: 2017.209.3365.6791 (28 Jul 2017) HazWasteOnline Database: 2017.209.3365.6791 (28 Jul 2017)



This classification utilises the following guidance and legislation: WM3 - Waste Classification - May 2015 CLP Regulation - Regulation 1272/2008/EC of 16 December 2008 1st ATP - Regulation 790/2009/EC of 10 August 2009 2nd ATP - Regulation 286/2011/EC of 10 March 2011 3rd ATP - Regulation 618/2012/EU of 10 July 2012 4th ATP - Regulation 487/2013/EU of 8 May 2013 Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013 5th ATP - Regulation 944/2013/EU of 2 October 2013 6th ATP - Regulation 605/2014/EU of 5 June 2014 WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014 Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014 7th ATP - Regulation (EU) 2015/1221/EU of 24 July 2015 8th ATP - Regulation (EU) 2016/1179 of 19 July 2016 10th ATP - Regulation (EU) 2017/776 of 4 May 2017 POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004 1st ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010 2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010