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ONE MEDLOCK STREET, MANCHESTER

CONTAMINATED LAND INTERPRETATIVE REPORT

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Prepared By	Reviewed By	Approved By
Caroline Clark	**Hazel Comyn**	**Mark Bell**
Senior Consultant	Principal Engineer	Associate

Ramboll
Third Floor
Kings Court
2-4 Exchange Street
Manchester M2 7HA
United Kingdom

Tel: +44 (0)161 827 1890
manchester@ramboll.co.uk

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1. INTRODUCTION

1.1. Brief

Ramboll UK Ltd was appointed by Premier Inn Hotels and Dominvs Group as Multi-Disciplinary Engineer to provide a range of services which include contaminated land consultancy for the proposed development of One Medlock Street, Manchester.

Part of this commission is to undertake a Contaminated Land Interpretive Report in support of the planning application. This report discusses the findings of the ground investigation and includes conclusions and recommendations relating to the potential risks and constraints on development at the site associated with contaminated land.

1.2. Previous Documentation

This report should be read in conjunction with the following Ramboll reports:

- One Medlock Street, Manchester, Contaminated Land Desk Study, Report Ref: 1620005811, Ramboll, 01 May 2019.

Details from this report are referenced as appropriate.

1.3. Proposed Development

The demolition of the existing hotel building and structures and the development of the site for office uses (Use Class E), flexible office/community use (Use Class E/F1/F2) and purpose-built student accommodation (Sui Generis) comprising two separate buildings, along with associated ancillary internal and external amenity space, hard and soft landscaping and associated highway works.

1.4. Objectives

The objective of a ground contamination interpretative report is to assess the potential liabilities and risks associated with potential contaminants in the ground and groundwater in accordance with current UK legislation and guidance.

1.5. Scope

The scope of works for this phase of works includes:

- Review of Preliminary Conceptual Model developed during the desk study;
- Discussion of ground conditions identified during the ground investigation works undertaken at the site;
- Generic quantitative risk assessment as defined by UK guidance which provides an initial screen of potential ground contamination risks associated with the proposed development;
- Refinement of conceptual model in light of risk assessment and all factual site data;
- Conclusions and recommendations for any further works required in relation to the proposed development.

1.6. Constraints and Limitations

This report is intended for Whitbread PLC for the purpose of assisting them in evaluating the site in the context of the potential development. This report should not be used in whole or in part by any third parties without the express permission of Ramboll in writing.

Ramboll has endeavoured to assess all information provided to them. The report includes summaries of information from external sources and cannot offer any guarantees or warranties for the completeness or accuracy of information relied upon. The proposed design options and recommendations summarised in this report relate to the feasibility of developing on the site are based on information gained at the time of writing the report. Any substantial changes to the use of the site may require a reassessment of the implications of the risks identified and a review of the design options.

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.

It should be noted that although every effort has been made to ensure the accuracy of the data obtained from the investigation, the possibility exists for variations in ground and groundwater conditions between and around the borehole locations. In addition, groundwater levels will vary seasonally and with changes in weather conditions.

2. SITE SETTING

2.1. Site Location

The site is located in Manchester City Centre at National Grid Reference 383630, 397190. The site is approximately 0.85 Ha (2.1 acres) in area and is roughly square in shape. A Site Location Plan is presented as **Figure 1 (Appendix A).**

2.2. Site Description

The site comprises of a five-storey elongate building operated by Premier Inn Hotel (in the east and south east of the site), adjoining car park (in the centre and the west) and vegetation (in the south of the site) which sits approximately 1.3m higher than the car park.

The site is accessible via River Street at the northern boundary of the site and is largely covered with hardstanding. The site can also be accessed from the south.

The site is bound to the north and west by a two-metre high brick wall with metal palisade (which also separates the vegetation area and the car park to the south of the site). The building acts as a boundary of the site to the east. The site layout is shown on **Figure 2 (Appendix A).**

2.3. Anticipated Ground Conditions

The following assessment of the geology of the site and ground conditions is inferred from desk-based information sources.

BGS Sheet 85 shows the geology to be Glaciofluvial Sheet Deposits overlying the Chester Formation of Sandstone. Although not shown on the BGS maps, Made Ground is likely to be identified onsite due to previous developments of the site.

The Glaciofluvial Sheet Deposits are described by the BGS as "Sand And Gravel. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions".

The underlying Chester Formation is described by the BGS as "Sandstone. Sedimentary Bedrock formed approximately 247 to 250 million years ago in the Triassic Period. Local environment previously dominated by rivers". From previous knowledge of sites very close to this, the underlying sandstone bedrock is highly weathered in some locations.

2.4. Preliminary Conceptual Model

Information presented in previous reports has been collated and evaluated to develop a preliminary conceptual model for the site.

The following potential sources of ground contamination have been identified:

- Former terraced housing, school and public house onsite, with associated made ground;
- Current use as hotel and car park;
- Made Ground or natural superficial deposits; and
- Off-site sources of contamination such as Gaythorne Gas Works, rubber works, and rubber works storage buildings, timber yard and saw mills, cotton mill, glass works, dye works, breweries, factories, foundries, engineering and printing works.
- The site was hit during World War II by a high explosive bomb and therefore at high risk from UXO;

Site investigation works were designed to provide additional information on the potential risks identified within the preliminary conceptual model.

3. GROUND INVESTIGATION

3.1. Ground Investigation on Site

Ramboll designed the ground investigation which was undertaken by Enygo onsite between 28th May 2019 and 10th June 2019. An exploratory hole location plan is provided in **Appendix A**. The ground investigation was also undertaken for geotechnical purposes, which will be reported in a separate report.

The ground investigation comprised the following;

- Six boreholes undertaken using a tracked-mounted rotary rig to between 10.5m bgl and 25.0mbgl;
- Six windowless (percussive) sampling boreholes to between 0.45m bgl n 5.0m bgl;
- Three trial pits excavated to between 2.0m bgl and 2.50m bgl using a wheeled excavator;
- Five plate load tests to depths between 0.45m bgl and 0.6m bgl using a 610mm diameter plate;
- The installation of combined gas / groundwater monitoring standpipes in twelve boreholes;
- Chemical (contamination) testing of soil and rock samples;
- Four rounds of gas and groundwater monitoring; and
- UXO (unexploded ordnance) avoidance at every intrusive position.

All factual ground investigation data is provided in Enzyo Factual report 2019 (MAN.160.001.GE.R.001A).

4. GROUND CONDITIONS

4.1. Ground Conditions Encountered

The typical succession of strata across the site identified during the ground investigation is summarised in Table 4.1 below.

Table 4.1: Sequence of Strata Encountered During the Investigation

Stratum	Typical description	Range of depth encountered (mbgl)	Range thickness (m)
Made Ground	Black macadam. *Encountered across the site apart from BH02 and BH03 where grey or yellow paving slabs were encountered.*	Ground Level Ground Level	0.15 - 0.45 0.05
	Brown grey slightly clayey sandy gravel. Gravel is subangular to subrounded fine to coarse of brick, macadam, concrete and sandstone. Sand is fine to coarse. In some locations it is slightly clayey gravelly sand.	0.05 - 0.45	0.15 - 0.55
	BH04, BH06, WS01, WS03, WS05, WS06 and WS06a the following was encountered: Red brown slightly clayey sandy gravel with a low cobble content of quartz and brick. Gravel is subangular to sub rounded fine to course of brick, macadam, concrete, quartz, sandstone. Locally black at 4.6-4.9m bgl at BH04. WS06 and WS06a – sand is ash	0.15-0.80	0.95-4.40
Superficial Deposits	*Glaciofluvial Sheet Deposits* Orange brown gravelled fine to course SAND. Gravel is subangular to subrounded fine to course of quartz, sandstone and granite. WS01 and WS04a – orange brown slightly clayey GRAVEL and SAND. Gravel is subangular to subrounded fine to coarse of quartz and sandstone, sand is fine to course (1.80-4.40m bgl)	0.45-5.20	4.2-10.1
	Glacial Till Stiff grey slightly sandy gravelly CLAY with a low cobble content of subangular to subrounded quartz, sandstone and granite. Gravel is subangular to subrounded fine to coarse of quartz, sandstone and granite. Sand is fine to coarse. Both strata are inter bedded throughout to bedrock.		
Bedrock	*Chester Formation* Varying strength from very dense red brown slightly gravelly fine to coarse SAND to extremely weak to medium strong red brown slightly gravelly distinctly weathered fine to coarse sandstone.	7.50 - 11.0	Base of strata not proven.

4.2. Groundwater

Groundwater seepages were not encountered in any of the exploratory holes on site.

4.3. Visual and Olfactory Observations of Potential Contamination

No visual/olfactory evidence of ground contamination was noted during site works on the borehole logs. However, the following was noted on the borehole logs:

- BH04 (4.60-4.90m bgl) – strata to be noted as locally black.
- WS06 and WS06a – Made ground is noted to be ash sand.

4.4. Ground Gas

The Made Ground material may present a minor source of ground gases. Further discussion of ground gas risk is provided in a later section.

4.5. Unexploded Ordnance

Each exploratory hole was scanned by MACC International by a qualified Unexploded Ordnance Engineer. All locations were scanned from ground level until a suitable safe depth, as determined by the MACC Engineer. No unexploded ordnance was identified during the ground investigation.

5. GROUND CONTAMINATION - GENERIC QUANTITATIVE RISK ASSESSMENT

The main environmental legislation relating to contaminated land in the UK is Part 2A of the Environmental Protection Act 1990. The philosophy behind Part 2A is the source-pathway-receptor linkage; for land to be contaminated all three aspects of this linkage must be present (i.e. a contaminant must be present and able to move along a pathway and impact a receptor).

This ground contamination assessment has been undertaken in accordance with the current UK framework and comprises a generic quantitative risk assessment (GQRA) as defined in CLR 11 (EA 2004). Further details of the UK legislative context are provided in **Appendix B.**

In order to assess the significance of the chemical concentrations reported, generic assessment criteria (GAC) must be selected based on the critical receptors identified at the site. Receptors are considered in relation to Human Health (e.g., people using the site) and the Water Environment (e.g., water resources).

Additional receptors may also require consideration e.g. building materials and flora/fauna, as appropriate to the proposed development. Quantitative assessment of these receptors is not provided at this stage, however comment is made qualitatively in a later section. These should be considered further as the development proposals progress. A water supply pipe assessment is included in a later section.

5.1. Human Health Assessment

5.1.1. Methodology

Details of the UK framework for human health risk assessment and GAC are provided in **Appendix B.**

Contaminant concentrations below the adopted GAC are considered not to warrant further risk assessment. Where any concentrations are recorded above the GAC consideration of the contaminant distribution is undertaken.

Current UK guidance is provided in the DEFRA/EA CLR framework which sets out standard land uses for which GAC are derived for individual contaminants. The residential apartments are to be from the first floor with the majority of the site being covered in hardstanding. There are to be four two storey townhouses on the ground floor in Block 1 in the south western area of the site which accounts for approx. 10% of the site. However, no gardens are associated with these properties. The Proposed ground floor development plan is included within **Appendix A**. The residential without home grown produce and commercial /industrial land use scenarios have been used to assess the data. Risks from ground gas is addressed in Section 6.

5.1.2. Soil Screening Analysis

The soil analysis results are presented in comparison to the GAC in **Appendix C.**

There is only one exceedance of the GAC for Naphthalene (0.99mg/kg) at BH06 at 0.5m bgl (4.52mg/kg) for a residential without home grown produce. There are no exceedances of the commercial/ industrial GAC. As BH06 is not in an area of residential housing on the ground floor, the commercial/ industrial GAC (11,00mg/kg) at this location would be sufficient, which is not exceeded.

Low concentrations of a number of SVOCs were noted, typically in samples with higher PAHs. GAC are not available for all SVOCs. For the compounds identified and the concentrations noted, the PAH assessment is considered a reasonable indicator of risks from the other SVOCs recorded above detection limits.

The only contaminant identified of potential concern for a commercial end use is asbestos.

14 samples were analysed for asbestos, only one sample identified asbestos fibres. Asbestos quantification data from Ramboll investigation is summarised in Table 10.1 below.

Table 5.1: Summary of Asbestos Concentrations in soil from Ramboll investigation

Location	Depth	Strata	Asbestos type	Quantification
WS05	0.25m	Made Ground	Amosite	<0.001%

As shown in table 5.1 above, none of the samples were recorded above the laboratory detection limit of 0.001%.

pH was recorded between 7.67 and 10.63 cross the site. The elevated, more alkaline pH was recorded within the made ground onsite.

There are therefore no significant risks to human health from soils identified, using a residential or commercial/industrial end use.

5.2. Waters Assessment

5.2.1. Methodology

Generic assessment criteria (GAC) for waters must be selected to assess potential risks to identified human health and environmental receptors.

The site is underlain by made ground overlying Glacial Deposits (classified as a Secondary A Aquifer) and Chester Formation (classified as a Principal Aquifer). There is sufficient water resource potential beneath the site that future resource potential for potable water must be considered.

There is an east – west trending surface watercourse located approximately 140m to the north of the site boundary. Potential risks to the surface water environment must also be considered.

The GAC used to assess the leaching and groundwater data are:

- Minimum reporting values for hazardous substances to identify any input of hazardous substances to groundwater.
- Resource Protection Values (RPV) to ensure protection of the potential water supply resource in both superficial and bedrock aquifers: Drinking Water Standards (DWS) for all substances; and
- Freshwater Environmental Quality Standards (EQS) - used to assess potential risks to the surface water environment.

5.2.2. Groundwater and Leachate Screening Analysis

Enzygo Ltd obtained groundwater samples from three wells (BH02, BH04 and BH05) and seven soil samples were analysed for leachate.

The chemical analysis screening summary tables are included in **Appendix C**. Measured concentrations in leachate above the recommended GAC for the surface water environment are summarised in Table 10.3 and measured concentrations in leachate above the recommended GAC for drinking water and aquifer resource protection are summarised in Table 10.4 below. Measured concentrations in groundwater are summarised in Table 10.5 below.

Table 10.3: Summary of Elevated Chemical Concentrations above EQS in leachate

Determinant	GAC	Units	No. of Exceedances (out of 7 samples tested)	Maximum	Comments
Copper	1	µg/l	1	1.11	Very slightly elevated bioavailable copper. From BH02 in the made ground at 0.20m bgl.
Lead	1.2	µg/l	2	4.74	Elevated bioavailable concentrations found at WS06 (1.0m bgl) in the made ground and BH01 (1.0m bgl) within SAND underlying the made ground and landscaping membrane.
Anthracene	0.1	µg/l	3	0.23	Distributed across made ground in the eastern side of the site.
Fluoranthene	0.0063	µg/l	6	0.22	Impacts distributed across the site within the made ground.
Benzo(a)Pyrene	0.0017	µg/l	1	0.04	BH02 at 0.2m within the made ground. Localised minor impact.
Sum of Benzo(b)fluoranthene, Benzo(ghi)Perylene, Benzo(k)fluoranthene, Indeno(123-cd)Pyrene	0.0017	µg/l	1	0.04	
Naphthalene	2.0	µg/l	1	4.15	
TPH(C10-C35)	90	µg/l	1	112	WS06 at 1.0m bgl within the made ground. Minor impacts.

Table 10.4: Summary of Elevated Chemical Concentrations above DWS in leachate

Determinant	GAC	Units	No. of Exceedances (out of 7samples tested)	Maximum	Comment
Benzo(a)Pyrene	0.01	µg/l	1	0.04	BH02(0.2m) within the made ground. Minor impact.
Sum of Benzo(b)fluoranthene, Benzo(ghi)Perylene, Benzo(k)fluoranthene, Indeno(123-cd)Pyrene	0.01	µg/l	1	0.04	
TPH (C10-C35)	90	µg/l	1	112	WS06 (1.0m bgl) within the made ground. Minor impact.

Table 10.5: Summary of Elevated Chemical Concentrations above EQS or DWS in Groundwater

Determinand	GAC	Units	No. of Exceedances (out of 3 samples tested)	Maximum	Comment
	EQS				
Ammoniacal nitrogen	0.3	µg/l	1	1.34	BH02 – minor impact. Unlikely to be significant given concentrations and setting.
Water soluble sulphate	400	µg/l	1	481	
Copper	1	µg/l	3	5	Elevated bioavailable concentrations from all boreholes for Copper and BH04 and BH05 for Nickel.
Nickel	4	µg/l	2	10	
Sum of Benzo(b)fluoranthene, Benzo(ghi)Perylene, Benzo(k)fluoranthene, Indeno(123-cd)Pyrene	0.00017	µg/l	1	0.06	BH04 - Minor impact.
Benzo(a)pyrene	0.00017	µg/l	1	0.02	
Fluoranthene	0.0063	µg/l	1	0.07	
	DWS				
Sulphate	250	mg/l	2	481	BH02 and BH05 minor impact.
Benzo(a)pyrene	0.01	µg/l	1	0.02	BH04 - Minor impact.
Sum of Benzo(b)fluoranthene, Benzo(ghi)Perylene, Benzo(k)fluoranthene, Indeno(123-cd)Pyrene	0.01	µg/l	1	0.06	

Risks to surface water receptors

There are exceedances of the PAHs and TPH and certain metals above the EQS in leachate. Impacts are typically low concentrations, mainly in BH02 and WS06 within the made ground. Metals and PAHs were identified at very low concentrations in the groundwater samples analysed suggesting a minor impact.

The underlying aquifer has been impacted historically around the site from the Gaythorne Gas Works to the north east, rubber works, glass works, dye works, breweries, factories, foundries, cotton mill, saw mill north of the site, and other industrial activities in the area. The River Medlock is culverted approximately 140m north of the site and unlikely to be in hydraulic connectivity with the site at its nearest point.

The impacts noted on site in leachate and groundwater are not considered to pose a significant risk to the nearby surface water receptors but will be considered further in the context of the site conceptual model in the following chapters.

Risks to aquifer resource and drinking water receptors

There are exceedances of the PAHs and TPH and certain metals above the DWS in leachate. Impacts are typically low concentrations, within the made ground at BH02 and WS06. Hydrocarbons were not identified in the groundwater samples analysed except for very minor impacts of PAHs.

The impacts noted on site in leachate and groundwater are not considered to pose a significant risk to groundwater resources in the context of the local aquifer but will be considered further in the context of the site conceptual model in the following chapters.

5.3. Summary

No significant ground contamination impacts have been identified in soil or groundwater which pose a significant risk to the human health of proposed future residential and commercial/industrial site users.

Localised impacts have been identified in soils and groundwater which required further consideration of the potential risks to water receptors in the context of the site and proposed development. This is completed in the following chapters.

6. GROUND GAS RISK ASSESSMENT

6.1. Methodology

The gas regime at the site has been characterised using current UK guidance including BS 8485: 2015+A1:2019, CIRIA Report C665 (2007), and RSK/NHBC (2006).

Further details of the assessment methodology are provided in **Appendix B.**

6.2. Ground Gas Data

The ground investigation identified relatively shallow made ground across the site (between 0.5m and 1.75m) apart from BH04 which encountered made ground to 5.0m bgl and BH06 which encountered made ground to 3.0m bgl.

Six rounds of monitoring have been completed by Enzygo Limited which, due to project timescales, were undertaken over a 4 week period, slightly shorter than recommended. Due to site conditions, BH01, BH06 and WS04 have all had cars parked over the locations at some point during the monitoring rounds.

Monitoring data is provided in the Enzygo Factual report.

Carbon dioxide and methane concentrations were generally below the 5% and 1% respective thresholds for CS1, with the following exceptions:

- BH5 which recorded elevated methane on three monitoring rounds with a maximum of 4.2%; and
- WS2 which identified elevated methane and carbon dioxide concentrations on two occasions with methane recorded at a maximum of 16% during round 3 and carbon dioxide at 5.4% during round 5.

