

**Biggins Wood
Folkestone
Kent**

**Enhanced Ground Contamination
Risk Assessment,
Remediation Strategy and
Verification Plan**









Report No. LW25193

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Report prepared for the benefit of:

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Limitations

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The revised risk assessment presented in this report follows 'source-pathway-receptor' techniques for the determination of whether a site is contaminated. This is standard practice in the UK, being intrinsic to Part 2A of the Environmental Protection Act 1990 as amended.

The report considers the proposed end users as the most sensitive human health receptors. If significant risks to construction workers are identified by the preliminary assessment attention is drawn to this, although it is noted that no assessment of risk from acute exposure has been undertaken in this connection.

This report is not intended to be either an ecological, archaeological or flood risk assessment. An appropriate specialist should be consulted about any concerns that may arise in this regard.

EXECUTIVE SUMMARY

The following presents a summary of the main findings of the ground contamination risk assessment and remedial measures that should be put in place to sever identified source pathway receptor linkages. It is emphasised that no reliance should be placed on any individual point until the whole of the report has been read as other sections of the report may put into context the information contained herein.

It is currently proposed to develop the northern part of the site for commercial/light industrial purposes and the southern part of the site for residential purposes.

The majority of the site is underlain by a layer of made ground as a result of its historical use as a gravel pit. The made ground has been recorded to extend to depths of around 5m in the central part of the site. Beneath the Made Ground the site is underlain by the Gault Formation.

Laboratory testing has recorded the made ground soils to contain concentrations of heavy metals and PAH compounds above screening values for a residential land use and these soils are considered to pose a risk where residential end users of the southern part of the site may come into contact with them.

The concentrations of contaminants were not above screening values for a commercial land use and are not considered to pose a significant risk for the commercial development of the northern part of the site.

Monitoring of standpipes installed across the site has recorded elevated concentrations of carbon dioxide and methane.

Remedial measures are considered to be necessary to reduce the potential risk to end users of both parts of the site to an acceptable level. Within the residential development area remedial works proposed encompass the inclusion of gas protection measures to the ground floors of houses and the provision of clean cover soils to areas of soft landscaping and gardens. For the commercial development area, whilst provision of clean cover soils is not required, there remains a requirement for provision of gas protection measures within ground floors.

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1. INTRODUCTION

It is proposed to develop the site at Biggins Wood, situated to the west of Caesar's Way and to the south of the M20, Folkestone, Kent. The northern half of the site is to be developed for commercial/light industrial purposes and the southern part of the site for a residential end use.

At the time of preparation of this report the development plans had not been finalised, though provisional plans have been provided and have been used to form the basis of the risk assessment contained within this report. A copy of the proposed development layout is presented as Figure 3 of this report.

Ashdown Site Investigation Ltd. has previously carried out an intrusive ground investigation at the site in September 2010. A combined geotechnical and contamination assessment report was produced in October 2010 (report ref LW21271) which included a desk study and a quantitative contamination risk assessment for the site.

The investigation recorded significant depths of made ground, in excess of 5m in some locations, relating to a former brick works which previously extended across the majority of the site. The made ground was recorded to contain elevated concentrations of metals and PAH compounds and locally some elevated petroleum hydrocarbons were recorded. Monitoring of standpipes for concentrations of ground gases also recorded some significantly elevated concentrations of methane and carbon dioxide.

The report recommended that more detailed sampling and testing be carried out to confirm if the concentrations of contaminants within the shallow soils were sufficiently elevated to warrant remedial works. It also recommended that further gas monitoring be carried out to determine what level of protection against ingress of ground gas would be required for structures proposed within the development.

Ashdown Site Investigation Limited was commissioned to carry out a more detailed ground investigation and to prepare an enhanced contamination risk assessment of the site by Mr Charles Evans of Smith-Woolley & Perry, 3 Castle Hill Avenue, Folkestone, Kent, CT20 2RB.

The scope of the commission and the terms and conditions under which the work was undertaken are set out within the offer letter Q14-306/Rev1, dated 9th June 2014. The instruction to proceed was received on behalf of the client, Rainstorm (Folkestone 1) Ltd., by email dated 11th June 2014.

The objectives of the works were to:

- a) Further evaluate the geology at the site;
- b) Undertake further testing and monitoring for the presence of potentially significant contamination and gas in the ground;
- c) develop a revised quantitative conceptual model of the site identifying potentially significant pollutant linkages relating to end users of the development, to controlled waters or off-site sensitive receptors;
- d) Develop a remediation strategy to manage risks posed by identified potential pollutant linkages; and
- e) Prepare a verification plan to support the remediation strategy.

Although the previous geotechnical assessment undertaken is still valid, the conclusions of the contamination risk assessment presented within this report supersede those of the previous assessment.

2. SITE CONTEXT

2.1 Site Description

The site comprises a roughly rectangular shaped plot of land covering an area of approximately 4 hectares, located to the west of Caesar's Way, Folkestone, Kent and is centred on the approximate Ordnance Survey national grid reference TR 2027 3746. A site location plan is presented as Figure 1; photographs from the walkover survey are included in Appendix A.

A walkover survey was carried out at the time of the original investigation in 2010. At that time no structures were present on the site. Ground cover consisted of a mixture of rough grass and dense brambles with occasional semi-mature trees located across the site, but also included localised patches of visible made ground with exposed concrete, brick and rubble noted.

The site is accessed off Caesar's Way via a narrow unmade strip of land. The entrance to the site was secured by a metal palisade fence and a set of metal gates. The site is predominantly level though localised rutting and undulations in the ground were noted. The site is generally set at a higher elevation than surrounding land, suggestive of the historic landfill known to be present.

The site is bounded to the north by the M20 motorway, to the south by residential properties and associated gardens, and to the west by the playing fields of Harcourt Primary School. Mature trees were noted to be present on the northern and western boundaries of the site. A number of industrial premises were located to the north east and east of the site including a former concrete batching works, a coach storage and repair yard, which included above ground fuel storage tanks, and an unspecified works/warehouse style unit with an associated electricity substation.

At the time of the current phase of works no significant changes were noted to have occurred on site. The adjacent coachworks was still present, though the concrete works appear to have been redeveloped for light industrial units.

2.2 Expected Geology

The stratigraphic succession that may be expected to underlie the site, as presented in the following table, has been determined from reference to the British Geological Survey lexicon of named rock units and British Geological Survey mapping data.

Table 1. Expected Geological Strata

Type	Stratum
Artificial Deposits	Made Ground
Bedrock Deposits	Gault Formation

2.2.1 Made Ground

The previous investigation recorded made ground soils to significant depths in parts of the site. The made ground soils were generally recorded to comprise gravelly sands and clays; the

gravel fraction containing variable quantities of brick, concrete, ash and clinker. Organic material was also recorded within the made ground at some exploratory hole locations.

2.2.2 Gault Formation

The Gault Formation generally consists of fossil rich dark coloured very weak and weak mudstone and siltstone which typically weathers to a stiff clay. The lower part of the Formation is often dark green and sandy.

2.3 Radon Gas

The site is reported to be within an area where less than 1% of properties are above the action level requiring radon gas protection measures to be installed in new buildings. No radon protection measures are reported by the British Geological Survey (BGS) to be necessary in the construction of new dwellings.

2.4 Hydrogeology

2.4.1 Groundwater Vulnerability & Soil Classification

The Environment Agency designates aquifers in accordance with the Water Framework Directive. These designations reflect not only the importance of aquifers in terms of groundwater as a resource (drinking water supply) but also their role in supporting surface water flows and wetland ecosystems. The aquifer designation data is based on geological mapping provided by the British Geological Survey.

The Gault Formation expected beneath the site is classified as an Unproductive Stratum. Unproductive Strata are deposits with low permeability that have negligible significance for water supply or river base flow.

2.4.2 Groundwater Source Protection Zones and Abstraction Licences

The previous desk study identified four groundwater abstraction licences between 260m and 899m to the north east and 503m to the east of the Site.

The site does not lie within an Environment Agency Source Protection Zone with regard to the protection of the quality of groundwater that is abstracted for potable supply.

2.4.3 Surface Water Abstraction Licences

The desk study identified the nearest significant surface water feature to be the Pent Stream located 104m to the south west of the Site. Ordnance survey map information from 2010 shows a small surface water drain approximately 60m to the north east of the site immediately to the south of the M20 motorway.

3. GROUND INVESTIGATION

3.1 Introduction

The current phase of ground investigation comprised the excavation of a series of shallow dynamic sampler and hand auger boreholes. Gas monitoring standpipes were installed in a number of the exploratory holes and were monitored during subsequent site visits. The majority of the fieldwork, comprising dynamic sampler boreholes, was carried out between 24th June and 25th June 2014, with supplementary samples being collected from hand auger boreholes on the 7th August 2014.

Descriptions of the strata encountered and comments on groundwater conditions are shown in the exploratory hole records given in Appendix C, together with notes to assist in the interpretation of the records.

Extracted borehole logs and laboratory test results from the previous investigation works are presented in Appendix E.

The exploratory hole locations for both the 2010 and recent ground investigations are shown on Figure 2.

The methodology adopted for the recent ground investigation is presented below. The reader is referred to the earlier 2010 report (ref LW21271) for details of the previous ground investigation works.

3.2 Exploratory Holes

3.2.1 Dynamic Sampler Boreholes

A total of 40 boreholes (designated WS101 to WS140) were drilled to depths of between 0.8m and 1.0m below ground level.

The boreholes were formed by a series of 1.0m long, open ended, hollow steel tubes of between 35mm and 100mm diameter, each containing a removable plastic liner. The tubes, progressively reducing in diameter, were driven into the ground by means of a track-mounted drop weight. Each tube was extracted from the ground using a hydraulically operated jack and the enclosed sample was recovered in its plastic liner.

3.2.2 Hand Auger Boreholes

Four boreholes (designated HA201 to HA204) were bored to depths of between 0.30m and 0.45m. The hand auger enables disturbed soil samples to be taken using a cutting tool twisted into the soil by hand.

3.3 Sampling

Disturbed samples of soils were taken at the depths shown in the exploratory hole records and were collected in plastic tubs and amber jars fitted with gas tight lids.

On collection the amber jars were stored in cool boxes with cooling blocks to maintain temperatures below 4°C until transferred to refrigerators upon return to the office and subsequently forwarded to the external accredited chemical testing laboratory.

3.4 Installations

Gas and groundwater monitoring standpipes were installed to a depth of 1m in 16 of the boreholes. Descriptions of the installations are shown on the exploratory hole records contained within Appendix C.

The concentrations of gases and depths to groundwater were recorded within the standpipes on six occasions between 30th July 2014 and 28th August 2014. The readings are presented in Appendix C.

3.5 Laboratory Testing

Chemical testing of selected samples, scheduled by Ashdown Site Investigation Ltd, was undertaken by a laboratory with recognised (UKAS and MCERTS) accreditation for quality control. The types and numbers of tests undertaken are detailed in the following table. Results from the laboratory tests are provided in Appendix D.

Table 2. Chemical Testing

Determinand	No. of soil samples tested
Arsenic	49
Cadmium	49
Chromium	49
Lead	49
Mercury	49
Nickel	49
Copper	49
Zinc	49
Selenium	49
Hexavalent Chromium	49
Water Soluble Boron	49
pH	50
Soil Organic Matter	40
Speciated Polycyclic aromatic hydrocarbons (PAH) US Environmental protection Agency Suite	49
Speciated Petroleum Hydrocarbons (equivalent carbon weight fractions)	28
Asbestos Screen	40
Waste Acceptance Criteria	7

4. GROUND CONDITIONS

The following section summarises the near surface ground conditions encountered during the current phase of the investigation. These were generally similar to those recorded by the previous phase of works.

4.1 Stratigraphy

4.1.1 Surface Covering

Where encountered, the exploratory holes were excavated through a surface cover of topsoil of up to 100mm in thickness.

4.1.2 Made Ground

Made ground, generally comprising sandy clay with a variable proportion of brick, concrete, flint, clinker chalk, wood, charcoal, ash glass and plastic was recorded at the majority of positions to depths in excess of 1.0m below ground level.

4.1.3 Gault Formation

The made ground was recorded to be absent or to extend to depths of less than 1.0m only adjacent to the northern boundary and within the north eastern part of the site. In these locations, the investigation progressed into undisturbed silty clay with rare pockets of selenite deposits to the full depth of the shallow boreholes.

These soils are considered to represent the Gault Formation deposits indicated on the published geological map.

4.2 Stability

Each of the shallow exploratory holes was recorded to be stable during the limited period required to drill and sample the boreholes.

5. GROUND CONTAMINATION RISK ASSESSMENT

5.1 Introduction

The revised quantitative ground contamination risk assessment presented within this report takes into account the findings of both phases of intrusive works and laboratory testing along with on-site observations in order to quantify risk associated with the potential pollutant linkages identified by the preliminary ground contamination risk assessment.

5.2 Preliminary Conceptual Model

The preliminary risk assessment takes into account the proposals for the site, key features noted from the walkover survey, information from the database search and the review of historical Ordnance Survey maps.

The assessment of risk has been carried out in line with guidance published within "Contaminated Land Risk Assessment: A guide to good practice" published by CIRIA (C552, 2001). The level of risk is determined using the risk matrix presented in the following table. Classifications of probability, consequence and risk are presented in Appendix B.

Table 3. Risk Assessment Matrix – Comparison of Severity and Likelihood

		Likelihood			
		Very Low	Low	Moderate	High
Severity	Very Minor	Negligible	Very Low	Low	Low/Moderate
	Minor	Very Low	Low	Low/Moderate	Moderate
	Moderate	Low	Low/Moderate	Moderate	High
	Severe	Low/Moderate	Moderate	High	Very High

The Preliminary Conceptual Model for both end users and controlled waters is presented in the following tables. A diagrammatic representation of the model is presented in Figure 4.

Table 4. Preliminary Conceptual Model for End Users – Potential Pollutant Linkages and Assessment of Risk

Contaminant Source	Potential Pathway(s)	Likelihood	Severity	Assessment of Risk to Human Health
1) Potential for metal, PAH compound, petroleum hydrocarbon and asbestos contamination from backfilled ground workings and demolition of historic structures across the site.	a) Dermal contact with soil (Indoor & Outdoor). b) Direct soil and dust ingestion. c) Consumption of homegrown produce, including soils attached to homegrown produce.* d) Inhalation of indoor and outdoor soil dust. e) Inhalation of soil vapours.	High	Severe	Very High

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Contaminant Source	Potential Pathway(s)	Likelihood	Severity	Assessment of Risk to Human Health
2) Potential for generation of ground gases from backfilled ground workings across the site.	f) Inhalation of soil gases.	High	Severe	High
3) Potential migration of petroleum hydrocarbons from adjacent coach works and industrial sites to the east.	a) Dermal contact with soil (Indoor & Outdoor). b) Direct soil and dust ingestion. c) Consumption of homegrown produce, including soils attached to homegrown produce.* d) Inhalation of indoor and outdoor soil dust. e) Inhalation of soil vapours.	Low	Moderate	Low/Moderate

*Applicable only to residential development.

On the basis that the Gault Formation is classified as an unproductive stratum and that the site does not lie within an Environment Source Protection Zone, the development of the site is not considered to pose a significant risk to groundwater due to the absence of a valid contaminant pathway.

Table 5. Preliminary Conceptual Model for Controlled Waters – Potential Pollutant Linkages and Assessment of Risk

Contaminant Source	Potential Pathway(s)	Likelihood	Severity	Assessment of Risk to Controlled Waters
1) Potential for metal, PAH compound and petroleum hydrocarbon contamination from backfilled ground workings and demolition of historic structures across the site.	No pathway identified	Not applicable	Not applicable	No significant risk

5.3 Assessment Strategy

Due to the expected presence of made ground soils across the site, both the current and previous phases of investigation comprised a spread of sampling locations across the site to obtain data on the underlying soils.

5.4 Analysis of Contamination Test Results

For the assessment of risk to human health a quantitative assessment of the laboratory test results obtained from both phases of investigation has been undertaken by comparing soil contaminant concentrations against both soil screening values (SSVs) generated by Ashdown

Site Investigation Ltd. using the CLEA Model published by the Environment Agency and, where available, Category 4 Screening Levels (C4SL) as published within SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document.

Further information on the derivation of the SSVs, along with the chemical parameters used, is presented in Appendix F. The parameters were obtained from various sources including guidance documents published by the Environment Agency as well as other statutory bodies.

The soil screening values used in this assessment have been calculated using the generic “Residential” and “Commercial” land uses as set out in Science Report SC050021/SR3, January 2009.

The critical receptor for the residential land use is considered to be a young female child resident on site from birth to age 6. Exposure routes that are considered include the potential for direct ingestion of the soil, the outdoor and indoor ingestion of dust, the potential inhalation of dust and vapours, ingestion of site grown vegetables and ingestion of soil attached to vegetables.

The critical receptor for the commercial land use is considered to be a full time female staff member working at the site between the ages of 17 and 65. Exposure routes that are considered include the potential for direct ingestion of the soil, the outdoor and indoor ingestion of dust and the potential inhalation of dust and vapours.

For the assessment of risk to controlled waters a qualitative assessment has been undertaken based upon the concentrations of contaminants recorded within the soil samples and the information obtained about the sensitivity of the underlying strata or nearby surface water receptors.

5.4.1 Statistical Analysis

Statistical analysis of the concentrations of heavy metals and polycyclic aromatic hydrocarbon (PAH) compounds determined by laboratory testing of samples of the made ground during both the current and the previous phase of investigation has been undertaken in line with guidance set out in ‘Comparing Soil Contamination Data with a Critical Concentration’ report, published by the CIEH/ CL:AIRE (May 2008).

The CIEH/CL:AIRE guidance provides a framework for assessing measured contaminant concentrations on a site against user defined critical concentrations – or indicators of risk.

Under a planning scenario, the null hypothesis tested is that the true population mean is greater than a “critical concentration”. The critical concentration used within this assessment is the relevant screening value for the proposed end use.

The null hypothesis can be rejected if it can be shown (with a sufficient degree of confidence) that the true population mean lies below the critical concentration. The confidence level recommended within the guidance is 95% i.e. the statistical evidence must show that there is 95% likelihood that the true population mean lies below the critical concentration. In this instance the site is considered suitable for the proposed use.

Where there is insufficient evidence to reject the null hypothesis, further risk assessment and/or remediation may be necessary.

Guidance on comparing soil contamination data with a critical concentration are provided in Appendix F along with the summary sheets from the statistical analysis.

5.5 Heavy Metal Contaminants

The following tables summarises the relevant SSV and C4SL for residential and commercial land uses along with sample means and 95th percentile upper confidence limits.

Table 6. Screening Values and Upper Confidence Limits for Inorganic Contaminants – Residential Land Use

Contaminant	SSV/C4SL (mg/kg)	Sample Mean (mg/kg)	95% Upper Confidence Limit (mg/kg)	Can H ₀ be rejected	Evidence against H ₀ (%)
Arsenic	37	16.74	25.08	Yes	99%
Cadmium	26	0.32	0.45	Yes	100%
Chromium	627	40.96	51.50	Yes	100%
Lead	200	182.38	410.91	No	10%
Mercury	170	0.29	0.37	Yes	100%
Nickel	130	37.92	47.09	Yes	100%
Copper	2330	83.75	247.00	Yes	100%
Zinc	3750	136.62	196.53	Yes	100%
Selenium	350	0.98	1.07	Yes	100%
Boron	300	1.46	1.61	Yes	100%
Chromium VI	21	0.55	0.72	Yes	100%

Table 7. Screening Values and Upper Confidence Limits for Inorganic Contaminants – Commercial Land Use

Contaminant	SSV/C4SL (mg/kg)	Sample Mean (mg/kg)	95% Upper Confidence Limit (mg/kg)	Can H ₀ be rejected	Evidence against H ₀ (%)
Arsenic	640	16.74	25.08	Yes	100
Cadmium	410	0.32	0.45	Yes	100
Chromium	8840	40.96	51.50	Yes	100
Lead	2330	182.38	410.91	Yes	100
Mercury	3600	0.29	0.37	Yes	100
Nickel	1800	37.92	47.09	Yes	100
Copper	71700	83.75	247.00	Yes	100
Zinc	660000	136.62	196.53	Yes	100
Selenium	13000	0.98	1.07	Yes	100
Boron	192000	1.46	1.61	Yes	100
Chromium VI	49	0.55	0.72	Yes	100

The analysis of the laboratory test results indicates that the made ground soils contain concentrations of lead above the screening value for a residential land use and may pose a significant risk where these soils remain in areas where end users of this part of the site may come into contact with the soils i.e. gardens and soft landscaping areas.

None of the contaminants were present at concentrations above the screening values for a commercial land use and therefore there is not considered to be a significant risk to end users of this part of the site in this regard.

None of the samples of the undisturbed Gault Formation tested recorded elevated concentrations of heavy metals.

5.6 Asbestos

A total of forty samples of the made ground material from across the site were screened for the presence of asbestos material.

None of the samples recorded the presence of any detectable asbestos. No suspected asbestos materials were noted within any of the exploratory holes undertaken at the site.

Whilst there is not considered to be a significant risk to the proposed development from widespread asbestos contamination within the underlying made ground soils, given the highly variable nature of fill materials on a site such as this, there remains the potential for asbestos containing materials to be present in localised pockets away from the exploratory holes locations.

As part of the discovery strategy, ground-workers at the site should be trained on identifying suspected asbestos materials. In the event that any are recorded during the development phase then works should cease and an appropriate specialist should be contacted to determine what actions will need to be taken. This may include carrying out further localised investigation and assessment.

5.7 Organic Contamination

5.7.1 Polycyclic Aromatic Hydrocarbon (PAH) Compounds

The following tables summarises the relevant SSV and C4SL values for residential and commercial land uses along with sample means and 95th percentile upper confidence limits.

Table 8. Screening Values and Upper Confidence Limits for PAH Compounds – Residential Land Use

Contaminant	SSV/C4SL (mg/kg)	Sample Mean (mg/kg)	95% Upper Confidence Limit (mg/kg)	Can H _o be rejected	Evidence against H _o (%)
Naphthalene	1.5	1.22	4.06	No	16%
Acenaphthylene	170	2.27	8.64	Yes	100%
Acenaphthene	210	1.45	4.77	Yes	100%
Fluorene	160	2.81	9.35	Yes	100%
Phenanthrene	92	24.97	84.49	Yes	96%
Anthracene	2300	7.17	24.09	Yes	100%
Fluoranthene	260	33.56	105.59	Yes	99%
Pyrene	560	27.24	85.74	Yes	100%
Benz(a)anthracene	3.1	16.48	51.42	No	0%

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Chrysene	6	14.85	46.09	No	0%
Benzo(b)fluoranthene	5.6	13.52	41.62	No	0%
Benzo(k)fluoranthene	8.5	12.31	37.80	No	0%
Benzo(a)pyrene	5	16.73	51.70	No	0%
Indeno(123-cd)pyrene	3.2	9.81	31.69	No	0%
Dibenz(ah)anthracene	0.76	3.56	11.70	No	0%
Benzo(ghi)perylene	44	10.66	34.15	Yes	97%

Table 9. Screening Values and Upper Confidence Limits for PAH Compounds – Commercial Land Use

Contaminant	SSV/C4SL (mg/kg)	Sample Mean (mg/kg)	95% Upper Confidence Limit (mg/kg)	Can H ₀ be rejected	Evidence against H ₀ (%)
Naphthalene	76	1.22	4.06	Yes	100%
Acenaphthylene	86	2.27	8.64	Yes	100%
Acenaphthene	57	1.45	4.77	Yes	100%
Fluorene	31	2.81	9.35	Yes	100%
Phenanthrene	22000	24.97	84.49	Yes	100%
Anthracene	530000	7.17	24.09	Yes	100%
Fluoranthene	23000	33.56	105.59	Yes	100%
Pyrene	54000	27.24	85.74	Yes	100%
Benz(a)anthracene	90	16.48	51.42	Yes	99%
Chrysene	140	14.85	46.09	Yes	100%
Benzo(b)fluoranthene	100	13.52	41.62	Yes	99%
Benzo(k)fluoranthene	140	12.31	37.80	Yes	100%
Benzo(a)pyrene	76	16.73	51.70	Yes	98%
Indeno(123-cd)pyrene	60	9.81	31.69	Yes	99%
Dibenz(ah)anthracene	13	3.56	11.70	Yes	96%
Benzo(ghi)perylene	650	10.66	34.15	Yes	100%

The analysis indicates that a number of PAH compounds are present within the made ground soils at concentrations significantly above the relevant screening values for the residential land use. As with the concentrations of heavy metals, these may pose a significant risk where the soils remain in areas where end users of this part of the site may come into contact with the soils i.e. gardens and soft landscaping areas.

None of the PAH compounds tested for were present at concentrations above the screening values for a commercial land use and therefore there is not considered to be a significant risk to end users of this part of the site in this regard.

None of the samples of the undisturbed Gault Formation tested recorded elevated concentrations of PAH compounds.

5.7.2 Petroleum Hydrocarbons

Selected samples of the made ground from across the site were tested for total concentrations of petroleum hydrocarbons with the results speciated by equivalent carbon weight fractions.

The only location where visual and olfactory evidence of suspected petroleum hydrocarbon contamination was noted was within borehole WS10 during the original phase of ground investigation works. The made ground soils at a depth of around 1m below ground level in this location were noted to be stained and odorous and testing of a sample of this material recorded a concentration of 1837mg/kg of total petroleum hydrocarbons, the majority of which was present within the C₂₁-C₃₅ fraction.

Of the remaining samples tested total concentrations of up to 619mg/kg were recorded, the majority of which were also present within the C₂₁-C₃₅ fraction.

Soil screening values for equivalent carbon fractions of petroleum hydrocarbons have been calculated as a joint project between LQM and CIEH and published in 'The LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment' 2nd Edition, 2009." The screening values for the generic "Residential" land use calculated assuming a 1% organic content are summarised in the table below.

Table 10. Soil Screening Values for petroleum hydrocarbons calculated by LQM/CIEH.

Petroleum Hydrocarbon Fraction	Soil Screening Value (mg/kg)
Aliphatic EC 5-6	30
Aliphatic EC >6-8	73
Aliphatic EC >8-10	19
Aliphatic EC >10-12	93
Aliphatic EC >12-16	740
Aliphatic EC >16-35	45000
Aliphatic EC >35-44	45000
Aromatic EC 5-7	65
Aromatic EC >7-8	120
Aromatic EC >8-10	27
Aromatic EC >10-12	69
Aromatic EC >12-16	140
Aromatic EC >16-21	250
Aromatic EC >21-35	890
Aromatic EC >35-44	890

With the exception of the sample from WS10 at 1.0m none of the samples tested would contain concentrations of petroleum hydrocarbons above the screening value for the more stringent aromatic fraction.

As it is extremely unlikely to be the case that the petroleum hydrocarbon compounds recorded within the sample taken from borehole WS10 comprise only aromatic compounds, and given the absence of any widespread evidence of significant petroleum hydrocarbons, the concentrations of petroleum hydrocarbons recorded by the laboratory testing are not considered to pose a significant risk to either the residential or commercial parts of the proposed development.

However, given the variable nature of fill material there remains the potential for localised pockets of contamination to be present away from the exploratory holes locations.

As part of the discovery strategy ground-workers should be trained in the recognition of suspected petroleum hydrocarbon contamination. In the event that any are recorded during the development phase then works should cease and an appropriate specialist should be contacted to determine what actions will need to be taken. This may include carrying out further localised investigation and assessment.

5.8 Ground Gases

Monitoring of the gas concentrations within the standpipes in the boreholes installed during the current phase of investigation was carried out on six occasions. As part of the previous investigation monitoring was carried out on three occasions. The standpipes installed during the original investigation could not be located during the most recent monitoring works.

Peak concentrations of carbon dioxide of over 10% were recorded, with multiple locations from across the site recording concentrations of between 5% and 10% during several monitoring visits.

Two boreholes in the central part of the site (WS115 and WS122) recorded some variable concentrations of methane; a maximum concentration of 4.7% having been recorded.

No detectable gas flow rates were recorded in any of the standpipes during the monitoring visits.

The gas risk assessment for the site has been carried out generally in accordance with the guidance presented in CIRIA document C665 (2007).

The assessment of risk from ground gases is undertaken by the calculation of a site specific gas screening value (GSV) for key asphyxiating or explosive gases (carbon dioxide and methane) calculated by multiplying the total concentration (percentage/volume) of each gas by the gas flow rate (l/hr) measured within the boreholes.

In the absence of any detectable flow rates, the GSVs have been calculated assuming that a flow rate equal to the limit of detection of the instrument (0.1l/hr) was present.

The following table summarises the calculated GSVs for the site:

Table 11. Calculated GSVs for Carbon Dioxide and Methane

Gas	GSV
Carbon Dioxide	$0.102 \times 0.1 = 0.0102$
Methane	$0.051 \times 0.1 = 0.0051$

For standard low rise housing, the NHBC have developed a characterisation system which compares the calculated GSVs or typical maximum values to generic "traffic light" scenarios.

Whilst Table 8.7 of the CIRIA document would place the site in "Green", provided that a well-ventilated sub floor void is installed, the typical maximum values for carbon dioxide and methane for this classification are 5% and 1%, respectively.

Due to the significant depth of made ground recorded and the potential for localised pockets of organic material being present there is the potential for elevated gas flow rates to occur,

particularly during periods of prolonged low pressure, and in this event the calculated GSV may put the site into "Amber 1".

It is therefore considered that gas protection measures suitable for an Amber 1 site should be incorporated into all the proposed residential properties on the site. This should include a ventilated sub floor along with a suitable gas resistant membrane sealed within the floor slab and across any wall cavity. All service penetrations must be suitably sealed.

For the commercial part of the site, or any residential buildings not meeting the typical two storey house specification for the NHBC traffic light system, Table 8.5 of the CIRIA document puts the site into Characteristic Situation 1 for the calculated GSV. However, as with the traffic light system, concentrations of carbon dioxide and methane have been recorded above the typical maximum values for this characteristic situation.

It is considered that the commercial development site should be considered to be in Characteristic Situation 2 which requires at least 2 types of protective measures to be incorporated into proposed buildings. These would typically comprise the provision of sub floor ventilation either in the form of a void, or some form of venting layer, along with provision of a suitable gas resistant membrane sealed within the floor slab and across any cavities. All service penetrations would need to be suitably sealed.

5.9 Quantitative Contamination Risk Assessment

Discussion of the ground contamination sources, pathways and receptors in the context of the proposed development and site setting is discussed below.

5.9.1 Residential Development

5.9.1.1 Identified Sources

The following sources of contamination that may pose a risk to end users of the residential development have been identified by the assessment of the site:

- 1) Metal and PAH compound contaminated made ground soils across the site.
- 2) Elevated concentrations of ground gases beneath the site.

5.9.1.2 Potential Pathways

The following pathways are considered to link the identified sources with the proposed end users of the development:

- a) Dermal contact with soil (Indoor & Outdoor).
- b) Direct soil and dust ingestion.
- c) Consumption of homegrown produce, including soils attached to homegrown produce
- d) Inhalation of indoor and outdoor soil dust.
- e) Inhalation of soil gases.

5.9.1.3 Conceptual Model for End Users

A conceptual model for end users of the proposed development is presented in the following table. A diagrammatic representation of the conceptual model is presented as Figure 5.

Table 12. Conceptual Model for End Users – Pollutant Linkages and Assessment of Risk

Contaminant Source	Potential Pathway(s)	Likelihood	Severity	Assessment of Risk to Human Health
1) Metal and PAH compound contaminated made ground soils across the site.	a) Dermal contact with soil (Indoor & Outdoor). b) Direct soil and dust ingestion. c) Consumption of homegrown produce, including soils attached to homegrown produce. d) Inhalation of indoor and outdoor soil dust.	Moderate	Moderate	Moderate
2) Elevated concentrations of ground gases beneath the site.	e) Inhalation of soil gases.	Moderate	Moderate	Moderate

5.9.2 Commercial Development

5.9.2.4 Identified Sources

The following source of contamination that may pose a risk to end users of the commercial development has been identified by the assessment of the site:

- 1) Elevated concentrations of ground gases beneath the site.

5.9.2.5 Potential Pathways

The following pathway is considered to link the identified sources with the proposed end users of the development:

- a) Inhalation of soil gases.

5.9.2.6 Conceptual Model for End Users

A conceptual model for end users of the proposed development is presented in the following table. A diagrammatic representation of the conceptual model is presented as Figure 6.

Table 13. Conceptual Model for End Users – Pollutant Linkages and Assessment of Risk

Contaminant Source	Potential Pathway(s)	Likelihood	Severity	Assessment of Risk to Human Health
1) Elevated concentrations of ground gases beneath the site.	a) Inhalation of soil gases.	Moderate	Moderate	Moderate

5.9.3 Controlled Waters

5.9.3.7 Identified Sources

The following source of contamination that may pose a risk to controlled waters has been identified by the assessment of the site:

- 1) Metal and PAH compound contaminated made ground soils across the site.

5.9.3.8 Potential Pathways

The following pathway is considered to link the identified source with controlled waters beneath the site:

- a) Migration through soils and groundwater flow.

5.9.3.9 Conceptual Model for Controlled Waters

A conceptual model for controlled waters is presented in the following table.

Table 14. Conceptual Model for Controlled Waters – Pollutant Linkages and Assessment of Risk

Contaminant Source	Potential Pathway(s)	Likelihood	Severity	Assessment of Risk to Controlled Waters
1) Metal and PAH compound contaminated made ground soils across the site.	f) Migration through soils and groundwater flow.	Very Low	Very Minor	Negligible

5.10 Risks to Other Potential Receptors

The following general guidance is given with regard to other potential on site receptors, which may not necessarily be statutory drivers for remedial works.

The concentrations of contaminants recorded at the site are considered unlikely to pose an acute risk to workers on the site. However, as a minimum and in accordance with industry best practice all ground-workers should be issued with the appropriate PPE and should be instructed in safe working methods.

As a precautionary measure instructions should be given in the recognition of potentially hazardous materials, including oily and odorous soil and water and discoloured or fibrous substances. Any oil-like substances contacting the skin must be washed off immediately using an appropriate cleanser. Operatives should be warned to avoid contact between hands and mouth before washing. The consumption of food and smoking must be confined to designated clean areas. Suitable welfare (washing) facilities should be provided. These precautions should be taken in addition to anything highlighted by a site specific risk assessment which should be undertaken by any contractor prior to commencing work.

All site personnel should be appropriately briefed on what actions to take in the event that evidence of significant contamination is identified or suspected.

6. WASTE MANAGEMENT

Soils and other materials taken for disposal should be handled, transferred and disposed of as controlled waste in accordance with the requirements of the Waste Management, Duty of Care Regulations. Copies of waste transfer notes detailing the site address, the waste type, details of the haulage contractor and full details of the disposal site must be kept.

Waste classification of the soil samples tested has been carried out using the HazWasteOnline tool. The output sheets are presented in Appendix G.

Whilst the majority of the made ground samples tested have been classified as non-hazardous construction and demolition waste (EWC Code 17-05-04), a number of samples have been classified as hazardous construction and demolition waste (EWC Code 17-05-03*) due to the concentrations of PAH compounds present.

Plotting the locations where the hazardous material was located on a plan indicates they cluster around the area of deepest made ground in the central and southern part of the site, with the shallow soils in borehole WS101 (located in the south western corner of the site) also being identified as hazardous.

Figure 7 shows the approximate extent of the made ground soils which should be considered to be hazardous based on the testing undertaken to date. To refine this plot would require further sampling and testing at closer sample point spacing.

The WAC testing undertaken indicates that the made ground soils would not generally be suitable for disposal as inert waste due to the leachable concentrations of heavy metals.

All the samples of the undisturbed soils tested have been classified as non-hazardous construction and demolition waste (EWC Code 17-05-04). However, the WAC testing carried out on two of the samples has recorded both to contain concentrations of leachable sulphate above the limit for disposal as inert waste.