6.3. Classification of Ground Gas Regime

The assessment presented in Table 6.1 below comprises a worst-case assessment using maximum methane and carbon dioxide concentrations and maximum flow rates.

Table 6.1: Worst Case Ground Gas Monitoring Record

Borehole Ref	Flow rate (l/hr)	CH_4 Peak Gas Concentration (% v/v)	CO_2 Peak Gas Concentration (% v/v)	GSV Worst case	Characteristic Situation (CIRIA C665)
Worst Case	1.8	16	5.4	0.288	CS2

Notes

- Peak flow and concentrations used for GSV calculation.
- Negative and zero flow rates are assumed to be at the detection limit of 0.1 l/hr for calculation of GSV, as per guidance in CIRIA C665.

A worst-case gas screening value of 0.288 l/hr corresponds to Characteristic Situation 2 (CS2).

6.4. Design of Gas Protection Measures

Design of gas protection measures should be completed using guidance provided in BS8485:2015+A1:2019 based on the gas monitoring results provided by Enzygo Ltd and calculations in Table 6.1 above.

7. WATER SUPPLY PIPE MATERIAL ASSESSMENT

The assessment has been completed in accordance with the current UK Guidance for the Specification of Water Supply Pipes to be used in Brownfield Sites (UK Water Industry Research Ltd. UKWIR, 2014).

This guidance provides threshold concentrations for different pipe material for various chemical groups.

The pipeline materials considered by the guidance are PE, PVC, wrapped steel, wrapped ductile iron or copper pipe and barrier pipe. PE and PVC are assessed using threshold concentrations for various chemical groups including volatile organic compounds (VOC) with tentatively identified compounds (TICs), semi-volatile organic compounds (SVOC) with TICs, and mineral oils. Wrapped steel, wrapped ductile iron and copper pipe are assessed using corrosive properties.

Four samples were analysed for VOCs and SVOCs. Table 7.1 summarises the relevant analytical results compared to pipeline threshold concentrations.

Table 7.1: Soil data compared to pipeline threshold concentrations

Test Group	Testing Required?	PE Threshold mg/kg	Maximum measured concentration	PE Pipe
Total VOCs	Where Preliminary Risk Assessment (PRA) has identified land potentially affected by contamination	0.5	0.008	Pass
Total BTEX & MTBE		0.1	<0.01	Pass
Total SVOCs (excluding PAHs and those substances marked with an *)		2	4.7	Fail
EC5-EC10 aliphatic and aromatic hydrocarbons		2	6	Fail
EC10-EC16 aliphatic and aromatic hydrocarbons		10	117	Fail
EC16-EC40 aliphatic and aromatic hydrocarbons		500	1,487	Fail
Phenols* (from SVOC analysis) [2]		2	<0.2	Pass
Cresols and chlorinated phenols* (from SVOC analysis) [3]		2	<0.2	Pass
Ethers*	Only where identified	0.5	-	Pass
Nitrobenzene*		0.5	-	Pass
Ketones*		0.5	-	Pass
Aldehydes*		0.5	-	Pass
Amines		Fail	-	Pass
Corrosive	Conductivity, Redox and pH	Pass	pH 7.67-10.63	See Note [1]

Notes:

'Total' concentrations calculated as the sum of all concentrations above laboratory detection limit.

[1] Threshold: For wrapped steel, corrosive if pH<7 and conductivity > 400uS/cm. For wrapped ductile iron corrosive if pH<5, Eh not neutral and conductivity > 400uS/cm. For copper, corrosive if pH<5 or >8 and Eh positive.

[2] Phenols: Group 2e as specified in UK WIR, 2010: sum of butyl phenol, dichlorophenols, dimethyl phenol, ethyl phenol, pentachlorophenol, phenols, trichlorophenols
[3] Cresols: 2-, 3-, and 4- methylphenols

Highlighted where concentrations exceed the threshold for PE.

The available data indicates that the elevated SVOCs in BH06 (0.5m) and BH01 (0.5m) exceed only due to carbazole, 2, methylnaphthalene and perylene. SVOCs do not exceed the threshold in the other samples analysed.

The elevated hydrocarbons C5-C10 are located at WS02 at 0.2m bgl and BH06 at 0.5m bgl. The elevated hydrocarbons C10-C16 are located at BH06 at 0.5m bgl and BH01 at 0.5m bgl. The elevated hydrocarbons C16-C40 are located at WS02 at 0.20m bgl, BH06 at 0.5m bgl and BH01 at 0.5m bgl. These are all within the made ground.

Made ground is similar across the site thus it is likely these results reflect typical made ground.

In light of these results, it is likely that barrier pipe will be required for any water supply pipes at this site.

If it is considered preferable to try and reduce the specification of the water pipes to PE instead of barrier pipe, a further review could be completed once the final position of the water supply pipes is determined with additional sampling, analysis, assessment and consultation with the regulatory authority.

8. GROUND CONTAMINATION – RISK EVALUATION

8.1. Conceptual Site Model

The information presented in the previous sections of this report have been collated and evaluated to refine the initial conceptual site model for the site.

8.1.1. Sources

The potential contamination sources are summarised in Table 8.1 based on the site investigation results.

Table 8.1: Potential Sources

Source	Comments
Soil impact	Potential risks to human health - Elevated concentrations of hydrocarbons and SVOCs may pose a risk to buried water pipes.
Ground gas impacts	The results from the ground gas monitoring identified slightly elevated carbon dioxide and methane indicative of Characteristic Situation 2 for new buildings.
Groundwater impacts	Hydrocarbons and metals have been identified at slightly elevated concentrations which may pose a risk to surface water receptors and drinking water/water resources.

There is also a potential risk of additional impacts in areas not accessible such the existing hotel building and infrastructure.

Alkaline pH was noted but is not considered further in this section. Risks to construction materials are to be considered further in this regard within the geotechnical assessment.

8.1.2. Receptors

The site-specific receptors that could potentially be affected by the contamination hazards are summarised in Table 8.2.

Table 8.2: Potential Receptors

Feature	Details
ON SITE	
Future site users	Proposed use: The development proposals currently comprise the clearance of the existing structures on site and the development of office and residential apartments. The exact nature of the layout is yet to be determined but it is likely to comprise three tower blocks ranging from 10 to 26 floors. The site will have associated minimal soft landscaping.
Construction/Maintenance workers	Any workers coming in contact with the ground or confined space in which gases may build up.
Underlying aquifer	Superficial Glaciofluvial Sheet Deposits are classified as a Secondary A aquifer. Bedrock Sandstone aquifer classified as Principal Aquifer.
Construction materials	Buildings materials used below ground, e.g. foundations and services.
Flora/fauna	Soft landscaping will be very limited, based on current development proposals. Any planting assumed to be within e.g. tree boxes with imported topsoil.
OFF SITE	
Neighbouring properties	Neighbouring properties are commercial and residential.
Adjacent Water Courses	River Medlock culverted approximately 140m north of the site.

8.1.3. Pathways

In order for the contaminants identified in this site investigation to reach potential receptors, there has to be a viable pathway for the contaminant. Potential pathways were

identified within the preliminary conceptual model and are discussed further in Table 8.3 below in relation to the identified source impacts and receptors identified.

Table 8.3: Potential Pathways

Receptor	Pathway	Comments
Human health, fauna	Direct contact with contaminated soils	This will be very limited following development as hard cover is proposed across the majority of the site. Direct contact is more significant issue for construction workers.
Human health and fauna	Inhalation of dusts and vapours	Inhalation of dusts will be very limited following development as hard cover is proposed across the majority of the site. Organic material and hydrocarbon impacts identified in soils and groundwater have the potential to give off ground gases which have the potential to migrate and build up in particular in buildings and confined spaces.
Flora	Direct contact with impacted soils and root uptake	This will be very limited following development as hard cover is proposed across the majority of the site. The soft landscaping is likely to be large trees in tree pits or raised planted bedding. Import of suitable topsoil is to be undertaken.
Water environment	Leaching and vertical migration of soil impacts to groundwater	Potential for leaching will be limited after development due to the high percentage of the site to be covered with hardstanding. No significant amounts of water were identified within the wells installed within the made ground.
Water environment	Migration of contaminants via groundwater to surface water courses and underlying aquifer	No shallow groundwater was identified during the site investigation, thus there is unlikely to be a pathway via which contaminants may enter the culverted River Medlock. Groundwater was not encountered during the ground investigation or subsequent ground gas monitoring and water level monitoring. Groundwater within the deeper boreholes in the sandstone recorded levels of 24.15-29.32m AOD (9.90m – 4.31m bgl). Any infiltration of rain water and subsequent leachate generated will ultimately reach the sandstone aquifer at depth. The predominantly low permeability of the made ground and Glacial Till will slow any such movement.
Buildings and structures	Damage to building materials or services through direct contact with contaminants or through contaminant migration	Hydrocarbons have been identified in the soil and leachate which may affect subsurface construction materials and in particular water supply pipes. The high pH may pose a risk to subsurface materials through chemical processes.

8.1.4. Qualitative Risk Assessment

Potential pollutant linkages are identified using the source-pathway-receptor framework detailed above. An assessment of the potential significance of each linkage is then made by consideration of the likely magnitude and mobility of the source, the sensitivity of the receptor and nature of the migration/exposure pathways.

This qualitative hazard assessment has been undertaken in accordance with NHBC and Environment Agency, 2008. Further details of which are provided in **Appendix B** including definition of risk categories.

Table 8.4 summarises the pollutant linkages and risk ratings associated with the proposed development. A schematic is shown in **Figure 3**.

Table 8.4: Risk Assessment

Hazard / Pollutant	Pathway	Receptor	Potential Severity	Probability of Risk	Level of Risk
Hydrocarbons and SVOCs in soils	Direct contact	Water supply pipes	Medium	Likely	MODERATE. Impacts are above the water supply pipe thresholds for PE pipes. Barrier pipe recommended.
Ground gas	Inhalation	Future Site users	Medium	Likely	MODERATE. Ground gas protection measures required to Characteristic Situation 2.
Leachate and groundwater impacts of PAHs and metals	Leaching and migration	River Medlock	Medium	Unlikely	LOW. Residual impacts identified in groundwater and leachate indicating potential for further leachable contaminant source. However, groundwater was only identified within the sandstone bedrock and rose to within the depth of made ground when monitored. The made ground appears to be underlain by low permeability clay which provides some protection to the underlying sandstone aquifer. The development will comprise impermeable hard standing over the majority of the site thus significantly reducing leaching potential further from the unsaturated soils.
		Principal Aquifer	Medium	Unlikely	LOW. As above. There may however, be a potential risk of piling affecting risks to the aquifer. Further consideration of this should be undertaken e.g. in a piling risk assessment.

Notes

Should the development proposals alter significantly a review of this risk assessment may be required. In particular if wider or new areas of landscaping / open areas are planned.

There is also a potential risk of additional impacts in areas not accessible such the existing hotel building and infrastructure.

9. WASTE CLASSIFICATION

9.1. Methodology

The assessment has been undertaken using available soil chemical data and HazWasteOnline, a web-based tool for classifying waste. The software utilises Environment Agency guidance and European regulations to classify samples in line with current requirements. Further details of the waste classification methodology are provided in **Appendix B**.

9.2. Soils Assessment

24 samples were taken from made ground and drift deposits from across the site. The analytical results were entered into HazWasteOnline to provide a waste classification. The HazWasteOnline output sheets are provided in **Appendix D.**

One sample out of the 24 samples analysed was determined as hazardous due to the TPH concentration of 1498mg/kg at WS05 (0.25m bgl). These triggered the H7 Carcinogenic Hazard Phrase "waste that induces cancer or increases its incidence" and H11 Mutagenic Hazard Phrase "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell".

The concentrations of asbestos in the soils was analysed and quantified with no samples exceeding the hazardous waste threshold of 0.1% w/w.

9.3. Summary

Based on the information available, the likely waste classification of soils underlying the development are summarised as follows:

- Made Ground around WS05: likely to be classified as hazardous due to hydrocarbon content.
- Made Ground: typically, non-hazardous waste; and
- Natural Strata: non-hazardous waste, potentially could be classified inert waste.

The classification of waste reported above must be confirmed by the receiving landfill prior to disposal, under Duty of Care. Any material to be disposed of as hazardous or inert must have WAC analysis provided to confirm appropriate class of landfill.

10. CONCLUSIONS AND RECOMMENDATIONS

Table 10.1 below summarises the pollutant linkages which require further consideration and potential remedial action.

Table 10.1: Significant Pollutant Linkages

Pollutant linkage	Additional Actions Required
Hydrocarbons and SVOCs in soils above water supply pipe threshold for PE pipe.	Barrier pipe recommended.
Ground gases. Elevated methane and carbon dioxide indicate Characteristic Situation 2 is most appropriate classification.	Ground gas protection measures required.
Potential additional impacts e.g. beneath the existing hotel where access was restricted, or unexpected / unidentified contamination which may be encountered during works.	Risk management measures required in remedial strategy.

These impacts require further consideration in accordance with the methodology outlined in the CL:AIRE, 2011 Waste Code of Practice.

Impacts have been identified in the made ground which have the potential to leach and impact the groundwater directly beneath the site. The site lies on a Principal Aquifer and as such the Environment Agency may have specific requirements such as piling risk assessment. Thus, whilst it is considered that there will be limited risks to the aquifer from the identified contaminants post development due to the hardstanding and depth of groundwater limiting leaching potential, there may be a requirement for additional works in this regard.

10.1.1. Waste Classification

Based on the information available, the likely waste classification of soils underlying the development are summarised as follows:

- Made Ground around WS05: likely to be classified as hazardous due to hydrocarbon content.
- Made Ground: typically, non-hazardous waste; and
- Natural Strata: non-hazardous waste, potentially could be classified inert waste.

The classification of waste reported above must be confirmed by the receiving landfill prior to disposal, under Duty of Care. Any material to be disposed of as hazardous or inert must have WAC analysis provided to confirm appropriate class of landfill.

10.1.2. Further Works

There is likely to be a requirement for a piling risk assessment to address any potential increase in risk to the aquifer which the development may cause during works.

Consultation with the Environment Agency should be undertaken to clarify expectations in this regard for this area.

A remedial strategy document for the proposed development will be required to address all remaining identified contamination issues.

Earthworks at the site are recommended to be undertaken in accordance with an appropriate Material Management Plan in accordance with the CL:AIRE, 2011 Waste Code of Practice. All material is suitable for reuse on site in accordance with an appropriately designed material management plan.

The remedial strategy and material management plan documents will need to include details on, inter alia:

- A contingency for any additional impacts not yet identified which may be encountered during works including for consultation with an appropriately qualified environmental consultant, stockpiling and additional chemical testing / assessment prior to re-use/disposal;
- General sampling and analysis requirements for reuse of materials on site;
- Sampling and analysis requirements of any imported materials, including topsoil; and
- Sampling and analysis requirements for waste classification of any materials to be disposed off site.

A part time watching brief by an appropriately qualified environmental consultant is recommended, with subsequent validation sampling in accordance with the methodology outlined within the Material Management Plan. This will allow an independent verification report to be prepared which will be required after works are complete.

Although no unexploded ordnance was identified onsite, there is the risk of UXO between the exploratory holes that has not been identified. As the site is to be redeveloped extensively, it would be producent to have UXO precautions in place during any piling or penetrative works, or excavations.

11. REFERENCES

BS5930 (2015) Code of Practice for Ground Investigation

BS 10175:2011+A1:2013 Investigation of Potentially Contaminated Sites- Code of Practice

BS8485: 2015. Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings.

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BSI (1999), BS 5930: 1999 +A2:2010. Code of practice for site investigations.

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CIRIA C552 (2001) Contaminated land risk assessment, a guide to good practice.

CIRIA C665 (2007) Assessing risks posed by hazardous ground gases to buildings.

CIRIA (2007), C665. Assessing Risks Posed by Hazardous Ground Gases to Buildings,

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EA (2004) Model procedures for the management of land contamination. Contaminated land report 11.

EA, 2013. Hazardous waste, Interpretation of the definition and classification of hazardous waste (3rd Edition 2013)

Nathanail C.P. et al (2015). The LQM/CIEH S4ULs for Human Health Risk Assessment. Land Quality Press, Nottingham.

NHBC and Environment Agency 2008. Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D Publication 66: 2008

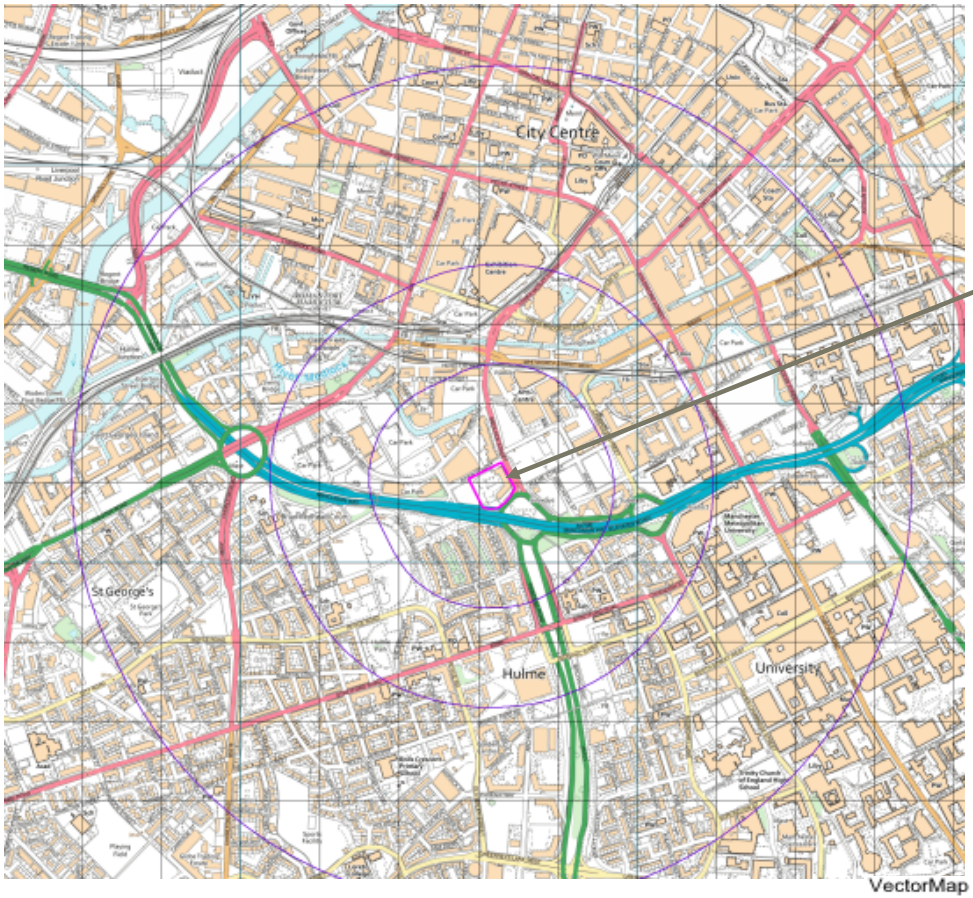
Steve Wilson, Geoff Card and Sarah Haines (2009) Ground Gas Handbook. Whittles Publishing.

UK Water Industry Research Ltd. UKWIR, 2010. Guidance for the Selection of Water Supply Pipes to be used in Brownfield Site Report Ref No 10/WM/03/21

UK Water Industry Research Ltd. UKWIR, 2014. Contaminated Land Assessment Guidance. Protocols published by agreement between Water UK and the Home Builders Federation.