7. REMEDIATION STRATEGY

CLR11 - Model Procedures for the Management of Contaminated Land recommends that remedial action proposed for the site should be justified. Remedial action has been justified due to the significant pollutant linkages identified within the contamination risk assessment report. Also as discussed in CLR11, the remediation options have been developed to meet the technical objectives for the development with the major drivers behind the recommendations being:

- To achieve successful remediation within a particular timescale and budget;
- Familiarity with the methodology by the developer/ground worker;
- Confidence that the remediation can be carried out by good technical practices; and
- Likely success of the style of remediation.

The remedial measures proposed are based upon the risk assessment presented within this report. In the event that the proposed site use is altered from that proposed in Figure 3 then the remediation strategy may need to be revised along with the risk assessment.

7.1 Proposed Treatment of Existing Contamination

7.1.1 Protection of Human Health

The following works are recommended to address the potential risks identified to the health of end users of the site. Details of how these works will be verified are provided in Section 8 of this report.

Within proposed areas of private garden and general soft landscaping within the residential part of the proposed development, it is considered that either the complete removal of all made ground soils or the provision of a cover system of suitable soils will reduce the potential risk to end users of the development to an acceptable level by either removing the contaminant source or severing the contaminant pathway. The extent of the areas where such remedial work is required is shown on Figure 8. No specific soil cover system is required within the area of proposed commercial development.

Elsewhere on the site it is considered that the presence of building cover (incorporating gas protection measures), roadways and permanent access ways comprising hard cover will also act to sever the contaminant pathways and thereby reduce the risk to end users to an acceptable level.

The gas risk assessment has determined that the site should be classified the site as "Amber 1" (standard low rise housing) or Characteristic Situation 2 (all other buildings) as set out in CIRIA C665.

The guidance recommends that a membrane, designed to be suitable for respective the classifications above, should be incorporated into the floor slab of all of the proposed buildings, along with the provision of an adequately ventilated sub floor void.

7.1.1.10 Depth of Cover System within Residential Development Area

Within private garden areas (both front and rear) it is proposed that the cover system should comprise 600mm of material with concentrations of contaminants no greater than the calculated soil screening values proposed in Table 15 of this report.

The depth of the cover system has been set at “two spade depths” to allow for residents of the properties to dig to a reasonable depth within the gardens to allow planting of trees, placement of fencing etc. without being likely to come into contact with the contaminated soils remaining at depth.

It is noted that the cover system must extend beneath any areas of patio or decking within the gardens to protect end users in the event that future residents decide to change the layout of the gardens. In these areas the cover system may comprise clean crushed materials (e.g. crushed brick and concrete).

Within other areas of general soft landscaping surrounding the residential development which are not privately owned and which will be managed by a third party, significant excavation into the cover system by end users is unlikely to take place at significant frequency and any deeper works would be expected to be undertaken by outside contractors. In these areas it is therefore considered that a cover system of 300mm of material with concentrations of contaminants no greater than the calculated soil screening values proposed in Table 16 of this report would be sufficient to ameliorate risk.

To prevent future mixing of the contaminated made ground soils and imported cover materials, a layer of geotextile should be placed at the base of the cover soils where any potentially contaminated made ground material may remain. No geotextile would be required within any areas where all made ground soils have been removed, though given the depths of made ground encountered within the southern part of the site it is considered unlikely that this will be the case.

7.1.1.11 Gas Protection Measures

Within all residential housing the sub floor void should be a minimum of 150mm deep. Sufficient perimeter ventilation should be provided to allow at least one complete air volume change every 24 hours.

Within the commercial units the ventilation layer may either comprise an open void beneath the floor slab or the provision of a granular or synthetic void former. Fine grained material is unlikely to provide adequate ventilation.

The membrane should be installed by an appropriately trained and experienced contractor and must be fully sealed across all wall cavities. All service penetrations must also be sealed to the membrane.

7.1.1.12 Protection of Services

A comparison of the test results with the screening criteria set out within Table 3.1 of the “Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites” published by UK Water Industry Research in 2010 indicates that the protection of water supply services is unlikely to be required. However it is noted that the testing undertaken to date does not encompass all of the contaminants that may be required by water supply companies for assessment purposes. Notwithstanding the above it is strongly recommended that designers consult with the proposed water supply company to ascertain whether they require further laboratory testing and assessment specific to proposed routes of services.

All service providers’ requirements must be fully adhered to in order to reduce the risk to end users and services to an acceptable level.

Details of any measures required by service providers and confirmation of their implementation should be included within the verification report.

7.1.2 Protection of Controlled Waters

The risk assessment has not identified any significant risk to controlled waters beneath the site and therefore no specific remedial measures are considered to be required in this regard.

7.1.3 Protection of Construction Workers

The contamination identified within the made ground at the site is not considered to pose a significant acute risk to construction workers. However, there is the potential for ground gases to build up within any confined spaces or within trenches and an appropriate risk assessment should be undertaken before any such works are undertaken.

As a minimum and in accordance with industry best practise all ground-workers should be issued with the appropriate PPE and should be instructed in safe working methods. As a precaution instructions should also be given in the recognition of potentially hazardous materials, including oily and odorous soil and water and discoloured or fibrous substances. Any oil-like substances contacting the skin must be washed off immediately using an appropriate cleanser. Operatives should be warned to avoid contact between hands and mouth before washing. The consumption of food and smoking must be confined to designated clean areas. Suitable welfare (washing) facilities should be provided.

7.2 Watching Brief on Development Works

As part of the ongoing development works, should any other materials that are suspected of being contaminated be encountered then Ashdown Site Investigation Ltd. should be informed so they can inspect the materials and advise on what actions may be required.

Depending on the materials encountered, further testing and assessment may be necessary. In the event that further assessment indicates that amendments are required to the remediation strategy, then the local authority should be consulted for their comment and approval. All additional works should be fully documented and included in the final verification report.

8. VERIFICATION PLAN

8.1 Inspection of Stripped Formations

Following removal of either all, or a sufficient depth of contaminated soil from within proposed areas of private garden and general soft landscaping surrounding the residential development, the stripped formations will be inspected by Ashdown Site Investigation Ltd. prior to placement of the geotextile marker and cover soils.

A photographic record of the stripped formations will be maintained.

8.2 Cover System Materials

Any imported material from a potentially contaminated (e.g. industrial) site should be rejected. It is recommended that chemical testing results are obtained and supplied for comment prior to accepting the soils on site.

Once imported cover materials have been brought to site they should be stockpiled and protected from cross contamination with any other materials already on site. They will then be inspected, sampled and tested by Ashdown Site Investigation Ltd. The depth of cover material placed in the garden areas should be confirmed by tape measurements made either within excavated pits or boreholes, or a mixture of the two.

All materials used to form the cover system must comply with current CLEA guidance for soils suitable for use within private gardens or soft landscaping surrounding the residential development. Tables 15 and 16, below, summarise the screening values against which the test results will be assessed for the residential garden and soft-landscaping areas, respectively.

The material should display no visual or olfactory evidence of petroleum hydrocarbon contamination and contain no significant quantity of putrescible material (incl. wood or paper). The soils should be free from any asbestos containing materials. In addition to testing for the contaminants listed in the tables below, screening of samples for the presence of asbestos fibres and petroleum hydrocarbons will be carried out.

In addition to the above, all materials used within the cover system should be free from propagules of aggressive weeds, fragments of glass, bricks, concrete, wire or other potentially hazardous foreign matter and bulk vegetative growth, in order to ensure negligible risk of subsequent weed problems (introduced in the soil) or traumatic injury.

Table 15. Calculated soil screening values for imported soils – Private Garden Areas

Contaminant	Screening Value (mg/kg)	Contaminant	Screening Value (mg/kg)
Arsenic	37	Fluorene*	160
Cadmium	26	Phenanthrene*	92
Chromium	627	Anthracene*	2300
Lead	200	Fluoranthene*	260
Mercury	170	Pyrene*	560
Nickel	130	Benz(a)anthracene*	3.1

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Contaminant	Screening Value (mg/kg)	Contaminant	Screening Value (mg/kg)
Copper	2330	Chrysene*	6
Zinc	3750	Benzo(b)fluoranthene*	5.6
Selenium	350	Benzo(k)fluoranthene*	8.5
Boron	300	Benzo(a)pyrene	5
Chromium VI	21	Indeno(123-cd)pyrene*	3.2
Naphthalene*	1.5	Dibenz(ah)anthracene*	0.76
Acenaphthylene*	170	Benzo(ghi)perylene*	44
Acenaphthene*	210		

*Calculated using a soil organic content of 1%

Table 16. Calculated soil screening values for imported soils –Soft Landscaping Areas

Contaminant	Screening Value (mg/kg)	Contaminant	Screening Value (mg/kg)
Arsenic	40	Fluorene*	1850
Cadmium	149	Phenanthrene*	830
Chromium	627	Anthracene*	19000
Lead	310	Fluoranthene*	970
Mercury	268	Pyrene*	2300
Nickel	130	Benz(a)anthracene*	3.7
Copper	6200	Chrysene*	8.8
Zinc	40300	Benzo(b)fluoranthene*	7.0
Selenium	595	Benzo(k)fluoranthene*	10.1
Boron	10300	Benzo(a)pyrene	5.3
Chromium VI	21	Indeno(123-cd)pyrene*	4.2
Naphthalene*	1.6	Dibenz(ah)anthracene*	0.9
Acenaphthylene*	1950	Benzo(ghi)perylene*	46.6
Acenaphthene*	2000		

*Calculated using a soil organic content of 1%

It is noted that the screening values are only protective of long term risk to human health and do not necessarily represent suitable concentrations for planting or landscaping. If necessary, a horticulturalist should be consulted in this regard.

In the event of a soil verification failure, initially additional sampling will be undertaken in the affected plot(s), followed by statistical analysis of the testing results to assess the significance of that failure. Liaison with regulators will be undertaken in the event that materials not complying with the assessment criteria are to be considered for retention in situ. Where testing and analysis identify a significant failure and mitigation measures cannot be implemented the imported soils will be removed and replaced with suitable soils.

8.3 Inspection of Gas Protection Measures

Prior to the installation of the membrane a detailed method statement for the works must be provided to Ashdown Site Investigation Ltd. A copy of the method statement will be included in the verification report.

The method statement should include full details of the membrane that will be used, including technical specifications; how the areas will be prepared prior to placement of the membrane; the method of sealing the membrane and penetrations and how repairs will be carried out in the event of damage occurring during the installation works or during subsequent construction works.

An engineer from Ashdown Site Investigation Ltd. will inspect the membrane following the installation of the perimeter area and then again following the installation of the infill membrane. In the event that any damage or unsealed areas are identified additional inspections may be required to confirm they have been repaired in accordance with the method statement. The membrane should be protected from damage either by screeding or other methods as soon as practicably possible after inspection.

The membrane installer should provide either a written statement confirming that the works were carried out in accordance with the method statement or appropriate sign off sheets confirming that the works have been undertaken. This should be included within the verification report.

A photographic record of the membrane installation will be maintained and included in the verification report.

9. POST REMEDIATION RISK ASSESSMENT

The remedial works set out above are considered to remove or sever the identified pollutant linkages. Post remediation conceptual models for the residential and commercial parts of the site are presented below.

9.1.1 Residential Development

A diagrammatic representation of this conceptual model is presented as Figure 9.

Table 17. Quantitative Conceptual Model for End Users – Potential Pollutant Linkages and Assessment of Risk

Contaminant Source	Remedial Measures	Potential Pathway(s)	Assessment of Risk to Human Health
1) Metal and PAH compound contaminated made ground soils across the site.	Removal of all made ground soils or placement of 600mm of verified cover soils over a geotextile within all private garden areas.	Pathways severed by remedial measures	No significant pollutant linkages identified.
	Removal of all made ground soils or placement of 300mm of verified cover soils over a geotextile within all soft landscaping areas.		
2) Elevated concentrations of ground gases beneath the site.	Provision of ventilated sub floor void and correctly installed gas resistant membrane	Pathways severed by remedial measures	No significant pollutant linkages identified.

9.1.2 Commercial Development

A diagrammatic representation of this conceptual model is presented as Figure 10.

Table 18. Quantitative Conceptual Model for End Users – Potential Pollutant Linkages and Assessment of Risk

Contaminant Source	Remedial Measures	Potential Pathway(s)	Assessment of Risk to Human Health
1) Elevated concentrations of ground gases beneath the site.	Provision of sub floor ventilation and correctly installed gas resistant membrane	Pathway severed by remedial measures	No significant pollutant linkages identified.

10. DESIGN PRINCIPLES FOR POST DEVELOPMENT WORKS

It is noted that the proposed remediation scheme is specific to the proposed development. The proposals are not designed to completely remove all sources of contamination. Any changes to the proposed end use may require a revised risk assessment and/or additional remedial measures.

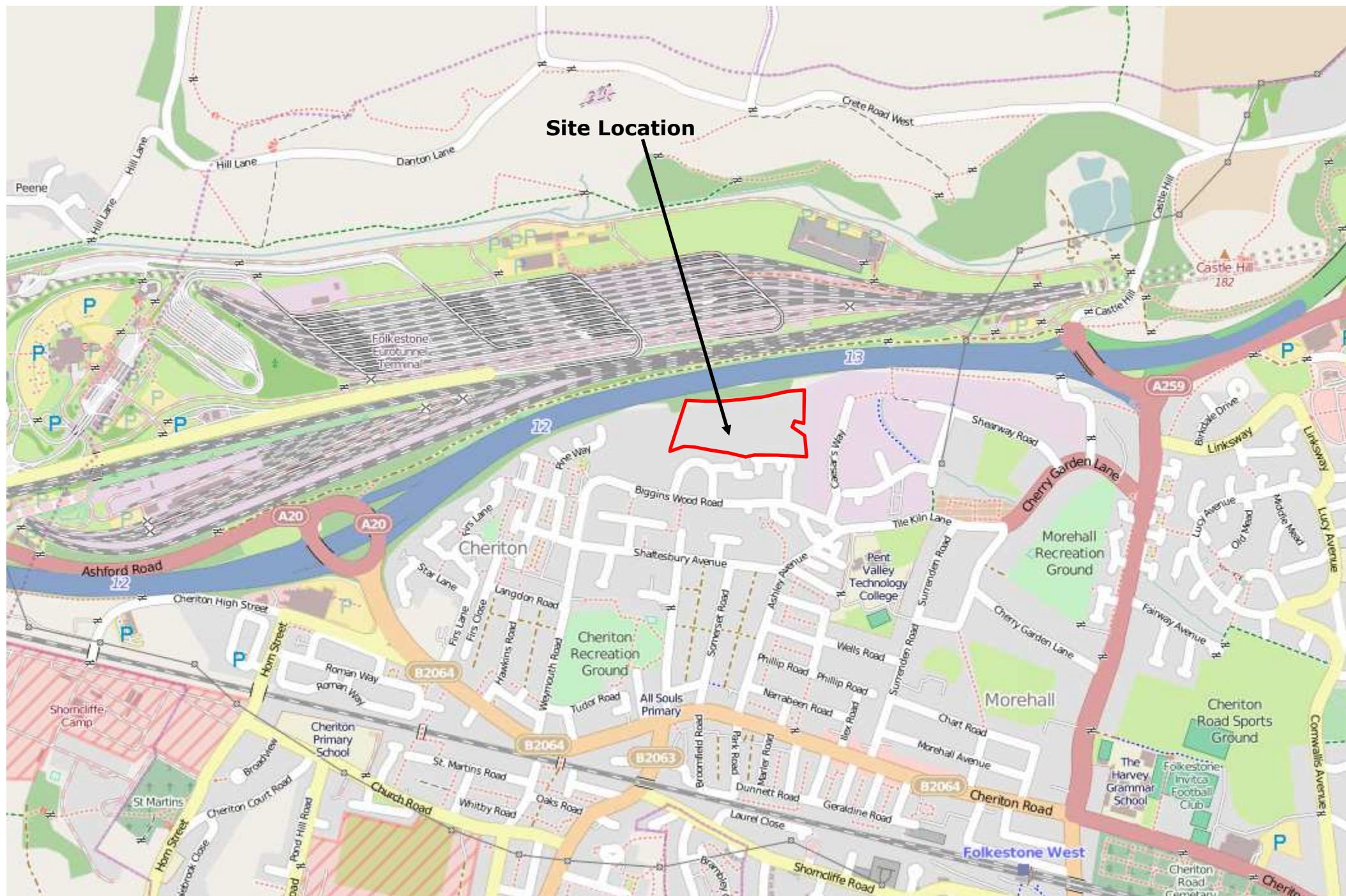
The following principles are suggested for consideration in any future development at the site:

- Potential risks to possible receptors (including site users, site maintenance and construction personnel, buried services, building fabric and introduced vegetation) from any residual contamination must be identified by a new risk assessment at that time. Any redevelopment or modifications to the site (e.g. removing patios or converting communal gardens to individual domestic gardens) shall be managed in accordance with regulatory requirements.
- Aesthetic considerations such as visibility and odour will need to be taken into account in the design of protective measures for new works, including consideration of the effects from residual contamination on new buried services and building fabric (for example where new water supply pipes are fitted). Service providers should be consulted and agreement obtained prior to works taking place.
- Any further treatment of contamination, changes to final ground conditions and any resultant ongoing maintenance obligations must be documented.

Ashdown Site Investigation Ltd.
September 2014

FIGURES

- Figure 1 Site Location Plan
 - Figure 2 Borehole Location Plan
 - Figure 3 Proposed Development Layout
 - Figure 4 Preliminary Conceptual Model
 - Figure 5 Quantitative Conceptual Model – Residential Development
 - Figure 6 Quantitative Conceptual Model – Commercial Development
 - Figure 7 Site Plan Indicating Approximate Extent of Hazardous Made Ground
 - Figure 8 Remediation Plan
 - Figure 9 Post Remediation Conceptual Model – Residential Development
 - Figure 10 Post Remediation Conceptual Model – Commercial Development
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**ASHDOWN SITE
INVESTIGATION**
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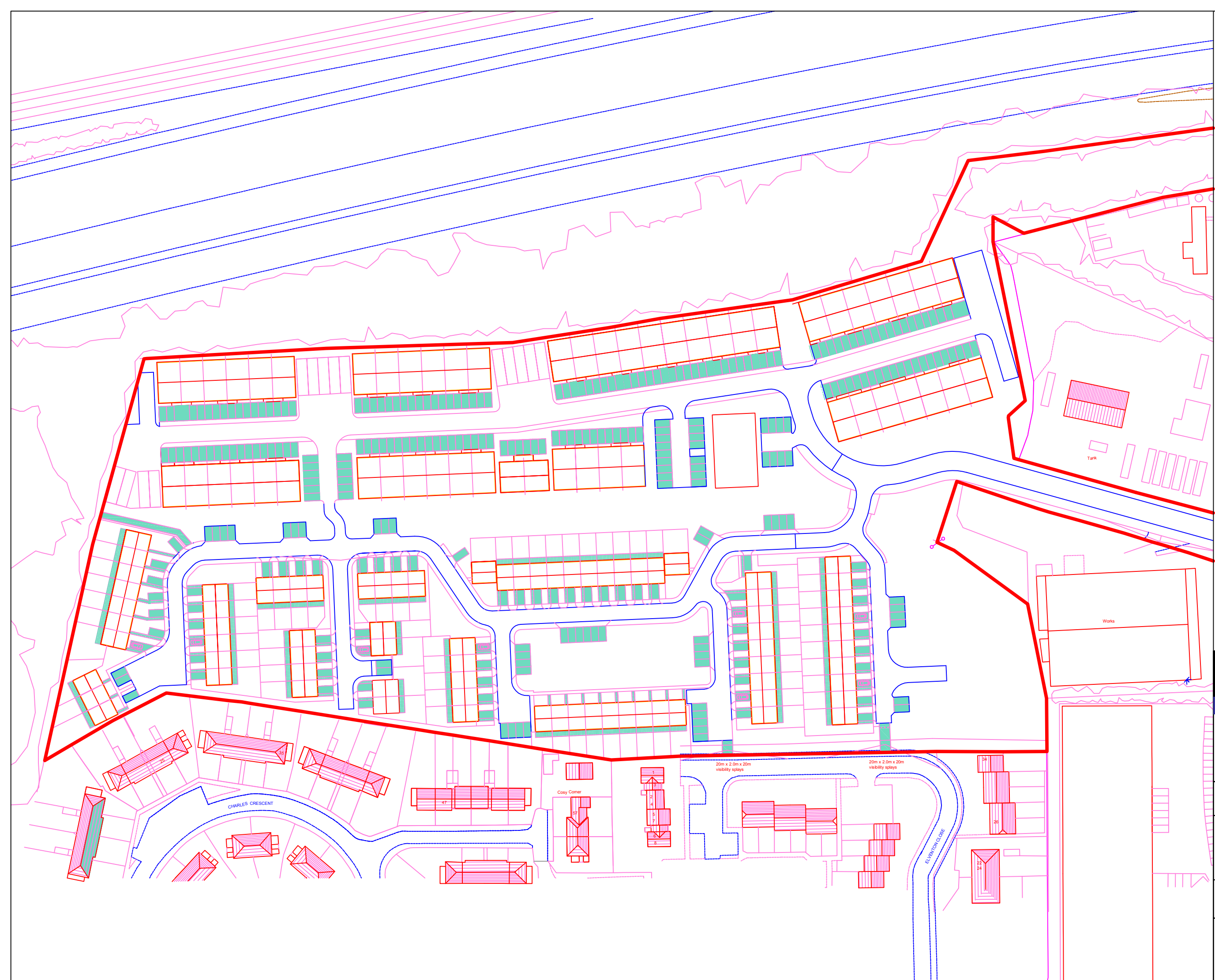
The Old Dairy,
Swanborough Farm,
Swanborough,
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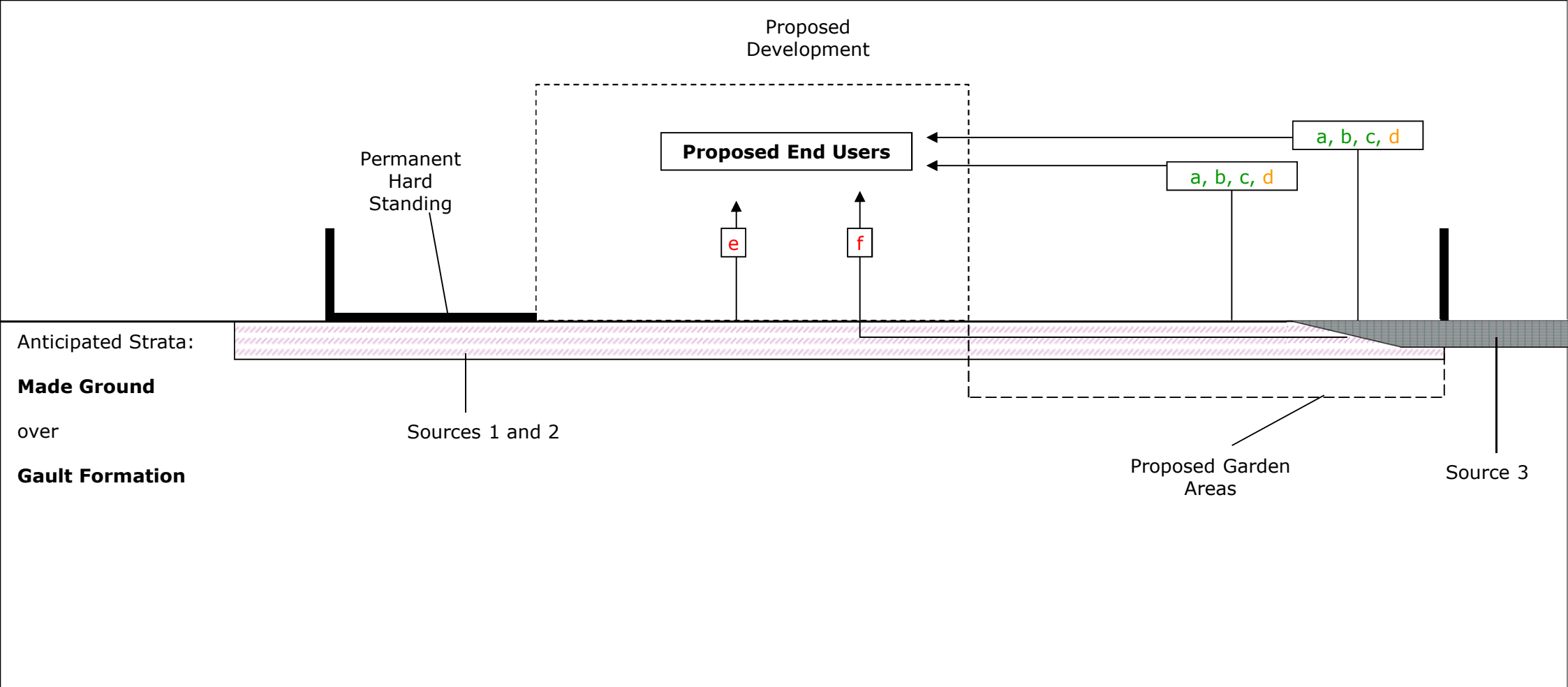
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SITE:
Biggins Wood
Folkestone
Kent

REPORT REF.: LW25193	FIGURE NO.: Figure 3
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DRAWING TITLE:
Proposed Development Layout





Anticipated Strata:
Made Ground
over
Gault Formation

Sources 1 and 2

Proposed Garden Areas

Source 3

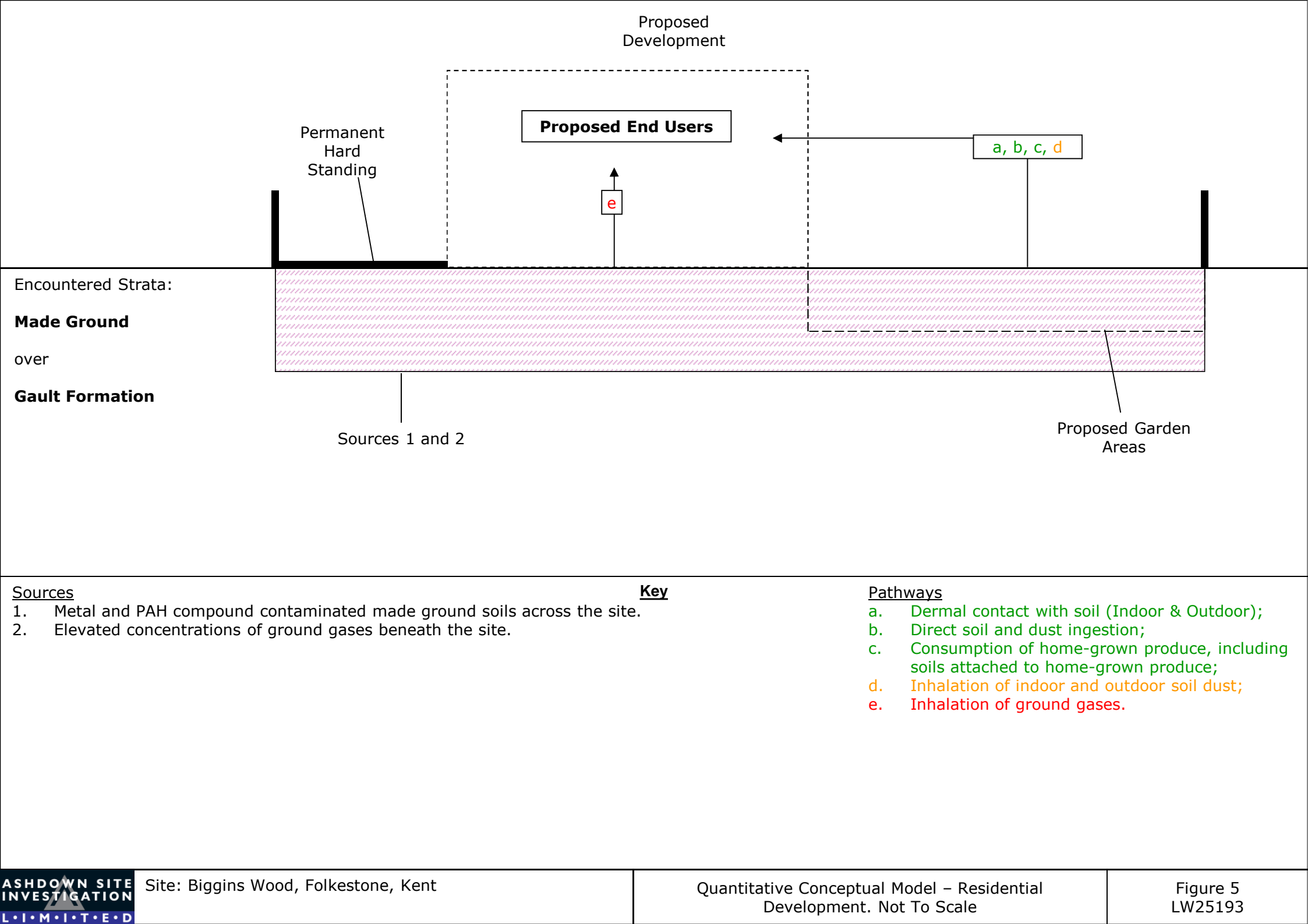
Sources

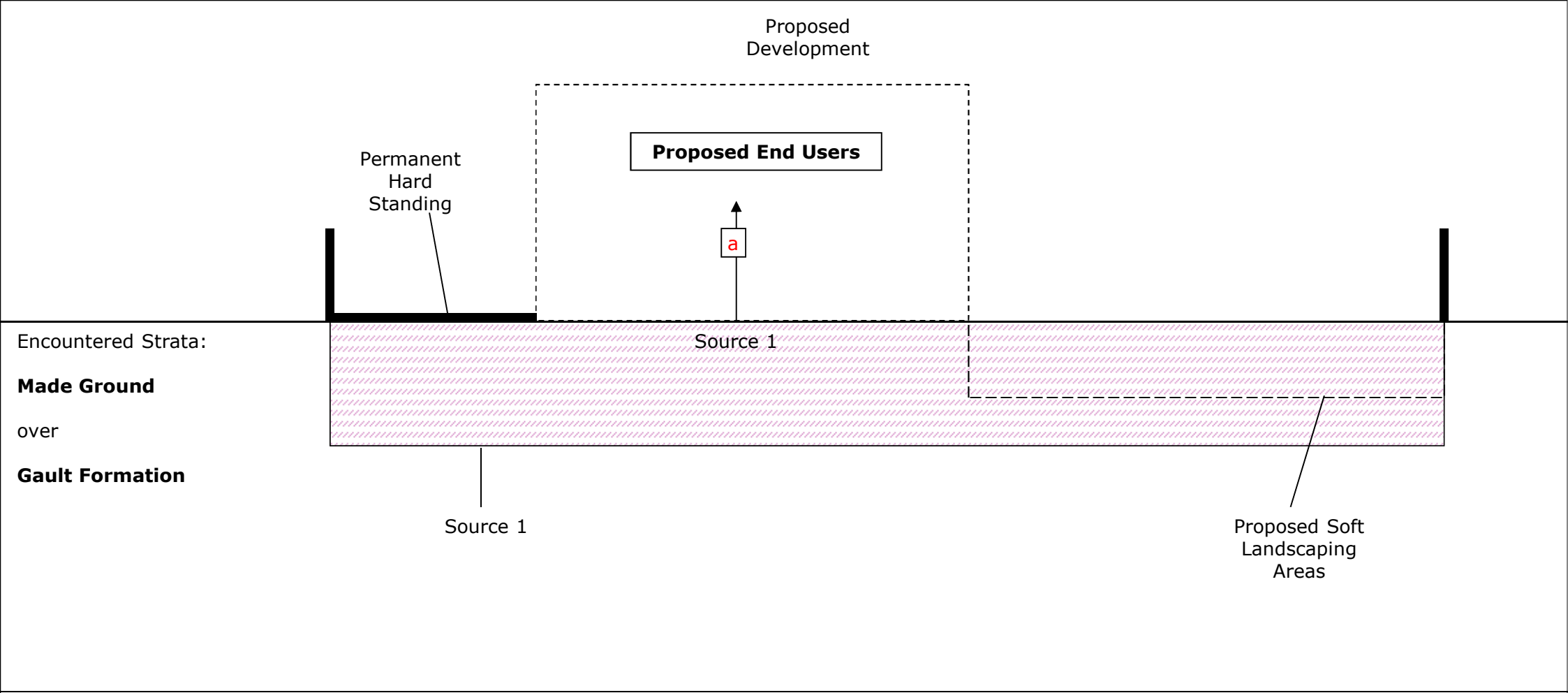
1. Potential for metal, PAH compound, petroleum hydrocarbons and asbestos contamination from backfilled ground workings and demolition of historic structures across the site..
2. Potential for generation of ground gases from backfilled ground workings across the site.
3. Potential migration of petroleum hydrocarbons from adjacent coach works and industrial sites to the east.

Key

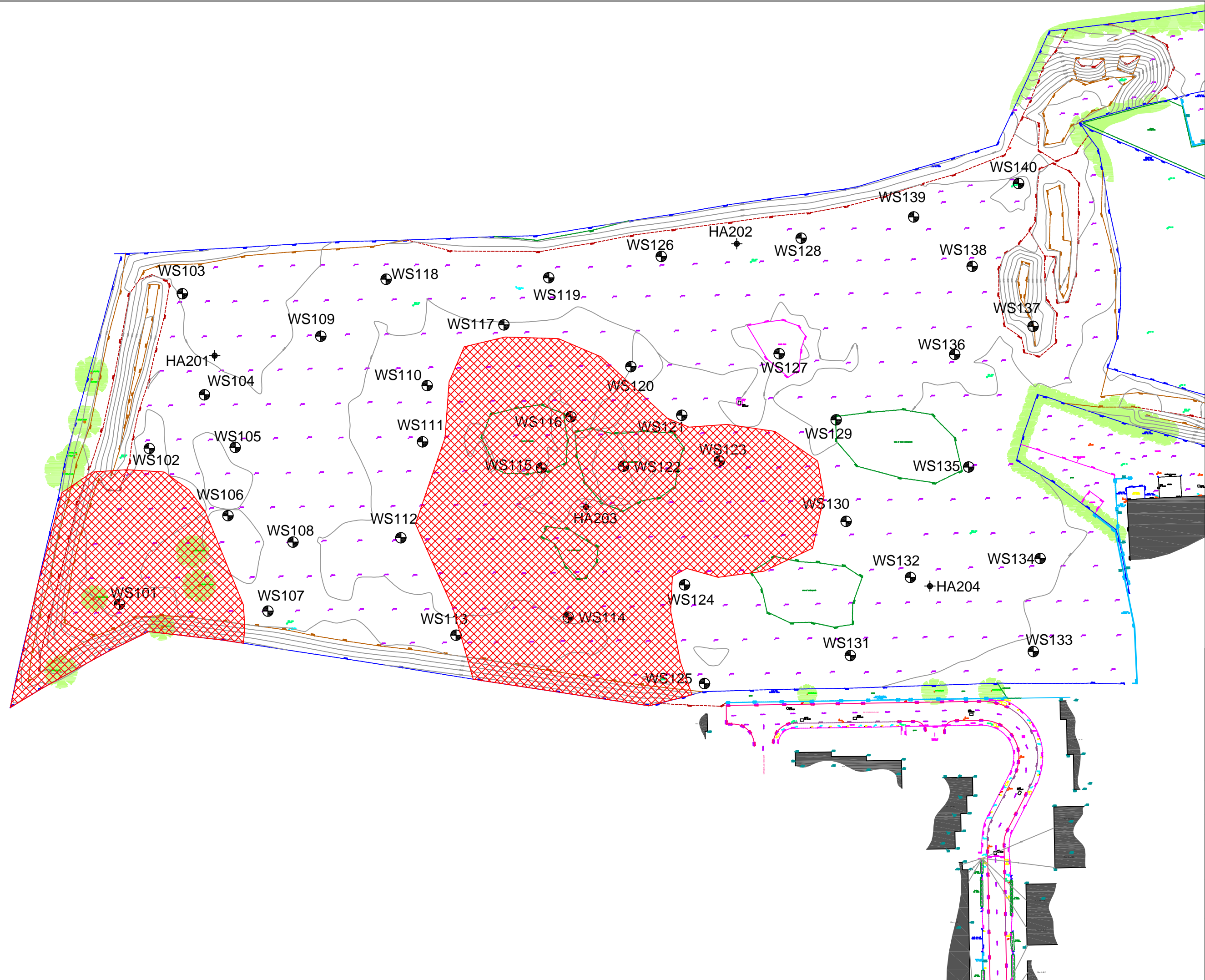
Pathways

- a. Dermal contact with soil (Indoor & Outdoor);
- b. Direct soil and dust ingestion;
- c. Consumption of home-grown produce, including soils attached to home-grown produce;
- d. Inhalation of indoor and outdoor soil dust;
- e. Inhalation of ground gases; and
- f. Inhalation of soil vapours.





- Sources
1. Elevated concentrations of ground gases beneath the site.
- Key
- Pathways
a. Inhalation of ground gases.



Approximate extent of Made Ground Soils at the site that should be considered to be hazardous waste for disposal purposes.

ASHDOWN SITE INVESTIGATION

L · I · M · I · T · E · D

The Old Dairy,
Swanborough Farm,
Swanborough,
Lewes,
East Sussex
BN7 3PF

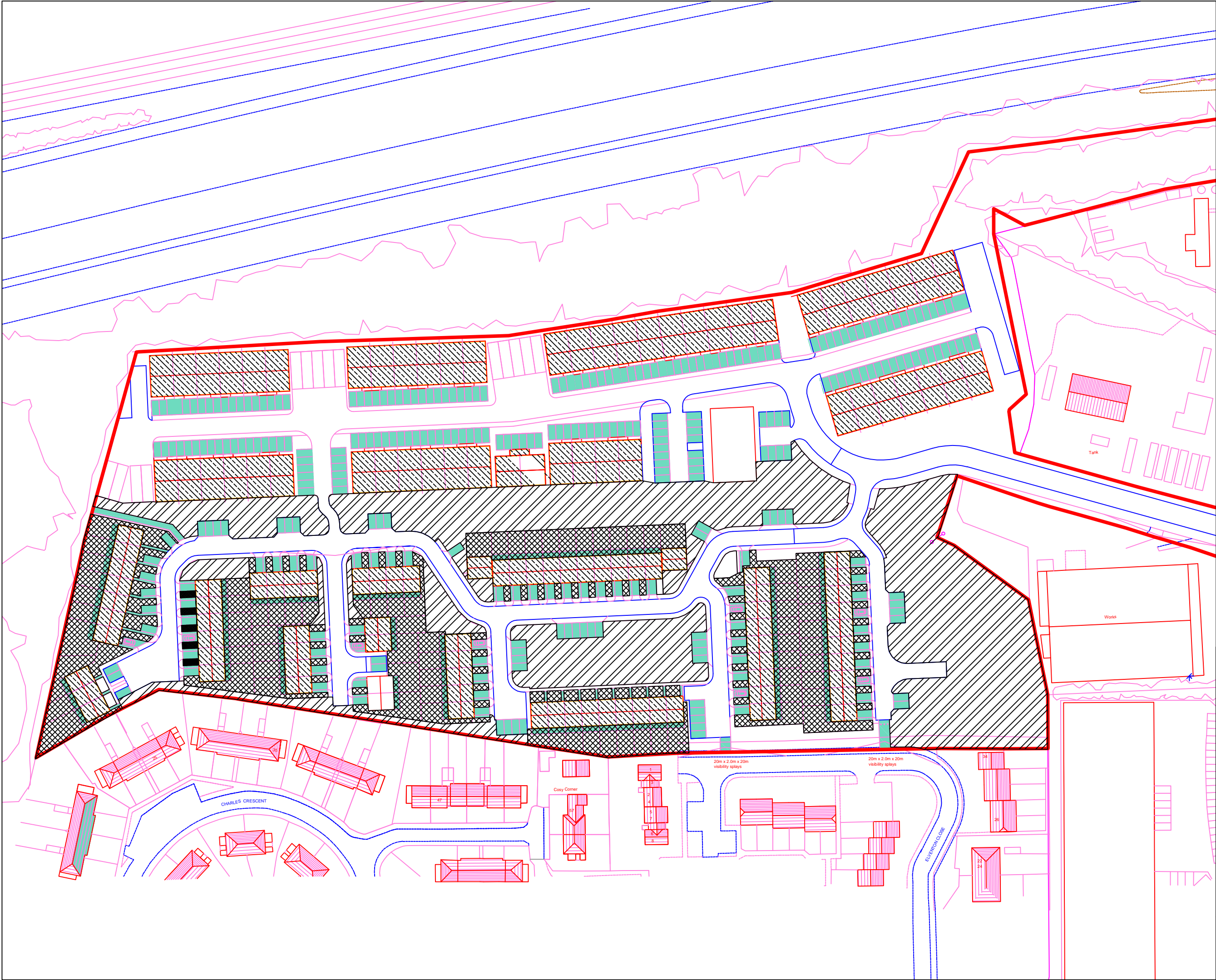
Tel: 01273 483119 Fax: 01273 483104
email: contact@ashdownsi.co.uk

DRAWN BY:	DATE:	SCALE (at A3):
TSH	July 2014	1:1000

SITE:
Biggins Wood
Folkestone
Kent

REPORT REF.:	FIGURE NO.:
LW25193	7

DRAWING TITLE:
Site Plan indicating approximate extent of hazardous Made Ground



Areas of Private Garden requiring either complete removal of made ground soils or provision of 600mm of cover soils above a geotextile.



Areas of general soft landscaping requiring either complete removal of made ground soils or provision of 300mm of cover soils above a geotextile.



Proposed Buildings requiring sub floor ventilation and provision of a gas resistant membrane.

ASHDOWN SITE INVESTIGATION

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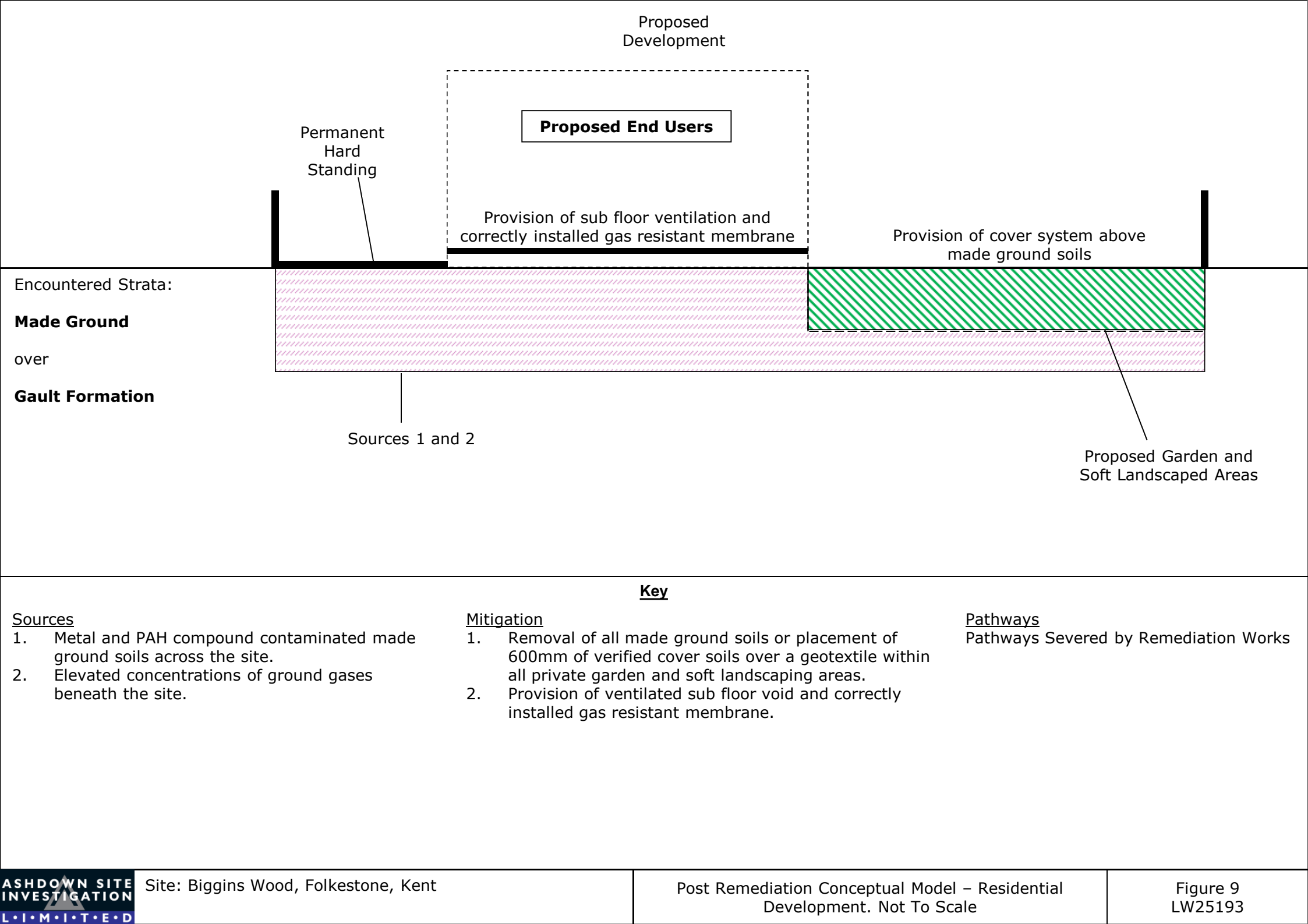
The Old Dairy,
Swanborough Farm,
Swanborough,
Lewes,
East Sussex
BN7 3PF
Tel: 01273 483119 Fax: 01273 483104
email: contact@ashdownsi.co.uk

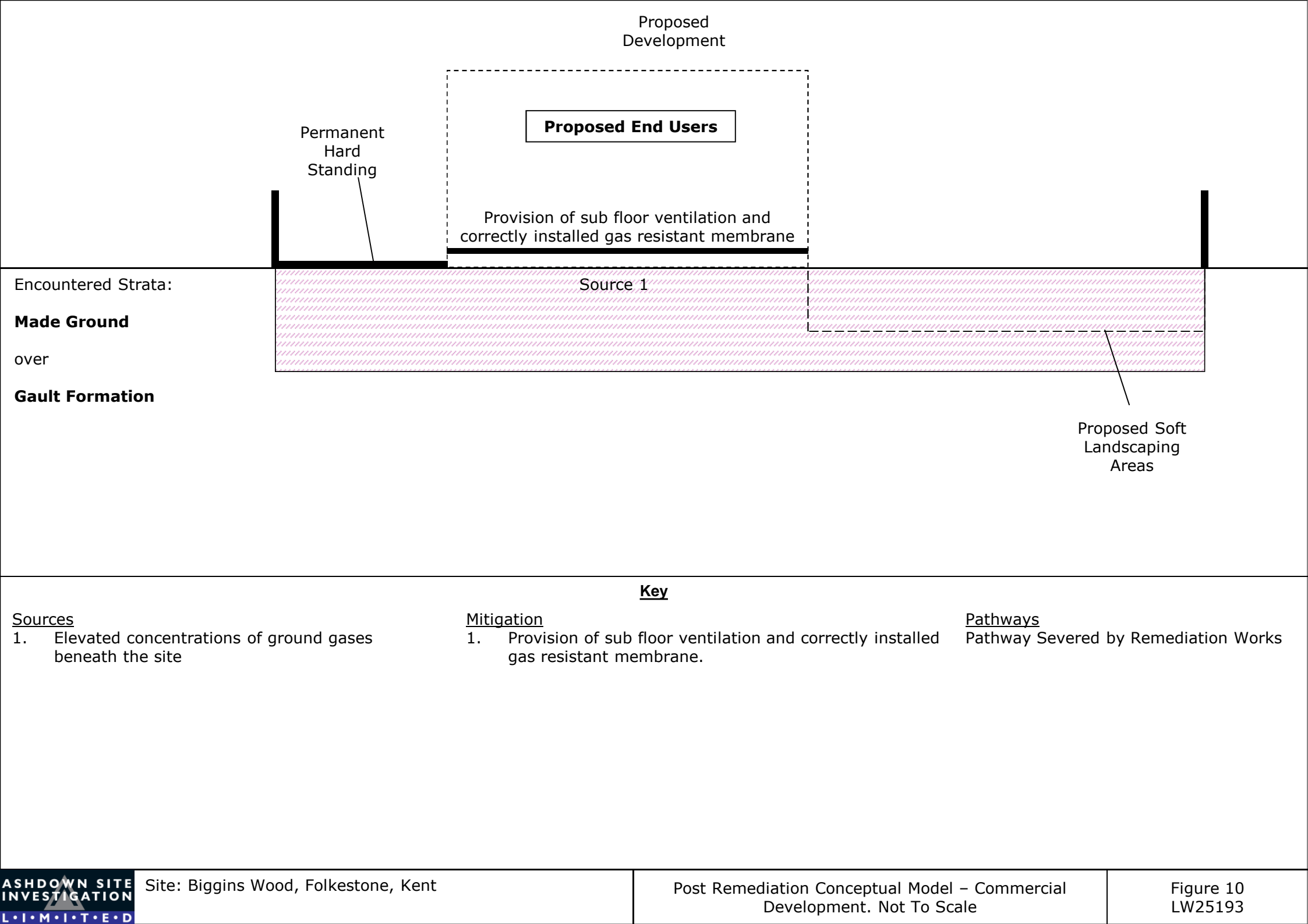
DRAWN BY:	DATE:	SCALE (at A3):
AB	Sept 2014	NTS

SITE:
Biggins Wood
Folkestone
Kent

REPORT REF.:	FIGURE NO.:
LW25193	Figure 8

DRAWING TITLE:
Remediation Plan





APPENDIX A

Site Walkover Photographs



Concrete batching plant immediately east of the site .



Electrical substation and unspecified works east of site.



Parking and maintenance area for coaches east of the site.



Storage warehouse immediately south east of site.



Residential buildings immediately south of the site.



Residential buildings immediately south of the site.



Made ground on site.



Made ground on site.

APPENDIX B

Classification of Likelihood, Severity and Risk

Likelihood	Definition
High	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Moderate	There is a pollution 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	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Very Low	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

Severity	Definition
Severe	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short term risk to a particular ecosystem or organisation forming part of such ecosystem.
Moderate	Chronic damage to Human Health. Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem or organism forming part of such ecosystem.
Minor	Pollution of non sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment.
Very Minor	Harm, although not necessarily significant harm, which may result in a financial loss or expenditure to resolve. Non permanent health effects to human health (easily prevented by means such as personal protective clothing, etc). Easily repairable effects of damage to buildings, structures and services.

Risk	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the long term.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but there is a low likelihood of this hazard occurring and if realised, harm would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

APPENDIX C

Exploratory Hole Notes
Exploratory Hole Records
Summary of Gas Analyses and Water Depths

NOTES FOR THE INTERPRETATION OF EXPLORATORY HOLE RECORDS

1 Symbols and abbreviations

Samples

U	'Undisturbed' Sample: - also known as 'U100' or 'U4' - 100mm diameter by 450mm long. The number of blows to drive in the sampling tube is shown after the test index letter in the SPT column.
Uo	Sample not obtained.
U*	Full penetration of sample not obtained.
U**	Full penetration obtained but limited sample recovered.
Pi	Piston Sample: 'Undisturbed' sample 100mm diameter by 600mm long.
D	Disturbed Sample.
R	Root Sample.
B	Bulk Disturbed Sample.
W	Water Sample.
J	Jar Sample (sample taken in amber glass jar fitted with gas tight lid)
T	Tub Sample
Vi	Vial Sample
E	Environmental Suite (including a jar sample, tub sample and vial sample)

In situ Testing

S	Standard penetration test (SPT): In the borehole record the depth of the test is that at the start of the normal 450mm penetration, the number of blows to achieve the standard penetration of 300mm (the 'N' value) is shown after the test index letter, but the seating blows through the initial 150mm penetration are not reported unless the full penetration of 450mm cannot be achieved. In the latter case, the symbols below are added to the test index letter:-
S(R)	Refusal of standard penetration test. Blow count reported includes seating blows. Total penetration of refused SPT reported in mm in brackets on borehole record.
So	'Split spoon' SPT sampler sank under its own weight. The test is usually completed when the number of blows reaches 50 (25 blows for seating count). The depths of both the top and bottom of the test drive are shown in the sample column on the Borehole Record. If a sample is not recovered in the sampler, a disturbed sample is taken over the depth of the test as boring continues.
C	Standard Penetration Test (SPT) conducted usually in coarse grained soils or weak rocks using the same procedure as for the SPT but with a 50mm diameter, 60° apex solid cone fitted in place of the sampler. Variations in test results are indicated by the same symbols as for the SPT (above).
V	Shear Vane Test: Undrained shear strength (cohesion) (kN/m^2) shown within the Vane/Pen Test and N Value column.
H	Hand penetrometer Test: Undrained shear strength (cohesion) (kN/m^2) shown within the Vane/Pen Test and N Value column.
P	Perth Penetrometer Test: See "In Situ Testing Notes" for full description. Number of blows for 300mm penetration shown under Vane/Pen Test and N Value column. In sand the number of blows is approximately equivalent to the SPT "N" value.

2 **Soil Description**

Description and classification of soils has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of soil, Part 1 Identification and description (BS EN ISO 14688-1:2002) and Part 2 Principles of classification (BS EN 14688-2:2004) as well as the BS5930:1990 + A2:2010 code of Practice for Site Investigations.

Fine Grained Soils

The consistency of fine grained soils given in the report is based on visual inspection of the samples and the strength is based on results of in situ and/or laboratory undrained shear strength tests when carried out.

The consistency is determined on the following basis:

Consistency	Manual Test
Very Soft	Soil exudes between fingers when squeezed in hand
Soft	Soils can be moulded by light finger pressure
Firm	Cannot be moulded by finger but rolled to 3mm threads without breaking/crumbling
Stiff	Crumbles/breaks when rolled to 3mm thick threads but can be moulded into a lump again
Very Stiff	Cannot be moulded and crumbles under pressure, can be indented by thumbnail

Based on BS EN ISO 14688-1:2002

The terms used for the designation of the undrained shear strength are as follows:

Undrained Shear Strength	
Extremely to Very Low	<20 kPa
Low	20-40 kPa
Medium	40-75 kPa
High	75-150 kPa
Very High	150-300 kPa
Extremely high	300-600 kPa

Based on BS EN ISO 14688-2:2004

Note: The undrained shear strength of the soils is measured either by laboratory testing or in the field using hand penetrometer or shear vane.

It is recognised that any coarse grained soil that has in excess of approximately 35% fine grained soil (clay and silt) can often be expected to behave as a fine grained soil despite the dominance of coarse grained material within the soil mass. To reflect this, it is the soil type that dominates the behaviour of the soil mass that appears on the exploratory hole records.

Coarse Grained Soils

The relative densities of coarse grained soils (sand and gravel) given in the report are based on field estimations and the results of the Standard Penetration Test (SPT) and equivalent correlation from other testing. The classification in terms of "N" Values is as follows:

SPT 'N' Value	Relative Density
0-4	Very Loose
4-10	Loose
10-30	Medium Dense
30-50	Dense
Greater than 50	Very Dense

3 **Rock Description**

Description and classification of rocks has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of rock, Part 1 Identification and classification (BS EN ISO 14689-1:2003) as well as the BS5930:1990 + A2:2010 code of Practice for Site Investigations.

The description of rock mass includes the type of rock, structure, discontinuities and weathering.

The unconfined compressive strength of rock material is determined on the following basis:

Term	Field Identification	Unconfined Compressive Strength (MPa)
Extremely Weak	Indented by thumbnail	Less than 1
Very Weak	Crumbles under firm blows with point of geological hammer, peeled by pocket knife	1 to 5
Weak	Peeled by pocket knife with difficulty, shallow indentations made by firm blow with geological hammer	5 to 25
Medium Strong	Cannot be peeled or scraped with knife, can be fractured with single firm blow of geological hammer	25 to 50
Strong	Requires more than one blow of geological hammer to fracture	50 to 100
Very Strong	Requires many blows of geological hammer to fracture it	100 to 250
Extremely Strong	Can only be chipped with geological hammer	Greater than 250

The terms describing discontinuity and bedding spacing are as follows:

Bedding Thickness

Very Thick	>2000mm
Thick	2000-600mm
Medium	600-200mm
Thin	200-60mm
Very Thin	60-20mm
Thickly Laminated	20-6mm
Thinly Laminated	<6mm

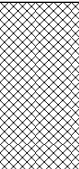

Discontinuity Spacing

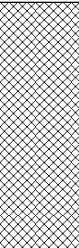
Very Wide	>2000mm
Wide	2000-600mm
Medium	600-200mm
Close	200-60mm
Very Close	60-20mm
Extremely Close	<20mm

Chalk

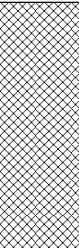
Chalk description is based on BS EN ISO 14688, BS EN ISO 14689 and BS5930. The classification of chalk generally follows the guidance offered by the Construction Industry Research and Information Association (CIRIA) C574, 'Engineering in Chalk'. This is based on assessment of chalk density, discontinuity and aperture spacing, and the proportion of intact chalk to silt of chalk. See additional chalk classification notes.

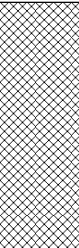
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				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Blue grey slightly gravelly clay with some fine roots. Gravel is fine to coarse brick, concrete, flint and clinker,	
	J T	0.50					
	J T	0.80					
					1.00	End of Borehole	
<div></div>							
<div>Remarks: Borehole dry and stable on completion. Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>					Excavation Method: Dynamic Sampler		
					Borehole Diameter: Various		
					Made By: TM		

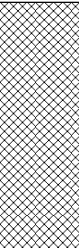
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				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Dark brown slightly gravelly sandy clay. Gravel is fine to medium brick and rare wood fragments.	
	J T	0.60			0.70	Brown very sandy CLAY. (Gault Foramation)	
	J T	0.90			1.00		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: JG

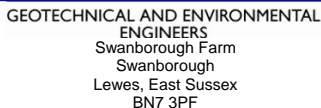
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				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Brown and dark brown slightly gravelly sandy clay with many rootlets. Gravel is fine to medium flint.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: JG							

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS104</div>					
				Site Name: Biggins Wood, Folkestone, Kent					
				Job No.: LW25193					
				Start Date: 24/06/14		End Date: 24/06/14			
Standpipe Installation	Samples and Testing			Strata					
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions		
From (m)		To (m)							
					0.00	Ground Level			
	J T	0.30			0.20	Topsoil (50mm) over, MADE GROUND: Grey brown slightly sandy gravelly clay. Gravel is fine to medium flint, chalk, brick and wood.			
					0.40	MADE GROUND: Orange brown fine to medium sand, becoming very clayey at base.			
	J T	0.50				MADE GROUND: Black and grey sandy gravelly clay. Gravel is fine to coarse flint, chalk, brick, concrete, wood, charcoal, clinker and ash.			
	J T	1.00			1.00				
						End of Borehole			
<div>Remarks: Borehole dry and stable on completion. Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>								<div>Excavation Method: Dynamic Sampler</div>	
								Borehole Diameter: Various	
								Made By: DC	

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS105			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Dark brown slightly gravelly sandy clay. Gravel is fine to coarse flint and brick.	
	J T	0.80			1.00	with many roots and organic matter at 0.70m depth.	
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: JG							

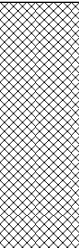
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>	Borehole No.: WS106						
	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 25/06/14				End Date: 25/06/14		
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Dark brown slightly gravelly sandy clay. Gravel is fine flint and occasional brick.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: JG							

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>	Borehole No.: WS107						
	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 25/06/14				End Date: 25/06/14		
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Dark grey brown slightly gravelly silty clay. Gravel is fine to medium brick.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.					Excavation Method: Dynamic Sampler		
					Borehole Diameter: Various		
					Made By: JG		



End Date: 24/06/14

Made By: TM

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS109			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Dark brown slightly gravelly sandy clay. Gravel is fine to medium flint.	
	J T	0.80			1.00	becoming brown with depth.	
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: JG							

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>	Borehole No.: WS110						
	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 25/06/14				End Date: 25/06/14		
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Dark brown gravelly sandy clay. Gravel is fine to medium flint with occasional breeze block, metal fragmnets and cobbles of limestone.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: JG							



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

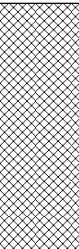
Borehole No.: WS111

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW25193

Start Date: 25/06/14

End Date: 25/06/14

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J T	0.20					Topsoil (25mm) over, MADE GROUND: Brown gravelly sandy clay. Gravel is fine to medium flint , chalk, occasional glass, plastic and brick.
	J T	0.80				1.00	
							End of Borehole

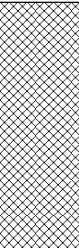
Remarks:

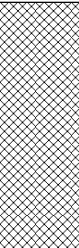
Borehole dry and stable on completion.

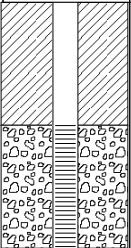
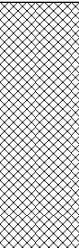
Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: JG

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>	Borehole No.: WS112						
	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 25/06/14				End Date: 25/06/14		
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Brown slightly gravelly sandy clay. Gravel is fine to medium flint and occasional brick and clinker.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: JG

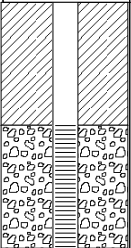

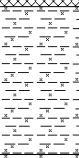

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS113			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.50			1.00	Topsoil (25mm) over, MADE GROUND: Brown slightly gravelly sandy silty clay. Gravel is fine to medium flint, concrete and occasional brick.	
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: JG

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS114</div>			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Brown slightly gravelly silty clay with some fine roots. Gravel is fine to coarse flint, concrete, brick and clinker.	
	J T	0.80			1.00		
						End of Borehole	
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							<div>Excavation Method: Dynamic Sampler</div> <div>Borehole Diameter: Various</div> <div>Made By: TM</div>

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS115</div>					
				Site Name: Biggins Wood, Folkestone, Kent					
				Job No.: LW25193					
				Start Date: 24/06/14		End Date: 24/06/14			
Standpipe Installation	Samples and Testing			Strata					
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions		
From (m)		To (m)							
					0.00	Ground Level			
	J T	0.20			0.50	MADE GROUND: Orange brown silty gravelly clay. Gravel is fine to coarse brick, flint, concrete, clinker, ash and whole brick.			
	J T	0.70			0.65	Concrete			
					1.00	MADE GROUND: Black and grey sandy gravelly clay. Gravel is fine to coarse glass, flint, brick, concrete, clinker, ash and wood.			
						End of Borehole			
<div>Remarks: Borehole dry and stable on completion. Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>								<div>Excavation Method: Dynamic Sampler</div>	
								Borehole Diameter: Various	
								Made By: DC	

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS116</div>			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.30			0.50	Topsoil (50mm) over, MADE GROUND: Brown grey sandy gravelly clay. Gravel is fine to coarse flint, brick, concrete, plastic, sandstone and breeze block.	
	J T	0.70			1.00	MADE GROUND: Dark brown and green grey sandy gravelly clay. Gravel is fine to coarse crystalline rock, flint, charcoal, clinker, ash, sandstone, breeze block and concrete.	
						End of Borehole	
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							<div>Excavation Method: Dynamic Sampler</div> <div>Borehole Diameter: Various</div> <div>Made By: DC</div>


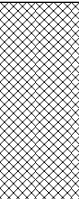

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS117			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Brown slightly gravelly sandy clay. Gravel is fine to medium flint and brick. with gravel of concrete at 0.25m depth. with occasional coarse green brown sand and plastic fragments at 0.40m depth.	
	J T	0.50					
	J T	0.80			1.00		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: JG

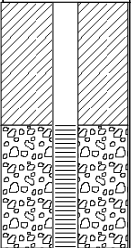
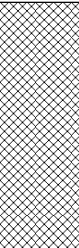
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS118</div>					
				Site Name: Biggins Wood, Folkestone, Kent					
				Job No.: LW25193					
				Start Date: 24/06/14		End Date: 24/06/14			
Standpipe Installation	Samples and Testing			Strata					
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions		
		From (m)	To (m)						
						0.00	Ground Level		
	J T	0.10				0.20	Topsoil (50mm) over, MADE GROUND: Green grey brown slightly gravelly silty clay. Gravel is fine to coarse wood, chalk and flint.		
	J T	0.70				0.80	Orange brown and light grey slightly gravelly silty CLAY. Gravel is fine to medium chalk and flint. (Gault Formation)		
							1.00	Dark grey orange slightly gravelly silty CLAY. Gravel is fine to medium chalk and flint. (Gault Formation)	
							End of Borehole		
<div>Remarks: Borehole dry and stable on completion. Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>								<div>Excavation Method: Dynamic Sampler</div> <div>Borehole Diameter: Various</div> <div>Made By: DC</div>	

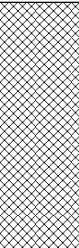
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS119			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, Light brown and grey silty sandy CLAY with fine rootlets. (Gault Formation)	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: JG							

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS120</div>			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.10				Topsoil (50mm) over, MADE GROUND: Green grey brown gravelly silty sand. Gravel is fine to coarse concrete, brick, wood and crystalline rock.	
	J T	0.60			0.80		
	J T	1.00				1.00	MADE GROUND: Brown green slightly gravelly sandy silty clay. Gravel is fine to coarse brick, flint and wood.
						End of Borehole	
Remarks: Borehole dry and stable on completion. Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: DC

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS121</div>				
				Site Name: Biggins Wood, Folkestone, Kent				
				Job No.: LW25193				
				Start Date: 24/06/14		End Date: 24/06/14		
Standpipe Installation	Samples and Testing				Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)					
					0.00	Ground Level		
	J T	0.20			0.70	MADE GROUND: Brown slightly gravelly silty clay. Gravel is flint, brick, concrete and clinker.		
	J T	0.80			1.00	MADE GROUND: Brown grey silty clay with rare gravel of clinker and brick.		
						End of Borehole		
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							Excavation Method: Dynamic Sampler	
							Borehole Diameter: Various	
							Made By: TM	

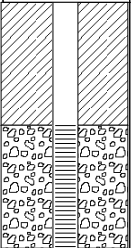


<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>	Borehole No.: WS122						
	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 24/06/14				End Date: 24/06/14		
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Fine to coarse gravel of brick, flint, clinker, concrete and a little bitumen.	
	J T	0.60			0.80		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion. Standpipe installed to 0.80m depth; 0.80m to 0.30m slotted pipe with gravel surround; 0.30m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							<div>Excavation Method: Dynamic Sampler</div> <div>Borehole Diameter: Various</div> <div>Made By: TM</div>



<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS123</div>					
				Site Name: Biggins Wood, Folkestone, Kent					
				Job No.: LW25193					
				Start Date: 24/06/14		End Date: 24/06/14			
Standpipe Installation	Samples and Testing				Strata				
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions		
		From (m)	To (m)						
					0.00	Ground Level			
	J T	0.20				MADE GROUND: Brown grey silty slightly gravelly clay with some fine roots. Gravel is fine to coarse brick, flint, concrete and clinker.			
	J T	0.50							
	J T	0.80						1.00	
						End of Borehole			
<div>Remarks: Borehole dry and stable on completion. Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>								<div>Excavation Method: Dynamic Sampler</div>	
								Borehole Diameter: Various	
								Made By: TM	

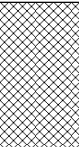
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	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 25/06/14				End Date: 25/06/14		
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Brown slightly gravelly sandy clay. Gravel is fine to medium brick, flint and rare limestone.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: JG

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS125			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 25/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				Topsoil (25mm) over, MADE GROUND: Brown slightly gravelly sandy clay. Gravel is fine to medium flint, brick and rare clinker. with a layer of concrete gravel at 0.40m depth.	
	J T	0.50					
	J T	0.80			1.00		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By:

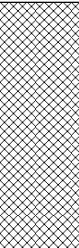
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				Site Name: Biggins Wood, Folkestone, Kent				
				Job No.: LW25193				
				Start Date: 24/06/14		End Date: 24/06/14		
Standpipe Installation	Samples and Testing				Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)					
					0.00	Ground Level		
	J T	0.10			0.20	MADE GROUND: Grey brown and occasionally orange slightly gravelly silty clay. Gravel is fine to coarse flint, brick and wood.		
	J T	0.60				Grey green and orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone. (Gault Formation)		
						1.00		
						End of Borehole		
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							Excavation Method: Dynamic Sampler	
							Borehole Diameter: Various	
							Made By: DC	

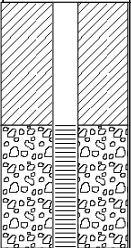
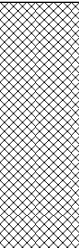
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				Site Name: Biggins Wood, Folkestone, Kent				
				Job No.: LW25193				
				Start Date: 24/06/14		End Date: 24/06/14		
Standpipe Installation	Samples and Testing				Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)					
					0.00	Ground Level		
	J T	0.20				Brown grey silty CLAY with some fine roots. (Gault Formation) with some fine to medium gravel of siltstone with depth.		
	J T	0.80			1.00			
						End of Borehole		
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							Excavation Method: Dynamic Sampler	
							Borehole Diameter: Various	
							Made By: TM	

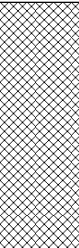
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS128			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.05			0.10	Topsoil.	
	J T	0.50			1.00	Grey green and orange brown silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone.	
						End of Borehole	
Remarks: Borehole dry and stable on completion.						Excavation Method: Dynamic Sampler	
						Borehole Diameter: Various	
						Made By: DC	

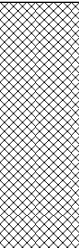
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS129			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.10				MADE GROUND: Brown grey and black slightly gravelly silty clay. Gravel is fine to medium flint, brick, tile ,ceramic, glass, breeze block and wood.	
	J T	0.50			0.60		
	J T	0.90			1.00	Grey green and orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone.	
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: DC

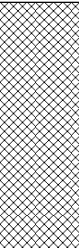
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS130			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.20			0.80	MADE GROUND: Brown slightly gravelly clay with some fine roots. Gravel is fine to coarse brick, clinker, concrete and flint.	
	J T	0.90			1.00	MADE GROUND: Dark brown slightly gravelly silty clay. Gravel is fine to medium brick, concrete, clinker and flint.	
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: SW

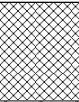
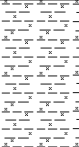
<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS131			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Brown grey slightly gravelly silty clay with some fine roots. Gravel is fine to coarse brick, flint, concrete, clinker and glass.	
	J T	0.70			1.00		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: SW

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS132</div>			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Brown grey slightly gravelly silty clay with some fine roots. Gravel is fine to coarse brick, flint, concrete and clinker.	
	J T	0.80			1.00		
						End of Borehole	
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>							<div>Excavation Method: Dynamic Sampler</div> <div>Borehole Diameter: Various</div> <div>Made By: TM</div>



<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS133			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Brown grey slightly gravelly silty clay with some fine roots. Gravel is fine to coarse brick glass flint and clinker.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: SW							

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS134			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 25/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Grey brown slightly gravelly clay. Gravel of fine to coarse brick, concrete, flint and clinker.	
	J T	0.80			1.00		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: SW


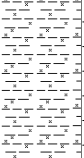

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS135			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.20				MADE GROUND: Brown grey slightly gravelly silty clay with some fine roots. Gravel is fine to coarse brick, concrete, flint, clinker, iron and glass.	
	J T	0.80			1.00		
						End of Borehole	
Remarks: Borehole dry and stable on completion.							
Excavation Method: Dynamic Sampler							
Borehole Diameter: Various							
Made By: SW							



<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				Borehole No.: WS136			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.20			0.40	MADE GROUND: Dark grey orange slightly gravelly silty clay. Gravel is fine to medium flint, brick, wood, siltstone and breeze block.	
	J T	0.50				Grey green and orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone. (Gault Formation)	
	J T	1.00			1.00		
						End of Borehole	
<div>Remarks: Borehole dry and stable on completion.</div>							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: DC

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS137</div>			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.30			0.60	MADE GROUND: Brown grey slightly gravelly sandy clay. Gravel is fine to medium flint, brick, concrete, tile, charcoal, clinker and ash. with cobble of concrete between 0.50m to 0.60m depth.	
	J T	0.80			1.00	Grey green orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone.	
						End of Borehole	
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.60m slotted pipe with gravel surround; 0.60m to ground level plain pipe with bentonite seal; completed with gas tap and security cover conreted flush with ground surface.</div>							<div>Excavation Method: Dynamic Sampler</div> <div>Borehole Diameter: Various</div> <div>Made By: DC</div>

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>	Borehole No.: WS138						
	Site Name: Biggins Wood, Folkestone, Kent						
	Job No.: LW25193						
	Start Date: 24/06/14				End Date: 24/06/14		
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
From (m)		To (m)					
					0.00	Ground Level	
	J T	0.20			0.30	MADE GROUND: Dark grey orange slightly gravelly silty clay with some rootlets. Gravel is fine to medium siltstone.	
	J T	0.60			1.00	Grey green and orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone.	
						End of Borehole	
Remarks: Borehole dry and stable on completion.					Excavation Method: Dynamic Sampler		
					Borehole Diameter: Various		
					Made By: DC		

<div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div>				<div>Borehole No.: WS139</div>			
				Site Name: Biggins Wood, Folkestone, Kent			
				Job No.: LW25193			
				Start Date: 24/06/14		End Date: 24/06/14	
Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
					0.00	Ground Level	
	J T	0.10			0.20	MADE GROUND: Grey slightly gravelly slightly sandy clay with some rootlets. Gravel is fine to coarse brick and flint.	
	J T	0.70				Grey green and orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel of fine siltstone. (Gault Formation)	
						1.00	
						End of Borehole	
<div>Remarks:</div> <div>Borehole dry and stable on completion.</div> <div>Standpipe installed to 1.00m depth; 1.00m to 0.50m slotted pipe with gravel surround; 0.50m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.</div>						Excavation Method: Dynamic Sampler	
						Borehole Diameter: Various	
						Made By: DC	

<div><div><div>ASHDOWN SITE INVESTIGATION</div><div>L · I · M · I · T · E · D</div><div>GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</div></div><div><div>Borehole No.: WS140</div><div>Site Name: Biggins Wood, Folkestone, Kent</div><div>Job No.: LW25193</div><div><div>Start Date: 24/06/14</div><div>End Date: 24/06/14</div></div></div></div>							
Standpipe Installation	Samples and Testing			Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J T	0.20				0.30	MADE GROUND: Dark orange grey slightly gravelly silty clay with some rootlets. Gravel is fine to medium siltstone.
	J T	0.40					Grey green and orange brown slightly gravelly silty CLAY with rare pockets of selenite crystals and many shell fragments. Gravel is fine siltstone. (Gault Formation)
	J T	1.00				1.00	
							End of Borehole
Remarks: Borehole dry and stable on completion.							Excavation Method: Dynamic Sampler
							Borehole Diameter: Various
							Made By: DC

 <p>ASHDOWN SITE INVESTIGATION L · I · M · I · T · E · D GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</p>		Borehole No.: HA201				
		Site Name: Biggins Wood, Folkstone, Kent.				
		Job No.: LW25193				
		Start Date: 07/08/2014			End Date: 07/08/2014	
Standpipe Installation	Samples and Testing			Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level
From (m)		To (m)				
					0.00	Ground Level
	J T	0.30			0.30	MADE GROUND: Grey brown silty clay with a little fine to medium gravel of brick and some roots.
						End of Borehole
<div> <div> <div>Remarks:</div> <div>Borehole dry and stable on completion.</div> </div> <div> <div>Excavation Method: Hand Auger</div> <div>Borehole Diameter: Various</div> <div>Made By: TM</div> </div> </div>						



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: HA202

Site Name: Biggins Wood, Folkstone, Kent.