APPENDIX A FIGURES

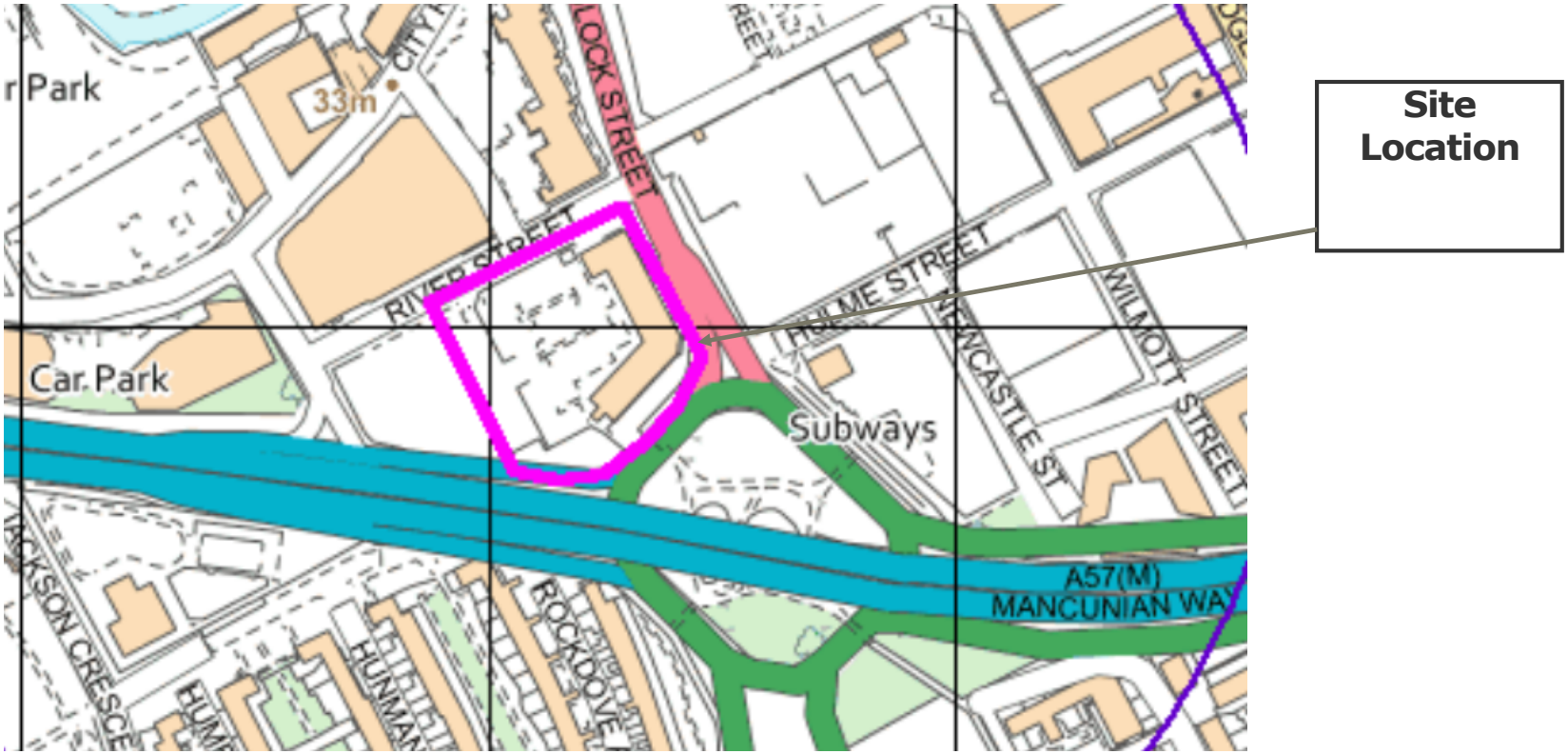
FIGURE 1
SITE LOCATION PLAN



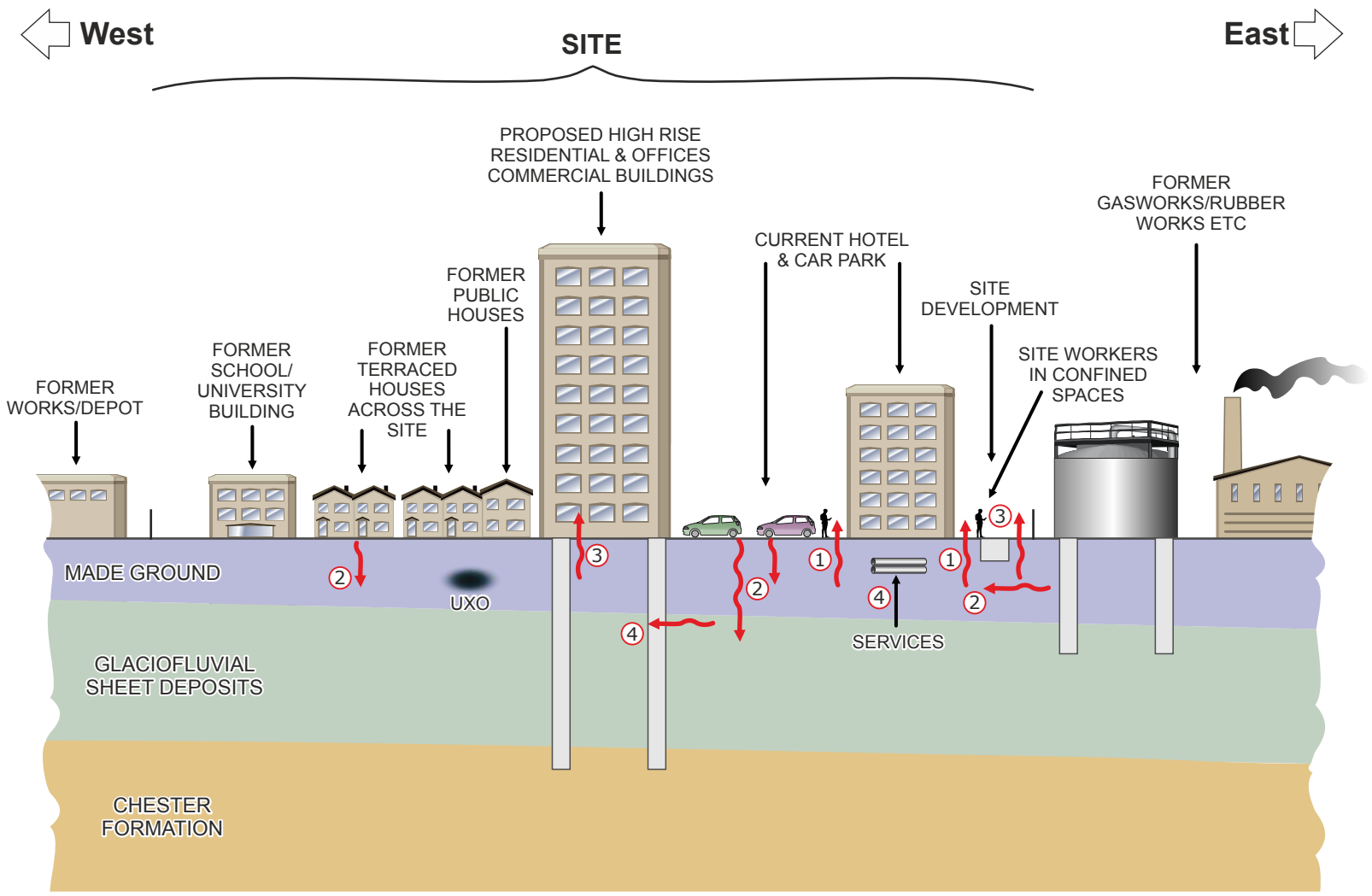
Site Location

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

FIGURE 2
SITE LAYOUT PLAN



VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

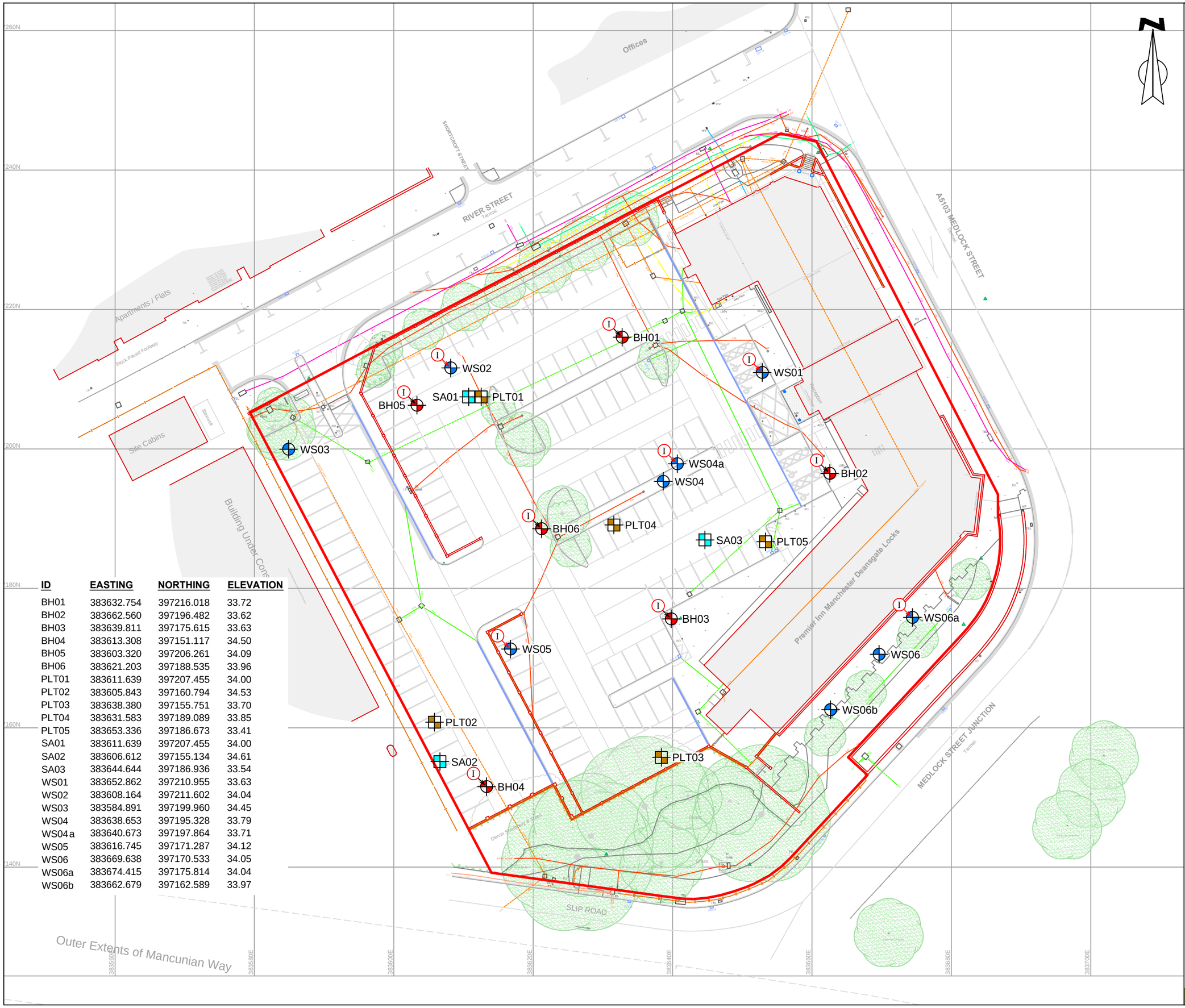


Potential Pathways

1. Inhalation / Ingestion / Dermal Contact of Dust & Fibres.
2. Leaching & Migration, Lateral & Vertical of Contamination.
3. Ground Gas Migration.
4. Direct Contact with Services and Underground Structures.

Figure Title	Figure 3: Conceptual Site Model
Project Name	River Street, Manchester, M15 5GQ
Project Number	1620005811
Figure No.	3
Date	April 2019
Prepared By	BVK
Scale	Not to scale
Issue	1
Client	Ask Real Estate Ltd

RAMBOLL



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BH02	383662.560	397196.482	33.62
BH03	383639.811	397175.615	33.63
BH04	383613.308	397151.117	34.50
BH05	383603.320	397206.261	34.09
BH06	383621.203	397188.535	33.96
PLT01	383611.639	397207.455	34.00
PLT02	383605.843	397160.794	34.53
PLT03	383638.380	397155.751	33.70
PLT04	383631.583	397189.089	33.85
PLT05	383653.336	397186.673	33.41
SA01	383611.639	397207.455	34.00
SA02	383606.612	397155.134	34.61
SA03	383644.644	397186.936	33.54
WS01	383652.862	397210.955	33.63
WS02	383608.164	397211.602	34.04
WS03	383584.891	397199.960	34.45
WS04	383638.653	397195.328	33.79
WS04a	383640.673	397197.864	33.71
WS05	383616.745	397171.287	34.12
WS06	383669.638	397170.533	34.05
WS06a	383674.415	397175.814	34.04
WS06b	383662.679	397162.589	33.97

Key

- Site Boundary
- Dynamic (Windowless) Sampling Exploratory Holes
- Rotary Borehole Locations
- Plate Load Testing
- Soakaway Testing
- Borehole Installation (I)

Notes

- Do not scale from this drawing.
- All dimensions are in meters unless stated otherwise.
- This drawing is to be read in conjunction with all relevant drawings and documents associated with this project.
- All existing and proposed dimensions, levels and locations to be checked and verified by the main contractor on site prior to the commencement of the works and any anomalies reported to the engineer.

enzygo
environmental consultants

Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

CLIENT: Whitbread PLC

SCALE: NTS

PROJECT REF: MAN.260.001

DRAWN: MG

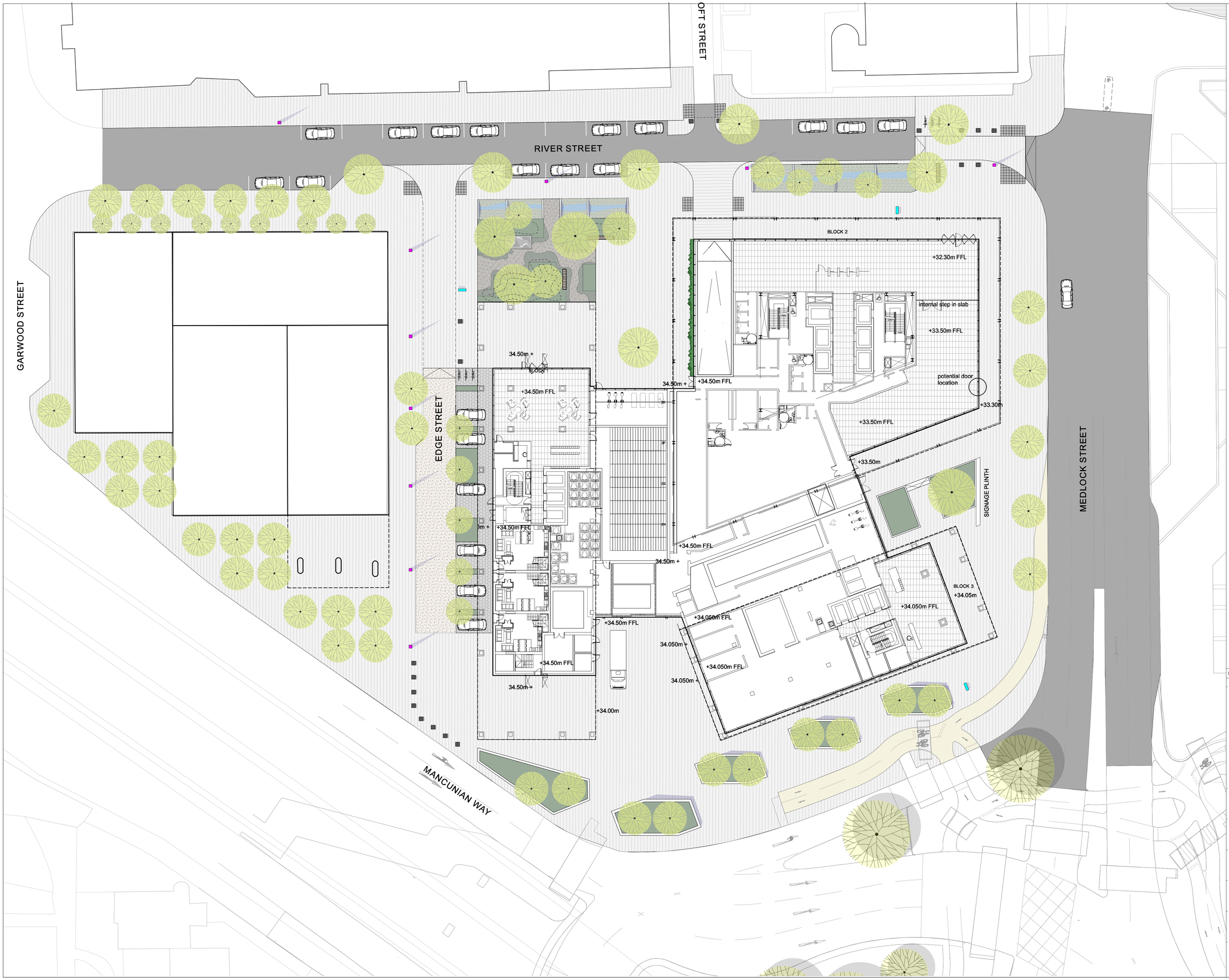
CHECKED: NR

DATE: July 2019

PROJECT: Deansgate, Premier Inn

TITLE: Exploratory Hole Location Plan

FIGURE NO: MAN.260.001.GE.D.001



Revision	Date	Description	Drawn	Apprvd.
P02	10.07.19	For Information	EG	SF
P01	28.06.19	For Tracking	EG	RM

Planit I.E. Limited
E: info@planit-ie.com **W:** planit-ie.com
MANCHESTER
2 Back Grafton St , Altrincham , WA14 1DY
T: 0161 928 9281
LONDON
Unit 6 Waterside, 44-48 Wharf Road, London, N1 7UX
T: 0207 253 5678
LIVERPOOL
No. 8 Princes Parade, Princes Dock, Liverpool, L3 1DL
T: 0151 705 6746

Client ASK Developments

Project Existing Premier Inn Site

Drg Title Landscape GA

Created on	Created by	Approved by
27-06-19	FF	RM

Scale	Size	Workstage
1:250	A1	Information

Drg No.	Suitability	Revision
2072-PLA-XX-XX-DR-L-0001	S1	P03

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APPENDIX B UK LEGISLATIVE CONTEXT AND METHODOLOGIES

Intended for

Project no.

Date
01 May 2016

LEGISLATIVE CONTEXT AND METHODOLOGIES

GROUND CONTAMINATION

1. LEGISLATIVE CONTEXT

1.1.1. England

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in England on 1st April 2000 as The Contaminated Land (England) Regulations 2000 (SI 2000/227). These regulations were subsequently revoked with the provision of The Contaminated Land (England) Regulations 2006 (SI 2006/1380) (as amended), which came into force in August 2006, and consolidated the previous regulations and amendments. Revised statutory guidance ("the Guidance") for local authorities on how to implement the regime, including the decision-making process on whether land is contaminated land in the legal sense, has been published by Defra and entered into force in April 2012.

Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears… 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 waters is being caused, or there is a significant possibility of such pollution being caused".

1.1.2. Wales

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in Wales on 1st July 2001 as The Contaminated Land (Wales) Regulations 2001 (WSI 2001/2197, W.157). These regulations were subsequently revoked with the provision of The Contaminated Land (Wales) Regulations 2006 (SI 2006/2989 W.278), which consolidated the previous regulations and amendments and added in provisions regarding radioactive contaminated land. These regulations came into force on 10th December 2006 and were accompanied by statutory guidance published by the Welsh Assembly Government in December 2006 ('the Guidance') for local authorities on how to implement the regime. The 2006 statutory guidance was replaced by the Contaminated Land Statutory Guidance - 2012 (WG19243), issued by the Welsh Government.

Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears… 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) pollution of controlled waters is being, or is likely to be caused" (Section 86 of the Water Act 2003 remains only partially implemented in Wales).

1.1.3. Scotland

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in Scotland on 14th July 2000 as The Contaminated Land (Scotland) Regulations 2000 (SSI 2000/ 178). These regulations were subsequently revoked with the provision of The Contaminated Land (Scotland) Regulations 2005 (SSI 2005 /658), which came into force in April 2006 and consolidated the previous regulations and amendments and were accompanied by statutory guidance published by

the Scottish Government in May 2006 ('the Guidance') for local authorities on how to implement the regime.

Under Part 2A of the Environmental Protection Act 1990, "contaminated land" is defined in the Contaminated Land (Scotland) Regulations 2005 (as amended) as land which appears to the local authority 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 the water environment is being caused or there is a significant possibility of such pollution being caused.

1.1.4. Northern Ireland

The regime for Contaminated Land in Northern Ireland was set out in the Waste and Contaminated Land (Northern Ireland) Order 1997 (as amended). Part 3 of the Waste and Contaminated Land (Northern Ireland) Order 1997 contains the main legal provisions for the introduction of a contaminated land regime in Northern Ireland, but the regime is not yet in operation. It is noted that the Contaminated Land (Northern Ireland) Regulations 2006 and associated statutory guidance were published in draft for consultation in 2006, but have yet to be finalised. Under Part 3 of the 1997 Order, contaminated land is defined as,

"any land which appears to a district council in whose district it 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) pollution of waterways or underground strata is being, or is likely to be, caused.

"Significant harm" is defined in the draft guidance on risk based criteria and must be the result of a "pollutant linkage", which may be assessed using qualitative risk assessment models. The presence of a pollutant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist.

1.1.5. The Channel Islands

There is no formal contaminated land regime in the Channel Islands, as they are not part of the UK, and as such they usually adopt either the English or French legislation or create their own.

1.1.6. Isle of Man

There is no formal contaminated land regime in the Isle of Man, and they usually adopt a best 'practice approach' from a European country of choice on this basis.

1.1.7. Risk assessment Framework

"Significant harm" or "significant pollution of controlled waters" is defined in the Guidance on risk based criteria and must be the result of one or more relevant 'contaminant linkages' relating to the land.

The presence of a contaminant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist. For a risk of pollution or environmental harm to occur as a result of ground contamination, all of the following elements must be present:

- A source - a substance that is capable of causing pollution or harm;
- A receptor - something which could be adversely affected by the contaminant; and

- A pathway - a route by which the contaminant can reach the receptor.

If one of these elements is absent there can be no significant risk. If all are present then the magnitude of the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The Environment Agency Contaminated Land Report CLR 11 Model Procedures for the Management of Land Contamination provides the technical framework for structured decision making about land contamination. CLR 11 advocates a phased approach to risk assessment comprising:

- Preliminary Risk Assessment (PRA) – desk study and qualitative assessment
- Generic Quantitative Risk Assessment (GQRA) – assessment of contaminant concentrations against generic assessment criteria.
- Detailed Quantitative Risk Assessment (DQRA) – detailed site specific risk assessment and development of site-specific assessment criteria.

Each of these phases follows the same basic steps buts adds site specific details and further certainty into the assessment as the stages progress. The basic steps are:

- Hazard identification and hazard assessment – development or refinement of the source-pathway-receptor conceptual model, and identification of potential pollutant linkages.
- Risk Estimation – qualitative risk estimation predicting magnitude and probability of potential consequences that may arise as a result of a hazard.
- Risk Evaluation – deciding whether a risk is unacceptable.

2. RISK ESTIMATION

An assessment of environmental risks is made for each potential pollutant linkage identified.

Risk estimation has been completed in accordance with the guidance provided in:

- NHBC and Environment Agency 2008. Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D Publication 66: 2008.

The following is taken directly from NHBC/EA 2008. The key to the classification is that the designation of risk is based upon the consideration of both:

a) the magnitude of the potential consequence (*i.e.*, severity) [takes into account both the potential severity of the hazard and the sensitivity of the receptor];

b) the magnitude of probability (*i.e.*, likelihood) [takes into account both the presence of the hazard and receptor and the integrity of the pathway].

Table 1: Classification of Consequence (after NHBC/EA 2008)

Category	Definition
Severe	Highly elevated concentrations **likely** to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to EA **Category 1** pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. Catastrophic damage to crops, buildings or property.
Medium	Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs. Equivalent to **EA Category 2** pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.
Mild	Exposure to human health **unlikely** to lead to "significant harm". Equivalent to **EA Category 3** pollution incident including minimal or short lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population. Minor damage to crops, buildings or property.
Minor	No measurable effect on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.

* For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.

The likelihood of an event (probability) takes into account both the presence of the hazard and target and the integrity of the pathway and has been assessed based on the categories given below.

Table 2: Classification of Probability (after NHBC/EA 2008)

Category	Definition
High Likelihood	There is pollutant linkage and an event would appear very likely in the short-term and almost inevitable over the long-term, or there is evidence at the receptor of harm or pollution.
Likely	There is pollutant linkage and all the elements are present and in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short-term and likely over the long-term.
Low Likelihood	There is pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a long period such an event would take place, and is less likely in the shorter term.
Unlikely	There is pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long-term.

The potential severity of the risk and the probability of the risk occurring have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

Table 3: The Classification of Risk (after NHBC/EA 2008)

		Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	**Very high**	High	Moderate	Low
	Likely	High	Moderate	Moderate/ Low	Low
	Low Likelihood	Moderate	Moderate/ Low	Low	Very low
	Unlikely	Moderate/ Low	Low	Very low	Very low

Very high risk

There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without remediation action OR there is evidence that severe harm to a designated receptor is already occurring. Realisation of that risk is likely to present a substantial liability to be site owner/or occupier. Investigation is required as a matter of urgency and remediation works likely to follow in the short-term.

High risk

Harm is likely to arise to a designated receptor from an identified hazard at the site without remediation action. Realisation of the risk is likely to present a substantial liability to the site owner/or occupier. Investigation is required as a matter of urgency to clarify the risk. Remediation works may be necessary in the short-term and are likely over the longer term.

Moderate risk

It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely, that the harm would be relatively mild. Further investigative work is normally required to clarify the risk and to determine the potential liability to site owner/occupier. Some remediation works may be required in the longer term.

Low risk

It is possible that harm could arise to a designated receptor from identified hazard, but it is likely at worst, that this harm if realised would normally be mild. It is unlikely that the site owner/or occupier would face substantial liabilities from such a risk. Further investigative work (which is likely to be limited) to clarify the risk may be required. Any subsequent remediation works are likely to be relatively limited.

Very low risk

It is a low possibility that harm could arise to a designated receptor, but it is likely at worst, that this harm if realised would normally be mild or minor.

No potential risk

There is no potential risk if no pollution linkage has been established.

3. GQRA METHODOLOGIES

In order to assess the significance of the chemical concentrations recorded, generic assessment criteria (GAC) must be selected. The GAC are screening concentrations which are used initially for direct comparison to the measured site concentrations.

The GAC are defined based on the critical receptors identified at the site. Receptors are considered in relation to:

- Human health receptors (*e.g.*, site users);
- The water environment (*e.g.*, groundwater and surface water).

Potential risks to human health are considered primarily using measured concentrations of chemicals in soil. Potential risks to the water environment are considered primarily using soil leachate and groundwater concentrations as indicative of the potentially mobile fraction of any soil impact.

Additional receptors may be relevant dependent on the site *e.g.*, flora/fauna, water supply pipes, buried concrete.

3.1. Human Health Assessment

3.1.1. Initial Screening Assessment

In accordance with current UK guidance on legislation including Part 2A of the Environmental Protection Act 1990 and based on the principles of risk assessment, Ramboll Environ (REH) has derived generic assessment criteria (GAC) for interpretation of soil and groundwater chemical analysis. The Ramboll Environ GAC are considered to be threshold based screening concentrations, at which a significant risk is not considered to be present to the relevant receptors.

The Ramboll Environ REH GAC for soil assessment are based on the generic scenarios outlined in the Contaminated Land Exposure Assessment (CLEA) methodology and guidance documents (incorporating Science Reports SC050021/SR2 (January 2009), SR3 (January 2009), SR4 (September 2009) and the SGV reports (2009)). The generic scenarios include inhalation, ingestion, dermal contact of soil and dust as pathways for commercial and residential scenarios; as well as ingestion of homegrown produce for residential with gardens scenario. In addition, REH GAC have also been derived for the two Public Open Space land uses defined in C4SL guidance (outlined below).

The GAC have been calculated by use of two proprietary risk assessment models (CLEA Version 1.071 and the American Society for Testing Materials Risk Based Corrective Action RBCA Tool Kit Version 2.6 for Chemical Releases) which have been altered, where necessary, to reflect the current UK approach to human health risk assessment as set out in the Contaminated Land Report (CLR) 11 and the CLEA guidance documents. The physiochemical data has been taken from or derived using the methodology detailed in SR7 (November 2008) and SGV reports (2009), where feasible. The toxicology data has been taken from the current published EA toxicology documents. We have referred to all current publications and guidance issued up until 1st May 2016.

Reference has been made to the Defra-funded research project (SP1010), which developed a methodology to derive Category 4 Screening Levels (C4SLs) for six contaminants (benzo-a-pyrene, cadmium, arsenic, benzene, hexavalent chromium and lead). SP1010 provides technical tools and advice to be developed to help regulators and others to conform to the requirements of revised Part 2A Statutory Guidance. The C4SLs are therefore less conservative than GAC developed in accordance with published CLEA guidance as they describe a low risk as opposed to minimal risk scenario. However,

consistent with the developed GAC, sites below the C4SLs are within Category 4 (lowest risk category) and therefore considered suitable for use.

Defra's SP1010 Policy Companion document (DEFRA, Dec 2014) states that where a C4SL value has been derived for a contaminant where a Soil Guideline Value (as published by the EA 2009) exists, it is anticipated that risk assessors will use the C4SL value in line with Part 2A Statutory Guidance. In the absence of a suitable C4SL, risk assessors should identify and select appropriate GAC in accordance with established good practice. On this basis, Ramboll Environ has adopted the use of C4SLs however minimal risk assumptions have been applied in-house REH GAC for other contaminants of concern within our screening assessments.

The C4SLs for the six compounds published, are based on a sandy loam soil with 6% soil organic matter (SOM). The 6% SOM and sandy loam soil type is not considered by Ramboll Environ to be realistic of 'typical' UK soil conditions, and EA guidance ('Using Soil Guideline Values' EA, 2009) states that at 6% SOM, GAC may not be sufficiently protective (i.e. the values are too high to be sufficiently certain that they describe land where there is no risk to human health or the risk is negligible). For the Ramboll Environ GAC, all the C4SL inputs have been used apart from the SOM and soil type, which were amended to 1% and sand; thereby ensuring a suitably conservative Ramboll Environ GAC appropriate for most soils and Made Ground encountered in the UK. It is noted that none of the screening criteria used in the UK, including the C4SLs, have a statutory basis.

Ramboll Environ also attended the Land Quality Management and Chartered Institute of Environmental Health workshop for the collaborative development of 'Suitable 4 Use Levels' (S4ULs) and reference has been made to their publication 'The LQM/CIEH S4ULs for Human Health Risk Assessment, 2015'.

Review of additional UK organisation guidance including Contaminated Land: Applications in Real Environments (CL:AIRE) and partners GAC, including addendums up until 10 April 2012 has also been made. Soil Guideline Values (EA/DEFRA, 2009) may also be referred to if relevant. Finally, where necessary, other published sources of (non-UK) information, such as the RBCA V2.6 database has also been reviewed.

Contaminant concentrations below the adopted GAC are not considered to present a significant risk to identified receptors and therefore are not considered to warrant further study. Contaminants which are recorded at concentrations above their respective GAC are considered to present a potential risk to identified receptors and resultantly these determinants are subject to further assessment.

3.1.2. Contaminant Distribution Assessment

Concentrations above the GAC are considered further in relation to vertical and lateral distribution across the site and through statistical analysis, where appropriate. This analysis is used to define 'averaging areas' within which contamination concentrations and distribution are considered likely to be similar.

For each averaging area, where appropriate, statistical analysis is then used to calculate a 'representative' concentration for each contaminant within that area and identify possible outliers of the underlying distribution of contaminant concentrations. This analysis is completed in accordance with CIEH 2008 guidance.

The initial statistical tests are used to calculate the 95% probability that the true population mean falls below the critical concentration (GAC). In practise, this involves comparing the 95th Upper Confidence Limit of the true population mean with the GAC. The Maximum Value test is then used to identify whether the maximum concentration is likely to lie outside of the assumed distribution trend and as such would represent an outlier of the general population of data across the site. Outliers above the GAC may represent localised contaminant hotspots and require further consideration.

Constituent non-detects are conservatively assigned a value equal to the reported analytical laboratory limit of detection. Any identified true outliers are excluded from the datasets used in calculation of the 95%UCL value.

3.2. Assessment for the Water Environment

Assessment of risks to water resources is completed in general accordance with guidance provided in the Environment Agency 2013, Groundwater Protection Principles and Practice (GP3) for England and Wales and with reference to SEPA guidance WAT–PS-10-01 in Scotland.

Generic assessment criteria for waters must be selected to assess potential risks to the identified environmental receptors.

In the absence of relevant published water assessment criteria, the potential risk to human health from contaminated surface and groundwater and the potential risk to the aquatic environment from entry of pollutants (either directly or via a groundwater pathway) has been assessed using commonly accepted UK guidelines including the Water Supply (Water Quality) (England) Regulations 2000 (known as the Drinking Water Standards, or DWS) and the Environmental Quality Standards (EQS) defined in European legislation such as the Water Framework Directive (WFD) (2000/60/EC).

Minimum reporting values are also considered for hazardous substances for assessment of risks to groundwater resources in order to comply with the requirements of the guidance to 'prevent' input of hazardous substances to groundwater.

4. GROUND GAS RISK ASSESSMENT

Ground gas risk is characterised using guidance provided in the following:

- CIRIA C665, 2007. Assessing risks posed by hazardous ground gases to buildings. (Supersedes CIRIA 659).
- NHBC / RSK, 2007. Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present. Report Ed 4.
- BS8485: 2015 Code of practice for the characterization and remediation from ground gas in affected developments.
- BS8576:2013. Guidance on investigations for ground gas – Permanent gases and Volatile Organic Compounds (VOCs)

The risk posed by a gas regime is assessed initially by calculating a Gas Screening Value using a combination of the gas flow rate and recorded concentrations of carbon dioxide and methane. This Gas Screening Value is then used in combination with the maximum recorded gas concentrations to determine the site's Characteristic Situation (CIRIA 665 – all site uses except low rise residential) or Traffic Light Classification (NHBC/RSK 2007 low rise residential sites only). Table A below outlines the method for defining the Characteristic Situation as detailed in CIRIA 665 and Table B outlines the method for defining the Traffic Light classification as detailed in NHBC/RSK 2007.

Table A: Proposed method for classifying gassing sites (after CIRIA C665 2007)

Characteristic Situation	Risk classification	Gas screening value of CH_4 or CO_2 (l/hr)[a]	Additional limiting factors	Typical source of generation
1	Very low risk	<0.07	Typically methane ≤ 1% and/or carbon dioxide ≤ 5%. Otherwise consider increase to Situation 2	Natural soils with low organic content. "Typical" Made Ground
2	Low risk	<0.7	Borehole air flow rate not to exceed 70l/hr. Otherwise consider increase to Characteristic Situation 3	Natural soil, high peat/organic content. "Typical" Made Ground
3	Moderate risk	<3.5	-	Old landfill, inert waste, mineworking flooded
4	Moderate to high risk	<15	Quantitative risk assessment required to evaluate scope of protective measures	Mineworking -susceptible to flooding, completed landfill, inert waste (WMP 26B criteria)
5	High risk	<70	-	Mineworking unflooded inactive with shallow workings near surface
6	Very high risk	>70	-	Recent landfill site

[a] Gas screening value = gas concentration (%) x measured borehole flow rate (l/hr)

Table B: Proposed method for classifying gassing sites (after NHBC/RSK 2007)

Traffic Light	Methane1		Carbon Dioxide1	
	Typical Maximum Concentration5 (%v/v)	Gas Screening Value (GSV)2,4,6 litres per hour	Typical Maximum Concentration5	Gas Screening Value (GSV)2,3,4,5

			(%v/v)	litres per hour
Green				
Amber 1	1	0.16	5	0.78
Amber 2	5	0.63	10	1.56
Red	20	1.56	30	3.13

The CIRIA, NHBC and BS8485 guidance documents are then used to determine requirements for gas protection measures based on the site classification.

5. WATER SUPPLY PIPES

The assessment has been completed in accordance with the current UK guidance:

- Water UK. Jan 2014. Contaminated Land Assessment Guidance.
- UKWIR UK Water Industry Research Ltd, 2010. Guidance for Selection of Water Supply Pipes to be used in Brownfield Sites.

This guidance provides threshold concentrations for different pipe material for various chemical groups.

The pipeline materials considered by the guidance are PE, PVC, wrapped steel, wrapped ductile iron or copper pipe and barrier pipe. PE and PVC are assessed using threshold concentrations for various chemical groups including volatile organic compounds (VOC) with tentatively identified compounds (TICs), semi-volatile organic compounds (SVOC) with TICs, and mineral oils. Wrapped steel, wrapped ductile iron and copper pipe are assessed using corrosive properties.

Regional water companies may have adopted additional more stringent thresholds which they apply locally, thus consultation with the water authority must always be completed prior to final determination of water supply pipe materials.

6. WASTE CLASSIFICATION

The main steps in classifying waste are:

1. Is it really a waste or can it be reused, recycled or recovered?
2. If the material is not to be utilised in some way and it is waste then classify to ascertain if hazardous or non-hazardous. In order to do this, guidance regarding the definition and classification of hazardous waste is utilised, the two main documents being EA, 2015 'Technical Guidance WM3: Waste Classification - Guidance on the classification and assessment of waste' and the European Waste Catalogue (EWC 2002).
3. Use the results of this initial waste classification to follow one of the following routes:

<table>
<tr><th colspan="3">Hazardous</th><th colspan="2">Non-Hazardous</th><th></th></tr>
<tr><td colspan="3">Pre-treat the waste.</td><td colspan="2">Thought likely to be inert:
(e.g. insoluble and inorganic in nature)</td><td>Thought unlikely to be inert:
(e.g. may contain peat or other high organic content material)</td></tr>
<tr><td colspan="3">Complete WAC (Waste Acceptance Criteria) testing to determine class of landfill it can go to or any requirement for further pre-treatment if WAC fails.</td><td colspan="2">Complete WAC test to determine class of landfill it can be disposed to</td><td>-</td></tr>
<tr><td>Pass stable non-reactive hazardous WAC: dispose of at SNRHW landfill.</td><td>Pass hazardous WAC: dispose of at hazardous landfill.</td><td>Fail: further remedial action required</td><td>Pass: dispose of at inert landfill</td><td>Fail: dispose of at non-hazardous landfill</td><td>Dispose to non-hazardous landfill (no WAC testing required by WM3).</td></tr>
</table>

The landfill regulations (Environment Agency, 2011 Treatment of Waste for Landfill) prescribe that hazardous waste requires pre-treatment prior to disposal to landfill. This may include physical sorting at the point of production on site, by sorting of waste soils into separate stockpiles of eg topsoil, made ground and natural gravels.