Job No.: LW25193

Start Date: 07/08/2014

End Date: 07/08/2014

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J T	0.45				0.45	Firm to stiff grey brown silty CLAY. (Gault Formation)
							End of Borehole



Remarks:

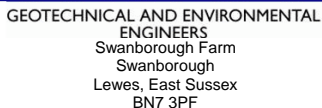
Borehole dry and stable on completion.

Excavation Method: Hand Auger

Borehole Diameter: Various

Made By: TM

 <p>ASHDOWN SITE INVESTIGATION L · I · M · I · T · E · D GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</p>		Borehole No.: HA203				
		Site Name: Biggins Wood, Folkstone, Kent.				
		Job No.: LW25193				
		Start Date: 07/08/2014			End Date: 07/08/2014	
Standpipe Installation	Samples and Testing			Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level
From (m)		To (m)				
					0.00	Ground Level
	J T	0.30			0.30	MADE GROUND: Orange brown silty clay with some fine to medium gravel of flint and brick.
						End of Borehole
<div> <div> <div>Remarks:</div> <div>Borehole dry and stable on completion.</div> </div> <div> <div>Excavation Method: Hand Auger</div> <div>Borehole Diameter: Various</div> <div>Made By: TM</div> </div> </div>						



End Date: 07/08/2014

Made By: TM

ASHDOWN SITE INVESTIGATION LIMITED

Site:	Biggins Wood, Folkestone, Kent	Report No.:	LW25193
		Sheet No.:	1 of 5

SUMMARY OF GAS ANALYSES AND WATER DEPTHS

WS101 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	2.1	2.1	18.9	18.9	0	0	0.0	0.0	Dry	1010	Rising
11/07/14	0.0	0.0	3.5	2.9	17.2	18.4	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	6.2	6.0	15.5	15.3	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	0.2	0.2	21.7	21.7	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	0.3	0.2	21.3	21.5	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	0.0	0.0	20.8	20.8	0	0	12	4.7	0.0*	1003	Rising

WS104 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	4.3	3.8	17.5	18.0	0	0	0.0	0.0	Dry	1012	Rising
11/07/14	0.0	0.0	5.4	5.0	14.9	15.7	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	5.0	4.6	15.6	15.9	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	8.0	8.0	12.9	12.9	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	10.2	9.0	7.7	9.1	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	0.9	0.9	19.3	19.3	0	0	0.0	0.0	0.85	1003	Rising

WS108 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	2.1	2.1	18.3	18.3	0	0	0.0	0.0	Dry	1012	Rising
11/07/14	0.0	0.0	5.6	5.6	11.5	14.8	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	10.1	10.1	2.4	2.4	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	7.4	7.4	8.1	8.1	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	9.3	9.3	6.6	12.7	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	4.3	4.3	9.5	9.5	3.8	3.8	0	0	0.0	0.0	Dry	1003	Rising

WS114 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.1	0.1	20.2	20.2	0	0	0.0	0.0	Dry	1011	Rising
11/07/14	0.0	0.0	0.7	0.7	17.9	18.1	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	2.5	2.4	18.0	18.0	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	2.2	2.2	18.4	18.4	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	5.1	4.8	13.3	13.9	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	3.9	3.9	7.9	7.9	0	0	0.0	0.0	0.9	1003	Rising

ASHDOWN SITE INVESTIGATION LIMITED

Site: Biggins Wood, Folkestone, Kent

Report No.: LW25193

Sheet No.: 2 of 5

SUMMARY OF GAS ANALYSES AND WATER DEPTHS

WS115 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	1.7	1.7	6.5	6.5	1.0	1.0	0	0	0.0	0.0	Dry	1010	Rising
11/07/14	0.7	0.7	5.8	5.8	0.6	4.4	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	2.3	2.3	8.6	8.6	0.3	0.6	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	6.5	6.5	6.2	6.2	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	7.2	7.2	8.3	14.5	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	3.5	3.5	8.6	8.6	0.2	0.2	0	0	0.0	0.0	Dry	1003	Rising

WS116 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.6	0.6	16.0	16.0	0	0	0.0	0.0	Dry	1010	Rising
11/07/14	0.0	0.0	2.3	2.3	14.2	15.3	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	4.7	4.7	12.2	12.2	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	3.8	3.8	14.3	14.3	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	4.4	4.4	12.5	12.6	0	0	0.0	0.0	Dry	1004	Rising
28/08/14	0.0	0.0	0.2	0.2	19.9	19.9	0	0	0.0	0.0	0.63	1004	Rising

WS118 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.8	0.8	20.4	20.4	0	0	0.0	0.0	Dry	1011	Rising
11/07/14	0.0	0.0	1.1	1.1	18.3	126.3	0	0	0.0	0.0	Dry	1009	Falling
28/07/14	0.0	0.0	2.7	2.7	16.7	16.7	0	0	0.0	0.0	Dry	1006	Rising
07/08/14	0.0	0.0	2.2	2.2	15.4	15.4	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	4.0	3.5	6.6	7.9	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	0.0	0.0	20.9	20.9	0	0	0.0	0.0	0.1	1003	Rising

WS120 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.1	0.1	20.9	20.9	0	0	0.0	0.0	Dry	1012	Rising
11/07/14	0.0	0.0	6.3	6.3	14.9	14.9	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	8.9	8.9	8.3	8.3	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	6.1	6.1	12.6	12.6	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	6.8	6.8	7.6	17.8	0	0	0.0	0.0	Dry	1004	Rising
28/08/14	0.0	0.0	4.7	4.7	7.9	7.9	0	0	0.0	0.0	Dry	1003	Rising

ASHDOWN SITE INVESTIGATION LIMITED

Site: Biggins Wood, Folkestone, Kent

Report No.: LW25193

Sheet No.: 3 of 5

SUMMARY OF GAS ANALYSES AND WATER DEPTHS

WS121 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	2.9	2.9	18.3	18.3	0	0	0.0	0.0	Dry	1011	Rising
11/07/14	0.0	0.0	0.1	0.1	20.7	20.7	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	4.9	4.9	15.6	15.6	0	0	0.0	0.0	Dry	1008	Rising
07/08/14	0.0	0.0	3.8	3.8	15.6	15.6	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	4.8	4.8	13.2	14.8	0	0	0.0	0.0	Dry	1004	Rising
28/08/14	0.0	0.0	4.5	4.5	14.4	14.4	0	0	0.0	0.0	0.35	1003	Rising

WS122 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.8	0.8	17.2	17.2	0	0	0.0	0.0	Dry	1012	Rising
11/07/14	0.4	0.4	0.9	0.9	9.2	12.0	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	1.4	1.4	1.7	1.7	3.8	3.8	0	0	0.0	0.0	Dry	1006	Rising
07/08/14	2.2	2.2	1.2	1.2	1.6	1.6	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	4.5	4.5	0.5	0.5	1.7	1.7	0	0	0.0	0.0	Dry	1004	Rising
28/08/14	4.7	4.7	0.7	0.7	0.6	0.6	0	0	0.0	0.0	Dry	1002	Rising

WS123 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	2.9	2.9	17.8	17.8	0	0	0.0	0.0	Dry	1010	Rising
11/07/14	0.0	0.0	3.3	3.3	16.6	16.6	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	4.4	4.4	15.7	15.7	0	0	0.0	0.0	Dry	1006	Rising
07/08/14	0.0	0.0	3.2	3.2	17.2	17.2	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	4.8	4.7	13.4	13.5	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	0.8	0.8	18.7	18.7	0	0	0.0	0.0	0.3	1004	Rising

WS126 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.0	0.0	21.5	21.5	0	0	0.0	0.0	Dry	1010	Rising
11/07/14	0.0	0.0	0.7	0.7	19.7	20.0	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	2.3	2.3	12.1	12.1	0	0	0.0	0.0	Dry	1006	Rising
07/08/14	0.0	0.0	0.9	0.9	17.5	17.5	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	3.1	1.8	8.6	13.1	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	0.7	0.2	19.9	19.9	0	0	0.0	0.0	0.95	1003	Rising

ASHDOWN SITE INVESTIGATION LIMITED

Site:	Biggins Wood, Folkestone, Kent	Report No.:	LW25193
		Sheet No.:	4 of 5

SUMMARY OF GAS ANALYSES AND WATER DEPTHS

WS127 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.6	0.6	20.4	20.4	0	0	0.0	0.0	Dry	1009	Rising
11/07/14	*f	*f	*f	*f	*f	*f	*f	*f	*f	*f	0.20	1008	Falling
28/07/14	*f	*f	*f	*f	*f	*f	*f	*f	*f	*f	0.20	1006	Rising
07/08/14	*f	*f	*f	*f	*f	*f	*f	*f	*f	*f	GL	1008	Rising
19/08/14	*f	*f	*f	*f	*f	*f	*f	*f	*f	*f	GL	1005	Rising
28/08/14	*f	*f	*f	*f	*f	*f	*f	*f	*f	*f	GL	1003	Rising

*f Groundwater Level too high to obtain reading

WS132 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	3.1	3.1	18.7	18.7	0	0	0.0	0.0	Dry	1012	Rising
11/07/14	0.0	0.0	3.1	3.2	16.9	17.8	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	5.7	5.7	14.7	14.7	0	0	0.0	0.0	Dry	1007	Rising
07/08/14	0.0	0.0	4.3	4.3	15.5	15.5	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	8.6	8.5	8.3	8.3	0	0	0.0	0.0	Dry	1005	Rising
28/08/14	0.0	0.0	7.2	7.2	6.0	6.0	0	0	0.0	0.0	Dry	1003	Rising

WS137 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	1.2	1.2	20.0	20.0	0	0	0.0	0.0	Dry	1009	Rising
11/07/14	0.0	0.0	0.8	0.8	19.8	19.8	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	1.9	1.9	18.3	18.3	0	0	0.0	0.0	Dry	1005	Rising
07/08/14	0.0	0.0	1.6	1.6	18.9	18.9	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	1.6	1.6	18.9	19.2	0	0	0.0	0.0	0.75	1006	Rising
28/08/14	3.4	0.0	0.8	0.8	18.7	18.7	0	0	0.0	0.0	0.65	1004	Rising

ASHDOWN SITE INVESTIGATION LIMITED

Site:	Biggins Wood, Folkestone, Kent	Report No.:	LW25193
		Sheet No.:	5 of 5

SUMMARY OF GAS ANALYSES AND WATER DEPTHS

WS139 (1.00m)													
Date	Methane (%)		Carbon Dioxide (%)		Oxygen (%)		Carbon monoxide (ppm)	Hydrogen Sulphide (ppm)	Gas Pressure (mb)	Emission Rate (l/hr)	Standing Water Depth (m bgl)	Atmospheric Pressure (mb)	
	Peak	Static	Peak	Static	Min.	Static						On-site	Trend
30/06/14	0.0	0.0	0.8	0.8	20.8	20.8	0	0	0.0	0.0	Dry	1009	Rising
11/07/14	0.0	0.0	0.8	0.8	20.3	20.3	0	0	0.0	0.0	Dry	1008	Falling
28/07/14	0.0	0.0	1.9	1.9	19.4	19.4	0	0	0.0	0.0	Dry	1006	Rising
07/08/14	0.0	0.0	1.5	1.5	19.7	19.7	0	0	0.0	0.0	Dry	1008	Rising
19/08/14	0.0	0.0	3.0	3.0	14.1	15.8	0	0	0.0	0.0	Dry	1006	Rising
28/08/14	0.0	0.0	2.8	2.8	15.9	15.9	0	0	0.0	0.0	Dry	1004	Rising

Remarks: Readings taken using an infra red gas analyser.
Emission rate measured using internal flow pod.

Weather Conditions:

30/06/14 – Overcast

11/07/14 – Overcast/rain

28/07/14 – Overcast

07/08/14 – Sunny

19/08/14 – Overcast

28/08/14 – Overcast

APPENDIX D

Contamination Test Results



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
East Sussex
TN38 9BY
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THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 14-00094

Issue: 1

Date of Issue: 03/07/2014

Contact: David Harris

Customer Details: Ashdown Site Investigation Limited
The Old Dairy
Swanborough Farm
Lewes
East Sussex

Quotation No: Q14-00001

Order No: 140530

Customer Reference: LW25193

Date Received: 25/06/2014

Date Approved: 03/07/2014

Details: Biggins Wood, Folkestone

Approved by: 

John Wilson, Operations Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

Sample Summary

Report No.: 14-00094

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
601	WS101 0.20	24/06/2014	26/06/2014	Silty loam	
602	WS101 0.50	24/06/2014	26/06/2014	Silty clayey loam	
603	WS104 0.50	24/06/2014	26/06/2014	Silty loam	
604	WS108 0.20	24/06/2014	26/06/2014	Silty loam	
605	WS114 0.20	24/06/2014	26/06/2014	Silty clayey loam	
606	WS114 0.80	24/06/2014	26/06/2014	Silty clayey loam	
607	WS115 0.20	24/06/2014	26/06/2014	Silty loam	
608	WS115 0.70	24/06/2014	26/06/2014	Silty loam	
609	WS116 0.30	24/06/2014	26/06/2014	Sandy silty loam	
610	WS118 0.10	24/06/2014	26/06/2014	Clay	
611	WS120 0.10	24/06/2014	26/06/2014	Sand	
612	WS121 0.20	24/06/2014	26/06/2014	Sandy silty loam	
613	WS122 0.30	24/06/2014	26/06/2014	Sandy silty loam	
614	WS123 0.20	24/06/2014	26/06/2014	Silty loam	
615	WS123 0.50	24/06/2014	26/06/2014	Sandy silty loam	
616	WS128 0.50	24/06/2014	26/06/2014	Clay	
617	WS126 0.60	24/06/2014	26/06/2014	Clayey loam	
618	WS127 0.20	24/06/2014	26/06/2014	Clayey loam	
619	WS129 0.10	24/06/2014	26/06/2014	Silty clayey loam	
620	WS130 0.20	24/06/2014	26/06/2014	Silty clayey loam	
621	WS131 0.20	24/06/2014	26/06/2014	Silty loam	
622	WS132 0.20	24/06/2014	26/06/2014	Silty clayey loam	
623	WS132 0.80	24/06/2014	26/06/2014	Silty clayey loam	
624	WS133 0.80	24/06/2014	26/06/2014	Silty clayey loam	
625	WS134 0.20	24/06/2014	26/06/2014	Clayey loam	
626	WS135 0.80	24/06/2014	26/06/2014	Silty clayey loam	
627	WS136 0.20	24/06/2014	26/06/2014	Silty clayey loam	
628	WS137 0.30	24/06/2014	26/06/2014	Silty loam	
629	WS138 0.60	24/06/2014	26/06/2014	Clay	
630	WS140 0.20	24/06/2014	26/06/2014	Clay	
631	WS140 0.40	24/06/2014	26/06/2014	Clay	

Results Summary

Report No.: 14-00094

ELAB Reference				601	602	603	604	605	606	607	608
Customer Reference											
Sample ID											
Sample Type				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location				WS101	WS101	WS104	WS108	WS114	WS114	WS115	WS115
Sample Depth (m)				0.20	0.50	0.50	0.20	0.20	0.80	0.20	0.70
Sampling Date				24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014
Determinand	Codes	Units	LOD								
Metals											
Arsenic	M	mg/kg	1	14.6	12.6	23.5	16.8	12.0	13.0	13.2	15.8
Cadmium	M	mg/kg	0.5	0.6	^ 0.5	< 0.5	< 0.5	^ < 0.5	^ < 0.5	< 0.5	1.0
Chromium	M	mg/kg	5	37.3	^ 34.3	32.6	19.2	^ 36.8	^ 33.4	37.3	37.5
Copper	M	mg/kg	5	59.8	^ 43.1	12.8	35.1	^ 28.4	^ 22.2	29.8	71.8
Lead	M	mg/kg	5	242	^ 352	25.7	71.2	^ 85.7	^ 50.2	144	416
Mercury	M	mg/kg	0.5	< 0.5	^ < 0.5	< 0.5	< 0.5	^ < 0.5	^ < 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	31.5	^ 28.7	25.9	18.3	^ 30.2	^ 33.2	33.3	29.6
Selenium	M	mg/kg	0.5	1.5	^ 1.0	0.9	0.9	^ 0.8	^ 0.8	1.0	1.0
Zinc	M	mg/kg	45	197	^ 169	89.6	87.4	^ 97.2	^ 76.0	119	396
Inorganics											
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	1.2	1.7	1.1	0.8	1.2	1.0	0.8	1.8
Miscellaneous											
Moisture Content	N	%	0	n/t	19	n/t	n/t	n/t	12	n/t	n/t
pH	M	units	0.1	8.6	^ 8.6	8.0	8.9	^ 8.5	^ 8.4	8.2	8.7
Soil Organic Matter	U	%	0.1	4.4	n/t	1.2	4.2	2.4	n/t	1.8	4.4
Organics											
>C8-C10 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0	n/t	< 5.0	< 5.0	n/t
>C10-C12 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0	n/t	< 5.0	< 5.0	n/t
>C12-C16 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0	n/t	< 5.0	< 5.0	n/t
>C16-C21 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	15.1	n/t	22.1	< 5.0	n/t
>C21-C35 BCB Soil	N	mg/kg	5	n/t	80.4	14.1	122	n/t	185	< 5.0	n/t
>C35-C40 BCB Soil	N	mg/kg	5	n/t	28.0	< 5.0	20.7	n/t	19.5	< 5.0	n/t
Total (>C8-C40) BCB Soil	N	mg/kg	5	n/t	110	19.3	159	n/t	227	6.7	n/t
Polyaromatic hydrocarbons											
Naphthalene GCMS	N	mg/kg	0.01	22.4	0.29	< 0.01	0.73	0.02	0.47	0.01	3.18
Acenaphthylene GCMS	N	mg/kg	0.01	65.4	0.68	< 0.01	1.10	0.03	0.99	0.02	10.8
Acenaphthene GCMS	N	mg/kg	0.01	24.5	0.13	< 0.01	0.26	< 0.01	0.19	< 0.01	9.80
Fluorene GCMS	N	mg/kg	0.01	53.5	0.17	< 0.01	0.26	< 0.01	0.61	< 0.01	26.7
Phenanthrene GCMS	N	mg/kg	0.01	529	2.12	0.01	3.43	0.07	14.1	0.04	282
Anthracene GCMS	N	mg/kg	0.01	152	0.94	0.01	1.31	0.03	3.02	0.02	78.4
Fluoranthene GCMS	N	mg/kg	0.01	661	9.21	0.02	17.0	0.27	58.0	0.14	323
Pyrene GCMS	N	mg/kg	0.01	545	8.58	0.02	15.6	0.25	47.2	0.12	250
Benzo (a) anthracene GCMS	N	mg/kg	0.01	330	6.74	0.02	11.6	0.20	32.6	0.08	138
Chrysene GCMS	N	mg/kg	0.01	300	6.01	0.02	11.7	0.22	30.3	0.11	114
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	274	9.22	0.03	10.7	0.24	22.3	0.10	84.2
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	248	6.40	0.02	12.3	0.22	24.8	0.15	83.1
Benzo (a) pyrene GCMS	N	mg/kg	0.01	341	9.54	0.02	15.9	0.28	30.8	0.10	108
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	218	5.53	0.02	8.74	0.18	13.6	0.06	55.8
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	81.1	1.75	0.02	3.02	0.05	5.03	0.02	20.5
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	235	6.41	0.03	9.91	0.20	14.9	0.07	57.0
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	4080	73.7	0.27	124	2.26	299	1.04	1640

Results Summary

Report No.: 14-00094

ELAB Reference				609	610	611	612	613	614	615	616
Customer Reference											
Sample ID											
Sample Type				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location				WS116	WS118	WS120	WS121	WS122	WS123	WS123	WS128
Sample Depth (m)				0.30	0.10	0.10	0.20	0.30	0.20	0.50	0.50
Sampling Date				24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014
Determinand	Codes	Units	LOD								
Metals											
Arsenic	M	mg/kg	1	15.0	11.9	16.9	21.2	13.1	16.5	13.5	8.4
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	23.5	55.2	108	36.4	22.3	32.9	21.4	35.7
Copper	M	mg/kg	5	31.5	23.8	11.4	64.6	285	68.4	181	22.9
Lead	M	mg/kg	5	170	33.6	10.5	2280	278	169	212	31.9
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	19.5	51.3	91.3	28.4	59.9	32.7	23.0	38.5
Selenium	M	mg/kg	0.5	1.7	0.7	0.9	< 0.5	1.0	0.9	1.1	0.6
Zinc	M	mg/kg	45	131	62.9	83.2	338	196	177	140	57.5
Inorganics											
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	0.9	1.1	0.5	0.8	2.0	1.3	0.8	1.5
Miscellaneous											
Moisture Content	N	%	0	n/t	n/t	n/t	n/t	n/t	n/t	8	n/t
pH	M	units	0.1	11.4	8.8	8.6	8.6	10.8	8.6	10.9	8.4
Soil Organic Matter	U	%	0.1	3.6	1.0	0.6	3.2	5.4	3.5	n/t	0.7
Organics											
>C8-C10 BCB Soil	N	mg/kg	5	< 5.0	n/t	< 5.0	n/t	< 5.0	n/t	< 5.0	n/t
>C10-C12 BCB Soil	N	mg/kg	5	< 5.0	n/t	< 5.0	n/t	< 5.0	n/t	< 5.0	n/t
>C12-C16 BCB Soil	N	mg/kg	5	< 5.0	n/t	< 5.0	n/t	10.3	n/t	15.3	n/t
>C16-C21 BCB Soil	N	mg/kg	5	7.6	n/t	< 5.0	n/t	30.0	n/t	117	n/t
>C21-C35 BCB Soil	N	mg/kg	5	133	n/t	< 5.0	n/t	133	n/t	446	n/t
>C35-C40 BCB Soil	N	mg/kg	5	39.1	n/t	< 5.0	n/t	37.8	n/t	41.5	n/t
Total (>C8-C40) BCB Soil	N	mg/kg	5	179	n/t	< 5.0	n/t	212	n/t	619	n/t
Polyaromatic hydrocarbons											
Naphthalene GCMS	N	mg/kg	0.01	1.07	< 0.01	< 0.01	0.43	19.7	0.05	0.80	< 0.01
Acenaphthylene GCMS	N	mg/kg	0.01	4.29	< 0.01	< 0.01	0.68	4.79	0.14	2.62	< 0.01
Acenaphthene GCMS	N	mg/kg	0.01	1.34	< 0.01	< 0.01	0.42	23.3	0.01	1.21	< 0.01
Fluorene GCMS	N	mg/kg	0.01	1.80	< 0.01	< 0.01	0.47	34.8	0.03	2.19	< 0.01
Phenanthrene GCMS	N	mg/kg	0.01	20.6	0.02	< 0.01	7.55	190	0.51	24.6	< 0.01
Anthracene GCMS	N	mg/kg	0.01	7.83	0.02	< 0.01	1.55	52.2	0.19	6.81	< 0.01
Fluoranthene GCMS	N	mg/kg	0.01	60.8	0.08	0.01	19.8	193	2.22	53.5	0.01
Pyrene GCMS	N	mg/kg	0.01	54.5	0.08	0.01	15.6	146	1.88	42.3	< 0.01
Benzo (a) anthracene GCMS	N	mg/kg	0.01	40.5	0.07	< 0.01	8.79	84.6	1.42	29.6	< 0.01
Chrysene GCMS	N	mg/kg	0.01	35.1	0.07	0.01	9.76	70.2	1.22	25.6	0.01
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	50.2	0.08	0.01	7.48	62.6	1.68	25.1	< 0.01
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	37.7	0.07	< 0.01	9.70	53.8	1.25	21.3	< 0.01
Benzo (a) pyrene GCMS	N	mg/kg	0.01	59.0	0.08	< 0.01	11.3	74.7	1.76	29.2	< 0.01
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	33.6	0.05	< 0.01	6.47	39.6	1.09	16.0	< 0.01
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	12.3	0.02	< 0.01	2.02	15.1	0.36	5.68	< 0.01
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	36.1	0.06	0.01	8.57	42.1	1.23	16.8	< 0.01
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	457	0.71	0.12	111	1110	15.1	303	0.10

Results Summary

Report No.: 14-00094

ELAB Reference				617	618	619	620	621	622	623	624
Customer Reference											
Sample ID											
Sample Type				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location				WS126	WS127	WS129	WS130	WS131	WS132	WS132	WS133
Sample Depth (m)				0.60	0.20	0.10	0.20	0.20	0.20	0.80	0.80
Sampling Date				24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014
Determinand	Codes	Units	LOD								
Metals											
Arsenic	M	mg/kg	1	8.1	8.9	13.6	19.8	20.3	14.5	17.6	13.9
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	^ < 0.5	^ < 0.5	0.6	^ < 0.5	^ < 0.5	^ < 0.5
Chromium	M	mg/kg	5	33.7	43.5	^ 43.3	^ 66.2	75.9	^ 55.0	^ 45.5	^ 30.0
Copper	M	mg/kg	5	20.7	18.6	^ 40.0	^ 43.3	69.1	^ 31.8	^ 42.2	^ 48.3
Lead	M	mg/kg	5	29.2	24.3	^ 141	^ 113	318	^ 89.5	^ 134	^ 193
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	^ < 0.5	^ < 0.5	< 0.5	^ < 0.5	^ 0.7	^ < 0.5
Nickel	M	mg/kg	5	43.0	46.9	^ 29.7	^ 52.9	37.2	^ 42.1	^ 39.5	^ 30.2
Selenium	M	mg/kg	0.5	0.5	0.5	^ 1.2	^ 1.6	1.7	^ 1.2	^ 1.1	^ 1.5
Zinc	M	mg/kg	45	63.4	53.7	^ 134	^ 130	242	^ 113	^ 128	^ 168
Inorganics											
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	1.4	1.6	1.2	2.0	1.2	1.3	2.4	2.4
Miscellaneous											
Moisture Content	N	%	0	n/t	n/t	n/t	n/t	n/t	n/t	31	n/t
pH	M	units	0.1	8.3	8.4	^ 8.1	^ 8.1	8.6	^ 8.3	^ 8.2	^ 9.4
Soil Organic Matter	U	%	0.1	0.7	1.0	5.5	2.4	5.0	2.5	n/t	3.1
Organics											
>C8-C10 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
>C10-C12 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
>C12-C16 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
>C16-C21 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
>C21-C35 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
>C35-C40 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
Total (>C8-C40) BCB Soil	N	mg/kg	5	n/t	7.1	n/t	< 5.0	n/t	n/t	< 5.0	< 5.0
Polyaromatic hydrocarbons											
Naphthalene GCMS	N	mg/kg	0.01	< 0.01	< 0.01	0.01	0.01	0.59	0.02	0.06	< 0.01
Acenaphthylene GCMS	N	mg/kg	0.01	< 0.01	< 0.01	0.02	< 0.01	1.54	0.03	0.08	< 0.01
Acenaphthene GCMS	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.40	< 0.01	< 0.01	< 0.01
Fluorene GCMS	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.37	< 0.01	0.01	< 0.01
Phenanthrene GCMS	N	mg/kg	0.01	< 0.01	0.02	0.03	0.04	5.95	0.07	0.20	0.01
Anthracene GCMS	N	mg/kg	0.01	< 0.01	0.01	0.02	0.02	2.05	0.03	0.09	< 0.01
Fluoranthene GCMS	N	mg/kg	0.01	0.01	0.04	0.11	0.11	24.0	0.30	0.86	0.02
Pyrene GCMS	N	mg/kg	0.01	0.01	0.03	0.09	0.10	20.4	0.27	0.75	0.02
Benzo (a) anthracene GCMS	N	mg/kg	0.01	< 0.01	0.02	0.06	0.05	12.0	0.18	0.42	< 0.01
Chrysene GCMS	N	mg/kg	0.01	< 0.01	0.03	0.08	0.09	14.4	0.23	0.60	< 0.01
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	< 0.01	0.03	0.06	0.06	12.8	0.26	0.65	0.01
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	< 0.01	0.02	0.08	0.07	11.3	0.16	0.43	< 0.01
Benzo (a) pyrene GCMS	N	mg/kg	0.01	< 0.01	0.02	0.07	0.09	15.8	0.19	0.71	< 0.01
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	< 0.01	0.01	0.05	0.04	6.60	0.11	0.32	< 0.01
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	< 0.01	< 0.01	0.02	0.02	1.41	0.03	0.07	< 0.01
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	< 0.01	0.02	0.06	0.05	8.96	0.15	0.48	< 0.01
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	0.09	0.26	0.75	0.75	139	2.03	5.74	0.11

Results Summary

Report No.: 14-00094

ELAB Reference				625	626	627	628	629	630	631
Customer Reference										
Sample ID										
Sample Type				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location				WS134	WS135	WS136	WS137	WS138	WS140	WS140
Sample Depth (m)				0.20	0.80	0.20	0.30	0.60	0.20	0.40
Sampling Date				24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014	24/06/2014
Determinand	Codes	Units	LOD							
Metals										
Arsenic	M	mg/kg	1	10.8	22.9	12.5	23.5	9.6	8.4	10.6
Cadmium	M	mg/kg	0.5	< 0.5	^ < 0.5	^ < 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	36.3	^ 46.4	^ 44.6	44.0	39.6	31.7	35.0
Copper	M	mg/kg	5	21.3	^ 52.5	^ 23.5	38.2	21.4	17.5	20.3
Lead	M	mg/kg	5	39.1	^ 216	^ 52.5	156	28.8	22.3	25.5
Mercury	M	mg/kg	0.5	< 0.5	^ 0.6	^ < 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	39.5	^ 44.0	^ 44.2	39.8	47.0	39.9	40.6
Selenium	M	mg/kg	0.5	0.8	^ 1.3	^ 1.1	1.1	0.9	0.8	0.8
Zinc	M	mg/kg	45	85.6	^ 129	^ 73.7	163	74.4	50.5	63.2
Inorganics										
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	2.2	2.2	1.6	1.0	1.5	1.4	1.5
Miscellaneous										
Moisture Content	N	%	0	n/t	n/t	n/t	n/t	n/t	n/t	29
pH	M	units	0.1	8.5	^ 8.2	^ 8.3	8.3	8.0	8.2	8.0
Soil Organic Matter	U	%	0.1	1.0	2.2	0.7	1.0	0.5	0.7	n/t
Organics										
>C8-C10 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
>C10-C12 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
>C12-C16 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
>C16-C21 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
>C21-C35 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
>C35-C40 BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
Total (>C8-C40) BCB Soil	N	mg/kg	5	n/t	< 5.0	n/t	n/t	< 5.0	n/t	< 5.0
Polyaromatic hydrocarbons										
Naphthalene GCMS	N	mg/kg	0.01	0.02	0.11	0.01	0.02	< 0.01	< 0.01	< 0.01
Acenaphthylene GCMS	N	mg/kg	0.01	0.02	0.26	< 0.01	0.02	< 0.01	< 0.01	< 0.01
Acenaphthene GCMS	N	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene GCMS	N	mg/kg	0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene GCMS	N	mg/kg	0.01	0.11	0.37	0.03	0.05	< 0.01	< 0.01	< 0.01
Anthracene GCMS	N	mg/kg	0.01	0.04	0.15	0.01	0.02	< 0.01	< 0.01	< 0.01
Fluoranthene GCMS	N	mg/kg	0.01	0.38	1.69	0.09	0.16	0.02	0.01	< 0.01
Pyrene GCMS	N	mg/kg	0.01	0.32	1.58	0.08	0.14	0.02	0.01	< 0.01
Benzo (a) anthracene GCMS	N	mg/kg	0.01	0.16	1.20	0.05	0.06	0.03	< 0.01	< 0.01
Chrysene GCMS	N	mg/kg	0.01	0.23	1.74	0.08	0.11	0.02	< 0.01	< 0.01
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	0.20	1.98	0.08	0.08	< 0.01	< 0.01	< 0.01
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	0.14	1.56	0.05	0.09	0.01	< 0.01	< 0.01
Benzo (a) pyrene GCMS	N	mg/kg	0.01	0.23	2.37	0.07	0.08	< 0.01	< 0.01	< 0.01
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	0.09	1.21	0.03	0.05	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	0.03	0.32	0.01	0.02	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	0.12	1.56	0.04	0.07	< 0.01	< 0.01	< 0.01
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	2.09	16.1	0.65	0.97	0.14	0.07	0.04