6.1. Methodology

In terms of the EWC, the soil to be excavated from this site for disposal is classed as 'Soil and Stones containing Dangerous Substances' (EWC Code 170503) or 'Soil and Stones other than those mentioned in EWC Code 170503' (EWC Code 170504). As such it is what is known as a 'Mirror Entry waste' and needs to be assessed against Threshold Levels for certain dangerous substances in order to confirm whether it needs to be classified as hazardous (170503) or non-hazardous (170504).

Data from site soil chemical testing have been assessed to classify the site soils. The assessment has been undertaken using HazWasteOnline ™, a web-based tool for classifying waste. The software utilises Environment Agency guidance and European regulations to classify samples in line with current requirements.

The assessment provided in this report fulfils the requirement of step 2 above, and allows classification of the site soils and hazardous or non-hazardous.

Asbestos: The Hazardous Waste (England and Wales) Regulations 2005 requires that any waste having an asbestos content greater than 0.1% weight/weight (w/w) be classified as Hazardous Waste. Any waste with an asbestos content of less than 0.1% w/w can be classified as non-hazardous waste, unless there are other contaminants present which would make the waste hazardous.

Where fibrous asbestos is present at concentrations greater than 0.001%, these can be considered to pose a risk to human health and must be dealt with as hazardous soils for disposal purposes.

Where the asbestos is deemed to be of a fibrous nature the Health and Safety Executive (HSE) require that the handling of the material is undertaken by a suitably licensed company. The Carriage of Dangerous Goods (etc.) Regulations 2009 (CDG2009) applies in this instance.

APPENDIX C LABORATORY DATA SCREENING SUMMARY

Soil Data

Client Sample ID			GAC Commercial/Industrial	GAC residential without Homegrown produce	BH05	BH05	WS01	WS01	WS02	WS02	WS03	WS03	WS04	WS04A
Depth to Top	**Units**	**Limit of Detection**			0.5	2	0.5	2.2	0.2	1	1	1.5	0.2	3
% Stones >10mm	% w/w	0.1			28.7	32.6	24.1	27.3	35.7	11.5	40.3	<0.1	47.1	10.8
pH	pH	0.01			7.91	8.03	8.81	7.67	9.24	8.11	8.22	8.33	10.63	8.77
Sulphate (water sol 2:1)	g/l	0.01			<0.01	0.01	0.15	0.04	0.08	0.02	0.01	<0.01	0.04	<0.01
Cyanide (total)	mg/kg	1	49	49	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenols - Total by HPLC	mg/kg	0.2	380	380	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Sulphide	mg/kg	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	mg/kg	1	640	40	4	1	4	2	1	2	4	<1	2	2
Boron (water soluble)	mg/kg	1	240000	11000	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	mg/kg	0.5	410	150	<0.5	<0.5	0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	1	68000	7100	6	6	34	5	17	10	13	2	14	4
Chromium	mg/kg	1			7	7	17	7	9	14	11	3	12	5
Chromium (hexavalent)	mg/kg	1	49	21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (trivalent)	mg/kg	1	8600	910	7	7	17	7	9	14	11	3	12	5
Lead	mg/kg	1	2300	310	5	4	101	4	35	9	33	6	44	4
Mercury	mg/kg	0.17	1,100	56	<0.17	<0.17	<0.17	<0.17	0.28	<0.17	<0.17	<0.17	0.2	<0.17
Nickel	mg/kg	1	980	180	7	7	12	9	7	11	11	2	10	6
Selenium	mg/kg	1	12000	430	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	mg/kg	5	730000	40000	21	19	133	21	71	28	30	9	42	18
EPH Total (>C10-C40)	mg/kg	10			18	11	959	17	1320	248	185	<10	946	143
Asbestos in Soil (inc. matrix) ^														
Asbestos in soil					NAD		NAD		NAD		NAD		NAD	
Asbestos Matrix (microscope)					-		-		-		-		-	
Asbestos ACM - Suitable for Water Absorption Test?					N/A		N/A		N/A		N/A		N/A	
Asbestos in Soil Quantification %(Hand Picking & Weighing)														
Asbestos in soil % composition (hand picking and weighing)	% w/w	0.001												
PAH-16MS														
Acenaphthene	mg/kg	0.01	75000	2000	<0.01	<0.01	0.1	<0.01	0.26	0.01	0.19	<0.01	0.15	<0.01
Acenaphthylene	mg/kg	0.01	76000	2000	<0.01	<0.01	0.02	<0.01	0.08	<0.01	0.03	<0.01	0.05	<0.01
Anthracene	mg/kg	0.02	520000	30000	<0.02	<0.02	0.18	<0.02	0.71	0.03	0.26	<0.02	0.4	<0.02
Benzo(a)anthracene	mg/kg	0.04			<0.04	<0.04	0.7	<0.04	1.76	0.06	1.25	<0.04	2.41	<0.04
Benzo(a)pyrene	mg/kg	0.04	76	5.3	<0.04	<0.04	0.8	<0.04	1.69	0.04	1.25	<0.04	2.79	<0.04
Benzo(b)fluoranthene	mg/kg	0.05			<0.05	<0.05	0.92	<0.05	1.89	<0.05	1.48	<0.05	3.22	<0.05
Benzo(ghi)perylene	mg/kg	0.05			<0.05	<0.05	0.46	<0.05	0.82	<0.05	0.61	<0.05	1.66	<0.05
Benzo(k)fluoranthene	mg/kg	0.07			<0.07	<0.07	0.33	<0.07	0.7	<0.07	0.52	<0.07	1.23	<0.07
Chrysene	mg/kg	0.06			<0.06	<0.06	0.76	<0.06	1.85	0.06	1.31	<0.06	2.45	<0.06
Dibenzo(ah)anthracene	mg/kg	0.04			<0.04	<0.04	0.1	<0.04	0.22	<0.04	0.16	<0.04	0.41	<0.04
Fluoranthene	mg/kg	0.08	23000	1500	<0.08	<0.08	1.56	<0.08	4.1	0.15	2.7	<0.08	4.66	<0.08
Fluorene	mg/kg	0.01	60000	2200	<0.01	<0.01	0.07	<0.01	0.42	0.02	0.13	<0.01	0.1	<0.01
Indeno(123-cd)pyrene	mg/kg	0.03			<0.03	<0.03	0.5	<0.03	0.9	<0.03	0.67	<0.03	1.83	<0.03
Naphthalene	mg/kg	0.03	1100	0.99	<0.03	<0.03	<0.03	<0.03	0.24	<0.03	<0.03	<0.03	<0.03	<0.03
Phenanthrene	mg/kg	0.03	22000	1300	0.04	<0.03	0.77	<0.03	3.22	0.16	1.23	<0.03	1.35	<0.03
Pyrene	mg/kg	0.07	54000	3700	<0.07	<0.07	1.44	<0.07	4.16	0.13	2.66	<0.07	4.61	<0.07
Total PAH-16MS	mg/kg	0.01			<0.08	<0.08	8.71	<0.08	23	0.66	14.4	<0.08	27.3	<0.08
TPH CWG														
Ali >C5-C6	mg/kg	0.01	2400	24	<0.01		<0.01		<0.01		<0.01		<0.01	
Ali >C6-C8	mg/kg	0.01	5300	53	<0.01		<0.01		<0.01		<0.01		<0.01	
Ali >C8-C10	mg/kg	1	1300	13	<1		<1		<5		<1		<1	
Ali >C10-C12	mg/kg	1	6100	62	<1		<1		<5		<1		<1	
Ali >C12-C16	mg/kg	1	43000	510	<1		<1		<5		1		2	
Ali >C16-C21	mg/kg	1	1000000	42000	<1		<1		<5		3		6	
Ali >C21-C35	mg/kg	1	1000000	42000	2		19		349		23		143	
Total Aliphatics	mg/kg	1			2		19		354		27		152	
Aro >C5-C7	mg/kg	0.01			<0.01		<0.01		<0.01		<0.01		<0.01	
Aro >C7-C8	mg/kg	0.01			<0.01		<0.01		<0.01		<0.01		<0.01	
Aro >C8-C10	mg/kg	1	2200	22	<1		<1		6		<1		<1	
Aro >C10-C12	mg/kg	1	11000	120	<1		<1		<5		<1		<1	
Aro >C12-C16	mg/kg	1	35000	1100	<1		<1		8		16		5	
Aro >C16-C21	mg/kg	1	29000	1900	<1		<1		21		125		35	
Aro >C21-C35	mg/kg	1	29000	1900	5		10		290		260		312	
Total Aromatics	mg/kg	1			5		14		324		401		353	
TPH (Ali & Aro >C5-C35)	mg/kg	1			8		33		678		428		505	
BTEX - Benzene	mg/kg	0.01	15	0.37	<0.01		<0.01		<0.01		<0.01		<0.01	
BTEX - Toluene	mg/kg	0.01	33000	370	<0.01		<0.01		<0.01		<0.01		<0.01	
BTEX - Ethyl Benzene	mg/kg	0.01	3200	34	<0.01		<0.01		<0.01		<0.01		<0.01	
BTEX - m & p Xylene	mg/kg	0.01	3400	33	<0.01		<0.01		<0.01		<0.01		<0.01	
BTEX - o Xylene	mg/kg	0.01	3700	37	<0.01		<0.01		<0.01		<0.01		<0.01	
MTBE	mg/kg	0.01	3800	39	<0.01		<0.01		<0.01		<0.01		<0.01	
SVOC														
Hexachlorobenzene	µg/kg	100												
Diethyl phthalate	µg/kg	100												
Dimethyl phthalate	µg/kg	100												
Dibenzofuran	µg/kg	100												
Carbazole	µg/kg	100												
Butylbenzyl phthalate	µg/kg	100												
Bis(2-ethylhexyl)phthalate	µg/kg	500												
Bis(2-chloroethoxy)methane	µg/kg	100												
Bis(2-chloroethyl)ether	µg/kg	100												
4-Nitrophenol	µg/kg	100												
3+4-Methylphenol	µg/kg	100												
4-Chloro-3-methylphenol	µg/kg	100												
2-Nitrophenol	µg/kg	100												
2-Methylphenol	µg/kg	100												
2-Chlorophenol	µg/kg	100												
2,6-Dinitrotoluene	µg/kg	100												
2,4-Dinitrotoluene	µg/kg	100												
2,4-Dimethylphenol	µg/kg	100												
2,4-Dichlorophenol	µg/kg	100												
2,4,6-Trichlorophenol	µg/kg	100												
2,4,5-Trichlorophenol	µg/kg	100												
2-Chloronaphthalene	µg/kg	100												
2-Methylnaphthalene	µg/kg	100												
Bis(2-chloroisopropyl)ether	µg/kg	100												
Phenol	µg/kg	100												
Pentachlorophenol (SVOC)	µg/kg	100												
n-Nitroso-n-dipropylamine	µg/kg	100												
n-Dioctylphthalate	µg/kg	500												
n-Dibutylphthalate	µg/kg	100												
Nitrobenzene	µg/kg	100												
Isophorone	µg/kg	100												
Hexachloroethane	µg/kg	100												
Hexachlorocyclopentadiene	µg/kg	100												
Perylene	µg/kg	100												
VOC														
Dichlorodifluoromethane	µg/kg	1												
Chloromethane	µg/kg	10												
Vinyl Chloride (Chloroethene)	µg/kg	1												
Bromomethane	µg/kg	1												
Chloroethane	µg/kg	1												
Trichlorofluoromethane	µg/kg	1												
1,1-Dichloroethene	µg/kg	1												
Carbon Disulphide	µg/kg	1												
Dichloromethane	µg/kg	5												
trans 1,2-Dichloroethene	µg/kg	1												
1,1-Dichloroethane	µg/kg	1												
cis 1,2-Dichloroethene	µg/kg	1												
2,2-Dichloropropane	µg/kg	1												
Bromochloromethane	µg/kg	5												
Chloroform	µg/kg	1												
1,1,1-Trichloroethane	µg/kg	1												
1,1-Dichloropropene	µg/kg	1												
Carbon Tetrachloride	µg/kg	1												
1,2-Dichloroethane	µg/kg	2												
Benzene	µg/kg	1												
Trichloroethene	µg/kg	1												
1,2-Dichloropropane	µg/kg	1												
Dibromomethane	µg/kg	1												
Bromodichloromethane	µg/kg	10												
cis 1,3-Dichloropropene	µg/kg	1												
Toluene	µg/kg	1												
trans 1,3-Dichloropropene	µg/kg	1												
1,1,2-Trichloroethane	µg/kg	1												
1,3-Dichloropropane	µg/kg	1												
Tetrachloroethene	µg/kg	1												
Dibromochloromethane	µg/kg	3												
1,2-Dibromoethane	µg/kg	1												
Chlorobenzene	µg/kg	1												
1,1,1,2-Tetrachloroethane	µg/kg	1												
Ethylbenzene	µg/kg	1												
m & p Xylene	µg/kg	1												
o-Xylene	µg/kg	1												
Styrene	µg/kg	1												
Bromoform	µg/kg	1												
Isopropylbenzene	µg/kg	1												
1,1,2,2-Tetrachloroethane	µg/kg	1												
1,2,3-Trichloropropane	µg/kg	1												
Bromobenzene	µg/kg	1												
n-Propylbenzene	µg/kg	1												
2-Chlorotoluene	µg/kg	1												
1,3,5-Trimethylbenzene	µg/kg	1												
4-Chlorotoluene	µg/kg	1												
tert-Butylbenzene	µg/kg	2												
1,2,4-Trimethylbenzene	µg/kg	1												
sec-Butylbenzene	µg/kg	1												
4-Isopropyltoluene	µg/kg	1												
1,3-Dichlorobenzene	µg/kg	1												
1,4-Dichlorobenzene	µg/kg	1												
n-Butylbenzene	µg/kg	1												
1,2-Dichlorobenzene	µg/kg	1												
1,2-Dibromo-3-chloropropane (DCBP)	µg/kg	2												
1,2,4-Trichlorobenzene	µg/kg	3												
Hexachlorobutadiene	µg/kg	1												
1,2,3-Trichlorobenzene	µg/kg	3												

Soil Data

Client Sample ID			GAC Commercial/Industrial	GAC residential without Homegrown produce	WS05	WS05	BH04	BH04	WS06	WS06	BH03	BH03	BH06	BH06	BH01	BH01	BH02	BH02
Depth to Top	Units	Limit of Detection			0.25	2.7	1	4.7	0.2	1	0.5	2	0.5	5.1	0.5	1	0.2	8.2
% Stones >10mm	% w/w	0.1			<0.1	21.8	20.5	24.1	15.2	22.3	20.8	13	2.1	41.6	12.3	0.1	26.3	22.8
pH	pH	0.01			8.89	8.34	8.42	8.27	8.4	8.23	8.63	7.87	7.79	8.16	8.41	8.3	9.74	8.49
Sulphate (water sol 2:1)	g/l	0.01			0.02	0.02	0.08	0.07	0.04	0.02	<0.01	0.02	0.13	0.02	0.04	<0.01	0.16	0.02
Cyanide (total)	mg/kg	1	49	49	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenols - Total by HPLC	mg/kg	0.2	380	380	<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
Sulphide	mg/kg	5			<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Arsenic	mg/kg	1	640	40	1	2	3	<1	4	5	3	3	4	2	3	3	4	<1
Boron (water soluble)	mg/kg	1	240000	11000	<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
Cadmium	mg/kg	0.5	410	150	<0.5	<0.5	<0.5	0.8	0.7	<0.5	0.6	0.6	0.9	<0.5	1	<0.5	<0.5	<0.5
Copper	mg/kg	1	68000	7100	12	5	17	5	28	27	12	8	23	6	25	3	23	3
Chromium	mg/kg	1			9	5	10	8	20	9	10	10	21	6	12	5	9	5
Chromium (hexavalent)	mg/kg	1	49	21	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (trivalent)	mg/kg	1	8600	910	9	5	10	8	20	9	10	10	21	6	12	5	9	5
Lead	mg/kg	1	2300	310	26	5	53	5	124	186	7	6	20	5	26	4	21	5
Mercury	mg/kg	0.17	1,100	56	0.33	<0.17	0.27	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Nickel	mg/kg	1	980	180	9	7	11	13	19	12	10	10	19	10	13	7	9	7
Selenium	mg/kg	1	12000	430	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Zinc	mg/kg	5	730000	40000	36	20	56	22	92	38	24	25	66	21	68	13	35	11
EPH Total (>C10-C40)	mg/kg	10			14	<10	192	4370	2210	30	28	13	1580	20	1880	14	354	14
Asbestos in Soil (inc. matrix) ^																		
Asbestos in soil					**Amosite**		NAD	NAD	NAD	NAD	NAD		NAD		NAD		NAD	
Asbestos Matrix (microscope)					**Loose Fibres**		-	-	-	-	N/A		N/A		N/A		N/A	
Asbestos ACM - Suitable for Water Absorption Test?					N/A		N/A	N/A	N/A	N/A								
Asbestos in Soil Quantification %(Hand Picking & Weighing)																		
Asbestos in soil % composition (hand picking and weighing)	% w/w	0.001			<0.001													
PAH-16MS																		
Acenaphthene	mg/kg	0.01	75000	2000	0.36	<0.01	0.12	<0.01	0.22	0.03	<0.01	<0.01	3.42	<0.01	0.78	<0.01	0.12	<0.01
Acenaphthylene	mg/kg	0.01	76000	2000	0.05	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.01	0.2	<0.01	0.1	<0.01	0.03	<0.01
Anthracene	mg/kg	0.02	520000	30000	0.67	<0.02	0.18	<0.02	0.56	0.05	<0.02	<0.02	3.59	<0.02	1.37	<0.02	0.23	<0.02
Benzo(a)anthracene	mg/kg	0.04			2.92	<0.04	0.54	<0.04	1.81	0.18	<0.04	<0.04	5.12	<0.04	4.55	<0.04	0.64	<0.04
Benzo(a)pyrene	mg/kg	0.04	76	5.3	3.5	<0.04	0.51	<0.04	1.76	0.19	<0.04	<0.04	5.17	<0.04	5.24	<0.04	0.7	<0.04
Benzo(b)fluoranthene	mg/kg	0.05			4.09	<0.05	0.63	<0.05	2.24	0.24	<0.05	<0.05	6.44	<0.05	6.44	<0.05	0.84	<0.05
Benzo(ghi)perylene	mg/kg	0.05			2.18	<0.05	0.27	<0.05	1.02	0.1	<0.05	<0.05	2.23	<0.05	2.55	<0.05	0.32	<0.05
Benzo(k)fluoranthene	mg/kg	0.07			1.49	<0.07	0.21	<0.07	0.78	0.09	<0.07	<0.07	2.21	<0.07	2.3	<0.07	0.31	<0.07
Chrysene	mg/kg	0.06			3.01	<0.06	0.59	<0.06	1.84	0.2	<0.06	<0.06	5.43	<0.06	4.83	<0.06	0.72	<0.06
Dibenzo(ah)anthracene	mg/kg	0.04			0.48	<0.04	0.07	<0.04	0.23	<0.04	<0.04	<0.04	0.58	<0.04	0.61	<0.04	0.08	<0.04
Fluoranthene	mg/kg	0.08	23000	1500	6.07	<0.08	1.35	<0.08	4.65	0.38	<0.08	<0.08	15.3	<0.08	10.5	<0.08	1.38	<0.08
Fluorene	mg/kg	0.01	60000	2200	0.3	<0.01	0.1	<0.01	0.15	0.03	<0.01	<0.01	2.16	<0.01	0.56	<0.01	0.13	<0.01
Indeno(123-cd)pyrene	mg/kg	0.03			2.4	<0.03	0.29	<0.03	1.09	0.11	<0.03	<0.03	2.7	<0.03	2.92	<0.03	0.38	<0.03
Naphthalene	mg/kg	0.03	1100	0.99	0.21	<0.03	0.1	<0.03	0.05	<0.03	<0.03	<0.03	4.52	<0.03	0.15	<0.03	0.1	<0.03
Phenanthrene	mg/kg	0.03	22000	1300	2.67	<0.03	1.05	<0.03	2.04	0.26	<0.03	<0.03	14.7	<0.03	5.36	<0.03	1.07	<0.03
Pyrene	mg/kg	0.07	54000	3700	5.72	<0.07	1.23	<0.07	4	0.34	<0.07	<0.07	13	<0.07	10.6	<0.07	1.31	<0.07
Total PAH-16MS	mg/kg	0.01			36.1	<0.08	7.26	<0.08	22.5	2.2	<0.08	<0.08	86.8	<0.08	58.9	<0.08	8.36	<0.08
TPH CWG																		
Ali >C5-C6	mg/kg	0.01	2400	24	<0.01			<0.01	0.03				<0.01		<0.01		<0.01	
Ali >C6-C8	mg/kg	0.01	5300	53	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
Ali >C8-C10	mg/kg	1	1300	13	<5			<1	<5				<1		<1		<1	
Ali >C10-C12	mg/kg	1	6100	62	<5			<1	<5				3		2		<1	
Ali >C12-C16	mg/kg	1	43000	510	<5			<1	<5				15		9		<1	
Ali >C16-C21	mg/kg	1	1000000	42000	10			<1	9				18		11		3	
Ali >C21-C35	mg/kg	1	1000000	42000	756			2	401				116		124		40	
Total Aliphatics	mg/kg	1			766			2	416				152		146		44	
Aro >C5-C7	mg/kg	0.01			<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
Aro >C7-C8	mg/kg	0.01			<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
Aro >C8-C10	mg/kg	1	2200	22	<5			<1	<5				3		2		2	
Aro >C10-C12	mg/kg	1	11000	120	<5			<1	<5				21		3		3	
Aro >C12-C16	mg/kg	1	35000	1100	12			<1	17				78		20		6	
Aro >C16-C21	mg/kg	1	29000	1900	47			<1	68				186		79		16	
Aro >C21-C35	mg/kg	1	29000	1900	674			4	451				530		426		72	
Total Aromatics	mg/kg	1			732			4	536				818		530		99	
TPH (Ali & Aro >C5-C35)	mg/kg	1			1500			6	952				970		676		143	
BTEX - Benzene	mg/kg	0.01	15	0.37	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
BTEX - Toluene	mg/kg	0.01	33000	370	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
BTEX - Ethyl Benzene	mg/kg	0.01	3200	34	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
BTEX - m & p Xylene	mg/kg	0.01	3400	33	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
BTEX - o Xylene	mg/kg	0.01	3700	37	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
MTBE	mg/kg	0.01	3800	39	<0.01			<0.01	<0.01				<0.01		<0.01		<0.01	
SVOC																		
Hexachlorobenzene	µg/kg	100									<100		<100		<100		<100	
Diethyl phthalate	µg/kg	100									<100		<100		<100		<100	
Dimethyl phthalate	µg/kg	100									<100		<100		<100		<100	
Dibenzofuran	µg/kg	100									<100		1390		285		<100	
Carbazole	µg/kg	100									<100		**880**		**375**		<100	
Butylbenzyl phthalate	µg/kg	100									<100		<100		<100		<100	
Bis(2-ethylhexyl)phthalate	µg/kg	500									<500		<500		<500		<500	
Bis(2-chloroethoxy)methane	µg/kg	100									<100		<100		<100		<100	
Bis(2-chloroethyl)ether	µg/kg	100									<100		<100		<100		<100	
4-Nitrophenol	µg/kg	100									<100		<100		<100		<100	
3+4-Methylphenol	µg/kg	100									<100		<100		<100		<100	
4-Chloro-3-methylphenol	µg/kg	100									<100		<100		<100		<100	
2-Nitrophenol	µg/kg	100									<100		<100		<100		<100	
2-Methylphenol	µg/kg	100									<100		<100		<100		<100	
2-Chlorophenol	µg/kg	100									<100		<100		<100		<100	
2,6-Dinitrotoluene	µg/kg	100									<100		<100		<100		<100	
2,4-Dinitrotoluene	µg/kg	100									<100		<100		<100		<100	
2,4-Dimethylphenol	µg/kg	100									<100		<100		<100		<100	
2,4-Dichlorophenol	µg/kg	100									<100		<100		<100		<100	
2,4,6-Trichlorophenol	µg/kg	100									<100		<100		<100		<100	
2,4,5-Trichlorophenol	µg/kg	100									<100		<100		<100		<100	
2-Chloronaphthalene	µg/kg	100									<100		<100		<100		<100	
2-Methylnaphthalene	µg/kg	100									<100		**1480**		**111**		<100	
Bis(2-chloroisopropyl)ether	µg/kg	100									<100		<100		<100		<100	
Phenol	µg/kg	100									<100		<100		<100		<100	
Pentachlorophenol (SVOC)	µg/kg	100									<100		<100		<100		<100	
n-Nitroso-n-dipropylamine	µg/kg	100									<100		<100		<100		<100	
n-Dioctylphthalate	µg/kg	500									<500		<500		<500		<500	
n-Dibutylphthalate	µg/kg	100									<100		<100		<100		<100	
Nitrobenzene	µg/kg	100									<100		<100		<100		<100	
Isophorone	µg/kg	100									<100		<100		<100		<100	
Hexachloroethane	µg/kg	100									<100		<100		<100		<100	
Hexachlorocyclopentadiene	µg/kg	100									<100		<100		<100		<100	
Perylene	µg/kg	100									<100		**918**		**2010**		**153**	
VOC																		
Dichlorodifluoromethane	µg/kg	1									<1		<1		<1		<1	
Chloromethane	µg/kg	10									<10		<10		<10		<10	
Vinyl Chloride (Chloroethene)	µg/kg	1									<1		<1		<1		<1	
Bromomethane	µg/kg	1									<1		<1		<1		<1	
Chloroethane	µg/kg	1									<1		<1		<1		<1	
Trichlorofluoromethane	µg/kg	1									<1		<1		<1		<1	
1,1-Dichloroethene	µg/kg	1									<1		<1		<1		<1	
Carbon Disulphide	µg/kg	1									<1		<1		<1		<1	
Dichloromethane	µg/kg	5									<5		<5		<5		<5	
trans 1,2-Dichloroethene	µg/kg	1									<1		<1		<1		<1	
1,1-Dichloroethane	µg/kg	1									<1		<1		<1		<1	
cis 1,2-Dichloroethene	µg/kg	1									<1		<1		<1		<1	
2,2-Dichloropropane	µg/kg	1									<1		<1		<1		<1	
Bromochloromethane	µg/kg	5									<5		<5		<5		<5	
Chloroform	µg/kg	1									<1		<1		<1		<1	
1,1,1-Trichloroethane	µg/kg	1									<1		<1		<1		<1	
1,1-Dichloropropene	µg/kg	1									<1		<1		<1		<1	
Carbon Tetrachloride	µg/kg	1									<1		<1		<1		<1	
1,2-Dichloroethane	µg/kg	2									<2		<2		<2		<2	
Benzene	µg/kg	1									<1		<1		<1		<1	
Trichloroethene	µg/kg	1									<1		<1		<1		<1	
1,2-Dichloropropane	µg/kg	1									<1		<1		<1		<1	
Dibromomethane	µg/kg	1									<1		<1		<1		<1	
Bromodichloromethane	µg/kg	10									<10		<10		<10		<10	
cis 1,3-Dichloropropene	µg/kg	1									<1		<1		<1		<1	
Toluene	µg/kg	1									<1		1		<1		<1	
trans 1,3-Dichloropropene	µg/kg	1									<1		<1		<1		<1	
1,1,2-Trichloroethane	µg/kg	1									<1		<1		<1		<1	
1,3-Dichloropropane	µg/kg	1									<1		<1		<1		<1	
Tetrachloroethene	µg/kg	1									<1		<1		<1		<1	
Dibromochloromethane	µg/kg	3									<3		<3		<3		<3	
1,2-Dibromoethane	µg/kg	1									<1		<1		<1		<1	
Chlorobenzene	µg/kg	1									<1		<1		<1		<1	
1,1,1,2-Tetrachloroethane	µg/kg	1									<1		<1		<1		<1	
Ethylbenzene	µg/kg	1									<1		<1		<1		<1	
m & p Xylene	µg/kg	1									<1		2		<1		<1	
o-Xylene	µg/kg	1									<1		<1		<1		<1	
Styrene	µg/kg	1									<1		<1		<1		<1	
Bromoform	µg/kg	1									<1		<1		<1		<1	
Isopropylbenzene	µg/kg	1									<1		<1		<1		<1	
1,1,2,2-Tetrachloroethane	µg/kg	1									<1		<1		<1		<1	
1,2,3-Trichloropropane	µg/kg	1									<1		<1		<1		<1	
Bromobenzene	µg/kg	1									<1		<1		<1		<1	
n-Propylbenzene	µg/kg	1									<1		<1		<1		<1	
2-Chlorotoluene	µg/kg	1									<1		<1		<1		<1	
1,3,5-Trimethylbenzene	µg/kg	1									<1		2		<1		<1	
4-Chlorotoluene	µg/kg	1									<1		<1		<1		<1	
tert-Butylbenzene	µg/kg	2									<2		<2		<2		<2	
1,2,4-Trimethylbenzene	µg/kg	1									<1		3		<1		<1	
sec-Butylbenzene	µg/kg	1									<1		<1		<1		<1	
4-Isopropyltoluene	µg/kg	1									<1		<1		<1		<1	
1,3-Dichlorobenzene	µg/kg	1									<1		<1		<1		<1	
1,4-Dichlorobenzene	µg/kg	1									<1		<1		<1		<1	
n-Butylbenzene	µg/kg	1									<1		<1		<1		<1	
1,2-Dichlorobenzene	µg/kg	1									<1		<1		<1		<1	
1,2-Dibromo-3-chloropropane (DCBP)	µg/kg	2									<2		<2		<2		<2	
1,2,4-Trichlorobenzene	µg/kg	3									<3		<3		<3		<3	
Hexachlorobutadiene	µg/kg	1									<1		<1		<1		<1	
1,2,3-Trichlorobenzene	µg/kg	3									<3		<3		<3		<3	

Leachate data

Client Sample ID		Limit of Detection	GAC for surface water environment	GAC Drinking water	BH05	WS03	BH04	WS06	BH03	BH01	BH02
Depth to Top					2	1	4.7	1	0.5	1	0.2
Leachate Prep BS EN 12457-2 (10:1)					*	*	*	*	*	*	*
pH (leachable)	pH	0.01		6.5-9.5	7.44	7.51	7.4	7.42	7.52	7.39	8.99
Hardness Total (leachable)	mg/l Ca CO3	2			35	16	22	40	20	50	83
Ammoniacal nitrogen as N (leachable)	mg/l	0.02	0.3		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Sulphate (leachable)	mg/l	1	400	250	<1.00	<1.00	25.73	4.01	7.15	5.11	32.08
Sulphide (leachable)	mg/l	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
DOC (leachable)	mg/l	0.2			2.9	3.8	1.3	1.5	7.7	1.9	1.8
Arsenic (leachable)	µg/l	1	50	10	<1	<1	<1	2	1	1	5
Boron (leachable)	µg/l	10	2000	1000	14	11	41	18	20	37	47
Cadmium (leachable)	µg/l	1	0.8-0.25	5	<1	<1	<1	<1	<1	<1	<1
Copper (leachable) bioavailable concentrations	µg/l	1	1		0.08	0.19	0.02	0.5	0.18	0.26	1.11
Copper (leachable)	µg/l	1		2000	1	3	<1	3	6	2	3
Chromium (leachable)	µg/l			50	<1	<1	<1	2	<1	<1	7
Chromium (hexavalent) (leachable)	mg/l		3.4		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chromium (trivalent) (leachable)	mg/l		4.7		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead (leachable) bioavailable	µg/l		1.2		0.03	0.53	0.08	2	0.52	4.74	0.06
Lead (leachable)	µg/l			10	<1	2	<1	3	4	9	<1
Mercury (leachable)	µg/l	0.7	0.07	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel (leachable)bioavailable concentrations	µg/l	1	4		0.05	0.76	0.07	0.06	0.45	0.06	0.1
Nickel (leachable)	µg/l	1		20	<1	2	<1	<1	2	<1	<1
Selenium (leachable)	µg/l	1		10	<1	<1	<1	<1	<1	<1	<1
Zinc (leachable)bioavailable concentrations	µg/l	1	10.9		2.5	2.83	2	1.69	1.8	1.45	1.4
Zinc (leachable)	µg/l	1		5000	4	5	2	2	6	2	2
EPH Total (>C10-C40) (leachable)	µg/l	80	90	90	<80	<80	<80	112	<80	<80	89
PAH 16MS (leachable)											
Acenaphthene (leachable)	µg/l	0.02			0.2	0.6	<0.02	0.38	0.18	0.25	1.22
Acenaphthylene (leachable)	µg/l	0.02			<0.02	0.04	<0.02	0.03	<0.02	<0.02	0.02
Anthracene (leachable)	µg/l	0.02	0.1		0.06	0.23	<0.02	0.11	0.05	0.05	0.16
Benzo(a)anthracene (leachable)	µg/l	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04
Benzo(a)pyrene (leachable)	µg/l	0.02	0.00017	0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04
Benzo(b)fluoranthene (leachable)	µg/l	0.02	0.00017*	0.01*	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04
Benzo(ghi)perylene (leachable)	µg/l	0.02	0.00017*	0.01*	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Benzo(k)fluoranthene (leachable)	µg/l	0.02	0.00017*	0.01*	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chrysene (leachable)	µg/l	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05
Dibenzo(ah)anthracene (leachable)	µg/l	0.02			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Fluoranthene (leachable)	µg/l	0.02	0.0063		0.06	0.22	<0.02	0.15	0.11	0.09	0.18
Fluorene (leachable)	µg/l	0.02			0.12	0.43	<0.02	0.27	0.12	0.11	0.4
Indeno(123-cd)pyrene (leachable)	µg/l	0.02	0.00017*	0.01*	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02
Naphthalene (leachable)	µg/l	0.02	2		0.29	0.23	<0.02	0.24	0.38	0.2	4.15
Phenanthrene (leachable)	µg/l	0.02			0.23	0.94	<0.02	0.6	0.22	0.19	0.49
Pyrene (leachable)	µg/l	0.02			0.04	0.2	<0.02	0.11	0.08	0.06	0.14
Total PAH 16MS (leachable)	µg/l	0.02			1	2.89	<0.02	1.89	1.14	0.95	6.95

Groundwater Data

Client Sample ID	Units	Limit of Detection	GAC for surface water environment	GAC Drinking water	BH2	BH4	BH5
pH (w)	pH	0.01		6.5-9.5	8.01	7.73	8.02
Hardness Total	mg/l Ca CO3	2			713	583	636
Ammoniacal nitrogen as N (w)	mg/l	0.02	0.3		1.34	0.27	0.1
Sulphate (w)	mg/l	1	400	250	481	235	334
Sulphide (w)	mg/l	0.1			<0.1	<0.1	<0.1
Arsenic (dissolved)	µg/l	1	50	10	<1	2	<1
Boron (dissolved)	µg/l	10	2000	1000	85	148	127
Cadmium (dissolved)	µg/l	0.2	0.8-0.25	5	<0.2	<0.2	<0.2
Copper (dissolved)	µg/l	1	1	2000	2	3	5
Chromium (dissolved)	µg/l	1		50	<1	<1	<1
Chromium (hexavalent) (w)	mg/l	0.01	3.4	3.4	<0.01	<0.01	<0.01
Chromium (trivalent) (w)	mg/l	0.01	4.7	4.7	<0.01	<0.01	<0.01
Lead (dissolved)	µg/l	1	1.2	10	<1	<1	<1
Mercury (dissolved)	µg/l	0.1	0.07	1	<0.1	<0.1	<0.1
Nickel (dissolved)	µg/l	1	4	20	2	8	10
Selenium (dissolved)	µg/l	1		10	<1	<1	<1
Zinc (dissolved)	µg/l	1	10.9	5000	3	3	3
EPH Total (>C10-C40) (w)	µg/l	40			<40	<40	<40
PAH 16MS (w)							
Acenaphthene (w)	µg/l	0.01			<0.01	0.06	<0.01
Acenaphthylene (w)	µg/l	0.01			<0.01	<0.01	<0.01
Anthracene (w)	µg/l	0.01	0.1		<0.01	0.02	<0.01
Benzo(a)anthracene (w)	µg/l	0.01			<0.01	0.02	<0.01
Benzo(a)pyrene (w)	µg/l	0.01	0.00017	0.01	<0.01	0.02	<0.01
Benzo(b)fluoranthene (w)	µg/l	0.01	0.00017*	0.01*	<0.01	0.02	<0.01
Benzo(ghi)perylene (w)	µg/l	0.01	0.00017*	0.01*	<0.01	0.02	<0.01
Benzo(k)fluoranthene (w)	µg/l	0.01	0.00017*	0.01*	<0.01	<0.01	<0.01
Chrysene (w)	µg/l	0.01			<0.01	0.03	<0.01
Dibenzo(ah)anthracene (w)	µg/l	0.01			<0.01	<0.01	<0.01
Fluoranthene (w)	µg/l	0.01	0.0063		<0.01	0.07	<0.01
Fluorene (w)	µg/l	0.01			<0.01	0.03	<0.01
Indeno(123-cd)pyrene (w)	µg/l	0.01	0.00017*	0.01*	<0.01	0.02	<0.01
Naphthalene (w)	µg/l	0.01			<0.01	0.17	<0.01
Phenanthrene (w)	µg/l	0.01	2		<0.01	0.11	<0.01
Pyrene (w)	µg/l	0.01			<0.01	0.07	<0.01
Total PAH 16MS (w)	µg/l	0.01			<0.01	0.66	<0.01

APPENDIX D WASTE CLASSIFICATION

Waste Classification Report

64SWL-XA3DR-STJXL

Job name

existing premier inn

Description/Comments

Project

Site

Related Documents

#	Name	Description
None		

Waste Stream Template

Ramboll typical metals, hydrocarbons and misc

Classified by

Name:
Hazel Comyn
Date:
12 Jul 2019 12:06 GMT
Telephone:
07870 809 789

Company:
Ramboll UK Ltd
1 Broad Gate
The Headrow
Leeds
LS1 8EQ

Report

Created by: Hazel Comyn
Created date: 12 Jul 2019 12:06 GMT

Job summary

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
1	BH05	0.50	Non Hazardous		3
2	BH05[2]	2.00	Non Hazardous		5
3	WS01	0.50	Non Hazardous		7
4	WS01[2]	2.20	Non Hazardous		9
5	WS02	0.20	Non Hazardous		11
6	WS02[2]	1.00	Non Hazardous		13
7	WS03	1.00	Non Hazardous		15
8	WS03[2]	1.50	Non Hazardous		17
9	WS04	0.20	Non Hazardous		19
10	WS04A	3.00	Non Hazardous		21
11	WS05	0.25	Hazardous	HP 7, HP 11	23