Results Summary

Report No.: 14-00094

WAC Analysis

Elab Ref:	631					Landfill Waste Acceptance Criteria Limits		
Sample Date:	24/06/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	WS140							
Depth:	0.4							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.3	3	5	6
Loss on Ignition		M	%		2.9	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.01	1	--	--
TPH Total WAC		M	mg/kg		< 1	500	--	--
Total (of 17) PAHs		N	mg/kg		< 2	100	--	--
pH		M			8.0	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	< 0.005	< 0.005	< 0.05	0.5	2	25
Barium		N	0.168	0.080	0.90	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	< 0.005	< 0.005	< 0.05	0.5	10	70
Copper		N	0.016	< 0.005	< 0.05	2	50	100
Mercury		N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	< 0.005	< 0.005	< 0.05	0.5	10	30
Nickel		N	0.007	0.001	< 0.05	0.4	10	40
Lead		N	0.007	0.004	< 0.05	0.5	10	50
Antimony		N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium		N	0.006	< 0.005	< 0.05	0.1	0.5	7
Zinc		N	0.032	< 0.005	0.07	4	50	200
Chloride		N	177.000	25.000	408.00	800	15000	25000
Fluoride		N	1.000	< 1	< 10	10	150	500
Sulphate		N	400.000	79.000	1130.00	1000	20000	50000
Total Dissolved Solids		N	1010.000	240.000	3220.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	24.300	10.700	121.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	187	1210				
pH		N	7.6	7.8				
Conductivity (uS/cm)		N	1440	357				
Temperature (°C)		N	20	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			34					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 14-00094

WAC Analysis

Elab Ref:	615					Landfill Waste Acceptance Criteria Limits		
Sample Date:	24/06/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	WS123							
Depth:	0.5							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.1	3	5	6
Loss on Ignition		M	%		3.3	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.01	1	--	--
TPH Total WAC		M	mg/kg		3	500	--	--
Total (of 17) PAHs		N	mg/kg		382.0	100	--	--
pH		M			10.9	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		1.0	--	To evaluate	To evaluate

Eluate Analysis

			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	0.075	0.058	0.60	0.5	2	25
Barium		N	0.355	0.162	1.86	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	0.058	0.015	0.20	0.5	10	70
Copper		N	0.162	0.058	0.71	2	50	100
Mercury		N	< 0.005	< 0.005	0.01	0.01	0.2	2
Molybdenum		N	0.142	0.045	0.57	0.5	10	30
Nickel		N	0.026	0.010	0.12	0.4	10	40
Lead		N	0.233	0.071	0.91	0.5	10	50
Antimony		N	0.083	0.028	0.34	0.06	0.7	5
Selenium		N	0.017	0.007	0.09	0.1	0.5	7
Zinc		N	0.134	0.034	0.47	4	50	200
Chloride		N	7.000	< 5	52.00	800	15000	25000
Fluoride		N	2.000	< 1	< 10	10	150	500
Sulphate		N	50.000	14.000	182.00	1000	20000	50000
Total Dissolved Solids		N	270.000	120.000	1380.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	22.300	15.900	167.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	216	1060				
pH		N	7.7	7.8				
Conductivity (uS/cm)		N	295	130				
Temperature (°C)		N	21	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			10					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 14-00094

WAC Analysis

Elab Ref:	602					Landfill Waste Acceptance Criteria Limits		
Sample Date:	24/06/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	WS101							
Depth:	0.5							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.0	3	5	6
Loss on Ignition		M	%		3.6	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		0.03	1	--	--
TPH Total WAC		M	mg/kg		161	500	--	--
Total (of 17) PAHs		N	mg/kg		70.0	100	--	--
pH		M			8.6	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate
Eluate Analysis			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	0.016	0.033	0.31	0.5	2	25
Barium		N	0.234	0.162	1.69	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	0.010	0.015	0.14	0.5	10	70
Copper		N	0.093	0.054	0.58	2	50	100
Mercury		N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	0.130	0.041	0.50	0.5	10	30
Nickel		N	0.023	0.016	0.17	0.4	10	40
Lead		N	0.018	0.077	0.71	0.5	10	50
Antimony		N	0.056	0.027	0.30	0.06	0.7	5
Selenium		N	0.014	0.008	0.09	0.1	0.5	7
Zinc		N	0.040	0.051	0.50	4	50	200
Chloride		N	10.000	10.000	100.00	800	15000	25000
Fluoride		N	2.000	< 1	< 10	10	150	500
Sulphate		N	49.000	13.000	167.00	1000	20000	50000
Total Dissolved Solids		N	280.000	150.000	1620.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	28.400	15.500	167.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	166	1030				
pH		N	7.7	7.8				
Conductivity (uS/cm)		N	382	177				
Temperature (°C)		N	19	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			21					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation



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Results Summary

Report No.: 14-00094

Asbestos Qualitative Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Result
601	0.20	WS101	Silty loam	No asbestos detected
603	0.50	WS104	Silty loam	No asbestos detected
604	0.20	WS108	Silty loam	No asbestos detected
605	0.20	WS114	Silty clayey loam	No asbestos detected
607	0.20	WS115	Silty loam	No asbestos detected
608	0.70	WS115	Silty loam	No asbestos detected
609	0.30	WS116	Sandy silty loam	No asbestos detected
610	0.10	WS118	Clay	No asbestos detected
611	0.10	WS120	Sand	No asbestos detected
612	0.20	WS121	Sandy silty loam	No asbestos detected
613	0.30	WS122	Sandy silty loam	No asbestos detected
614	0.20	WS123	Silty loam	No asbestos detected
616	0.50	WS128	Clay	No asbestos detected
617	0.60	WS126	Clayey loam	No asbestos detected
618	0.20	WS127	Clayey loam	No asbestos detected
619	0.10	WS129	Silty clayey loam	No asbestos detected
620	0.20	WS130	Silty clayey loam	No asbestos detected
621	0.20	WS131	Silty loam	No asbestos detected
622	0.20	WS132	Silty clayey loam	No asbestos detected
624	0.80	WS133	Silty clayey loam	No asbestos detected
625	0.20	WS134	Clayey loam	No asbestos detected
626	0.80	WS135	Silty clayey loam	No asbestos detected
627	0.20	WS136	Silty clayey loam	No asbestos detected
628	0.30	WS137	Silty loam	No asbestos detected
629	0.60	WS138	Clay	No asbestos detected
630	0.20	WS140	Clay	No asbestos detected

Method Summary

Report No.: 14-00094

Parameter	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil				
Polycyclic aromatic hydrocarbons (GC-MS)	As submitted sample	01/07/2014		GC-MS
Hexavalent chromium	As submitted sample	01/07/2014	110	Colorimetry
Aqua regia extractable metals	Air dried sample	02/07/2014	118	ICPMS
Water soluble boron	Air dried sample	30/06/2014	202	Colorimetry
Basic carbon banding in soil	As submitted sample	02/07/2014	218	GC-FID
Soil organic matter	Air dried sample	30/06/2014	BS1377:P3	Titrimetry
Asbestos identification	As submitted sample	02/07/2014	PMAN	Microscopy
Leachate				
Arsenic*		02/07/2014	101	ICPMS
Cadmium*		02/07/2014	101	ICPMS
Chromium*		02/07/2014	101	ICPMS
Lead*		02/07/2014	101	ICPMS
Nickel*		02/07/2014	101	ICPMS
Copper*		02/07/2014	101	ICPMS
Zinc*		02/07/2014	101	ICPMS
Mercury*		02/07/2014	101	ICPMS
Selenium*		02/07/2014	101	ICPMS
Antimony		02/07/2014	101	ICPMS
Barium*		02/07/2014	101	ICPMS
Molybdenum*		02/07/2014	101	ICPMS
pH Value*		02/07/2014	113	Electrometric
Electrical Conductivity*		02/07/2014	136	Probe
Dissolved Organic Carbon		02/07/2014	102	TOC analyser
Chloride*		02/07/2014	131	Ion Chromatography
Fluoride*		02/07/2014	131	Ion Chromatography
Sulphate*		02/07/2014	131	Ion Chromatography
Total Dissolved Solids		02/07/2014	144	Gravimetric
Phenol index		02/07/2014	121	HPLC
WAC Solids analysis				
pH Value**	Air dried sample	02/07/2014	113	Electrometric
Total Organic Carbon	Air dried sample	02/07/2014	210	IR
Loss on Ignition**	Air dried sample	02/07/2014	129	Gravimetric
Acid Neutralization Capacity to pH 7	Air dried sample	02/07/2014	NEN 737	Electrometric
Total BTEX**	As submitted sample	02/07/2014	181	GCMS
Mineral Oil**	As submitted sample	02/07/2014	117	GCFID
Total PCBs (7 congeners)	Air dried sample	02/07/2014	120	GCMS
Total PAH (17)**	As submitted sample	02/07/2014	133	GCFID

Report Information

Report No.: 14-00094

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
I/S	Insufficient Sample
U/S	Unsuitable sample
n/e	not evaluated
<	means "less than"
>	means "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (extraction to analysis)

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



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THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 14-00097

Issue: 1

Date of Issue: 07/07/2014

Contact: David Harris

Customer Details: Ashdown Site Investigation Limited
The Old Dairy
Swanborough Farm
Lewes
East Sussex

Quotation No: Q14-00001

Order No: 140535

Customer Reference: LW25193

Date Received: 26/06/2014

Date Approved: 07/07/2014

Details: Biggins Wood, Folkestone

Approved by:

John Wilson, Operations Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

Sample Summary

Report No.: 14-00097

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
643	WS102 0.60	25/06/2014	01/07/2014	Silty clayey loam	
644	WS103 0.80	25/06/2014	01/07/2014	Silty clayey loam	
645	WS105 0.20	25/06/2014	01/07/2014	Silty clayey loam	
646	WS106 0.20	25/06/2014	01/07/2014	Silty loam	
647	WS107 0.20	25/06/2014	01/07/2014	Silty loam	
648	WS109 0.20	25/06/2014	01/07/2014	Silty loam	
649	WS109 0.80	25/06/2014	01/07/2014	Clayey loam	
650	WS110 0.80	25/06/2014	01/07/2014	Loamy sand	
651	WS111 0.20	25/06/2014	01/07/2014	Silty loam	
652	WS112 0.20	25/06/2014	01/07/2014	Silty loam	
653	WS113 0.50	25/06/2014	01/07/2014	Silty loam	
654	WS117 0.20	25/06/2014	01/07/2014	Sandy silty loam	
655	WS119 0.80	25/06/2014	01/07/2014	Clayey loam	
656	WS124 0.20	25/06/2014	01/07/2014	Silty loam	
657	WS124 0.80	25/06/2014	01/07/2014	Clayey loam	
658	WS125 0.20	25/06/2014	01/07/2014	Silty loam	

Results Summary

Report No.: 14-00097

ELAB Reference	643	644	645	646	647	648
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS102	WS103	WS105	WS106	WS107	WS109
Sample Depth (m)	0.60	0.80	0.20	0.20	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Metals									
Arsenic	M	mg/kg	1	15.7	15.9	17.2	15.4	16.4	16.9
Cadmium	M	mg/kg	0.5	^ < 0.5	^ < 0.5	^ < 0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	^ 43.3	^ 42.7	^ 38.6	29.3	35.0	57.5
Copper	M	mg/kg	5	^ 52.8	^ 39.2	^ 63.1	81.2	54.6	21.9
Lead	M	mg/kg	5	^ 261	^ 166	^ 260	299	269	57.7
Mercury	M	mg/kg	0.5	^ < 0.5	^ 0.8	^ < 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	^ 40.5	^ 36.3	^ 37.3	26.0	34.1	38.9
Selenium	M	mg/kg	0.5	^ 0.9	^ 1.1	^ 1.0	0.8	0.9	1.3
Zinc	M	mg/kg	45	^ 153	^ 107	^ 195	139	434	98.0



Results Summary

Report No.: 14-00097

ELAB Reference				643	644	645	646	647	648
Customer Reference									
Sample ID									
Sample Type				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location				WS102	WS103	WS105	WS106	WS107	WS109
Sample Depth (m)				0.60	0.80	0.20	0.20	0.20	0.20
Sampling Date				25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014
Determinand	Codes	Units	LOD						
Inorganics									
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	1.8	2.1	1.4	1.3	1.1	1.9



Results Summary

Report No.: 14-00097

ELAB Reference	643	644	645	646	647	648
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS102	WS103	WS105	WS106	WS107	WS109
Sample Depth (m)	0.60	0.80	0.20	0.20	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014
Determinand	Codes	Units	LOD			
Miscellaneous						
Moisture Content	N	%	0.1	n/t	n/t	n/t
pH	M	units	0.1	^ 8.1	^ 7.7	^ 8.2
Soil Organic Matter	U	%	0.1	1.5	4.0	1.3

Results Summary

Report No.: 14-00097

ELAB Reference	643	644	645	646	647	648
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS102	WS103	WS105	WS106	WS107	WS109
Sample Depth (m)	0.60	0.80	0.20	0.20	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Organics									
>C8-C10 BCB Soil	N	mg/kg	5	n/t	n/t	< 5.0	< 5.0	n/t	< 5.0
>C10-C12 BCB Soil	N	mg/kg	5	n/t	n/t	< 5.0	< 5.0	n/t	< 5.0
>C12-C16 BCB Soil	N	mg/kg	5	n/t	n/t	< 5.0	< 5.0	n/t	< 5.0
>C16-C21 BCB Soil	N	mg/kg	5	n/t	n/t	< 5.0	6.4	n/t	< 5.0
>C21-C35 BCB Soil	N	mg/kg	5	n/t	n/t	26.1	61.6	n/t	< 5.0
>C35-C40 BCB Soil	N	mg/kg	5	n/t	n/t	< 5.0	10.8	n/t	< 5.0
Total (>C8-C40) BCB Soil	N	mg/kg	5	n/t	n/t	33.6	79.2	n/t	< 5.0



Results Summary

Report No.: 14-00097

ELAB Reference	643	644	645	646	647	648
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS102	WS103	WS105	WS106	WS107	WS109
Sample Depth (m)	0.60	0.80	0.20	0.20	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Polyaromatic hydrocarbons									
Naphthalene GCMS	N	mg/kg	0.01	0.09	< 0.01	0.24	0.33	0.07	0.01
Acenaphthylene GCMS	N	mg/kg	0.01	0.18	< 0.01	0.30	0.35	0.17	0.02
Acenaphthene GCMS	N	mg/kg	0.01	0.06	< 0.01	0.10	0.11	0.04	< 0.01
Fluorene GCMS	N	mg/kg	0.01	0.08	< 0.01	0.27	0.25	0.05	< 0.01
Phenanthrene GCMS	N	mg/kg	0.01	1.28	< 0.01	3.36	3.27	0.66	0.05
Anthracene GCMS	N	mg/kg	0.01	0.27	< 0.01	0.85	0.76	0.27	< 0.01
Fluoranthene GCMS	N	mg/kg	0.01	3.77	0.01	6.50	5.86	2.18	0.13
Pyrene GCMS	N	mg/kg	0.01	3.04	< 0.01	5.19	4.74	1.90	0.10
Benzo (a) anthracene GCMS	N	mg/kg	0.01	1.73	< 0.01	2.93	3.14	1.43	0.06
Chrysene GCMS	N	mg/kg	0.01	2.23	< 0.01	2.86	3.06	1.38	0.07
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	1.54	< 0.01	2.11	3.26	1.58	0.09
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	1.56	< 0.01	2.56	3.02	1.37	0.08
Benzo (a) pyrene GCMS	N	mg/kg	0.01	2.21	< 0.01	3.28	3.98	1.88	0.09
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	0.92	< 0.01	1.58	2.43	1.09	0.05
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	0.22	< 0.01	0.53	0.81	0.36	0.02
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	1.16	< 0.01	1.84	2.87	1.28	0.06
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	20.3	0.09	34.5	38.2	15.7	0.83

Results Summary

Report No.: 14-00097

ELAB Reference	649	650	651	652	653	654
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS109	WS110	WS111	WS112	WS113	WS117
Sample Depth (m)	0.80	0.80	0.20	0.20	0.50	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Metals									
Arsenic	M	mg/kg	1	17.4	31.1	11.1	16.5	17.5	8.8
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5
Chromium	M	mg/kg	5	63.7	33.6	21.2	26.2	32.7	8.1
Copper	M	mg/kg	5	17.1	249	16.8	70.0	53.0	22.9
Lead	M	mg/kg	5	36.9	868	55.2	232	204	103
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	52.8	41.6	13.4	30.8	31.8	9.4
Selenium	M	mg/kg	0.5	0.9	1.0	0.6	0.7	0.8	< 0.5
Zinc	M	mg/kg	45	77.9	241	46.7	137	142	50.2

Results Summary

Report No.: 14-00097

ELAB Reference				649	650	651	652	653	654
Customer Reference									
Sample ID									
Sample Type				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location				WS109	WS110	WS111	WS112	WS113	WS117
Sample Depth (m)				0.80	0.80	0.20	0.20	0.50	0.20
Sampling Date				25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014
Determinand	Codes	Units	LOD						
Inorganics									
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	1.2	1.3	0.7	0.7	1.0	0.7

Results Summary

Report No.: 14-00097

ELAB Reference	649	650	651	652	653	654
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS109	WS110	WS111	WS112	WS113	WS117
Sample Depth (m)	0.80	0.80	0.20	0.20	0.50	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Miscellaneous									
Moisture Content	N	%	0.1	49	n/t	n/t	n/t	n/t	n/t
pH	M	units	0.1	7.7	11.4	9.4	8.3	8.6	10.0
Soil Organic Matter	U	%	0.1	n/t	0.5	1.0	1.6	2.2	1.8

Results Summary

Report No.: 14-00097

ELAB Reference	649	650	651	652	653	654
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS109	WS110	WS111	WS112	WS113	WS117
Sample Depth (m)	0.80	0.80	0.20	0.20	0.50	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Organics									
>C8-C10 BCB Soil	N	mg/kg	5	< 5.0	n/t	< 5.0	< 5.0	< 5.0	n/t
>C10-C12 BCB Soil	N	mg/kg	5	< 5.0	n/t	< 5.0	< 5.0	< 5.0	n/t
>C12-C16 BCB Soil	N	mg/kg	5	< 5.0	n/t	< 5.0	< 5.0	< 5.0	n/t
>C16-C21 BCB Soil	N	mg/kg	5	< 5.0	n/t	6.3	< 5.0	< 5.0	n/t
>C21-C35 BCB Soil	N	mg/kg	5	< 5.0	n/t	109	16.5	58.0	n/t
>C35-C40 BCB Soil	N	mg/kg	5	< 5.0	n/t	27.1	< 5.0	< 5.0	n/t
Total (>C8-C40) BCB Soil	N	mg/kg	5	< 5.0	n/t	144	20.5	70.5	n/t

Results Summary

Report No.: 14-00097

ELAB Reference	649	650	651	652	653	654
Customer Reference						
Sample ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Location	WS109	WS110	WS111	WS112	WS113	WS117
Sample Depth (m)	0.80	0.80	0.20	0.20	0.50	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD						
Polyaromatic hydrocarbons									
Naphthalene GCMS	N	mg/kg	0.01	< 0.01	0.14	0.02	0.82	0.21	1.10
Acenaphthylene GCMS	N	mg/kg	0.01	< 0.01	0.33	0.06	1.30	0.41	2.41
Acenaphthene GCMS	N	mg/kg	0.01	< 0.01	0.04	0.01	0.93	0.09	0.09
Fluorene GCMS	N	mg/kg	0.01	< 0.01	0.03	0.01	1.18	0.10	0.21
Phenanthrene GCMS	N	mg/kg	0.01	< 0.01	0.80	0.14	12.6	2.23	4.67
Anthracene GCMS	N	mg/kg	0.01	< 0.01	0.26	0.05	3.96	0.67	3.41
Fluoranthene GCMS	N	mg/kg	0.01	< 0.01	3.22	0.58	37.1	7.32	27.4
Pyrene GCMS	N	mg/kg	0.01	< 0.01	2.68	0.54	33.6	6.13	23.6
Benzo (a) anthracene GCMS	N	mg/kg	0.01	< 0.01	1.99	0.42	26.3	4.42	20.8
Chrysene GCMS	N	mg/kg	0.01	< 0.01	2.10	0.45	24.8	4.02	19.4
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	< 0.01	2.32	0.48	30.4	4.36	25.7
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	< 0.01	2.23	0.48	23.9	3.68	19.3
Benzo (a) pyrene GCMS	N	mg/kg	0.01	< 0.01	2.82	0.58	35.6	5.05	28.2
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	< 0.01	1.82	0.30	20.3	2.85	19.5
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	< 0.01	0.56	0.07	7.74	0.98	7.63
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	< 0.01	2.23	0.36	23.6	3.20	21.6
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	< 0.04	23.6	4.57	284	45.7	225

Results Summary

Report No.: 14-00097

ELAB Reference	655	656	658
Customer Reference			
Sample ID			
Sample Type	SOIL	SOIL	SOIL
Sample Location	WS119	WS124	WS125
Sample Depth (m)	0.80	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD			
Metals						
Arsenic	M	mg/kg	1	16.3	18.3	18.5
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	30.4	27.3	26.2
Copper	M	mg/kg	5	18.5	56.8	72.6
Lead	M	mg/kg	5	26.0	239	259
Mercury	M	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	41.6	30.5	29.9
Selenium	M	mg/kg	0.5	0.8	0.7	0.8
Zinc	M	mg/kg	45	55.0	174	204



Results Summary

Report No.: 14-00097

ELAB Reference	655	656	658
Customer Reference			
Sample ID			
Sample Type	SOIL	SOIL	SOIL
Sample Location	WS119	WS124	WS125
Sample Depth (m)	0.80	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD			
Inorganics						
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	1.5	1.1	0.7



Results Summary

Report No.: 14-00097

ELAB Reference	655	656	658
Customer Reference			
Sample ID			
Sample Type	SOIL	SOIL	SOIL
Sample Location	WS119	WS124	WS125
Sample Depth (m)	0.80	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD			
Miscellaneous						
Moisture Content	N	%	0.1	n/t	n/t	n/t
pH	M	units	0.1	8.1	7.9	10.5
Soil Organic Matter	U	%	0.1	0.2	1.3	4.1



Results Summary

Report No.: 14-00097

ELAB Reference	655	656	658
Customer Reference			
Sample ID			
Sample Type	SOIL	SOIL	SOIL
Sample Location	WS119	WS124	WS125
Sample Depth (m)	0.80	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD			
Organics						
>C8-C10 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0
>C10-C12 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0
>C12-C16 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0
>C16-C21 BCB Soil	N	mg/kg	5	n/t	< 5.0	19.3
>C21-C35 BCB Soil	N	mg/kg	5	n/t	42.0	76.2
>C35-C40 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0
Total (>C8-C40) BCB Soil	N	mg/kg	5	n/t	53.6	102



Results Summary

Report No.: 14-00097

ELAB Reference	655	656	658
Customer Reference			
Sample ID			
Sample Type	SOIL	SOIL	SOIL
Sample Location	WS119	WS124	WS125
Sample Depth (m)	0.80	0.20	0.20
Sampling Date	25/06/2014	25/06/2014	25/06/2014

Determinand	Codes	Units	LOD			
Polyaromatic hydrocarbons						
Naphthalene GCMS	N	mg/kg	0.01	< 0.01	0.35	0.20
Acenaphthylene GCMS	N	mg/kg	0.01	< 0.01	0.46	0.59
Acenaphthene GCMS	N	mg/kg	0.01	< 0.01	0.11	0.12
Fluorene GCMS	N	mg/kg	0.01	< 0.01	0.12	0.13
Phenanthrene GCMS	N	mg/kg	0.01	< 0.01	1.80	2.42
Anthracene GCMS	N	mg/kg	0.01	< 0.01	0.51	0.93
Fluoranthene GCMS	N	mg/kg	0.01	0.01	5.39	9.57
Pyrene GCMS	N	mg/kg	0.01	< 0.01	4.63	7.93
Benzo (a) anthracene GCMS	N	mg/kg	0.01	< 0.01	3.74	6.57
Chrysene GCMS	N	mg/kg	0.01	< 0.01	3.42	4.33
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	< 0.01	4.88	7.17
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	< 0.01	3.31	4.88
Benzo (a) pyrene GCMS	N	mg/kg	0.01	< 0.01	5.17	7.44
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	< 0.01	3.43	4.88
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	< 0.01	1.25	1.53
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	< 0.01	3.60	5.04
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	0.09	42.2	63.7



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Results Summary

Report No.: 14-00097

Asbestos Qualitative Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Result
645	0.20	WS105	Silty clayey loam	No asbestos detected
646	0.20	WS106	Silty loam	No asbestos detected
647	0.20	WS107	Silty loam	No asbestos detected
648	0.20	WS109	Silty loam	No asbestos detected
649	0.80	WS109	Clayey loam	No asbestos detected
650	0.80	WS110	Loamy sand	No asbestos detected
651	0.20	WS111	Silty loam	No asbestos detected
652	0.20	WS112	Silty loam	No asbestos detected
653	0.50	WS113	Silty loam	No asbestos detected
654	0.20	WS117	Sandy silty loam	No asbestos detected
655	0.80	WS119	Clayey loam	No asbestos detected
656	0.20	WS124	Silty loam	No asbestos detected
657	0.80	WS124	Clayey loam	No asbestos detected
658	0.20	WS125	Silty loam	No asbestos detected

Method Summary

Report No.: 14-00097

Parameter	Analysis Undertaken On	Date Tested	Method Number	Technique
Soil				
Polyaromatic hydrocarbons (GC-MS)	As submitted sample	03/07/2014		GC-MS
Hexavalent chromium	As submitted sample	02/07/2014	110	Colorimetry
pH	Air dried sample	03/07/2014	113	Electromeric
Aqua regia extractable metals	Air dried sample	05/07/2014	118	ICPMS
Water soluble boron	Air dried sample	03/07/2014	202	Colorimetry
Basic carbon banding in soil	As submitted sample	07/07/2014	218	GC-FID
Soil organic matter	Air dried sample	03/07/2014	BS1377:P3	Titrimetry
Asbestos identification	As submitted sample	04/07/2014	PMAN	Microscopy

Report Information

Report No.: 14-00097

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
I/S	Insufficient Sample
U/S	Unsuitable sample
n/e	not evaluated
<	means "less than"
>	means "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (extraction to analysis)

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage



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THE ENVIRONMENTAL LABORATORY LTD

Analytical Report Number: 14-00213

Issue: 1

Date of Issue: 18/08/2014

Contact: David Harris

Customer Details: Ashdown Site Investigation Limited
The Old Dairy
Swanborough Farm
Lewes
East Sussex

Quotation No: Q14-00001

Order No: 140653

Customer Reference: LW25193

Date Received: 08/08/2014

Date Approved: 18/08/2014

Details: Biggins Wood, Folkestone

Approved by: 

John Wilson, Operations Manager

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



Sample Summary

Report No.: 14-00213

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
1604	HA201 0.30	07/08/2014	11/08/2014	Clay	
1605	HA202 0.45	07/08/2014	11/08/2014	Clay	
1606	HA203 0.30	07/08/2014	11/08/2014	Silty loam	
1607	HA204 0.30	07/08/2014	11/08/2014	Clay	

Results Summary

Report No.: 14-00213

ELAB Reference	1604	1605	1606	1607
Customer Reference				
Sample ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sample Location	HA201	HA202	HA203	HA204
Sample Depth (m)	0.30	0.45	0.30	0.30
Sampling Date	07/08/2014	07/08/2014	07/08/2014	07/08/2014

Determinand	Codes	Units	LOD				
Metals							
Arsenic	M	mg/kg	1	n/t	8.7	12.1	10.3
Cadmium	M	mg/kg	0.5	n/t	< 0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	n/t	42.9	37.5	45.1
Copper	M	mg/kg	5	n/t	15.2	21.6	17.5
Lead	M	mg/kg	5	n/t	26.2	98.9	33.1
Mercury	M	mg/kg	0.5	n/t	< 0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	n/t	39.3	30.8	40.6
Selenium	M	mg/kg	0.5	n/t	0.5	0.8	0.6
Zinc	M	mg/kg	45	n/t	64.9	95.6	62.5
Inorganics							
Hexavalent Chromium	N	mg/kg	0.8	n/t	< 0.8	< 0.8	< 0.8
Water Soluble Boron	N	mg/kg	0.5	n/t	1.5	0.7	1.4
Miscellaneous							
Moisture Content	N	%	0.1	n/t	28.3	12.2	22.4
pH	M	units	0.1	7.9	7.5	7.9	7.9
Organics							
>C8-C10 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0
>C10-C12 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0
>C12-C16 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0
>C16-C21 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0
>C21-C35 BCB Soil	N	mg/kg	5	n/t	< 5.0	33.5	< 5.0
>C35-C40 BCB Soil	N	mg/kg	5	n/t	< 5.0	< 5.0	< 5.0
Total (>C8-C40) BCB Soil	N	mg/kg	5	n/t	< 5.0	42.1	< 5.0
Polyaromatic hydrocarbons							
Naphthalene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Acenaphthylene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Acenaphthene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Fluorene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Phenanthrene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Anthracene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Fluoranthene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Pyrene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Benzo (a) anthracene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Chrysene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Benzo (b) fluoranthene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Benzo (k) fluoranthene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Benzo (a) pyrene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Indeno (1,2,3-cd) pyrene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene GCMS	N	mg/kg	0.01	n/t	< 0.01	< 0.01	< 0.01
Total PAH(16) Speciated GCMS	N	mg/kg	0.04	n/t	< 0.04	< 0.04	< 0.04

Results Summary

Report No.: 14-00213

WAC Analysis

Elab Ref:	1607					Landfill Waste Acceptance Criteria Limits		
Sample Date:	07/08/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	HA204							
Depth:	0.3							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.7	3	5	6
Loss on Ignition		M	%		4.4	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.03	1	--	--
TPH Total WAC		M	mg/kg		< 5	500	--	--
Total (of 17) PAHs		N	mg/kg		< 2	100	--	--
pH		M			7.9	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	< 0.005	< 0.005	< 0.05	0.5	2	25
Barium		N	0.148	0.078	0.83	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	< 0.005	0.012	0.11	0.5	10	70
Copper		N	0.010	< 0.005	< 0.05	2	50	100
Mercury		N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	< 0.005	< 0.005	< 0.05	0.5	10	30
Nickel		N	0.003	0.001	< 0.05	0.4	10	40
Lead		N	< 0.001	< 0.001	< 0.05	0.5	10	50
Antimony		N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium		N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc		N	0.032	< 0.005	< 0.05	4	50	200
Chloride		N	< 5	< 5	< 50	800	15000	25000
Fluoride		N	< 1	< 1	< 10	10	150	500
Sulphate		N	7.000	4.000	47.00	1000	20000	50000
Total Dissolved Solids		N	140.000	< 10	116.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	18.500	14.200	145.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	146	1180				
pH		N	8.2	7.9				
Conductivity (uS/cm)		N	195	120				
Temperature (°C)		N	19	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			25.5					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 14-00213

WAC Analysis

Elab Ref:	1606					Landfill Waste Acceptance Criteria Limits		
Sample Date:	07/08/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	HA203							
Depth:	0.3							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.7	3	5	6
Loss on Ignition		M	%		2.7	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.03	1	--	--
TPH Total WAC		M	mg/kg		40	500	--	--
Total (of 17) PAHs		N	mg/kg		26.0	100	--	--
pH		M			7.9	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	< 0.005	0.008	0.08	0.5	2	25
Barium		N	0.224	0.111	1.24	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	0.042	0.020	0.23	0.5	10	70
Copper		N	0.034	0.012	0.15	2	50	100
Mercury		N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	0.094	0.033	0.41	0.5	10	30
Nickel		N	0.004	0.003	< 0.05	0.4	10	40
Lead		N	0.003	< 0.001	< 0.05	0.5	10	50
Antimony		N	0.027	0.016	0.17	0.06	0.7	5
Selenium		N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc		N	0.018	0.015	0.15	4	50	200
Chloride		N	< 5	< 5	< 50	800	15000	25000
Fluoride		N	< 1	< 1	< 10	10	150	500
Sulphate		N	23.000	6.000	76.10	1000	20000	50000
Total Dissolved Solids		N	180.000	120.000	1270.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	17.600	14.600	149.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	213	1190				
pH		N	8.2	7.9				
Conductivity (uS/cm)		N	266	128				
Temperature (°C)		N	19	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			15.2					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 14-00213

WAC Analysis

Elab Ref:	1605					Landfill Waste Acceptance Criteria Limits		
Sample Date:	07/08/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	HA202							
Depth:	0.45							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.4	3	5	6
Loss on Ignition		M	%		3.6	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.03	1	--	--
TPH Total WAC		M	mg/kg		< 5	500	--	--
Total (of 17) PAHs		N	mg/kg		< 2	100	--	--
pH		M			7.5	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	< 0.005	< 0.005	< 0.05	0.5	2	25
Barium		N	0.095	0.090	0.90	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	< 0.005	0.006	0.05	0.5	10	70
Copper		N	< 0.005	< 0.005	< 0.05	2	50	100
Mercury		N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	< 0.005	< 0.005	< 0.05	0.5	10	30
Nickel		N	0.006	0.003	< 0.05	0.4	10	40
Lead		N	< 0.001	< 0.001	< 0.05	0.5	10	50
Antimony		N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium		N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc		N	0.028	0.027	0.27	4	50	200
Chloride		N	107.000	16.000	263.00	800	15000	25000
Fluoride		N	< 1	< 1	< 10	10	150	500
Sulphate		N	1190.000	316.000	4130.00	1000	20000	50000
Total Dissolved Solids		N	2370.000	680.000	8670.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	14.100	10.400	108.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	195	1370				
pH		N	7.8	7.5				
Conductivity (uS/cm)		N	2580	832				
Temperature (°C)		N	19	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			31.5					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Results Summary

Report No.: 14-00213

WAC Analysis

Elab Ref:	1604					Landfill Waste Acceptance Criteria Limits		
Sample Date:	07/08/2014					Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID:	HA201							
Depth:	0.3							
Site:	Biggins Wood, Folkestone							
Determinand		Code	Units					
Total Organic Carbon		N	%		0.4	3	5	6
Loss on Ignition		M	%		7.8	--	--	10
Total BTEX		M	mg/kg		< 1.00	6	--	--
Total PCBs (7 congeners)		M	mg/kg		< 0.03	1	--	--
TPH Total WAC		M	mg/kg		< 5	500	--	--
Total (of 17) PAHs		N	mg/kg		< 2	100	--	--
pH		M			7.9	--	>6	--
Acid Neutralisation Capacity		N	mol/kg		< 0.1	--	To evaluate	To evaluate

Eluate Analysis

			2:1	8:1	10:1	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg		
			mg/l	mg/l	mg/kg			
Arsenic		N	< 0.005	< 0.005	< 0.05	0.5	2	25
Barium		N	0.298	0.172	1.78	20	100	300
Cadmium		N	< 0.001	< 0.001	< 0.01	0.04	1	5
Chromium		N	< 0.005	0.013	0.12	0.5	10	70
Copper		N	0.026	0.006	0.07	2	50	100
Mercury		N	< 0.005	< 0.005	< 0.01	0.01	0.2	2
Molybdenum		N	0.010	0.007	0.07	0.5	10	30
Nickel		N	0.008	0.004	< 0.05	0.4	10	40
Lead		N	0.007	< 0.001	< 0.05	0.5	10	50
Antimony		N	< 0.005	< 0.005	< 0.05	0.06	0.7	5
Selenium		N	< 0.005	< 0.005	< 0.05	0.1	0.5	7
Zinc		N	0.031	< 0.005	0.06	4	50	200
Chloride		N	11.000	< 5	< 50	800	15000	25000
Fluoride		N	< 1	< 1	< 10	10	150	500
Sulphate		N	17.000	5.000	60.70	1000	20000	50000
Total Dissolved Solids		N	170.000	110.000	1130.00	4000	60000	100000
Phenol Index		N	< 0.01	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon		N	24.000	16.400	168.00	500	800	1000

Leach Test Information

Eluent Volume (ml)		N	92	1170				
pH		N	8.3	7.8				
Conductivity (uS/cm)		N	261	129				
Temperature (°C)		N	18	20				
Solid Information								
Dry mass of test portion (g)			176					
Moisture (%)			27.9					

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

Stated limits are for guidance only and ELAB cannot be held responsible for any discrepancies with current legislation

Method Summary

Report No.: 14-00213

Parameter	Analysis Undertaken On	Date Tested	Method Number	Technique
Leachate				
Arsenic*		18/08/2014	101	ICPMS
Cadmium*		18/08/2014	101	ICPMS
Chromium*		18/08/2014	101	ICPMS
Lead*		18/08/2014	101	ICPMS
Nickel*		18/08/2014	101	ICPMS
Copper*		18/08/2014	101	ICPMS
Zinc*		18/08/2014	101	ICPMS
Mercury*		18/08/2014	101	ICPMS
Selenium*		18/08/2014	101	ICPMS
Antimony		18/08/2014	101	ICPMS
Barium*		18/08/2014	101	ICPMS
Molybdenum*		18/08/2014	101	ICPMS
pH Value*		18/08/2014	113	Electrometric
Electrical Conductivity*		18/08/2014	136	Probe
Dissolved Organic Carbon		18/08/2014	102	TOC analyser
Chloride*		18/08/2014	131	Ion Chromatography
Fluoride*		18/08/2014	131	Ion Chromatography
Sulphate*		18/08/2014	131	Ion Chromatography
Total Dissolved Solids		18/08/2014	144	Gravimetric
Phenol index		18/08/2014	121	HPLC
WAC Solids analysis				
pH Value**	Air dried sample	18/08/2014	113	Electrometric
Total Organic Carbon	Air dried sample	18/08/2014	210	IR
Loss on Ignition**	Air dried sample	18/08/2014	129	Gravimetric
Acid Neutralization Capacity to pH 7	Air dried sample	18/08/2014	NEN 737	Electrometric
Total BTEX**	As submitted sample	18/08/2014	181	GCMS
Mineral Oil**	As submitted sample	18/08/2014	117	GCFID
Total PCBs (7 congeners)	Air dried sample	18/08/2014	120	GCMS
Total PAH (17)**	As submitted sample	18/08/2014	133	GCFID

Report Information

Report No.: 14-00213

Key

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
I/S	Insufficient Sample
U/S	Unsuitable sample
n/e	not evaluated
<	means "less than"
>	means "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

Deviation Codes

a	No date of sampling supplied
b	No time of sampling supplied (Waters Only)
c	Sample not received in appropriate containers
d	Sample not received in cooled condition
e	The container has been incorrectly filled
f	Sample age exceeds stability time (sampling to receipt)
g	Sample age exceeds stability time (extraction to analysis)

Sample Retention and Disposal

All soil samples will be retained for a period of one month

All water samples will be retained for 7 days following the date of the test report

Charges may apply to extended sample storage

APPENDIX E

Extracts from LW21271:
Exploratory Holes Logs
Laboratory Test Results
Borehole Location Plan



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH1

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 24/09/2010

End Date: 24/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth		Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)		10	N 30	50	
								Ground Level
	J	0.05						Firm to stiff green brown fissured CLAY with occasional blue grey partings and shell fragments. (Gault Formation)
	D	0.30						
	J D	0.50						
	J	0.80						
	D	1.00						
	U	1.20	1.65	35				Very stiff/ hard grey blue fissured silty CLAY with occasional orange brown mottling and many shell fragments. (Gault Formation)
	D	1.75						
	U	2.00	2.45	36				
	D	2.75						
	U	3.00	3.45	40				
	D	3.75						Hard grey fissured silty CLAY with occasional orange brown staining on fissures and occasional shells. (Gault Formation)
	U	4.00	4.45	45				
	D	4.75						
	U	5.00	5.45	50				
	D	5.75						
	U	6.00	6.45	60				
	D	6.75						
	U	7.00	7.45	55				
	D	7.75						
	U	8.00	8.45	55				
	D	8.75						
	U	9.00	9.45	55				
	D	9.75						

Remarks:

Borehole cased to 1.8m depth.

Borehole dry on completion.

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH1

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 24/09/2010

End Date: 24/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth			Strata Descriptions
		From (m)	To (m)		10	N	30	
	U	10.00	10.45	55				Hard grey fissured silty CLAY with occasional orange brown staining on fissures and occasional shells. (Gault Formation)
	D	10.75						
	U	11.00	11.45	50				
	D	11.75						
	U	12.00	12.45	60				
	D	12.75						
	U	13.00	13.45	50				
	D	13.75						
	U	14.00	14.45	60				
	D	14.75						
	U	15.00	15.45	60				
	D	15.45						
								End of Borehole

Remarks:

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH2

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20/09/2010

End Date: 21/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth N 10 30 50	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)					
							0.00	Ground Level
	D	0.30						MADE GROUND: Blue grey and brown clay with occasional fine to medium gravel of brick, chalk, flint and organic matter.
	D	0.50						
							1.00	MADE GROUND: Relic topsoil and blue grey green silty clay with much organic matter and occasional fine gravel of brick and flint.
	D	1.00						
	U	1.20	1.65	25				
	D	1.75						
	U	2.00	2.45	25				with some fine to coarse gravel of chalk, clinker, flint and some dark orange brown staining below 2.7m depth.
							2.80	
	D	2.75						MADE GROUND: Red, grey and brown silty clayey fine to coarse sand and gravel of brick, clay tile, concrete and clinker.
	D S	3.00	3.45	4				
	D S	4.00	4.45	7				
	U	4.50	5.00	25				Firm to stiff blue grey and occasionally orange brown mottled silty CLAY with an organic odour. (Possible Reworked/ Gault Formation)
							4.50	
	D	5.25						
	D S	5.50	5.95	9				
							6.00	Very stiff/ hard grey blue fissured silty CLAY with orange brown staining on fissures and occasional shells and selenite crystals. (Gault Formation)
	U	6.50	6.95	35				
	D	7.50						
	U	8.00	8.45	35				
	D	9.00						becoming dark grey blue below 9.0m depth.
	U	9.50	9.95	36				

Remarks:

Borehole cased to 6.0m depth.

Borehole dry on completion.

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH2

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20/09/2010

End Date: 21/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth		Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)		10	N 30	50	
	U	11.00	11.45	40				Very stiff/ hard dark grey blue fissured silty CLAY with orange brown staining on fissures and occasional shells and selenite crystals. (Gault Formation)
	D	12.00						
	U	12.50	12.95	45				
	D	13.50						
	U	14.00	14.45	45				
	D	15.00						
								End of Borehole

Remarks:

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH3

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 23/09/2010

End Date: 23/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth 10 30 50	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)					
							0.00	Ground Level
	D	0.30						MADE GROUND: Green and brown silty clay (relic topsoil) with occasional fine gravel of brick, flint and much organic matter.
	D	0.50						
	D	1.00					1.00	Firm to stiff green brown silty CLAY. (Gault Formation) becoming stiff to very stiff blue grey and green grey fissured with pockets of silt nodules below 1.7m depth.
	U	1.20	1.65	35				
	D	1.75						
	U	2.00	2.45	35			2.50	
	D	2.75						Very stiff blue grey fissured silty CLAY with orange brown and green staining on fissures and occasional shell fragments and selenite crystals. (Gault Formation)
	U	3.00	3.45	40				
	D	3.75						
	U	4.00	4.45	40				
	D	4.75						
	U	5.00	5.45	45				
	D	5.75						
	U	6.00	6.45	46				
	D	6.75						Hard dark grey fissured silty CLAY with occasional shell fragments. (Gault Formation)
	U	7.00	7.45	50			8.00	
	D	7.75						
	U	8.00	8.45	50				
	D	8.75						
	U	9.00	9.45	50				
	D	9.75						

Remarks:

Borehole cased to 1.8m depth.

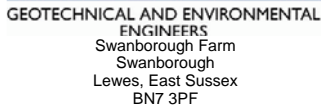
Borehole dry on completion.

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



End Date: 23/09/2010

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH4

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 22/09/2010

End Date: 23/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth N 10 30 50	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)					
							0.00	Ground Level
	D	0.30						MADE GROUND: Brown silty sandy (fine to coarse) clay and fine to coarse gravel of clinker, brick, sandstone, flint, concrete and occasional fragments of metal.
	D	0.50						
	D	1.00						
	D S	1.20	1.65	11				
							1.80	MADE GROUND: Green brown and dark grey mottled silty very sandy (fine to medium) clay with occasional to some fine to coarse gravel of brick and crystalline rock, a trace of glass and an alluvial odour.
	D S	2.00	2.45	6				
							2.60	Firm to stiff grey and orange brown mottled fissured silty CLAY with occasional shell fragments. (Gault Formation)
	U	3.00	3.45	40				
							4.00	Very stiff/ hard grey blue fissured silty CLAY with orange brown staining on fissures and occasional shell fragments and selenite crystals. (Gault Formation)
	D	3.75						
	U	4.00	4.45	35				
	D	4.75						
	U	5.00	5.45	40				
	D	5.75						
	U	6.00	6.45	40				Hard dark grey fissured silty CLAY with shell fragments. (Gault Formation)
	D	6.75						
	U	7.00	7.45	40				
	D	7.75						
	U	8.00	8.45	40				
	D	8.75						
	U	9.00	9.45	45				
	D	9.75						

Remarks:

Borehole cased to 1.8m depth.

Borehole dry on completion.

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA

Standpipe Installation	Samples and Testing					Strata					
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth			Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)		N 10 30 50						
	U D	10.00 10.45	10.45	50						10.45	Hard dark grey fissured silty CLAY with shell fragments. (Gault Formation)
											End of Borehole

Remarks:

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



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Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH5

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 23/09/2010

End Date: 23/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth		Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)		10	N 30	50	
								Ground Level
	D	0.30						Very stiff blue grey and occasionally orange brown mottled fissured slightly gravelly silty CLAY. Gravel is fine flint and mudstone. (Gault Formation) with occasional bands of very weak mudstone and many shells and selenite crystals below 2.0m depth. becoming very stiff/ hard fissured CLAY below 5.0m depth.
	D	0.50						
	D	1.00						
	U	1.20	1.65	35				
	D	1.75						
	U	2.00	2.45	40				
	D	2.75						
	U	3.00	3.45	40				
	D	3.75						
	U	4.00	4.45	30				
	D	4.75						
	U	5.00	5.45	60				
	D	5.75						
	U	6.00	6.45	50				
	D	6.75						
	U	7.00	7.45	50				
	D	7.75						
	U	8.00	8.45	50				
	D	8.75						
	U	9.00	9.45	50				
	D	9.75						

Remarks:

Borehole cased to 1.8m depth.

Borehole dry and stable on completion.

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA

Standpipe Installation	Samples and Testing					Strata					
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth			Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)		N						
					10	30	50				
	U D	10.00 10.45	10.45	50						10.45	Hard blue grey and orange brown mottled fissured CLAY. (Gault Formation)
											End of Borehole
							</				



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Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH6

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 21/09/2010

End Date: 22/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth N 10 30 50	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)					
							0.00	Ground Level
	D D	0.30 0.50						MADE GROUND: Green grey silty clay with much orange brown silty sandy (fine to coarse) fine to coarse gravel of brick, clinker, flint, chalk and occasional fragments of metal.
	D D S	1.00 1.20	1.65	8			1.20	MADE GROUND: Dark grey clayey silty sandy (fine to coarse) fine to coarse gravel of clinker, brick, flint and concrete with a hydrocarbon odour.
	D S	2.00	2.45	9				
	W D S	2.80 3.00	3.45	10			3.00	MADE GROUND: Black silty sandy (fine to coarse) fine to coarse gravel of brick, flint and clinker.
	D S	4.00	4.45	7				becoming slightly clayey below 4.0m depth.
	D S	5.00	5.45	5			5.20	with an alluvial / slight hydrocarbon odour at 5.0m depth.
	D S	6.00	6.45	5				Firm blue grey and green brown slightly gravelly silty CLAY with an alluvial odour. Gravel is fine siltstone. (Possible Reworked/ Gault Formation)
	D S	7.00	7.45	6				
	U	8.00	8.45	35			7.90	Hard blue grey fissured silty CLAY with some shell fragments and selenite crystals. (Gault Formation)
	D	8.75						
	U	9.00	9.45	40				
	D	9.75						

Remarks:

Borehole cased to 3.0m depth.

Groudwater encountered at 3.1m depth; rising to 2.8m in 30 minutes. Standing water level at 2.8m on completion of borehole.

Chiselling techniques used to advance borehole through hard stratum between 4.0m and 5.5m for 1 hour.

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: BH6

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 21/09/2010

End Date: 22/09/2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		U100 Blows / SPT 'N'	SPT vs Depth			Strata Descriptions
		From (m)	To (m)		10	N	50	
	U	10.00	10.45	50				Hard blue grey fissured silty CLAY with some shell fragments and selenite crystals. (Gault Formation)
	D	10.75						
	U	11.00	11.45	50				
	D	11.75						
	U	12.00	12.45	50				
	D	12.75						
	U	13.00	13.45	50				
	D	13.75						
	U	14.00	14.45	50				Hard blue grey fissured very sandy CLAY. Sand is fine to coarse. (Gault Formation)
	D	14.75						
	U	15.00	15.45	50				
	D	15.45						End of Borehole

Remarks:

Excavation Method: Cable Percussion

Borehole Diameter: 150mm

Casing Diameter: 150mm

Made By: MA



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: WS1

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 22.09.2010

End Date: 22.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05					Topsoil (20mm) over, Very stiff blue grey and occasional orange brown mottled CLAY. (Gault Formation) becoming fissured below 0.70m depth. with crystals of selenite below 1.0m depth. becoming weak mudstone between 2.40m and 2.75m depth.
	D H	0.30		195			
	J D H	0.50		250			
	D H	1.00		115			
	V	1.10		>130			
	D H	1.50		140			
	J	1.60					
	D H	2.00		170			
	V	2.10		>130			
	D H	2.50		195			
	J	2.80					
	D	2.90					
	H	3.00		195			
	V	3.10		>130		3.00	End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround;
1.0m to ground level plain pipe with bentonite seal; completed with gas tap and
security cover concreted in flush with the ground surface.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF



Borehole No.: WS2

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 22.09.2010

End Date: 22.09.2010

Standpipe Installation	Samples and Testing				Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)					
						0.00	Ground Level	
	J	0.05		>250		0.20	Topsoil (20mm) over, MADE GROUND: Brown silty sand with occasional fine to coarse gravel of brick, flint and concrete.	
	D	0.30				0.40		MADE GROUND: Brick course.
	J D	0.50				MADE GROUND: Grey brown clay with occasional medium gravel of flint and brick and cobble of stone.		
	J D	1.00					1.10	
	H	1.20	>250		2.00		Very stiff blue grey and occasional brown mottled slightly gravelly CLAY. Gravel is medium siltstone. With crystals of selenite. (Gault Formation)	
	J	1.40						
	D	1.50						
	H	1.70						
	J	1.80						
	D	1.90						
								End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



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Lewes, East Sussex
BN7 3PF

Borehole No.: WS3

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 22.09.2010

End Date: 22.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05					Stiff blue grey and orange brown mottled CLAY. (Gault Formation) becoming very stiff and fissured below 0.60m depth. with many shell fragments below 1.80m depth.
	D H	0.30		115			
	D J H	0.50		225			
	H	0.80		225			
	D J V	1.00		>130			
	D H	1.50		250			
	J H	2.00		>250			
	V	2.10		>130			
	D H	2.50		>250			
	J	2.90		>250			
	H	3.00		>250		3.00	
	V	3.10		>130			End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround;
1.0m to ground level plain pipe with bentonite seal; completed with gas tap and
security cover concreted in flush with the ground surface.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



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Borehole No.: WS4

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20.09.2010

End Date: 20.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05					Stiff brown and dark grey mottled slightly gravelly CLAY. Gravel is flint. (Weathered Gault Formation)
	D	0.30					
	J H	0.50					
	D	0.60					
	D H	1.00		115			Stiff dark grey with a little brown mottling slightly gravelly CLAY. Gravel is fine mudstone/ siltstone. (Gault Formation) becoming fissured with some shell fragments below 1.60m depth.
	V	1.10		110		1.10	
	J H	1.50		210			
	D	1.90					
	H	2.00		140		2.00	
	V	2.10		>130			End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



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Lewes, East Sussex
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Borehole No.: WS5

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20.09.2010

End Date: 20.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05		>250			MADE GROUND: Grey brown clay with a little fine gravel of flint and charcoal. With heavy hydrocarbon staining and odours. becoming orange brown and occasionally dark brown grey mottled slightly sandy with occasional ash below 0.30m depth.
	D	0.40					
	J H	0.50					
	D	0.80					
	H	1.00		90			becoming very sandy with occasional fragments of cables below 1.15m depth.
	J	1.25			1.40		
	J D H	1.50		90		Stiff blue grey and occasional orange brown mottled CLAY. With a little rootlets. (Gault Formation) with a slight hydrocarbon odour and hydrocarbon staining to 2.0m depth.	
	D H	2.00		90			
	V	2.10		120			
	J H	2.50		140			
	D	2.90					3.00
							End of Borehole

Remarks:

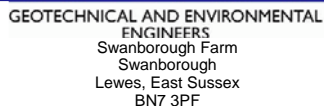
Borehole remained dry and stable on completion.

Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 21.09.2010

End Date: 21.09.2010

Remarks: Borehole remained dry and stable on completion. Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface.	Excavation Method: Dynamic Sampler
	Borehole Diameter: Various
	Made By: SG

Borehole remained dry and stable on completion.

Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG

Made By: SG



GEOTECHNICAL AND ENVIRONMENTAL
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Borehole No.: WS8

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20.09.2010

End Date: 20.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05					Stiff blue grey, orange brown and dark grey mottled fissured CLAY with a little rootlets. (Gault Formation) becoming very stiff brown and grey mottled with some fine to medium gravel of weak mudstone and occasional shell fragments below 0.90m depth.
	D H	0.30		100			
	J D H	0.50		170			
	D H	1.00		170			
	V	1.10		>130			
	J H	1.50		195			
	D H	2.00		225			
	V	2.10		>130			
	J H	2.50		170			
	D	2.90					
	H	3.00		170		3.00	
							End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



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Lewes, East Sussex
BN7 3PF

Borehole No.: WS9

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20.09.2010

End Date: 20.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05					Topsoil with much fine to coarse gravel of brick, flint and clinker.
	D	0.40					
	J	0.50				0.80	
	D	0.80					Very stiff dark grey brown slightly gravelly CLAY. Gravel is mudstone/ siltstone. (Gault Formation)
	H	1.00		235		1.00	
							End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



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Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: WS10

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 20.09.2010

End Date: 20.09.2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	DPSH Profile Blows/100mm 5, 15, 25	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)					
							0.00	Ground Level
							0.10	Topsoil.
	J	0.05					0.20	MADE GROUND: Light brown clay with a little fine gravel of brick, clinker and a little roots and rootlets.
	D	0.15					0.30	
							0.40	MADE GROUND: Gravel of ash and brick.
	J D	0.50						MADE GROUND: Concrete with clinker at the base.
								MADE GROUND: Orange brown sand with much fine to coarse gravel of brick, flint, concrete and clinker. becoming dark green stained with a slight hydrocarbon odour and a little fine gravel of brick and concrete below 0.70m depth.
	J D	1.00						with heavy hydrocarbon staining between 1.0m and 1.30m depth.
								with a cobble of brick at 1.50m depth.
	J D	1.50						
	D	1.90						
	J	2.10						
								becoming light grey green below 3.0m depth.
	J	3.10						
	D	3.50						becoming black sandy fine to coarse gravel of flint and clinker below 4.0m depth.
	J	4.10						
							5.00	

Remarks:

Groundwater seepage at 2.0m depth.
Standing water depth at 2.2m depth on completion.

Borehole unstable, collapsing to 2.9m depth.


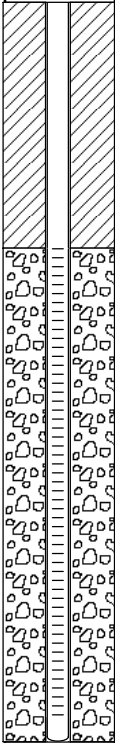
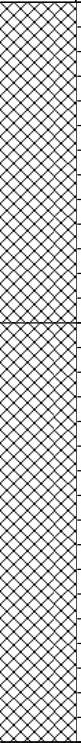
Dynamic probe undertaken through base of borehole.


Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface.

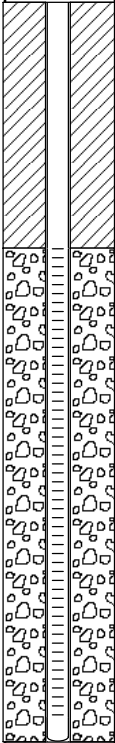
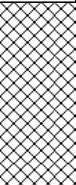

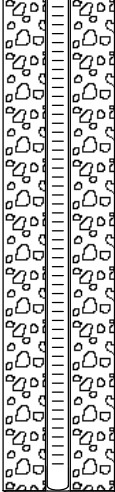
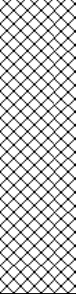
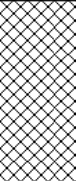
Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG

 <p>ASHDOWN SITE INVESTIGATION L · I · M · I · T · E · D GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</p>						Borehole No.: WS11			
						Site Name: Biggins Wood, Folkestone, Kent			
						Job No.: LW21271			
						Start Date: 21.09.2010		End Date: 21.09.2010	
Standpipe Installation	Samples and Testing					Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	DPSH Profile Blows/100mm 5 , 15 , 25	Legend	Depth / Reduced Level	Strata Descriptions	
From (m)		To (m)							
							0.00	Ground Level	
	J	0.05						MADE GROUND: Brown clay with a little fine gravel of brick, ash and concrete.	
	D	0.30							
	J D	0.50							
	J D	1.00							
	D	1.20					1.30		
	J	1.50						MADE GROUND: Dark brown sandy fine gravel of brick and chalk with occasional coarse gravel of brick and glass. with a strong hydrocarbon odour and staining below 2.0m depth.	
	J	2.00							
	J	2.50							
J	2.90					3.00			
								End of Borehole	
Remarks: Borehole remained dry and stable on completion. Dynamic probe test carried out through the base of the borehole. Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface.						Excavation Method: Dynamic Sampler			
						Borehole Diameter: Various			
						Made By: SG			

 <p>ASHDOWN SITE INVESTIGATION L.I.M.I.T.E.D GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF</p>						Borehole No.: WS12			
Site Name: Biggins Wood, Folkestone, Kent									
Job No.: LW21271									
Start Date: 21.09.2010						End Date: 21.09.2010			

Standpipe Installation	Samples and Testing					Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	DPSH Profile Blows/100mm 5, 15, 25	Legend	Depth / Reduced Level	Strata Descriptions	
		From (m)	To (m)						
							0.00	Ground Level	
	J	0.05						MADE GROUND: Orange brown silty clay with a little to some fine to coarse gravel of concrete, brick, flint and clinker. becoming grey at the base.	
	D	0.30							
	J	0.50							
	D	0.60							
	D	0.80						MADE GROUND: Off white/ light brown slightly clayey silt with much gravel of chalk.	
	J	0.90							
		J	1.50						MADE GROUND: Dark brown slightly sandy clayey fine to medium gravel of brick, flint and concrete.
		D	2.00						
		J	2.50						
		D	2.60						MADE GROUND: Slightly clayey sand with much fine to medium gravel of brick, flint, clinker and chalk. With much hydrocarbon staining and odour.
	V	3.10		>130			3.0	Stiff blue grey CLAY. (Gault Formation)	
								End of Borehole	

Remarks: Borehole remained dry on completion. Borehole unstable, collapsing to 2.0m depth. Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface. Dynamic probe undertaken adjacent to borehole.	Excavation Method: Dynamic Sampler
	Borehole Diameter: Various
	Made By: SG

Borehole No.: WS13

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 22.09.2010

End Date: 22.09.2010

Standpipe Installation	Samples and Testing					Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	DPSH Profile Blows/100mm 5 , 15 , 25	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)					
							0.00	Ground Level
	J	0.05						MADE GROUND: Dark grey brown clay with a little fine to coarse gravel of brick, flint, clinker, concrete and wood. with a cobble of brick at 0.80m depth. with a 100mm layer of concrete between 0.80m and 0.90m depth.
	D	0.30						
	J D	0.50						
							1.00	MADE GROUND: Dark brown sand with much fine to coarse gravel of brick, concrete and clinker.
	J	1.10						
							1.90	
	V	2.00		80				MADE GROUND: Blue grey clay with occasional fine to coarse gravel of brick and concrete interbedded with layers of sandy clay. With some staining and slight hydrocarbon odours.
	J	2.10						
	D H	2.30		90				
	J H	2.60		60				
	D	2.70						
	H	2.90		50			3.00	
								End of Borehole

Remarks:

Borehole remained dry on completion.

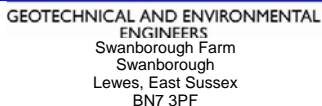
Borehole unstable, collapsing to 1.0m depth.

Dynamic probe test carried out through the base of the borehole.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 21.09.2010

End Date: 21.09.2010

Remarks: Borehole remained dry and stable on completion.	Excavation Method: Dynamic Sampler
	Borehole Diameter: Various
	Made By: SG


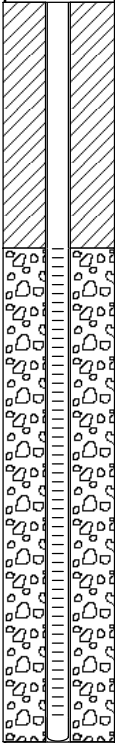
Remarks:

Borehole remained dry and stable on completion.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG

 <p> ASHDOWN SITE INVESTIGATION L.I.M.I.T.E.D. GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS Swanborough Farm Swanborough Lewes, East Sussex BN7 3PF </p>						Borehole No.: WS15			
						Site Name: Biggins Wood, Folkestone, Kent			
						Job No.: LW21271			
						Start Date: 21.09.2010		End Date: 21.09.2010	
Standpipe Installation	Samples and Testing					Strata			
	Sample Type	Depths		Vane/ Pen Test N Value	DPSH Profile Blows/100mm 5, 15, 25	Legend	Depth / Reduced Level	Strata Descriptions	
From (m)		To (m)							
							0.00	Ground Level	
	J	0.05						MADE GROUND: Brown and dark grey mottled clay with a little fine to coarse gravel of brick, concrete, chalk and glass.	
	D	0.30					0.40		
	J D	0.50						MADE GROUND: Brown silty clay with some fine to coarse gravel of brick, flint, concrete and clinker.	
	J	0.80					0.95		
								MADE GROUND: Cobbles of concrete, clinker and brick.	
	J	1.60					1.50		
								MADE GROUND: Dark brown grey slightly sandy clay with some fine to coarse gravel of brick, ash and clinker.	
	J	2.10					2.25		
	D	2.30						MADE GROUND: Dark grey sandy clay with some fine to medium gravel of flint, brick and clinker with cobbles of brick. becoming very sandy with occasional bands of black staining below 2.45m depth.	
	J	2.60					2.80		
D	2.70						MADE GROUND: Yellow brick.		
							3.00	End of Borehole	
<div> <div> Remarks: Borehole remained dry on completion. Borehole unstable, collapsing to 1.80m depth. Standpipe installed to 3.0m depth; 3.0m to 1.0m slotted pipe with gravel surround; 1.0m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted in flush with the ground surface. </div> <div> Excavation Method: Dynamic Sampler Borehole Diameter: Various Made By: SG </div> </div>									



GEOTECHNICAL AND ENVIRONMENTAL
ENGINEERS
Swanborough Farm
Swanborough
Lewes, East Sussex
BN7 3PF

Borehole No.: WS16

Site Name: Biggins Wood, Folkestone, Kent

Job No.: LW21271

Start Date: 22.09.2010

End Date: 22.09.2010

Standpipe Installation	Samples and Testing				Strata		
	Sample Type	Depths		Vane/ Pen Test N Value	Legend	Depth / Reduced Level	Strata Descriptions
		From (m)	To (m)				
						0.00	Ground Level
	J	0.05					Topsoil (10mm) over, Stiff brown and orange brown mottled CLAY. (Gault Formation) becoming very stiff/ hard blue grey mottled below 0.50m depth.
	D H	0.30		90			
	D	0.40					
	J H	0.50		250			
	D	0.80					
	H	1.00		>250		1.00	
							End of Borehole

Remarks:

Borehole remained dry and stable on completion.

Excavation Method: Dynamic Sampler

Borehole Diameter: Various

Made By: SG



Unit A2
Windmill Road
Ponswood Industrial Estate
St Leonards on Sea
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THE ENVIRONMENTAL LABORATORY LTD

F.A.O. David Harris
Ashdown Site Investigation Limited
The Old Dairy, Swanborough Farm
Swanborough, Lewes,
East Sussex, BN7 9PF

Reporting Date: 05/10/10

ANALYTICAL REPORT No. AR29325

Samples Received By:-	Laboratory Courier
Samples Received:-	29/09/10
Your Job No:	LW21271
Site Location:	Bigginwood, Folkestone
No Samples Received:-	15

Report Checked By:-

Steve Knight
Director

Authorised By:-

Cliff P.V. Knight BSc, EurChem, CChem FRSC
Managing Director

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



THE ENVIRONMENTAL LABORATORY LTD

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR29325

Location: Bigginswood, Folkestone



Your Job No: LW21271

Reporting Date: 05/10/10

F.A.O. David Harris
Ashdown Site Investigation Limited
The Old Dairy, Swanborough Farm
Swanborough, Lewes,
East Sussex, BN7 9PF

Soils	Characteristic	Clay Loam	Sandy Silt Loam	Silt Clay Loam	Silt Clay Loam	Sandy Silt Loam	Sandy Silt Loam	Clay	Silt Clay	Silt Loam	Sandy Silt Loam
	TP/BH	WS5	WS10	WS11	WS12	WS13	WS14	WS2	WS6	WS15	WS15
	Depth (m)	0.50	1.00	0.50	0.50	1.10	0.75	0.50	1.00	0.50	1.60
	Our ref	71672	71673	71674	71676	71678	71680	71682	71683	71684	71685
Stone Content	(%)	<1	14	<1	<1	31	26	<1	<1	17	27
Arsenic**	(mg/kg)	16.8	18.1	19.7	12.8	7.9	19.1	17.3	22.4	18.3	92.0
Cadmium**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	0.5	<0.5
Chromium**	(mg/kg)	45	37	61	36	32	20	47	53	36	23
Lead**	(mg/kg)	22	115	170	43	105	212	57	262	234	329
Mercury**	(mg/kg)	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.5	<0.5	<0.5
Nickel**	(mg/kg)	42	26	52	30	14	26	60	54	31	24
Copper**	(mg/kg)	19	33	69	48	1513	n/t	33	91	n/t	n/t
Zinc**	(mg/kg)	66	111	385	141	94	n/t	100	303	n/t	n/t
Selenium**	(mg/kg)	1.1	0.6	1.1	0.8	1.0	0.7	1.0	1.9	0.8	0.7
Hexavalent Chromium	(mg/kg)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Water Soluble Boron	(mg/kg)	0.8	1.9	3.2	1.1	1.6	n/t	1.7	2.2	n/t	n/t
pH Value**	(Units)	7.9	7.8	7.1	7.7	9.0	n/t	7.7	7.7	n/t	n/t
Soil Organic Matter*	(%)	0.3	0.7	0.5	0.3	0.6	n/t	0.6	0.5	n/t	n/t

n/t = not tested

All results expressed on dry weight basis

** - MCERTS accredited test

* - UKAS accredited test

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THE ENVIRONMENTAL LABORATORY LTD

Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR29325

Location: Bigginswood, Folkestone



Your Job No: LW21271

Reporting Date: 05/10/10

F.A.O. David Harris
Ashdown Site Investigation Limited
The Old Dairy, Swanborough Farm
Swanborough, Lewes,
East Sussex, BN7 9PF

<u>Soils</u>	Characteristic	Clay
	TP/BH	WS9
	Depth (m)	0.50
	Our ref	71686
Stone Content	(%)	<1
Arsenic**	(mg/kg)	10.4
Cadmium**	(mg/kg)	<0.5
Chromium**	(mg/kg)	49
Lead**	(mg/kg)	34
Mercury**	(mg/kg)	<0.5
Nickel**	(mg/kg)	50
Copper**	(mg/kg)	24
Zinc**	(mg/kg)	81
Selenium**	(mg/kg)	0.9
Hexavalent Chromium	(mg/kg)	<2
Water Soluble Boron	(mg/kg)	1.7
pH Value**	(Units)	8.0
Soil Organic Matter*	(%)	0.4

All results expressed on dry weight basis

** - MCERTS accredited test

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Soils	Characteristic	Clay Loam	Sandy Silt Loam	Silt Clay Loam	Silt Clay Loam	Sandy Silt Loam	Sandy Silt Loam	Clay	Silt Clay	Silt Loam	Sandy Silt Loam
	TP/BH	WS5	WS10	WS11	WS12	WS13	WS14	WS2	WS6	WS15	WS15
	Depth (m)	0.50	1.00	0.50	0.50	1.10	0.75	0.50	1.00	0.50	1.60
	Our ref	71672	71673	71674	71676	71678	71680	71682	71683	71684	71685
Naphthalene	(mg/kg)	<0.01	1.71	0.02	0.06	1.87	0.16	0.02	0.35	0.09	0.42
Acenaphthylene	(mg/kg)	<0.01	1.26	0.06	0.22	2.75	0.28	0.04	0.85	0.47	2.40
Acenaphthene	(mg/kg)	<0.01	1.60	0.05	0.03	1.06	0.04	0.07	0.06	0.11	0.32
Fluorene	(mg/kg)	<0.01	2.02	<0.01	0.05	2.42	0.08	<0.01	0.14	0.14	0.77
Phenanthrene	(mg/kg)	<0.01	6.82	0.11	0.95	16.85	1.27	0.17	2.80	2.08	11.42
Anthracene	(mg/kg)	<0.01	2.24	0.07	0.41	6.67	0.42	0.04	1.44	0.89	3.56
Fluoranthene	(mg/kg)	<0.01	7.81	0.60	3.17	27.22	3.47	0.41	10.13	5.96	25.33
Pyrene	(mg/kg)	<0.01	10.29	0.55	2.80	22.05	3.40	0.31	8.86	5.43	21.23
Benz(a)anthracene	(mg/kg)	<0.01	3.68	0.40	1.80	13.69	2.34	0.15	5.86	3.01	12.10
Chrysene	(mg/kg)	<0.01	6.66	0.50	1.86	12.80	2.71	0.24	6.89	3.07	11.64
Benzo(b)fluoranthene	(mg/kg)	<0.01	5.69	0.47	1.99	11.69	3.10	0.15	7.31	3.32	10.52
Benzo(k)fluoranthene	(mg/kg)	<0.01	4.71	0.49	1.88	11.43	3.01	0.20	7.02	3.05	9.41
Benzo(a)pyrene	(mg/kg)	<0.01	5.67	0.50	2.36	14.20	3.31	0.19	8.75	3.89	12.70
Indeno(123-cd)pyrene	(mg/kg)	<0.01	4.15	0.40	1.50	8.34	2.69	0.12	5.62	2.66	8.85
Dibenz(ah)anthracene	(mg/kg)	<0.01	1.65	0.10	0.46	2.84	0.88	0.02	1.76	0.85	2.85
Benzo(ghi)perylene	(mg/kg)	<0.01	5.11	0.49	1.75	9.49	3.10	0.16	6.41	3.14	10.05
Total PAH	(mg/kg)	<0.01	71.09	4.79	21.28	165.37	30.27	2.28	74.25	38.14	143.56

All results expressed on dry weight basis

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Page 4 of 8

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Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards On Sea, East Sussex, TN38 9BY