#	Sample Name	Depth [m]	Classification Result	Hazard properties	Page
12	WS05[2]	2.70	Non Hazardous		26
13	BH04	1.00	Non Hazardous		28
14	BH04[2]	4.70	Non Hazardous		30
15	WS06	0.20	Non Hazardous		32
16	WS06[2]	1.00	Non Hazardous		34
17	BH03	0.50	Non Hazardous		36
18	BH03[2]	2.00	Non Hazardous		38
19	BH06	0.50	Non Hazardous		40
20	BH06[2]	5.10	Non Hazardous		42
21	BH01	0.50	Non Hazardous		44
22	BH01[2]	1.00	Non Hazardous		46
23	BH02	0.20	Non Hazardous		48
24	BH02[2]	8.20	Non Hazardous		50

Appendices	Page
Appendix A: Classifier defined and non CLP determinands	52
Appendix B: Rationale for selection of metal species	53
Appendix C: Version	54

Classification of sample: BH05

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

Sample details

Sample Name:
BH05
Sample Depth:
0.50 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		7.91	pH		7.91	pH	7.91 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	5.281	mg/kg	0.000528 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		7	mg/kg	1.579	11.056	mg/kg	0.00111 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		21	mg/kg	2.469	51.855	mg/kg	0.00519 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		phenol	604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
14	•	acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
15	•	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
16	•	anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
17		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
18		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
19		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
20	•	benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
21		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
22		chrysene	601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		**<LOD**
23		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
24	•	fluoranthene		205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		**<LOD**
25	•	fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
26	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
27		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
28	•	phenanthrene		201-581-5	85-01-8		0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
29	•	pyrene		204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
30	•	TPH (C6 to C40) petroleum group			TPH		7	mg/kg		7	mg/kg	0.0007 %	✓	
											Total:	0.0117 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0007%)

Classification of sample: BH05[2]

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

Sample details

Sample Name:		LoW Code:	
BH05[2]		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
2.00 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.03	pH		8.03	pH	8.03 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		1	mg/kg	1.32	1.32	mg/kg	0.000132 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		7	mg/kg	1.579	11.056	mg/kg	0.00111 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		19	mg/kg	2.469	46.917	mg/kg	0.00469 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.00997 %		

Key

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

Classification of sample: WS01

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

Sample details

Sample Name:
WS01
Sample Depth:
0.50 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.81	pH		8.81	pH	8.81 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	5.281	mg/kg	0.000528 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		1.4	mg/kg	13.43	18.802	mg/kg	0.00188 %	✓	
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.5	mg/kg	1.285	0.643	mg/kg	0.00005 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		17	mg/kg	1.462	24.846	mg/kg	0.00248 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		34	mg/kg	1.126	38.28	mg/kg	0.00383 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	101	mg/kg		101	mg/kg	0.0101 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		12	mg/kg	1.579	18.954	mg/kg	0.0019 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		133	mg/kg	2.469	328.416	mg/kg	0.0328 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			201-469-6	83-32-9									
15	•	acenaphthylene				0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
			205-917-1	208-96-8									
16	•	anthracene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.7	mg/kg		0.7	mg/kg	0.00007 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.8	mg/kg		0.8	mg/kg	0.00008 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				0.92	mg/kg		0.92	mg/kg	0.000092 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				0.46	mg/kg		0.46	mg/kg	0.000046 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.33	mg/kg		0.33	mg/kg	0.000033 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				0.76	mg/kg		0.76	mg/kg	0.000076 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				1.56	mg/kg		1.56	mg/kg	0.000156 %	✓	
			205-912-4	206-44-0									
25	•	fluorene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				0.5	mg/kg		0.5	mg/kg	0.00005 %	✓	
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				0.77	mg/kg		0.77	mg/kg	0.000077 %	✓	
			201-581-5	85-01-8									
29	•	pyrene				1.44	mg/kg		1.44	mg/kg	0.000144 %	✓	
			204-927-3	129-00-0									
30	•	TPH (C6 to C40) petroleum group				33	mg/kg		33	mg/kg	0.0033 %	✓	
				TPH									
										Total:	0.0583 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0033%)

Classification of sample: WS01[2]

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

Sample details

Sample Name:		LoW Code:	
WS01[2]		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
2.20 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		7.67	pH		7.67	pH	7.67 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		7	mg/kg	1.462	10.231	mg/kg	0.00102 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9	mg/kg	1.579	14.215	mg/kg	0.00142 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		21	mg/kg	2.469	51.855	mg/kg	0.00519 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
13		phenol	604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
14	•	acenaphthene		201-469-6	83-32-9		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
15	•	acenaphthylene		205-917-1	208-96-8		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
16	•	anthracene		204-371-1	120-12-7		<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
17		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
18		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
19		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
20	•	benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
21		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
22		chrysene	601-048-00-0	205-923-4	218-01-9		<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		**<LOD**
23		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
24	•	fluoranthene		205-912-4	206-44-0		<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		**<LOD**
25	•	fluorene		201-695-5	86-73-7		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
26	•	indeno[123-cd]pyrene		205-893-2	193-39-5		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
27		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
28	•	phenanthrene		201-581-5	85-01-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
29	•	pyrene		204-927-3	129-00-0		<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
											Total:	0.0108 %		

Key

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

Classification of sample: WS02

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

Sample details

Sample Name:		LoW Code:	
WS02		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
0.20 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		9.24	pH		9.24	pH	9.24 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		1	mg/kg	1.32	1.32	mg/kg	0.000132 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg	1.285	0.771	mg/kg	0.00006 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17	mg/kg	1.126	19.14	mg/kg	0.00191 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	35	mg/kg		35	mg/kg	0.0035 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.28	mg/kg	1.353	0.379	mg/kg	0.0000379 %	✓	
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		7	mg/kg	1.579	11.056	mg/kg	0.00111 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		71	mg/kg	2.469	175.32	mg/kg	0.0175 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				0.26	mg/kg		0.26	mg/kg	0.000026 %	✓	
			201-469-6	83-32-9									
15	•	acenaphthylene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
			205-917-1	208-96-8									
16	•	anthracene				0.71	mg/kg		0.71	mg/kg	0.000071 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				1.76	mg/kg		1.76	mg/kg	0.000176 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				1.69	mg/kg		1.69	mg/kg	0.000169 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				1.89	mg/kg		1.89	mg/kg	0.000189 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				0.82	mg/kg		0.82	mg/kg	0.000082 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.7	mg/kg		0.7	mg/kg	0.00007 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				1.85	mg/kg		1.85	mg/kg	0.000185 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				4.1	mg/kg		4.1	mg/kg	0.00041 %	✓	
			205-912-4	206-44-0									
25	•	fluorene				0.42	mg/kg		0.42	mg/kg	0.000042 %	✓	
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				0.9	mg/kg		0.9	mg/kg	0.00009 %	✓	
			205-893-2	193-39-5									
27		naphthalene				0.24	mg/kg		0.24	mg/kg	0.000024 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				3.22	mg/kg		3.22	mg/kg	0.000322 %	✓	
			201-581-5	85-01-8									
29	•	pyrene				4.16	mg/kg		4.16	mg/kg	0.000416 %	✓	
			204-927-3	129-00-0									
30	•	TPH (C6 to C40) petroleum group				673	mg/kg		673	mg/kg	0.0673 %	✓	
				TPH									
										Total:	0.097 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0673%)

Classification of sample: WS02[2]

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

Sample details

Sample Name:		LoW Code:	
WS02[2]		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
1.00 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.11	pH		8.11	pH	8.11 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		14	mg/kg	1.462	20.462	mg/kg	0.00205 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		10	mg/kg	1.126	11.259	mg/kg	0.00113 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	9	mg/kg		9	mg/kg	0.0009 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		11	mg/kg	1.579	17.374	mg/kg	0.00174 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		28	mg/kg	2.469	69.14	mg/kg	0.00691 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				0.01	mg/kg		0.01	mg/kg	0.000001 %	✓	
			201-469-6	83-32-9									
15	•	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8									
16	•	anthracene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			205-912-4	206-44-0									
25	•	fluorene				0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
			201-581-5	85-01-8									
29	•	pyrene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			204-927-3	129-00-0									
										Total:	0.015 %		

Key

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

Classification of sample: WS03

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

Sample details

Sample Name:
WS03
Sample Depth:
1.00 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.22	pH		8.22	pH	8.22 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	5.281	mg/kg	0.000528 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		11	mg/kg	1.462	16.077	mg/kg	0.00161 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		13	mg/kg	1.126	14.637	mg/kg	0.00146 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	33	mg/kg		33	mg/kg	0.0033 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		11	mg/kg	1.579	17.374	mg/kg	0.00174 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		30	mg/kg	2.469	74.079	mg/kg	0.00741 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				0.19	mg/kg		0.19	mg/kg	0.000019 %	✓	
			201-469-6	83-32-9									
15	•	acenaphthylene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			205-917-1	208-96-8									
16	•	anthracene				0.26	mg/kg		0.26	mg/kg	0.000026 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				1.25	mg/kg		1.25	mg/kg	0.000125 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				1.25	mg/kg		1.25	mg/kg	0.000125 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				1.48	mg/kg		1.48	mg/kg	0.000148 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				0.61	mg/kg		0.61	mg/kg	0.000061 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.52	mg/kg		0.52	mg/kg	0.000052 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				1.31	mg/kg		1.31	mg/kg	0.000131 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.16	mg/kg		0.16	mg/kg	0.000016 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				2.7	mg/kg		2.7	mg/kg	0.00027 %	✓	
			205-912-4	206-44-0									
25	•	fluorene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				0.67	mg/kg		0.67	mg/kg	0.000067 %	✓	
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				1.23	mg/kg		1.23	mg/kg	0.000123 %	✓	
			201-581-5	85-01-8									
29	•	pyrene				2.66	mg/kg		2.66	mg/kg	0.000266 %	✓	
			204-927-3	129-00-0									
30	•	TPH (C6 to C40) petroleum group				428	mg/kg		428	mg/kg	0.0428 %	✓	
				TPH									
										Total:	0.0622 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0428%)

Classification of sample: WS03[2]

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

Sample details

Sample Name:		LoW Code:	
WS03[2]		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
1.50 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.33	pH		8.33	pH	8.33 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<1	mg/kg	1.32	<1.32	mg/kg	<0.000132 %		**<LOD**
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		3	mg/kg	1.462	4.385	mg/kg	0.000438 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		2	mg/kg	1.126	2.252	mg/kg	0.000225 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		2	mg/kg	1.579	3.159	mg/kg	0.000316 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		9	mg/kg	2.469	22.224	mg/kg	0.00222 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9									
15	•	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8									
16	•	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7									
17		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0									
25	•	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8									
29	•	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0									
										Total:	0.00588 %		

Key

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

Classification of sample: WS04

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

Sample details

Sample Name:
WS04
Sample Depth:
0.20 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		10.63	pH		10.63	pH	10.63 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14	mg/kg	1.126	15.762	mg/kg	0.00158 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	44	mg/kg		44	mg/kg	0.0044 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.2	mg/kg	1.353	0.271	mg/kg	0.0000271 %	✓	
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		10	mg/kg	1.579	15.795	mg/kg	0.00158 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		42	mg/kg	2.469	103.71	mg/kg	0.0104 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			201-469-6	83-32-9									
15	•	acenaphthylene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			205-917-1	208-96-8									
16	•	anthracene				0.4	mg/kg		0.4	mg/kg	0.00004 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				2.41	mg/kg		2.41	mg/kg	0.000241 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				2.79	mg/kg		2.79	mg/kg	0.000279 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				3.22	mg/kg		3.22	mg/kg	0.000322 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				1.66	mg/kg		1.66	mg/kg	0.000166 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				1.23	mg/kg		1.23	mg/kg	0.000123 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				2.45	mg/kg		2.45	mg/kg	0.000245 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.41	mg/kg		0.41	mg/kg	0.000041 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				4.66	mg/kg		4.66	mg/kg	0.000466 %	✓	
			205-912-4	206-44-0									
25	•	fluorene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				1.83	mg/kg		1.83	mg/kg	0.000183 %	✓	
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				1.35	mg/kg		1.35	mg/kg	0.000135 %	✓	
			201-581-5	85-01-8									
29	•	pyrene				4.61	mg/kg		4.61	mg/kg	0.000461 %	✓	
			204-927-3	129-00-0									
30	•	TPH (C6 to C40) petroleum group				504	mg/kg		504	mg/kg	0.0504 %	✓	
				TPH									
										Total:	0.075 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0504%)

Classification of sample: WS04A

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

Sample details

Sample Name:		LoW Code:	
WS04A		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
3.00 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.77	pH		8.77	pH	8.77 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		4	mg/kg	1.126	4.504	mg/kg	0.00045 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		6	mg/kg	1.579	9.477	mg/kg	0.000948 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		18	mg/kg	2.469	44.447	mg/kg	0.00444 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.00918 %		

Key

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

Classification of sample: WS05

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

Sample details

Sample Name:		LoW Code:	
WS05		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
0.25 m		Entry:	17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.15%)

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

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.15%)

Determinands

Moisture content: 0% Dry Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
1		pH				8.89	pH		8.89	pH	8.89 pH		
				PH									
2		asbestos				10	mg/kg		10	mg/kg	0.001 %	✓	
		650-013-00-6	- - - - - - -	12001-28-4 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5 12001-29-5									
3		arsenic { arsenic trioxide }				1	mg/kg	1.32	1.32	mg/kg	0.000132 %	✓	
		033-003-00-0	215-481-4	1327-53-3									
4		boron { boron tribromide/trichloride/trifluoride (combined) }				<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
				10294-33-4, 10294-34-5, 7637-07-2									
5		cadmium { cadmium sulfide }			1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
		048-010-00-4	215-147-8	1306-23-6									

#		Determinand	CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
6		chromium { chromium(III) oxide }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
7		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	13.511	mg/kg	0.00135 %	✓	
8		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	26	mg/kg		26	mg/kg	0.0026 %	✓	
9		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.33	mg/kg	1.353	0.447	mg/kg	0.0000447 %	✓	
10		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9	mg/kg	1.579	14.215	mg/kg	0.00142 %	✓	
11		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
12		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		36	mg/kg	2.469	88.895	mg/kg	0.00889 %	✓	
13		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**
14		phenol	604-001-00-2	203-632-7	108-95-2		<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
15		acenaphthene		201-469-6	83-32-9		0.36	mg/kg		0.36	mg/kg	0.000036 %	✓	
16		acenaphthylene		205-917-1	208-96-8		0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
17		anthracene		204-371-1	120-12-7		0.67	mg/kg		0.67	mg/kg	0.000067 %	✓	
18		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		2.92	mg/kg		2.92	mg/kg	0.000292 %	✓	
19		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		3.5	mg/kg		3.5	mg/kg	0.00035 %	✓	
20		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		4.09	mg/kg		4.09	mg/kg	0.000409 %	✓	
21		benzo[ghi]perylene		205-883-8	191-24-2		2.18	mg/kg		2.18	mg/kg	0.000218 %	✓	
22		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		1.49	mg/kg		1.49	mg/kg	0.000149 %	✓	
23		chrysene	601-048-00-0	205-923-4	218-01-9		3.01	mg/kg		3.01	mg/kg	0.000301 %	✓	
24		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		0.48	mg/kg		0.48	mg/kg	0.000048 %	✓	
25		fluoranthene		205-912-4	206-44-0		6.07	mg/kg		6.07	mg/kg	0.000607 %	✓	
26		fluorene		201-695-5	86-73-7		0.3	mg/kg		0.3	mg/kg	0.00003 %	✓	
27		indeno[123-cd]pyrene		205-893-2	193-39-5		2.4	mg/kg		2.4	mg/kg	0.00024 %	✓	
28		naphthalene	601-052-00-2	202-049-5	91-20-3		0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
29		phenanthrene		201-581-5	85-01-8		2.67	mg/kg		2.67	mg/kg	0.000267 %	✓	
30		pyrene		204-927-3	129-00-0		5.72	mg/kg		5.72	mg/kg	0.000572 %	✓	
31		TPH (C6 to C40) petroleum group			TPH		1498	mg/kg		1498	mg/kg	0.15 %	✓	

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
								Total:	0.172 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.15%)

Classification of sample: WS05[2]

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

Sample details

Sample Name:
WS05[2]
Sample Depth:
2.70 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.34	pH		8.34	pH	8.34 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		7	mg/kg	1.579	11.056	mg/kg	0.00111 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		20	mg/kg	2.469	49.386	mg/kg	0.00494 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.01 %		

Key

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

Classification of sample: BH04

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

Sample details

Sample Name:
BH04
Sample Depth:
1.00 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.42	pH		8.42	pH	8.42 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3	mg/kg	1.32	3.961	mg/kg	0.000396 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17	mg/kg	1.126	19.14	mg/kg	0.00191 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	53	mg/kg		53	mg/kg	0.0053 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.27	mg/kg	1.353	0.365	mg/kg	0.0000365 %	✓	
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		11	mg/kg	1.579	17.374	mg/kg	0.00174 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	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 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14		acenaphthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			201-469-6	83-32-9									
15		acenaphthylene				0.02	mg/kg		0.02	mg/kg	0.000002 %	✓	
			205-917-1	208-96-8									
16		anthracene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.54	mg/kg		0.54	mg/kg	0.000054 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.51	mg/kg		0.51	mg/kg	0.000051 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				0.63	mg/kg		0.63	mg/kg	0.000063 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				0.27	mg/kg		0.27	mg/kg	0.000027 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.21	mg/kg		0.21	mg/kg	0.000021 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				0.59	mg/kg		0.59	mg/kg	0.000059 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.07	mg/kg		0.07	mg/kg	0.000007 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				1.35	mg/kg		1.35	mg/kg	0.000135 %	✓	
			205-912-4	206-44-0									
25		fluorene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				0.29	mg/kg		0.29	mg/kg	0.000029 %	✓	
			205-893-2	193-39-5									
27		naphthalene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				1.05	mg/kg		1.05	mg/kg	0.000105 %	✓	
			201-581-5	85-01-8									
29		pyrene				1.23	mg/kg		1.23	mg/kg	0.000123 %	✓	
			204-927-3	129-00-0									
										Total:	0.0273 %		

Key

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

Classification of sample: BH04[2]

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

Sample details

Sample Name:		LoW Code:	
BH04[2]		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
4.70 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.27	pH		8.27	pH	8.27 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<1	mg/kg	1.32	<1.32	mg/kg	<0.000132 %		**<LOD**
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.8	mg/kg	1.285	1.028	mg/kg	0.00008 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		8	mg/kg	1.462	11.692	mg/kg	0.00117 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5	mg/kg	1.126	5.629	mg/kg	0.000563 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13	mg/kg	1.579	20.533	mg/kg	0.00205 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				2	mg/kg	2.554	5.107	mg/kg	0.000511 %	✓	
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		22	mg/kg	2.469	54.325	mg/kg	0.00543 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	•	acenaphthene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9									
15	•	acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8									
16	•	anthracene				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7									
17		benzo[a]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2									
20	•	benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				<0.06	mg/kg		<0.06	mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
24	•	fluoranthene				<0.08	mg/kg		<0.08	mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0									
25	•	fluorene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7									
26	•	indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28	•	phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8									
29	•	pyrene				<0.07	mg/kg		<0.07	mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0									
30	•	TPH (C6 to C40) petroleum group				6	mg/kg		6	mg/kg	0.0006 %	✓	
				TPH									
										Total:	0.0127 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0006%)