Tel: 01424 718618 Fax: 01424 729911

ANALYTICAL REPORT No. AR29325

Location: Bigginswood, Folkestone



Your Job No: LW21271

Reporting Date: 05/10/10

F.A.O. David Harris
Ashdown Site Investigation Limited
The Old Dairy, Swanborough Farm
Swanborough, Lewes,
East Sussex, BN7 9PF

<u>Soils</u>	Characteristic	Clay
	TP/BH	WS9
	Depth (m)	0.50
	Our ref	71686
Naphthalene	(mg/kg)	<0.01
Acenaphthylene	(mg/kg)	0.02
Acenaphthene	(mg/kg)	0.03
Fluorene	(mg/kg)	<0.01
Phenanthrene	(mg/kg)	<0.01
Anthracene	(mg/kg)	<0.01
Fluoranthene	(mg/kg)	0.01
Pyrene	(mg/kg)	0.01
Benz(a)anthracene	(mg/kg)	<0.01
Chrysene	(mg/kg)	<0.01
Benzo(b)fluoranthene	(mg/kg)	<0.01
Benzo(k)fluoranthene	(mg/kg)	<0.01
Benzo(a)pyrene	(mg/kg)	<0.01
Indeno(123-cd)pyrene	(mg/kg)	<0.01
Dibenz(ah)anthracene	(mg/kg)	<0.01
Benzo(ghi)perylene	(mg/kg)	<0.01
Total PAH	(mg/kg)	0.07

All results expressed on dry weight basis

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ANALYTICAL REPORT No. AR29325

Location: Bigginwood, Folkestone



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Reporting Date: 05/10/10

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TPH CWG - Soil	Characteristic Sandy Silt Loam		Clay
	TP/BH	WS12	WS14
	Depth (m)	2.50	2.90
	Our ref	71677	71681
Aromatic			
>EC ₅ -EC ₇	(mg/kg)	<0.01	<0.01
>EC ₇ -EC ₈	(mg/kg)	<0.01	0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	0.3	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	1.1	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	18.1	1.4
Aliphatic			
>EC ₅ -EC ₆	(mg/kg)	<0.01	<0.01
>EC ₆ -EC ₈	(mg/kg)	<0.01	<0.01
>EC ₈ -EC ₁₀	(mg/kg)	<0.1	<0.1
>EC ₁₀ -EC ₁₂	(mg/kg)	<0.1	<0.1
>EC ₁₂ -EC ₁₆	(mg/kg)	0.8	<0.1
>EC ₁₆ -EC ₂₁	(mg/kg)	0.5	<0.1
>EC ₂₁ -EC ₃₅	(mg/kg)	20.2	4.1
TPH (C ₅ - C ₃₅)	(mg/kg)	41.0	5.6
Benzene**	(µg/kg)	<10	<10
Toluene**	(µg/kg)	<10	<10
Ethyl Benzene**	(µg/kg)	<10	<10
Xylenes**	(µg/kg)	<10	<10

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ANALYTICAL REPORT No. AR29325

Location: Bigginswood, Folkestone



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Swanborough, Lewes,
East Sussex, BN7 9PF

Soils

	Characteristic	Clay Loam	Sandy Silt Loam	Sandy Silt Loam	Clay
	TP/BH	WS5	WS10	WS11	WS13
	Depth (m)	0.50	1.00	2.00	2.10
	Our ref	71672	71673	71675	71679
	C ₈ -C ₁₀	(mg/kg)	<5	<5	<5
	>C ₁₀ -C ₁₂	(mg/kg)	<5	<5	<5
	>C ₁₂ -C ₁₆	(mg/kg)	<5	<5	<5
	>C ₁₆ -C ₂₁	(mg/kg)	<5	72	<5
	>C ₂₁ -C ₃₅	(mg/kg)	<5	1765	32
					10
Total Petroleum Hydrocarbons**	(mg/kg)	<5	1837	32	10

Accredited for TPH only, not banding

All results expressed on dry weight basis

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THE ENVIRONMENTAL LABORATORY LTD

SAMPLE RECEIPT AND TEST DATES

Our Analytical Report Number AR29325
Your Job No: LW21271
Sample Receipt Date: 29/09/10
Reporting Date: 05/10/10

Registered: 29/09/10
Prepared: 30/09/10
Analysis complete: 05/10/10

TEST METHOD SUMMARY

PARAMETER	Analysis Undertaken on	Date Tested	Method Number	Technique
Arsenic**	Air dried sample	04/10/10	118	ICPMS
Cadmium**	Air dried sample	04/10/10	118	ICPMS
Chromium**	Air dried sample	04/10/10	118	ICPMS
Lead**	Air dried sample	04/10/10	118	ICPMS
Mercury**	Air dried sample	04/10/10	118	ICPMS
Nickel**	Air dried sample	04/10/10	118	ICPMS
Copper**	Air dried sample	04/10/10	118	ICPMS
Zinc**	Air dried sample	04/10/10	118	ICPMS
Selenium**	Air dried sample	04/10/10	118	ICPMS
Hexavalent Chromium	As submitted sample	01/10/10	110	Colorimetry
Water Soluble Boron	Air dried sample	04/10/10	202	Colorimetry
pH Value**	Air dried sample	04/10/10	113	Probe
Soil Organic Matter*	Air dried sample	04/10/10	111	Titration
Speciated PAH	As submitted sample	01/10/10	133	GCMS
Carbon Banding (TPH CWG)	As submitted sample	01/10/10	117	Gas chromatography
BTEX**	As submitted sample	29/09/10	154	GCMS
Basic Carbon Banding (TPH)**	As submitted sample	01/10/10	117	Gas chromatography

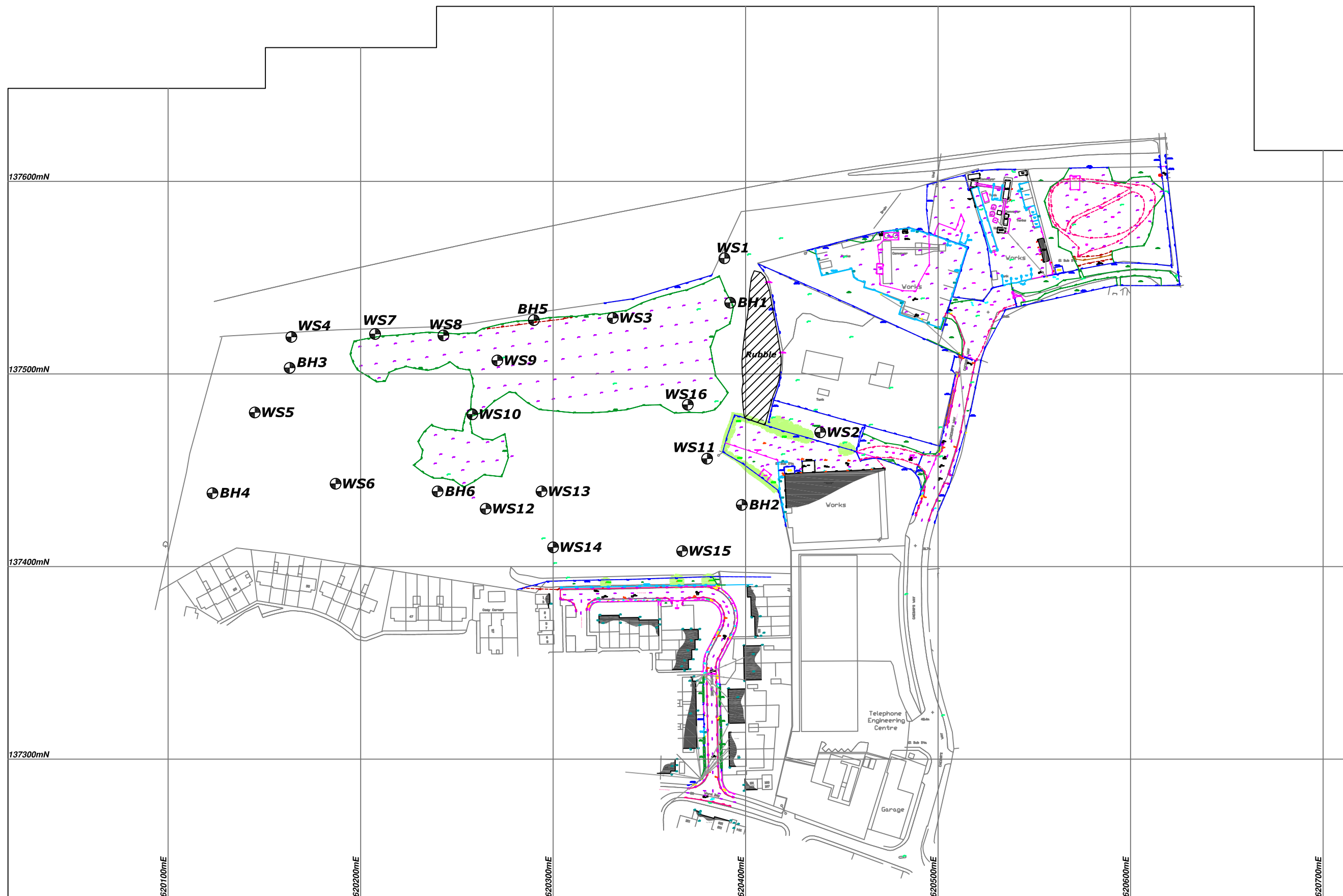
* = UKAS Accredited test

** - MCERTS Accredited test

Determinands not marked with * or ** are non accredited

MCERTS accreditation covers samples which are predominantly sand, clay, loam or combinations of these three soil types

Any comments, opinions, or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)



**ASHDOWN SITE
INVESTIGATION
LIMITED**

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Tel: 01273 483119 Fax: 01273 483104
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DRAWN BY:	DATE:	SCALE (at A3):
TSH	Oct. 2010	1: 2000

SITE:
Biggins Wood
Folkestone
Kent

REPORT REF.:	FIGURE NO.:
LW21271	2

DRAWING TITLE:
Site Plan

APPENDIX F

Notes on CLEA

Guidance on Comparing Soil Contamination Data with a Critical Concentration

CLEA Model Chemical Data Inputs

Statistical Analysis Summary Sheets

ASHDOWN SITE INVESTIGATION LIMITED

Notes on the Contaminated Land Exposure Assessment & Calculation of Soil Screening Values

Assessing risk to human health using the CLEA Model

Background to the CLEA Model

The Environment Agency and DEFRA published the Contaminated Land Exposure Assessment (CLEA) model in 2002. The methodology for the generation of assessment criteria was set out within Contaminated Land Reports (CLR) 7 to 10.

Toxicological data reports (TOX documents) for 23 individual contaminants were also published between 2002 and 2004 for use within the CLEA model.

Following the release of the TOX documents the Environment Agency published a series of Soil Guideline Values (SGVs) for the contaminants arsenic, cadmium, chromium, lead, mercury, nickel, selenium, phenol, toluene and ethylbenzene. SGVs are generic assessment criteria developed for three land uses, the assumptions for each land use were included within the CLR reports.

The generic land uses considered were:

- Residential (with and without plant uptake/vegetable growing)
- Allotments
- Commercial and Industrial

The SGVs can be used as preliminary screening values for sites which fit with the conceptual model (assumptions) of the generic land uses.

The CLEA UK version of the model was released in 2005. This model could be used to generate more detailed and site specific assessment criteria. The CLEA UK model could also be used to generate generic assessment criteria for sites which lie outside of the generic land uses.

Current Guidance

In August 2008 the CLR 7 to 10 documents were officially 'withdrawn' by the Environment Agency along with published SGV reports.

Three new guidance documents were released, replacing the withdrawn CLR7-CLR10 documents, these were:

"Guidance on Comparing Soil Contamination Data with a Critical Concentration", CIEH/CL:AIRE (May 2008) – replacing CLR7;

"Human health toxicological assessment of contaminants in soil (Science Report SC050021/SR2)" Environment Agency, August 2008 – replacing CLR9; and,

"Updated technical background to the CLEA model (Science Report SC050021/SR3)", Environment Agency, August 2008 - replacing CLR10

A revised version of the CLEA UK software model (ver 1.04) was also released in conjunction with the revised guidance. The latest version of the model uses purely deterministic calculations to derive assessment criteria.

The Environment Agency website (www.environment-agency.gov.uk) presents the latest guidance. They advise that the current schedule of work includes the review, revision if necessary and re-issue of the TOX reports previously published. As each new TOX report is published, the previous one will be withdrawn.

In the absence of official government figures for some of the contaminants Ashdown Site Investigation Ltd have used the CLEA model to generate Soil Screening Values (SSVs) for a number of the priority contaminants. Where possible the chemical data used to generate these figures has

ASHDOWN SITE INVESTIGATION LIMITED

Notes on the Contaminated Land Exposure Assessment & Calculation of Soil Screening Values

been taken from reports published by the Environment Agency, where no data exists, reference has been made to other published data.

Discussion on Adjustment of Background Daily Intake of Contaminants for Child Targets

As exposure to soils is unlikely to be the sole means through which people may be exposed to a contaminant a background exposure or Mean Daily Intake (MDI) is calculated for each contaminant. Adjustment factors for the MDI are included within Science Report SC050021/SR2 in order to take into consideration the different bodyweights and respiration rates for different age classes.

The starting principle for deriving SSVs is that they are set so that the Average Daily Exposure (ADE) from soils plus the MDI equals the Tolerable Daily Intake (TDI) for that contaminant.

Where the MDI is equal to 50% or greater than TDI then exposure from soils is to be allowed to contribute up to 50% of the TDI when deriving SSVs. When calculating an SSV, this portion of the TDI is referred to as the Tolerable Daily Soil Intake (TDSI).

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Notes on the “Guidance on Comparing Soil Contamination Data with a Critical Concentration” (CIEH & CL: AIRE, May 2008)

The Chartered Institute of Environmental Health & CL:AIRE, have published updated guidance on the statistical assessment of contaminated land data, “*Guidance on Comparing Soil Contamination Data with a Critical Concentration*” (May 2008). This is an update to previous guidance published within Contaminated Land Report CLR7 (Defra, 2002).

The CIEH/CL:AIRE guidance forms part of a package of proposed improved UK guidance highlighted in the Defra discussion paper, “*Assessing risks from land contamination –a proportionate approach. Soil guideline values: The Way Forward (CLAN 06/2006)*”. This discussion paper discussed the role and use of SGVs for managing the risks associated with soil contamination.

The guidance states that its overall aim is to “increase understanding amongst stakeholders of the role that statistics can play in quantifying the uncertainty attached to estimates of the mean concentration of contaminants in soil, thereby creating a more informed basis for regulatory decision-making”.

The initial question, on which the guidance is based, is whether the Site under consideration is to be assessed under the Planning System or under Part 2A of the Environmental Protection Act 1990. The key questions asked when considering contaminant concentrations vary depending on the scenario under consideration. The key questions will generally be:

- **Planning Scenario** – “can we confidently say that the level of contamination on this land is low relative to some appropriate measure of risk?” or “that the level of contamination is lower than the critical concentration” (alternative hypothesis).
- **Part 2A Scenario** – “can we confidently say that the level of contamination on this land is high relative to some appropriate measure of risk?” or “that the level of contamination is higher than the critical concentration” (alternative hypothesis).

Within the guidance, to ‘answer’ the relevant question above, a null hypothesis has been outlined for each scenario, which, if rejected with a high degree of confidence, means that the alternative hypothesis can be accepted. The null hypothesis for a planning scenario is that the soils contain levels of contamination above the critical concentration (i.e. the soils are assumed to be unsuitable for use until proven otherwise). Under the Part 2A scenario, the null hypothesis is that the soils contain levels of contamination below the critical concentration (i.e. the land is assumed not to fall within Part 2A legislation until proved otherwise).

For the planning scenario the null hypothesis may be rejected if it is considered that the 95th percentile of the normally distributed population as a whole lies below the critical concentration i.e. there is a 95% probability that your true population mean lies below the critical concentration. A lower probability of the true mean lying below the critical concentration may be used, but deviation from the standard 95% requires justification.

For the Part 2A scenario the null hypothesis may be rejected if it can be shown that the lower 95th percentile lies above the critical concentration. If the lower 95th percentile lies below the critical concentration but the true population mean lies above the critical concentration further assessment should be undertaken before the Site can be classified under Part 2A.

Guidance on the treatment of outliers (results that are not representative of a sample population), is also provided in the report. The guidance confirms that outliers should only be excluded from the dataset where they are either demonstrably the result of an error that can be identified and explained, or clearly indicate that more than one soil population exists within the dataset.

Where an individual result is recognised as a ‘statistical outlier’ or ‘contamination hot-spot’ within the data set (and where the critical concentration for that contaminant is exceeded), remediation work and or further investigation may be required.

Chemical	Chemical Type	Oral HCV						Inhalation HCV					
		Type	$\mu\text{g kg}^{-1} \text{ BW day}^{-1}$	Notes	Compare with oral exposure	Compare with dermal exposure	Compare with inhalation exposure	Type	$\mu\text{g kg}^{-1} \text{ BW day}^{-1}$	Notes	Compare with oral exposure	Compare with dermal exposure	Compare with inhalation exposure
Chromium (III)	inorganic	TDI	150	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	TDI	0.03	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Chromium (VI)	inorganic	TDI	1	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.0001	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Lead	inorganic	TDI	3.57	Evaluation of certain food additives and contaminants (Fifty-third report of the Joint FAO/WHO Expert Committee on Food Additives). WHO Technical Report Series, No. 896, 2000.	Yes	Yes	No	TDI	0.071	EPAQS, 1998. Lead. Department of the Environment, Transport and the Regions. Expert Panel on Air Quality Standards. London: The Stationary Office. ISBN 0117534471	No	No	Yes
Copper	inorganic	TDI	160	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	TDI	0.286	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Zinc	inorganic	TDI	600	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR	0	No Inhalation HCV	No	No	No
Boron	inorganic	TDI	160	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	TDI	2.9	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Naphthalene	organic	TDI	20	TOX20	Yes	Yes	No	TDI	0.86	TOX20	No	No	Yes
Acenaphthylene	organic	TDI	60	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	No	No	No
Acenaphthene	organic	TDI	60	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	No	No	No
Fluorene	organic	TDI	40	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	No	No	No
Phenanthrene	organic	TDI	12.5	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	No	No	No
Anthracene	organic	TDI	300	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	No	No	No
Fluoranthene	organic	TDI	12.5	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	No	No	No
Pyrene	organic	TDI	30	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	Yes	NR		LQM/CIEH GAC 2nd Edition (2009)	Yes	No	No
Benz(a)anthracene	organic	ID	0.138	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.00048	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Chrysene	organic	ID	0.2	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.0007	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Benzo(b)fluoranthene	organic	ID	0.142	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.0005	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Benzo(k)fluoranthene	organic	ID	0.2	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.0007	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Benzo(a)pyrene	organic	ID	0.02	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.00007	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Indeno(123-cd)pyrene	organic	ID	0.086	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.0003	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Dibenz(ah)anthracene	organic	ID	0.018	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.000063	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes
Benzo(ghi)perylene	organic	ID	0.909	LQM/CIEH GAC 2nd Edition (2009)	Yes	Yes	No	ID	0.0032	LQM/CIEH GAC 2nd Edition (2009)	No	No	Yes

Chemical	Chemical Type	Combine oral and inhalation AC	Oral MDI for Adults		Inhalation MDI for adults		Air-water partition coefficient (K_{aw})		Diffusion coefficient in air	
			$\mu\text{g day}^{-1}$	Notes	$\mu\text{g day}^{-1}$	Notes	$\text{cm}^3 \text{cm}^{-3}$	Notes (measured or calculated at 283K unless stated)	$\text{m}^2 \text{s}^{-1}$	Notes (measured or calculated at 283K unless stated)
Chromium (III)	inorganic	Yes	60.2	LQM/CIEH GAC 2nd Edition (2009)	0.27	LQM/CIEH GAC 2nd Edition (2009)	NR	0	NR	0
Chromium (VI)	inorganic	Yes	6.7	LQM/CIEH GAC 2nd Edition (2009)	NR	LQM/CIEH GAC 2nd Edition (2009)	NR	0	NR	0
Lead	inorganic	Yes	31	Environment Agency, 2002. Contaminants in soil: Collation of toxicological data and intake values for humans - lead, TOX 6	2	Department of the Environment, Transport and the Regions. Air Quality Information Archive, http://www.aeat.co.uk/netcen/aqarchive/nonauto/pbdata.html	NR	Inorganic Chemical	NR	Inorganic Chemical
Copper	inorganic	Yes	7000	LQM/CIEH GAC 2nd Edition (2009)	0.68	LQM/CIEH GAC 2nd Edition (2009)	NR	Inorganic Chemical	NR	Inorganic Chemical
Zinc	inorganic	Yes	27000	LQM/CIEH GAC 2nd Edition (2009)	2.4	LQM/CIEH GAC 2nd Edition (2009)	NR	Inorganic Chemical	NR	Inorganic Chemical
Boron	inorganic	Yes	3700	LQM/CIEH GAC 2nd Edition (2009)	0.398	LQM/CIEH GAC 2nd Edition (2009)	NR	Inorganic Chemical	NR	Inorganic Chemical
Naphthalene	organic	Yes	7	TOX20	2.8	TOX20	0.00662	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000652	LQM/CIEH GAC 2nd Edition (2009)
Acenaphthylene	organic	Yes	0.14	LQM/CIEH GAC 2nd Edition (2009)	0.011	LQM/CIEH GAC 2nd Edition (2009)	0.000568	LQM/CIEH GAC 2nd Edition (2009)	0.00000597	LQM/CIEH GAC 2nd Edition (2009)
Acenaphthene	organic	Yes	0.98	LQM/CIEH GAC 2nd Edition (2009)	0.025	LQM/CIEH GAC 2nd Edition (2009)	0.000759	LQM/CIEH GAC 2nd Edition (2009)	0.00000585	LQM/CIEH GAC 2nd Edition (2009)
Fluorene	organic	Yes	0.59	LQM/CIEH GAC 2nd Edition (2009)	0.096	LQM/CIEH GAC 2nd Edition (2009)	0.000412	LQM/CIEH GAC 2nd Edition (2009)	0.00000558	LQM/CIEH GAC 2nd Edition (2009)
Phenanthrene	organic	Yes	1.54	LQM/CIEH GAC 2nd Edition (2009)	0.518	LQM/CIEH GAC 2nd Edition (2009)	0.000143	LQM/CIEH GAC 2nd Edition (2009)	0.00000534	LQM/CIEH GAC 2nd Edition (2009)
Anthracene	organic	Yes	0.08	LQM/CIEH GAC 2nd Edition (2009)	0.041	LQM/CIEH GAC 2nd Edition (2009)	0.000181	LQM/CIEH GAC 2nd Edition (2009)	0.00000536	LQM/CIEH GAC 2nd Edition (2009)
Fluoranthene	organic	Yes	0.35	LQM/CIEH GAC 2nd Edition (2009)	0.084	LQM/CIEH GAC 2nd Edition (2009)	0.0000629	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000501	LQM/CIEH GAC 2nd Edition (2009)
Pyrene	organic	Yes	0.35	LQM/CIEH GAC 2nd Edition (2009)	0.065	LQM/CIEH GAC 2nd Edition (2009)	0.0000564	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000501	LQM/CIEH GAC 2nd Edition (2009)
Benz(a)anthracene	organic	Yes	NR	index dose used	NR	index dose used	0.0000316	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000446	LQM/CIEH GAC 2nd Edition (2009)
Chrysene	organic	Yes	NR	index dose used	NR	index dose used	0.00000318	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000457	LQM/CIEH GAC 2nd Edition (2009)
Benzo(b)fluoranthene	organic	Yes	NR	index dose used	NR	index dose used	0.00000205	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000436	LQM/CIEH GAC 2nd Edition (2009)
Benzo(k)fluoranthene	organic	Yes	NR	index dose used	NR	index dose used	0.00000174	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000436	LQM/CIEH GAC 2nd Edition (2009)
Benzo(a)pyrene	organic	Yes	NR	index dose used	NR	index dose used	0.00000176	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000438	LQM/CIEH GAC 2nd Edition (2009)
Indeno(123-cd)pyrene	organic	Yes	NR	index dose used	NR	index dose used	0.00000205	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000417	LQM/CIEH GAC 2nd Edition (2009)
Dibenz(ah)anthracene	organic	Yes	NR	index dose used	NR	index dose used	0.0000054	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000408	LQM/CIEH GAC 2nd Edition (2009)
Benzo(ghi)perylene	organic	Yes	NR	index dose used	NR	index dose used	0.00000286	Environment Agency, 2008. Science Report - SC050021/SR7	0.00000422	LQM/CIEH GAC 2nd Edition (2009)

Chemical	Chemical Type	Diffusion coefficient in water		Relative molecular mass		Vapour pressure		Water solubility		Organic carbon - water partition coefficient (K_{oc})	
		$m^2 s^{-1}$	Notes (measured or calculated at 283K unless stated)	$g mol^{-1}$	Notes	Pa	Notes (measured or calculated at 283K and standard pressure unless stated)	$mg L^{-1}$	Notes (measured or calculated at 283K unless stated)	$Log (cm^3 g^{-1})$	Notes
Chromium (III)	inorganic	NR	0	NR	0	NR	0	585000	LQM/CIEH GAC 2nd Edition (2009)	NR	LQM/CIEH GAC 2nd Edition (2009)
Chromium (VI)	inorganic	NR	0	NR	0	NR	0	2300000	LQM/CIEH GAC 2nd Edition (2009)	NR	LQM/CIEH GAC 2nd Edition (2009)
Lead	inorganic	NR	Inorganic Chemical	NR	Inorganic Chemical	NR	Inorganic Chemical	100000	0	NR	Inorganic Chemical
Copper	inorganic	NR	Inorganic Chemical	NR	Inorganic Chemical	NR	Inorganic Chemical	1378000	LQM/CIEH GAC 2nd Edition (2009)	NR	Inorganic Chemical
Zinc	inorganic	NR	Inorganic Chemical	NR	Inorganic Chemical	NR	Inorganic Chemical	4320000	LQM/CIEH GAC 2nd Edition (2009)	NR	Inorganic Chemical
Boron	inorganic	NR	Inorganic Chemical	NR	Inorganic Chemical	NR	Inorganic Chemical	63500	LQM/CIEH GAC 2nd Edition (2009)	NR	Inorganic Chemical
Naphthalene	organic	5.16E-10	LQM/CIEH GAC 2nd Edition (2009)	128.17	LQM/CIEH GAC 2nd Edition (2009)	2.31	LQM/CIEH GAC 2nd Edition (2009)	19	LQM/CIEH GAC 2nd Edition (2009)	2.81	LQM/CIEH GAC 2nd Edition (2009)
Acenaphthylene	organic	4.82E-10	LQM/CIEH GAC 2nd Edition (2009)	152.19	LQM/CIEH GAC 2nd Edition (2009)	0.0708	LQM/CIEH GAC 2nd Edition (2009)	7.95	LQM/CIEH GAC 2nd Edition (2009)	3.26	LQM/CIEH GAC 2nd Edition (2009)
Acenaphthene	organic	4.7E-10	LQM/CIEH GAC 2nd Edition (2009)	154.21	LQM/CIEH GAC 2nd Edition (2009)	0.0737	LQM/CIEH GAC 2nd Edition (2009)	4.11	LQM/CIEH GAC 2nd Edition (2009)	3.37	LQM/CIEH GAC 2nd Edition (2009)
Fluorene	organic	4.47E-10	LQM/CIEH GAC 2nd Edition (2009)	166.22	LQM/CIEH GAC 2nd Edition (2009)	0.0156	LQM/CIEH GAC 2nd Edition (2009)	1.86	LQM/CIEH GAC 2nd Edition (2009)	3.45	LQM/CIEH GAC 2nd Edition (2009)
Phenanthrene	organic	4.32E-10	LQM/CIEH GAC 2nd Edition (2009)	178.23	LQM/CIEH GAC 2nd Edition (2009)	0.00282	LQM/CIEH GAC 2nd Edition (2009)	1.12	LQM/CIEH GAC 2nd Edition (2009)	3.74	LQM/CIEH GAC 2nd Edition (2009)
Anthracene	organic	4.36E-10	LQM/CIEH GAC 2nd Edition (2009)	178.23	LQM/CIEH GAC 2nd Edition (2009)	0.0000849	LQM/CIEH GAC 2nd Edition (2009)	0.056	LQM/CIEH GAC 2nd Edition (2009)	3.75	LQM/CIEH GAC 2nd Edition (2009)
Fluoranthene	organic	4.11E-10	LQM/CIEH GAC 2nd Edition (2009)	202.25	LQM/CIEH GAC 2nd Edition (2009)	0.000131	LQM/CIEH GAC 2nd Edition (2009)	0.23	LQM/CIEH GAC 2nd Edition (2009)	4.26	LQM/CIEH GAC 2nd Edition (2009)
Pyrene	organic	4.15E-10	LQM/CIEH GAC 2nd Edition (2009)	202.25	LQM/CIEH GAC 2nd Edition (2009)	0.0000153	LQM/CIEH GAC 2nd Edition (2009)	0.13	LQM/CIEH GAC 2nd Edition (2009)	4.21	LQM/CIEH GAC 2nd Edition (2009)
Benz(a)anthracene	organic	3.8E-10	LQM/CIEH GAC 2nd Edition (2009)	228.29	LQM/CIEH GAC 2nd Edition (2009)	0.00000124	LQM/CIEH GAC 2nd Edition (2009)	0.0038	LQM/CIEH GAC 2nd Edition (2009)	4.89	LQM/CIEH GAC 2nd Edition (2009)
Chrysene	organic	3.77E-10	LQM/CIEH GAC 2nd Edition (2009)	228.29	LQM/CIEH GAC 2nd Edition (2009)	4.52E-08	LQM/CIEH GAC 2nd Edition (2009)	0.002	LQM/CIEH GAC 2nd Edition (2009)	4.74	LQM/CIEH GAC 2nd Edition (2009)
Benzo(b)fluoranthene	organic	3.62E-10	LQM/CIEH GAC 2nd Edition (2009)	252.31	LQM/CIEH GAC 2nd Edition (2009)	6.34E-08	LQM/CIEH GAC 2nd Edition (2009)	0.002	LQM/CIEH GAC 2nd Edition (2009)	5.02	LQM/CIEH GAC 2nd Edition (2009)
Benzo(k)fluoranthene	organic	3.62E-10	LQM/CIEH GAC 2nd Edition (2009)	252.31	LQM/CIEH GAC 2nd Edition (2009)	1.64E-08	LQM/CIEH GAC 2nd Edition (2009)	0.0008	LQM/CIEH GAC 2nd Edition (2009)	5.17	LQM/CIEH GAC 2nd Edition (2009)
Benzo(a)pyrene	organic	3.67E-10	LQM/CIEH GAC 2nd Edition (2009)	252.31	LQM/CIEH GAC 2nd Edition (2009)	0.00000002	LQM/CIEH GAC 2nd Edition (2009)	0.0038	LQM/CIEH GAC 2nd Edition (2009)	5.11	LQM/CIEH GAC 2nd Edition (2009)
Indeno(123-cd)pyrene	organic	3.51E-10	LQM/CIEH GAC 2nd Edition (2009)	276.33	LQM/CIEH GAC 2nd Edition (2009)	2.12E-09	LQM/CIEH GAC 2nd Edition (2009)	0.0002	LQM/CIEH GAC 2nd Edition (2009)	4.94	LQM/CIEH GAC 2nd Edition (2009)
Dibenz(ah)anthracene	organic	3.4E-10	LQM/CIEH GAC 2nd Edition (2009)	278.35	LQM/CIEH GAC 2nd Edition (2009)	1.66E-10	LQM/CIEH GAC 2nd Edition (2009)	0.0006	LQM/CIEH GAC 2nd Edition (2009)	5.27	LQM/CIEH GAC 2nd Edition (2009)
Benzo(ghi)perylene	organic	3.56E-10	LQM/CIEH GAC 2nd Edition (2009)	276.33	LQM/CIEH GAC 2nd Edition (2009)	1.55E-10	LQM/CIEH GAC 2nd Edition (2009)	0.00026	LQM/CIEH GAC 2nd Edition (2009)	5.62	LQM/CIEH GAC 2nd Edition (2009)

Chemical	Chemical Type	Octanol - water partition coefficient (K_{ow})		Soil-water partition coefficient (K_d)		Dermal absorption fraction		Soil-plant availability correction	Root - shoot correction factor	Root - root store correction factor	Root - tuber correction factor	Root - fruit correction factor	Soil-to-plant concentration factor (green vegetables)		
		Log (dimensionless)	Notes	$\text{cm}^3 \text{g}^{-1}$	Notes	dimensionless	Notes	dimensionless	dimensionless	dimensionless	dimensionless	dimensionless	mg g^{-1} plant (DW or FW basis) over mg g^{-1} DW soil	Type	Notes
Chromium (III)	inorganic	NR	LQM/CIEH GAC 2nd Edition (2009)	4800	LQM/CIEH GAC 2nd Edition (2009)	0	LQM/CIEH GAC 2nd Edition (2009)	5	0.5	0.5	0.5	0.5	0.0003	numeric fw	LQM/CIEH GAC 2nd Edition (2009)
Chromium (VI)	inorganic	NR	LQM/CIEH GAC 2nd Edition (2009)	18	LQM/CIEH GAC 2nd Edition (2009)	0	LQM/CIEH GAC 2nd Edition (2009)	5	0.5	0.5	0.5	0.5	0.0002	numeric fw	LQM/CIEH GAC 2nd Edition (2009)
Lead	inorganic	NR	Inorganic Chemical	36000	RIVM report 711701 023, 2001. Technical evaluation of the Intervention Values for Soil/sediment and Groundwater	0	Environment Agency, 2009. Science Report Final SC050021/SR3	5	0.5	0.5	0.5	0.5	0	model	CLEA to estimate
Copper	inorganic	NR	Inorganic Chemical	100	LQM/CIEH GAC 2nd Edition (2009)	0	LQM/CIEH GAC 2nd Edition (2009)	5	0.5	0.5	0.5	0.5	0.0206	numeric fw	LQM/CIEH GAC 2nd Edition (2009)
Zinc	inorganic	NR	Inorganic Chemical	38	LQM/CIEH GAC 2nd Edition (2009)	0	LQM/CIEH GAC 2nd Edition (2009)	5	0.5	0.5	0.5	0.5	0.054	numeric fw	LQM/CIEH GAC 2nd Edition (2009)
Boron	inorganic	NR	Inorganic Chemical	10	LQM/CIEH GAC 2nd Edition (2009)	0	LQM/CIEH GAC 2nd Edition (2009)	5	1	0.5	0.5	0.5	0.4	numeric fw	LQM/CIEH GAC 2nd Edition (2009)
Naphthalene	organic	3.34	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Acenaphthylene	organic	3.91	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Acenaphthene	organic	4.03	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Fluorene	organic	4.13	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Phenanthrene	organic	4.5	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Anthracene	organic	4.5	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Fluoranthene	organic	5.13	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Pyrene	organic	5.08	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Benz(a)anthracene	organic	5.91	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Chrysene	organic	5.73	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Benzo(b)fluoranthene	organic	6.08	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Benzo(k)fluoranthene	organic	6.26	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Benzo(a)pyrene	organic	6.18	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Indeno(123-cd)pyrene	organic	5.97	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Dibenz(ah)anthracene	organic	6.38	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate
Benzo(ghi)perylene	organic	6.81	LQM/CIEH GAC 2nd Edition (2009)	NR		0.13	LQM/CIEH GAC 2nd Edition (2009)	NR	NR	NR	NR	NR	0	model	CLEA to estimate