Classification of sample: WS06

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

Sample details

Sample Name:
WS06
Sample Depth:
0.20 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.4	pH		8.4	pH	8.4 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	5.281	mg/kg	0.000528 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.7	mg/kg	1.285	0.9	mg/kg	0.00007 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		20	mg/kg	1.462	29.231	mg/kg	0.00292 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		28	mg/kg	1.126	31.525	mg/kg	0.00315 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	124	mg/kg		124	mg/kg	0.0124 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		19	mg/kg	1.579	30.01	mg/kg	0.003 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		92	mg/kg	2.469	227.175	mg/kg	0.0227 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14		acenaphthene				0.22	mg/kg		0.22	mg/kg	0.000022 %	✓	
			201-469-6	83-32-9									
15		acenaphthylene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			205-917-1	208-96-8									
16		anthracene				0.56	mg/kg		0.56	mg/kg	0.000056 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				1.81	mg/kg		1.81	mg/kg	0.000181 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				1.76	mg/kg		1.76	mg/kg	0.000176 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				2.24	mg/kg		2.24	mg/kg	0.000224 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				1.02	mg/kg		1.02	mg/kg	0.000102 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.78	mg/kg		0.78	mg/kg	0.000078 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				1.84	mg/kg		1.84	mg/kg	0.000184 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				4.65	mg/kg		4.65	mg/kg	0.000465 %	✓	
			205-912-4	206-44-0									
25		fluorene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				1.09	mg/kg		1.09	mg/kg	0.000109 %	✓	
			205-893-2	193-39-5									
27		naphthalene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				2.04	mg/kg		2.04	mg/kg	0.000204 %	✓	
			201-581-5	85-01-8									
29		pyrene				4	mg/kg		4	mg/kg	0.0004 %	✓	
			204-927-3	129-00-0									
30		TPH (C6 to C40) petroleum group				946	mg/kg		946	mg/kg	0.0946 %	✓	
				TPH									
										Total:	0.143 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0946%)

Classification of sample: WS06[2]

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

Sample details

Sample Name:
WS06[2]
Sample Depth:
1.00 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.23	pH		8.23	pH	8.23 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5	mg/kg	1.32	6.602	mg/kg	0.00066 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		<LOD
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
6		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 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	186	mg/kg		186	mg/kg	0.0186 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		12	mg/kg	1.579	18.954	mg/kg	0.0019 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		38	mg/kg	2.469	93.833	mg/kg	0.00938 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14		acenaphthene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-469-6	83-32-9									
15		acenaphthylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8									
16		anthracene				0.05	mg/kg		0.05	mg/kg	0.000005 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.18	mg/kg		0.18	mg/kg	0.000018 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.19	mg/kg		0.19	mg/kg	0.000019 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				0.24	mg/kg		0.24	mg/kg	0.000024 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.09	mg/kg		0.09	mg/kg	0.000009 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				<0.04	mg/kg		<0.04	mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				0.38	mg/kg		0.38	mg/kg	0.000038 %	✓	
			205-912-4	206-44-0									
25		fluorene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				0.11	mg/kg		0.11	mg/kg	0.000011 %	✓	
			205-893-2	193-39-5									
27		naphthalene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				0.26	mg/kg		0.26	mg/kg	0.000026 %	✓	
			201-581-5	85-01-8									
29		pyrene				0.34	mg/kg		0.34	mg/kg	0.000034 %	✓	
			204-927-3	129-00-0									
										Total:	0.037 %		

Key

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

Classification of sample: BH03

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

Sample details

Sample Name:
BH03
Sample Depth:
0.50 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.63	pH		8.63	pH	8.63 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3	mg/kg	1.32	3.961	mg/kg	0.000396 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg	1.285	0.771	mg/kg	0.00006 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12	mg/kg	1.126	13.511	mg/kg	0.00135 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	7	mg/kg		7	mg/kg	0.0007 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		10	mg/kg	1.579	15.795	mg/kg	0.00158 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		24	mg/kg	2.469	59.263	mg/kg	0.00593 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.0134 %		

Key

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

Classification of sample: BH03[2]

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

Sample details

Sample Name:
BH03[2]
Sample Depth:
2.00 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		7.87	pH		7.87	pH	7.87 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3	mg/kg	1.32	3.961	mg/kg	0.000396 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.6	mg/kg	1.285	0.771	mg/kg	0.00006 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		10	mg/kg	1.462	14.616	mg/kg	0.00146 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8	mg/kg	1.126	9.007	mg/kg	0.000901 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	6	mg/kg		6	mg/kg	0.0006 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		10	mg/kg	1.579	15.795	mg/kg	0.00158 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		25	mg/kg	2.469	61.732	mg/kg	0.00617 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.0131 %		

Key

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

Classification of sample: BH06

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

Sample details

Sample Name:
BH06
Sample Depth:
0.50 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		7.79	pH		7.79	pH	7.79 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	5.281	mg/kg	0.000528 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	0.9	mg/kg	1.285	1.157	mg/kg	0.00009 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		21	mg/kg	1.462	30.693	mg/kg	0.00307 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23	mg/kg	1.126	25.895	mg/kg	0.00259 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	20	mg/kg		20	mg/kg	0.002 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		19	mg/kg	1.579	30.01	mg/kg	0.003 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		66	mg/kg	2.469	162.974	mg/kg	0.0163 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	●	acenaphthene				3.42	mg/kg		3.42	mg/kg	0.000342 %	✓	
			201-469-6	83-32-9									
15	●	acenaphthylene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
			205-917-1	208-96-8									
16	●	anthracene				3.59	mg/kg		3.59	mg/kg	0.000359 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				5.12	mg/kg		5.12	mg/kg	0.000512 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				5.17	mg/kg		5.17	mg/kg	0.000517 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				6.44	mg/kg		6.44	mg/kg	0.000644 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	●	benzo[ghi]perylene				2.23	mg/kg		2.23	mg/kg	0.000223 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				2.21	mg/kg		2.21	mg/kg	0.000221 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				5.43	mg/kg		5.43	mg/kg	0.000543 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.58	mg/kg		0.58	mg/kg	0.000058 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24	●	fluoranthene				15.3	mg/kg		15.3	mg/kg	0.00153 %	✓	
			205-912-4	206-44-0									
25	●	fluorene				2.16	mg/kg		2.16	mg/kg	0.000216 %	✓	
			201-695-5	86-73-7									
26	●	indeno[123-cd]pyrene				2.7	mg/kg		2.7	mg/kg	0.00027 %	✓	
			205-893-2	193-39-5									
27		naphthalene				4.52	mg/kg		4.52	mg/kg	0.000452 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28	●	phenanthrene				14.7	mg/kg		14.7	mg/kg	0.00147 %	✓	
			201-581-5	85-01-8									
29	●	pyrene				13	mg/kg		13	mg/kg	0.0013 %	✓	
			204-927-3	129-00-0									
30	●	TPH (C6 to C40) petroleum group				970	mg/kg		970	mg/kg	0.097 %	✓	
				TPH									
										Total:	0.135 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.097%)

Classification of sample: BH06[2]

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

Sample details

Sample Name:		LoW Code:	
BH06[2]		Chapter:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:			
5.10 m		Entry:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.16	pH		8.16	pH	8.16 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		2	mg/kg	1.32	2.641	mg/kg	0.000264 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		6	mg/kg	1.462	8.769	mg/kg	0.000877 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		6	mg/kg	1.126	6.755	mg/kg	0.000676 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		10	mg/kg	1.579	15.795	mg/kg	0.00158 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		21	mg/kg	2.469	51.855	mg/kg	0.00519 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.011 %		

Key

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

Classification of sample: BH01

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

Sample details

Sample Name:
BH01
Sample Depth:
0.50 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.41	pH		8.41	pH	8.41 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3	mg/kg	1.32	3.961	mg/kg	0.000396 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	1	mg/kg	1.285	1.285	mg/kg	0.0001 %	✓	
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		12	mg/kg	1.462	17.539	mg/kg	0.00175 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		25	mg/kg	1.126	28.147	mg/kg	0.00281 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	26	mg/kg		26	mg/kg	0.0026 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		13	mg/kg	1.579	20.533	mg/kg	0.00205 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		68	mg/kg	2.469	167.912	mg/kg	0.0168 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14		acenaphthene				0.78	mg/kg		0.78	mg/kg	0.000078 %	✓	
			201-469-6	83-32-9									
15		acenaphthylene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
			205-917-1	208-96-8									
16		anthracene				1.37	mg/kg		1.37	mg/kg	0.000137 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				4.55	mg/kg		4.55	mg/kg	0.000455 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				5.24	mg/kg		5.24	mg/kg	0.000524 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				6.44	mg/kg		6.44	mg/kg	0.000644 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20		benzo[ghi]perylene				2.55	mg/kg		2.55	mg/kg	0.000255 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				2.3	mg/kg		2.3	mg/kg	0.00023 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				4.83	mg/kg		4.83	mg/kg	0.000483 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.61	mg/kg		0.61	mg/kg	0.000061 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24		fluoranthene				10.5	mg/kg		10.5	mg/kg	0.00105 %	✓	
			205-912-4	206-44-0									
25		fluorene				0.56	mg/kg		0.56	mg/kg	0.000056 %	✓	
			201-695-5	86-73-7									
26		indeno[123-cd]pyrene				2.92	mg/kg		2.92	mg/kg	0.000292 %	✓	
			205-893-2	193-39-5									
27		naphthalene				0.15	mg/kg		0.15	mg/kg	0.000015 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28		phenanthrene				5.36	mg/kg		5.36	mg/kg	0.000536 %	✓	
			201-581-5	85-01-8									
29		pyrene				10.6	mg/kg		10.6	mg/kg	0.00106 %	✓	
			204-927-3	129-00-0									
30		TPH (C6 to C40) petroleum group				530	mg/kg		530	mg/kg	0.053 %	✓	
				TPH									
										Total:	0.0872 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.053%)

Classification of sample: BH01[2]

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

Sample details

Sample Name:
BH01[2]
Sample Depth:
1.00 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.3	pH		8.3	pH	8.3 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		3	mg/kg	1.32	3.961	mg/kg	0.000396 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	4	mg/kg		4	mg/kg	0.0004 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		7	mg/kg	1.579	11.056	mg/kg	0.00111 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		13	mg/kg	2.469	32.101	mg/kg	0.00321 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.00812 %		

Key

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

Classification of sample: BH02

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

Sample details

Sample Name:
BH02
Sample Depth:
0.20 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		9.74	pH		9.74	pH	9.74 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4	mg/kg	1.32	5.281	mg/kg	0.000528 %	✓	
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		<LOD
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		<LOD
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		9	mg/kg	1.462	13.154	mg/kg	0.00132 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23	mg/kg	1.126	25.895	mg/kg	0.00259 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	21	mg/kg		21	mg/kg	0.0021 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		<LOD
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		9	mg/kg	1.579	14.215	mg/kg	0.00142 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		35	mg/kg	2.469	86.425	mg/kg	0.00864 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number									
13		phenol				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2									
14	●	acenaphthene				0.12	mg/kg		0.12	mg/kg	0.000012 %	✓	
			201-469-6	83-32-9									
15	●	acenaphthylene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
			205-917-1	208-96-8									
16	●	anthracene				0.23	mg/kg		0.23	mg/kg	0.000023 %	✓	
			204-371-1	120-12-7									
17		benzo[a]anthracene				0.64	mg/kg		0.64	mg/kg	0.000064 %	✓	
		601-033-00-9	200-280-6	56-55-3									
18		benzo[a]pyrene; benzo[def]chrysene				0.7	mg/kg		0.7	mg/kg	0.00007 %	✓	
		601-032-00-3	200-028-5	50-32-8									
19		benzo[b]fluoranthene				0.84	mg/kg		0.84	mg/kg	0.000084 %	✓	
		601-034-00-4	205-911-9	205-99-2									
20	●	benzo[ghi]perylene				0.32	mg/kg		0.32	mg/kg	0.000032 %	✓	
			205-883-8	191-24-2									
21		benzo[k]fluoranthene				0.31	mg/kg		0.31	mg/kg	0.000031 %	✓	
		601-036-00-5	205-916-6	207-08-9									
22		chrysene				0.72	mg/kg		0.72	mg/kg	0.000072 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		dibenz[a,h]anthracene				0.08	mg/kg		0.08	mg/kg	0.000008 %	✓	
		601-041-00-2	200-181-8	53-70-3									
24	●	fluoranthene				1.38	mg/kg		1.38	mg/kg	0.000138 %	✓	
			205-912-4	206-44-0									
25	●	fluorene				0.13	mg/kg		0.13	mg/kg	0.000013 %	✓	
			201-695-5	86-73-7									
26	●	indeno[123-cd]pyrene				0.38	mg/kg		0.38	mg/kg	0.000038 %	✓	
			205-893-2	193-39-5									
27		naphthalene				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		601-052-00-2	202-049-5	91-20-3									
28	●	phenanthrene				1.07	mg/kg		1.07	mg/kg	0.000107 %	✓	
			201-581-5	85-01-8									
29	●	pyrene				1.31	mg/kg		1.31	mg/kg	0.000131 %	✓	
			204-927-3	129-00-0									
30	●	TPH (C6 to C40) petroleum group				99	mg/kg		99	mg/kg	0.0099 %	✓	
				TPH									
										Total:	0.0292 %		

Key

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

Supplementary Hazardous Property Information

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

Force this Hazardous property to non hazardous because under current site conditions hazard is unlikely

Hazard Statements hit:

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

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0099%)

Classification of sample: BH02[2]

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

Sample details

Sample Name:
BH02[2]
Sample Depth:
8.20 m

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

Hazard properties

None identified

Determinands

Moisture content: 0% Dry Weight 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		pH			PH		8.49	pH		8.49	pH	8.49 pH		
2		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		<1	mg/kg	1.32	<1.32	mg/kg	<0.000132 %		**<LOD**
3		boron { boron tribromide/trichloride/trifluoride (combined) }			10294-33-4, 10294-34-5, 7637-07-2		<1	mg/kg	13.43	<13.43	mg/kg	<0.00134 %		**<LOD**
4		cadmium { cadmium sulfide }	048-010-00-4	215-147-8	1306-23-6	1	<0.5	mg/kg	1.285	<0.643	mg/kg	<0.00005 %		**<LOD**
5		chromium { chromium(III) oxide }		215-160-9	1308-38-9		5	mg/kg	1.462	7.308	mg/kg	0.000731 %	✓	
6		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3	mg/kg	1.126	3.378	mg/kg	0.000338 %	✓	
7		lead { lead compounds with the exception of those specified elsewhere in this Annex }	082-001-00-6			1	5	mg/kg		5	mg/kg	0.0005 %	✓	
8		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.17	mg/kg	1.353	<0.23	mg/kg	<0.000023 %		**<LOD**
9		nickel { nickel dihydroxide }	028-008-00-X	235-008-5 [1] 234-348-1 [2]	12054-48-7 [1] 11113-74-9 [2]		7	mg/kg	1.579	11.056	mg/kg	0.00111 %	✓	
10		selenium { selenium compounds with the exception of cadmium sulphoselenide and those specified elsewhere in this Annex }	034-002-00-8				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		**<LOD**
11		zinc { zinc sulphate }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		11	mg/kg	2.469	27.162	mg/kg	0.00272 %	✓	
12		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		**<LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		CLP index number	EC Number	CAS Number							
13		phenol				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		**<LOD**
		604-001-00-2	203-632-7	108-95-2							
14	•	acenaphthene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-469-6	83-32-9							
15	•	acenaphthylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			205-917-1	208-96-8							
16	•	anthracene				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			204-371-1	120-12-7							
17		benzo[a]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-033-00-9	200-280-6	56-55-3							
18		benzo[a]pyrene; benzo[def]chrysene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-032-00-3	200-028-5	50-32-8							
19		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
		601-034-00-4	205-911-9	205-99-2							
20	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		**<LOD**
			205-883-8	191-24-2							
21		benzo[k]fluoranthene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
		601-036-00-5	205-916-6	207-08-9							
22		chrysene				<0.06 mg/kg		<0.06 mg/kg	<0.000006 %		**<LOD**
		601-048-00-0	205-923-4	218-01-9							
23		dibenz[a,h]anthracene				<0.04 mg/kg		<0.04 mg/kg	<0.000004 %		**<LOD**
		601-041-00-2	200-181-8	53-70-3							
24	•	fluoranthene				<0.08 mg/kg		<0.08 mg/kg	<0.000008 %		**<LOD**
			205-912-4	206-44-0							
25	•	fluorene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		**<LOD**
			201-695-5	86-73-7							
26	•	indeno[123-cd]pyrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			205-893-2	193-39-5							
27		naphthalene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
		601-052-00-2	202-049-5	91-20-3							
28	•	phenanthrene				<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		**<LOD**
			201-581-5	85-01-8							
29	•	pyrene				<0.07 mg/kg		<0.07 mg/kg	<0.000007 %		**<LOD**
			204-927-3	129-00-0							
								Total:	0.00747 %		

Key

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

Appendix A: Classifier defined and non CLP determinands

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

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

- **boron tribromide/trichloride/trifluoride (combined)** (CAS Number: 10294-33-4, 10294-34-5, 7637-07-2)

Conversion factor: 13.43
Description/Comments: Combines the hazard statements and the average of the conversion factors for boron tribromide, boron trichloride and boron trifluoride
Data source: N/A
Data source date: 06 Aug 2015
Hazard Statements: Skin Corr. 1B H314 , Skin Corr. 1A H314 , Acute Tox. 2 H300 , Acute Tox. 2 H330 , EUH014

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

Conversion factor: 1.462
Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Repr. 1B H360FD , Skin Sens. 1 H317 , Resp. Sens. 1 H334 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302 , Acute Tox. 4 H332

- **lead compounds with the exception of those specified elsewhere in this Annex**

CLP index number: 082-001-00-6
Description/Comments: Least-worst case: Lead REACH Consortium considers some lead compounds Carcinogenic category 2B
Data source: Regulation 1272/2008/EC - Classification, labelling and packaging of substances and mixtures. (CLP)
Additional Hazard Statement(s): Carc. 2 H351
Reason for additional Hazards Statement(s)/Risk Phrase(s):
03 Jun 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

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

CLP index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Data source: Commission Regulation (EC) No 790/2009 - 1st Adaptation to Technical Progress for Regulation (EC) No 1272/2008. (ATP1)
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s)/Risk Phrase(s):
14 Dec 2015 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

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

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

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

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

- **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Skin Irrit. 2 H315 , STOT SE 3 H335 , Eye Irrit. 2 H319

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

- **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Acute Tox. 4 H302

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

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2 H351

- **phenanthrene** (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Skin Irrit. 2 H315 , Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , Skin Sens. 1 H317 , Carc. 2 H351 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Acute Tox. 4 H302

- **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Aquatic Chronic 1 H410 , Aquatic Acute 1 H400 , STOT SE 3 H335 , Eye Irrit. 2 H319 , Skin Irrit. 2 H315

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

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

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Worst case species based on risk phrases

boron {boron tribromide/trichloride/trifluoride (combined)}

Worst case species based on risk phrases

cadmium {cadmium sulfide}

Worst case species based on risk phrases

chromium {chromium(III) oxide}

Worst case species based on risk phrases

copper {dicopper oxide; copper (I) oxide}

Most likely common species

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

Worst case species based on risk phrases

mercury {mercury dichloride}

Worst case species based on risk phrases

nickel {nickel dihydroxide}

Worst case species based on risk phrases

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

Worst case species based on risk phrases

zinc {zinc sulphate}

Worst case species based on risk phrases

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

Worst case species

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.1, May 2018
HazWasteOnline Classification Engine Version: 2019.190.3901.7928 (09 Jul 2019)
HazWasteOnline Database: 2019.190.3901.7928 (09 Jul 2019)

This classification utilises the following guidance and legislation:
WM3 v1.1 - Waste Classification - 1st Edition v1.1 - May 2018
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Wastes 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
POPs Regulation 2004 - Regulation 850/2004/EC of 29 April 2004
1st ATP to POPs Regulation - Regulation 756/2010/EU of 24 August 2010
2nd ATP to POPs Regulation - Regulation 757/2010/EU of 24 August 2010