Chemical	Chemical Type	Soil-to-plant concentration factor (root vegetables)			Soil-to-plant concentration factor (tuber vegetables)			Soil-to-plant concentration factor (herbaceous fruit)			Soil-to-plant concentration factor (shrub fruit)			Soil-to-plant concentration factor (tree fruit)			Soil-to-dust transport factor (g g ⁻¹ DW)	Sub-surface soil to indoor air correction factor (Dimensionless)
		mg g ⁻¹ plant (DW or FW basis) over mg g ⁻¹ DW soil	Type	Notes	mg g ⁻¹ plant (DW or FW basis) over mg g ⁻¹ DW soil	Type	Notes	mg g ⁻¹ plant (DW or FW basis) over mg g ⁻¹ DW soil	Type	Notes	mg g ⁻¹ plant (DW or FW basis) over mg g ⁻¹ DW soil	Type	Notes	mg g ⁻¹ plant (DW or FW basis) over mg g ⁻¹ DW soil	Type	Notes		
Chromium (III)	inorganic	0.0003	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0003	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0003	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0003	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0003	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.5	1
Chromium (VI)	inorganic	0.0001	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0001	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.09	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0003	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.09	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.5	1
Lead	inorganic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Copper	inorganic	0.0206	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0206	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0233	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0206	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.0206	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.5	1
Zinc	inorganic	0.054	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.054	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.143	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.054	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.054	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.5	1
Boron	inorganic	0.2	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.2	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.2	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.2	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.2	numeric fw	LOM/CI/EH GAC 2nd Edition (2009)	0.5	1
Naphthalene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Acenaphthylene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Acenaphthene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Fluorene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Phenanthrene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Anthracene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Fluoranthene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Pyrene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Benz(a)anthracene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Chrysene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Benzo(b)fluoranthene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Benzo(k)fluoranthene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Benzo(a)pyrene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Indeno(123-cd)pyrene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Dibenz(ah)anthracene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1
Benzo(ghi)perylene	organic	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0	model	CLEA to estimate	0.5	1

Client/client ref:
Project ref: LW25193
Site ref: Biggins Wood, Folkestone, Kent
Data description: Made ground soils
Contaminant(s): Arsenic, Cadmium,
Chromium, Lead, Mercury, Nickel, Copper,
Zinc, Selenium, Boron.
Test scenario: Planning
Date: 24 June 2014

[illegible]

Client/client ref:
Project ref: LW25193
Site ref: Biggins Wood, Folkestone, Kent
Data description: Made ground soils
Contaminant(s): Arsenic, Cadmium,
Chromium, Lead, Mercury, Nickel, Copper,
Zinc, Selenium, Boron.
Test scenario: Planning
Date: 24 June 2014

Client/client ref: Project ref: LW25193 Site ref: Biggins Wood, Folkestone, Kent Data description: Made ground soils Contaminant(s): Arsenic, Cadmium, Chromium, Lead, Mercury, Nickel, Copper, Zinc, Selenium, Boron. Test scenario: Planning Date: 24 June 2014		Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Copper (mg/kg)	Zinc (mg/kg)	Selenium (mg/kg)	Boron (mg/kg)	Chromium VI (mg/kg)
		640	410	8840	2330	3600	1800	71700	660000	13000	192000	49
		Published C4SL value	Published C4SL value	ASI Ltd SSV Residential with Plant Uptake	Published C4SL value	ASI Ltd SSV Residential with Plant Uptake	ASI Ltd SSV Residential with Plant Uptake	ASI Ltd SSV Residential with Plant Uptake	ASI Ltd SSV Residential with Plant Uptake	ASI Ltd SSV Residential with Plant Uptake	ASI Ltd SSV Residential with Plant Uptake	Published C4SL value
		43	45	43	43	45	43	40	40	43	40	45
Notes	16.7368962	0.32030858	40.9646973	182.378055	0.29145288	37.9199479	83.7472513	136.620728	0.9830546	1.457225	0.54666667	
Sample size, n	12.5438934	0.19552326	15.844927	343.79581	0.12069257	13.8009616	236.870864	86.9307492	0.34293129	0.57109878	0.2607681	
Sample mean, \bar{x}	2	38	2	2	40	2	2	2	3	2	45	
Standard deviation, s	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	Half detection limit	
Number of non-detects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	
Set non-detect values to:	Non-normal	Non-normal	Non-normal	Non-normal	Non-normal	Non-normal	Non-normal	Non-normal	Normal	Normal	Non-normal	
Outliers?	Auto: Chebychev											
Distribution	Auto: Chebychev											
Statistical approach	Auto: Chebychev											

[illegible]

[illegible]

[illegible]

APPENDIX G

HazWasteOnline Output Sheets

Waste Classification Report



DTA3T-FH9KS-K7P2Q

Job name

LW25193 - Biggins Woods NAT TPH

Waste stream

ASI Waste Classification Suite 1

Comments

Project

Site

Classified by

Name:

Card, Stuart

Date:

08/09/2014 10:37

Telephone:

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Company:

Ashdown Site Investigation Limited

The Old Dairy

Swanborough Farm, Swanborough

Lewes

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Report

Created by: Card, Stuart

Created date: 08/09/2014 10:37

Job summary

#	Sample name	Depth [m]	Classification result	Hazardous properties	Page
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Classification of sample: WS127



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS127	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00187%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00319%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000652%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Arsenic trioxide: (Cation conc. entered: 8.9 mg/kg, converted to compound conc.:10.218 mg/kg or 0.00102%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.6 mg/kg, converted to compound conc.:18.685 mg/kg or 0.00187%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 43.5 mg/kg, converted to compound conc.:55.285 mg/kg or 0.00553%)
 Chrysene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Copper (I) oxide: (Cation conc. entered: 18.6 mg/kg, converted to compound conc.:18.21 mg/kg or 0.00182%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 24.3 mg/kg, converted to compound conc.:31.907 mg/kg or 0.00319%, "Note 1" conc.: 0.00211%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
Nickel dihydroxide: (Cation conc. entered: 46.9 mg/kg, converted to compound conc.:64.416 mg/kg or 0.00644%)
pH: (Whole conc. entered as: 8.4 pH, converted to conc.:8.4 pH or 8.4 pH)
Phenanthrene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
Pyrene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.5 mg/kg, converted to compound conc.:0.652 mg/kg or 0.0000652%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 7.1 mg/kg or 0.000617%)
Zinc oxide: (Cation conc. entered: 53.7 mg/kg, converted to compound conc.:58.123 mg/kg or 0.00581%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS138



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS138	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.6 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00175%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00378%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 9.6 mg/kg, converted to compound conc.:11.022 mg/kg or 0.0011%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:17.517 mg/kg or 0.00175%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 39.6 mg/kg, converted to compound conc.:50.328 mg/kg or 0.00503%)
 Chrysene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Copper (I) oxide: (Cation conc. entered: 21.4 mg/kg, converted to compound conc.:20.951 mg/kg or 0.0021%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 28.8 mg/kg, converted to compound conc.: 37.816 mg/kg or 0.00378%, "Note 1" conc.: 0.0025%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 47 mg/kg, converted to compound conc.: 64.553 mg/kg or 0.00646%)
 pH: (Whole conc. entered as: 8 pH, converted to conc.: 8 pH or 8 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.: 1.174 mg/kg or 0.000117%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000435%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 74.4 mg/kg, converted to compound conc.: 80.528 mg/kg or 0.00805%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS140

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS140	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.4 m	
Dry Weight Moisture Content:	
29%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00156%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00298%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000093%)

Determinands (Dry Weight Moisture Content: 29%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 10.6 mg/kg, converted to compound conc.:10.849 mg/kg or 0.00108%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:15.616 mg/kg or 0.00156%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.498 mg/kg or <0.0000498%, "Note 1" conc.: <0.0000388%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 35 mg/kg, converted to compound conc.:39.655 mg/kg or 0.00397%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 20.3 mg/kg, converted to compound conc.:17.717 mg/kg or 0.00177%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 25.5 mg/kg, converted to compound conc.:29.849 mg/kg or 0.00298%, "Note 1" conc.: 0.00198%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.525 mg/kg or <0.0000525%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 40.6 mg/kg, converted to compound conc.:49.711 mg/kg or 0.00497%)
 pH: (Whole conc. entered as: 8 pH, converted to conc.:8 pH or 8 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000775%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:0.93 mg/kg or 0.000093%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000388%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 63.2 mg/kg, converted to compound conc.:60.981 mg/kg or 0.0061%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: HA202



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
HA202	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.45 m	
Dry Weight Moisture Content:	
28.3%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00157%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00308%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000585%)

Determinands (Dry Weight Moisture Content: 28.3%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 8.7 mg/kg, converted to compound conc.:8.953 mg/kg or 0.000895%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:15.701 mg/kg or 0.00157%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.501 mg/kg or <0.0000501%, "Note 1" conc.: <0.000039%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 42.9 mg/kg, converted to compound conc.:48.87 mg/kg or 0.00489%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 15.2 mg/kg, converted to compound conc.:13.339 mg/kg or 0.00133%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 26.2 mg/kg, converted to compound conc.:30.836 mg/kg or 0.00308%, "Note 1" conc.: 0.00204%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.527 mg/kg or <0.0000527%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 39.3 mg/kg, converted to compound conc.:48.382 mg/kg or 0.00484%)
 pH: (Whole conc. entered as: 7.5 pH, converted to conc.:7.5 pH or 7.5 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000779%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.5 mg/kg, converted to compound conc.:0.585 mg/kg or 0.0000585%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.00039%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 64.9 mg/kg, converted to compound conc.:62.963 mg/kg or 0.0063%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Appendix A: User Defined and non CLP Substances

Acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no>
Data source date: 16/07/2012
Classification: R36, R37, R38, N; R50/53, N; R51/53

Acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no>
Data source date: 16/07/2012
Classification: R22, R26, R27, R36, R37, R38

Anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no>
Data source date: 08/03/2013
Classification: R36, R37, R38, R43, N; R50/53

Benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53

Boron tribromide/trichloride/trifluoride (combined risk phrases)

Comments: Combines the risk phrases and the average of the conversion factors for Boron tribromide, Boron trichloride and Boron trifluoride
Data source: N/A
Data source date: 10/01/2011
Classification: R14, T+; R26/28, C; R34, C; R35

Chromium(III) oxide (CAS Number: 1308-38-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=33806&HarmOnly=no?fc=true&lang=en>
Data source date: 26/11/2012
Classification: R20, R22, R36, R37, R38, R42, R43, R50/53, R60, R61

Fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no>
Data source date: 16/07/2012
Classification: R20, R22, R36, N; R50/53

Fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R53

Indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no>
Data source date: 08/03/2013
Classification: R40

pH

Comments: Appendix C, C4.5
Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version2.2), Environment Agency
Data source date: 30/05/2008
Classification: pH; pH

Phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R22, R36, R37, R38, R40, R43

Pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R23

TPH (C6 to C40) Petroleum Group

Comments: Risk phrase data given on page A41
Data source: WM2 3rd edition, 2013
Data source date: 01/08/2013
Classification: R10, R45, R46, R63, R65, R51/53

Appendix B: Notes

3.4.2

from section: 3.4.2 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"If the identity of the oil is unknown, and the petroleum group cannot be established, then the oil contaminating the waste can be classified as non-carcinogenic due to the presence of oil if all three of the following criteria are met:

- the waste contains benzo[a]pyrene (BaP) at a concentration of less than 0.01% (1/10,000th) of the TPH concentration (This is the carcinogenic limit specified in table 3.2 of the CLP for BaP)
- this has been determined by an appropriate and representative sampling approach in accordance with the principles set out in Appendix D, and
- the analysis clearly demonstrates, for example by carbon bands or chromatograph, and the laboratory has reasonably concluded that the hydrocarbons present have not arisen from petrol or diesel

"

Additional Risk Phrase Comments

from section: Table 2.2 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"This is an additional risk phrase and such a risk phrase alone will not cause a waste to be hazardous."

C14.3: Step 4

from section: C14.3 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"identify whether any individual ecotoxic substance is present below a cut-off value shown in Table C14.1"

Note 1

from section: 1.1.3.2, Annex VI in the document: "[CLP Regulations](#)"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "[CLP Regulations](#)"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Note E

from section: 1.1.3.1, Annex VI in the document: "[CLP Regulations](#)"

"Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word 'Also'."

Appendix C: Version

Classification utilises the following:

WM2 - Hazardous Waste Technical Guidance, 3rd Edition, August 2013

CLP Regulations - Regulation (EC) No 1272/2008 of the European Parliament and of the Council: 16 December 2008

1st ATP - 1st Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 26 September 2009; binding date 1 Dec 2010

2nd ATP - 2nd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 30 March 2011; binding date 1 Dec 2012 in respect of substances and 1 June 2015 in respect of mixtures

3rd ATP - 3rd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 31 July 2012; binding date 1 Dec 2013

4th ATP - 4th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 20 June 2013; binding date 1 Jun 2015

5th ATP - 5th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 13 August 2013; binding date 13 Aug 2013

HazWasteOnline Engine: WM2 version 3 (Aug 2013)

HazWasteOnline Engine Version: 1.0.2609.5519 (05 Sep 2014)

HazWasteOnline Database: 1.0.2609.5519 (05 Sep 2014)

Waste Classification Report



6A4XC-A2QAK-UZ8H9

Job name

LW25193 - Biggins Wood NAT

Waste stream

ASI Waste Stream 1 - No TPH

Comments

Project

Site

Classified by

Name:

Card, Stuart

Date:

08/09/2014 10:31

Telephone:

01273 483119

Company:

Ashdown Site Investigation Limited

The Old Dairy

Swanborough Farm, Swanborough

Lewes

BN7 3PF

Report

Created by: Card, Stuart

Created date: 08/09/2014 10:31

Job summary

#	Sample name	Depth [m]	Classification result	Hazardous properties	Page
1	WS128	0.5	Non Hazardous		2
2	WS126	0.6	Non Hazardous		4

Appendices

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Appendix A: User Defined and non CLP Substances	6
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Appendix C: Version	8

Classification of sample: WS128



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS128	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00175%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00419%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000783%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 8.4 mg/kg, converted to compound conc.:9.644 mg/kg or 0.000964%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:17.517 mg/kg or 0.00175%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 35.7 mg/kg, converted to compound conc.:45.372 mg/kg or 0.00454%)
 Chrysene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Copper (I) oxide: (Cation conc. entered: 22.9 mg/kg, converted to compound conc.:22.42 mg/kg or 0.00224%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 31.9 mg/kg, converted to compound conc.: 41.886 mg/kg or 0.00419%, "Note 1" conc.: 0.00277%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 38.5 mg/kg, converted to compound conc.: 52.879 mg/kg or 0.00529%)
 pH: (Whole conc. entered as: 8.4 pH, converted to conc.: 8.4 pH or 8.4 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.6 mg/kg, converted to compound conc.: 0.783 mg/kg or 0.0000783%)
 Zinc oxide: (Cation conc. entered: 57.5 mg/kg, converted to compound conc.: 62.236 mg/kg or 0.00622%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS126



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS126	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.6 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00163%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00383%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000652%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 8.1 mg/kg, converted to compound conc.:9.3 mg/kg or 0.00093%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.4 mg/kg, converted to compound conc.:16.35 mg/kg or 0.00163%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 33.7 mg/kg, converted to compound conc.:42.83 mg/kg or 0.00428%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 20.7 mg/kg, converted to compound conc.:20.266 mg/kg or 0.00203%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 29.2 mg/kg, converted to compound conc.:38.341 mg/kg or 0.00383%, "Note 1" conc.: 0.00254%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 43 mg/kg, converted to compound conc.:59.06 mg/kg or 0.00591%)
 pH: (Whole conc. entered as: 8.3 pH, converted to conc.:8.3 pH or 8.3 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.5 mg/kg, converted to compound conc.:0.652 mg/kg or 0.0000652%)
 Zinc oxide: (Cation conc. entered: 63.4 mg/kg, converted to compound conc.:68.622 mg/kg or 0.00686%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Appendix A: User Defined and non CLP Substances

Acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no>
Data source date: 16/07/2012
Classification: R36, R37, R38, N; R50/53, N; R51/53

Acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no>
Data source date: 16/07/2012
Classification: R22, R26, R27, R36, R37, R38

Anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no>
Data source date: 08/03/2013
Classification: N; R50/53, R36, R37, R38, R43

Benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53

Boron tribromide/trichloride/trifluoride (combined risk phrases)

Comments: Combines the risk phrases and the average of the conversion factors for Boron tribromide, Boron trichloride and Boron trifluoride
Data source: N/A
Data source date: 10/01/2011
Classification: R14, T+; R26/28, C; R34, C; R35

Chromium(III) oxide (CAS Number: 1308-38-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=33806&HarmOnly=no?fc=true&lang=en>
Data source date: 26/11/2012
Classification: R20, R22, R36, R37, R38, R42, R43, R60, R61, R50/53

Fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R20, R22, R36

Fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R53

Indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no>

Data source date: 08/03/2013

Classification: R40

pH

Comments: Appendix C, C4.5

Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version 2.2), Environment Agency

Data source date: 30/05/2008

Classification: pH; pH

Phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no>

Data source date: 16/07/2012

Classification: N; R50/53, R22, R36, R37, R38, R40, R43

Pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no>

Data source date: 16/07/2012

Classification: N; R50/53, R23

Appendix B: Notes

Additional Risk Phrase Comments

from section: Table 2.2 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"This is an additional risk phrase and such a risk phrase alone will not cause a waste to be hazardous."

C14.3: Step 4

from section: C14.3 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"identify whether any individual ecotoxic substance is present below a cut-off value shown in Table C14.1"

Note 1

from section: 1.1.3.2, Annex VI in the document: "[CLP Regulations](#)"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "[CLP Regulations](#)"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Note E

from section: 1.1.3.1, Annex VI in the document: "[CLP Regulations](#)"

"Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word 'Also'."

Appendix C: Version

Classification utilises the following:

WM2 - Hazardous Waste Technical Guidance, 3rd Edition, August 2013

CLP Regulations - Regulation (EC) No 1272/2008 of the European Parliament and of the Council: 16 December 2008

1st ATP - 1st Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 26 September 2009; binding date 1 Dec 2010

2nd ATP - 2nd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 30 March 2011; binding date 1 Dec 2012 in respect of substances and 1 June 2015 in respect of mixtures

3rd ATP - 3rd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 31 July 2012; binding date 1 Dec 2013

4th ATP - 4th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 20 June 2013; binding date 1 Jun 2015

5th ATP - 5th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 13 August 2013; binding date 13 Aug 2013

HazWasteOnline Engine: WM2 version 3 (Aug 2013)

HazWasteOnline Engine Version: 1.0.2609.5519 (05 Sep 2014)

HazWasteOnline Database: 1.0.2609.5519 (05 Sep 2014)



PZBKC-65WBR-HZNZG

Waste Classification Report

Job name

LW25193 - Biggins Wood MG TPH

Waste stream

ASI Waste Classification Suite 1

Comments

Project

Site

Classified by

Name:

Card, Stuart

Date:

08/09/2014 10:35

Telephone:

01273 483119

Company:

Ashdown Site Investigation Limited

The Old Dairy

Swanborough Farm, Swanborough

Lewes

BN7 3PF

Report

Created by: Card, Stuart

Created date: 08/09/2014 10:35

Job summary

#	Sample name	Depth [m]	Classification result	Hazardous properties	Page
1	WS101	0.5	Non Hazardous		3
2	WS104	0.5	Non Hazardous		6
3	WS108	0.2	Non Hazardous		9
4	WS114	0.8	Hazardous	H3-B, H14	12
5	WS115	0.2	Non Hazardous		15
6	WS116	0.3	Hazardous	H14	18
7	WS120	0.1	Non Hazardous		21
8	WS122	0.3	Hazardous	H14	23
9	WS123	0.5	Hazardous	H3-B, H14	26
10	WS130	0.2	Non Hazardous		29
11	WS132	0.8	Non Hazardous		31
12	WS133	0.8	Non Hazardous		34
13	WS135	0.8	Non Hazardous		36
14	WS105	0.2	Non Hazardous		38
15	WS106	0.2	Non Hazardous		41
16	WS109	0.2	Non Hazardous		44
17	WS109[1]	0.8	Non Hazardous		47
18	WS111	0.2	Non Hazardous		49
19	WS112	0.2	Non Hazardous		52

#	Sample name	Depth [m]	Classification result	Hazardous properties	Page
20	WS113	0.5	Non Hazardous		55
21	WS124	0.2	Non Hazardous		58
22	WS125	0.2	Non Hazardous		61
23	HA203	0.3	Non Hazardous		64
24	HA204	0.3	Non Hazardous		67

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Appendix A: User Defined and non CLP Substances	69
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Appendix C: Version	71

Classification of sample: WS101

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS101	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Dry Weight Moisture Content:	
19%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00192%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0447%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000126%)

Determinands (Dry Weight Moisture Content: 19%)

Acenaphthene: (Whole conc. entered as: 0.13 mg/kg or 0.0000109%)
 Acenaphthylene: (Whole conc. entered as: 0.68 mg/kg or 0.0000571%)
 Anthracene: (Whole conc. entered as: 0.94 mg/kg or 0.000079%)
 Arsenic trioxide: (Cation conc. entered: 12.6 mg/kg, converted to compound conc.:13.98 mg/kg or 0.0014%)
 Benzo[a]anthracene: (Whole conc. entered as: 6.74 mg/kg or 0.000566%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 9.54 mg/kg or 0.000802%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 9.22 mg/kg or 0.000775%)
 Benzo[ghi]perylene: (Whole conc. entered as: 6.41 mg/kg or 0.000539%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 6.4 mg/kg or 0.000538%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.7 mg/kg, converted to compound conc.:19.186 mg/kg or 0.00192%)
 Cadmium sulphide: (Cation conc. entered: 0.5 mg/kg, converted to compound conc.:0.54 mg/kg or 0.000054%, "Note 1" conc.: 0.000042%)
 Chromium(III) oxide: (Cation conc. entered: 34.3 mg/kg, converted to compound conc.:42.127 mg/kg or 0.00421%)
 Chrysene: (Whole conc. entered as: 6.01 mg/kg or 0.000505%)
 Copper (I) oxide: (Cation conc. entered: 43.1 mg/kg, converted to compound conc.:40.778 mg/kg or 0.00408%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 1.75 mg/kg or 0.000147%)
 Fluoranthene: (Whole conc. entered as: 9.21 mg/kg or 0.000774%)
 Fluorene: (Whole conc. entered as: 0.17 mg/kg or 0.0000143%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 5.53 mg/kg or 0.000465%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 352 mg/kg, converted to compound conc.:446.655 mg/kg or 0.0447%, "Note 1" conc.: 0.0296%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.569 mg/kg or <0.0000569%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.29 mg/kg or 0.0000244%)
Nickel dihydroxide: (Cation conc. entered: 28.7 mg/kg, converted to compound conc.: 38.094 mg/kg or 0.00381%)
pH: (Whole conc. entered as: 8.6 pH, converted to conc.: 8.6 pH or 8.6 pH)
Phenanthrene: (Whole conc. entered as: 2.12 mg/kg or 0.000178%)
Pyrene: (Whole conc. entered as: 8.58 mg/kg or 0.000721%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1 mg/kg, converted to compound conc.: 1.261 mg/kg or 0.000126%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 110 mg/kg or 0.00924%)
Zinc oxide: (Cation conc. entered: 169 mg/kg, converted to compound conc.: 176.77 mg/kg or 0.0177%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H6 on R23, R24, R25" for determinand: "Cadmium sulphide"
Test: "H7 on R45" for determinand: "Cadmium sulphide"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Cadmium sulphide"
Test: "H11 on R68" for determinand: "Cadmium sulphide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS104



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS104	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00128%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00337%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Arsenic trioxide: (Cation conc. entered: 23.5 mg/kg, converted to compound conc.:26.981 mg/kg or 0.0027%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:12.846 mg/kg or 0.00128%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 32.6 mg/kg, converted to compound conc.:41.432 mg/kg or 0.00414%)
 Chrysene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Copper (I) oxide: (Cation conc. entered: 12.8 mg/kg, converted to compound conc.:12.532 mg/kg or 0.00125%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluoranthene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 25.7 mg/kg, converted to compound conc.:33.745 mg/kg or 0.00337%, "Note 1" conc.: 0.00223%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
Nickel dihydroxide: (Cation conc. entered: 25.9 mg/kg, converted to compound conc.:35.573 mg/kg or 0.00356%)
pH: (Whole conc. entered as: 8 pH, converted to conc.:8 pH or 8 pH)
Phenanthrene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
Pyrene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:1.174 mg/kg or 0.000117%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 19.3 mg/kg or 0.00168%)
Zinc oxide: (Cation conc. entered: 89.6 mg/kg, converted to compound conc.:96.979 mg/kg or 0.0097%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"


Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS108

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS108	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000934%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00935%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.26 mg/kg or 0.0000226%)
 Acenaphthylene: (Whole conc. entered as: 1.1 mg/kg or 0.0000957%)
 Anthracene: (Whole conc. entered as: 1.31 mg/kg or 0.000114%)
 Arsenic trioxide: (Cation conc. entered: 16.8 mg/kg, converted to compound conc.:19.288 mg/kg or 0.00193%)
 Benzo[a]anthracene: (Whole conc. entered as: 11.6 mg/kg or 0.00101%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 15.9 mg/kg or 0.00138%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 10.7 mg/kg or 0.00093%)
 Benzo[ghi]perylene: (Whole conc. entered as: 9.91 mg/kg or 0.000862%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 12.3 mg/kg or 0.00107%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:9.343 mg/kg or 0.000934%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 19.2 mg/kg, converted to compound conc.:24.402 mg/kg or 0.00244%)
 Chrysene: (Whole conc. entered as: 11.7 mg/kg or 0.00102%)
 Copper (I) oxide: (Cation conc. entered: 35.1 mg/kg, converted to compound conc.:34.364 mg/kg or 0.00344%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 3.02 mg/kg or 0.000263%)
 Fluoranthene: (Whole conc. entered as: 17 mg/kg or 0.00148%)
 Fluorene: (Whole conc. entered as: 0.26 mg/kg or 0.0000226%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 8.74 mg/kg or 0.00076%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 71.2 mg/kg, converted to compound conc.:93.489 mg/kg or 0.00935%, "Note 1" conc.: 0.00619%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.73 mg/kg or 0.0000635%)

Nickel dihydroxide: (Cation conc. entered: 18.3 mg/kg, converted to compound conc.:25.135 mg/kg or 0.00251%)

pH: (Whole conc. entered as: 8.9 pH, converted to conc.:8.9 pH or 8.9 pH)

Phenanthrene: (Whole conc. entered as: 3.43 mg/kg or 0.000298%)

Pyrene: (Whole conc. entered as: 15.6 mg/kg or 0.00136%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:1.174 mg/kg or 0.000117%)

TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 159 mg/kg or 0.0138%)

Zinc oxide: (Cation conc. entered: 87.4 mg/kg, converted to compound conc.:94.598 mg/kg or 0.00946%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS114



Hazardous Waste

Classified as **17 05 03 ***
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS114	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing dangerous substances)
0.8 m	
Dry Weight Moisture Content:	
12%	

Hazard properties

H3-B: Flammable "liquid substances and preparations having a flash point equal to or greater than 21°C and less than or equal to 55°C."

Risk phrases hit:

R10 "Flammable"

Because of determinand:

TPH (C6 to C40) Petroleum Group: (conc.: 0.0203%)

H14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment."

Risk phrases hit:

R52/53 "Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Benzo[a]anthracene: (conc.: 0.00291%)

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0012%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00677%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000107%)

Determinands (Dry Weight Moisture Content: 12%)

Acenaphthene: (Whole conc. entered as: 0.19 mg/kg or 0.000017%)

Acenaphthylene: (Whole conc. entered as: 0.99 mg/kg or 0.0000884%)

Anthracene: (Whole conc. entered as: 3.02 mg/kg or 0.00027%)

Arsenic trioxide: (Cation conc. entered: 13 mg/kg, converted to compound conc.:15.325 mg/kg or 0.00153%)

Benzo[a]anthracene: (Whole conc. entered as: 32.6 mg/kg or 0.00291%)

Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 30.8 mg/kg or 0.00275%)

Benzo[b]fluoranthene: (Whole conc. entered as: 22.3 mg/kg or 0.00199%)

Benzo[ghi]perylene: (Whole conc. entered as: 14.9 mg/kg or 0.00133%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 24.8 mg/kg or 0.00221%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1 mg/kg, converted to compound conc.:11.991 mg/kg or 0.0012%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.574 mg/kg or <0.0000574%, "Note 1" conc.: <0.0000446%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 33.4 mg/kg, converted to compound conc.:43.586 mg/kg or 0.00436%)
 Chrysene: (Whole conc. entered as: 30.3 mg/kg or 0.00271%)
 Copper (I) oxide: (Cation conc. entered: 22.2 mg/kg, converted to compound conc.:22.317 mg/kg or 0.00223%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 5.03 mg/kg or 0.000449%)
 Fluoranthene: (Whole conc. entered as: 58 mg/kg or 0.00518%)
 Fluorene: (Whole conc. entered as: 0.61 mg/kg or 0.0000545%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 13.6 mg/kg or 0.00121%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 50.2 mg/kg, converted to compound conc.:67.68 mg/kg or 0.00677%, "Note 1" conc.: 0.00448%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.604 mg/kg or <0.0000604%) **IGNORED Because: "<LOD"**
 Naphthalene: (Whole conc. entered as: 0.47 mg/kg or 0.000042%)
 Nickel dihydroxide: (Cation conc. entered: 33.2 mg/kg, converted to compound conc.:46.821 mg/kg or 0.00468%)
 pH: (Whole conc. entered as: 8.4 pH, converted to conc.:8.4 pH or 8.4 pH)
 Phenanthrene: (Whole conc. entered as: 14.1 mg/kg or 0.00126%)
 Pyrene: (Whole conc. entered as: 47.2 mg/kg or 0.00421%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.071 mg/kg or 0.000107%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 227 mg/kg or 0.0203%)
 Zinc oxide: (Cation conc. entered: 76 mg/kg, converted to compound conc.:84.463 mg/kg or 0.00845%)

Test settings

H3-B on R10: **Force this test to hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 3, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS115



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS115	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000934%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0189%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00013%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.0000087%) **IGNORED Because: "<LOD"**

Acenaphthylene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Arsenic trioxide: (Cation conc. entered: 13.2 mg/kg, converted to compound conc.:15.155 mg/kg or 0.00152%)

Benzo[a]anthracene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)

Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.1 mg/kg or 0.0000087%)

Benzo[b]fluoranthene: (Whole conc. entered as: 0.1 mg/kg or 0.0000087%)

Benzo[ghi]perylene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)

Benzo[k]fluoranthene: (Whole conc. entered as: 0.15 mg/kg or 0.000013%)

Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:9.343 mg/kg or 0.000934%)

Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**

Chromium(III) oxide: (Cation conc. entered: 37.3 mg/kg, converted to compound conc.:47.405 mg/kg or 0.00474%)

Chrysene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)

Copper (I) oxide: (Cation conc. entered: 29.8 mg/kg, converted to compound conc.:29.175 mg/kg or 0.00292%)

Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Fluoranthene: (Whole conc. entered as: 0.14 mg/kg or 0.0000122%)

Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.0000087%) **IGNORED Because: "<LOD"**

Indeno[123-cd]pyrene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 144 mg/kg, converted to compound conc.:189.078 mg/kg or 0.0189%, "Note 1" conc.: 0.0125%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)

Nickel dihydroxide: (Cation conc. entered: 33.3 mg/kg, converted to compound conc.:45.737 mg/kg or 0.00457%)

pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)

Phenanthrene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)

Pyrene: (Whole conc. entered as: 0.12 mg/kg or 0.0000104%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1 mg/kg, converted to compound conc.:1.304 mg/kg or 0.00013%)

TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 6.7 mg/kg or 0.000583%)

Zinc oxide: (Cation conc. entered: 119 mg/kg, converted to compound conc.:128.801 mg/kg or 0.0129%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS116



Hazardous Waste

Classified as **17 05 03 ***
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS116	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing dangerous substances)
0.3 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

H14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment."

Risk phrases hit:

R52/53 "Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Benzo[a]anthracene: (conc.: 0.00352%)

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00105%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0223%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000222%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 1.34 mg/kg or 0.000117%)
 Acenaphthylene: (Whole conc. entered as: 4.29 mg/kg or 0.000373%)
 Anthracene: (Whole conc. entered as: 7.83 mg/kg or 0.000681%)
 Arsenic trioxide: (Cation conc. entered: 15 mg/kg, converted to compound conc.:17.222 mg/kg or 0.00172%)
 Benzo[a]anthracene: (Whole conc. entered as: 40.5 mg/kg or 0.00352%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 59 mg/kg or 0.00513%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 50.2 mg/kg or 0.00437%)
 Benzo[ghi]perylene: (Whole conc. entered as: 36.1 mg/kg or 0.00314%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 37.7 mg/kg or 0.00328%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:10.51 mg/kg or 0.00105%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 23.5 mg/kg, converted to compound conc.:29.867 mg/kg or 0.00299%)
 Chrysene: (Whole conc. entered as: 35.1 mg/kg or 0.00305%)

Copper (I) oxide: (Cation conc. entered: 31.5 mg/kg, converted to compound conc.:30.84 mg/kg or 0.00308%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 12.3 mg/kg or 0.00107%)
 Fluoranthene: (Whole conc. entered as: 60.8 mg/kg or 0.00529%)
 Fluorene: (Whole conc. entered as: 1.8 mg/kg or 0.000157%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 33.6 mg/kg or 0.00292%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 170 mg/kg, converted to compound conc.:223.217 mg/kg or 0.0223%, "Note 1" conc.: 0.0148%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 1.07 mg/kg or 0.000093%)
 Nickel dihydroxide: (Cation conc. entered: 19.5 mg/kg, converted to compound conc.:26.783 mg/kg or 0.00268%)
 pH: (Whole conc. entered as: 11.4 pH, converted to conc.:11.4 pH or 11.4 pH)
 Phenanthrene: (Whole conc. entered as: 20.6 mg/kg or 0.00179%)
 Pyrene: (Whole conc. entered as: 54.5 mg/kg or 0.00474%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.7 mg/kg, converted to compound conc.:2.217 mg/kg or 0.000222%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 179 mg/kg or 0.0156%)
 Zinc oxide: (Cation conc. entered: 131 mg/kg, converted to compound conc.:141.789 mg/kg or 0.0142%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 3, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS120



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS120	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.1 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000584%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00138%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 16.9 mg/kg, converted to compound conc.:19.403 mg/kg or 0.00194%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.5 mg/kg, converted to compound conc.:5.839 mg/kg or 0.000584%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 108 mg/kg, converted to compound conc.:137.259 mg/kg or 0.0137%)
 Chrysene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Copper (I) oxide: (Cation conc. entered: 11.4 mg/kg, converted to compound conc.:11.161 mg/kg or 0.00112%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 10.5 mg/kg, converted to compound conc.:13.787 mg/kg or 0.00138%, "Note 1" conc.: 0.000913%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 91.3 mg/kg, converted to compound conc.:125.399 mg/kg or 0.0125%)
 pH: (Whole conc. entered as: 8.6 pH, converted to conc.:8.6 pH or 8.6 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:1.174 mg/kg or 0.000117%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000435%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 83.2 mg/kg, converted to compound conc.:90.052 mg/kg or 0.00901%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS122

 **Hazardous Waste**
 Classified as **17 05 03 ***
 in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS122	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing dangerous substances)
0.3 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

H14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment."

Risk phrases hit:

R52/53 "Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Benzo[a]anthracene: (conc.: 0.00736%)

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00234%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0365%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00013%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 23.3 mg/kg or 0.00203%)
 Acenaphthylene: (Whole conc. entered as: 4.79 mg/kg or 0.000417%)
 Anthracene: (Whole conc. entered as: 52.2 mg/kg or 0.00454%)
 Arsenic trioxide: (Cation conc. entered: 13.1 mg/kg, converted to compound conc.:15.04 mg/kg or 0.0015%)
 Benzo[a]anthracene: (Whole conc. entered as: 84.6 mg/kg or 0.00736%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 74.7 mg/kg or 0.0065%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 62.6 mg/kg or 0.00544%)
 Benzo[ghi]perylene: (Whole conc. entered as: 42.1 mg/kg or 0.00366%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 53.8 mg/kg or 0.00468%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2 mg/kg, converted to compound conc.:23.357 mg/kg or 0.00234%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 22.3 mg/kg, converted to compound conc.:28.341 mg/kg or 0.00283%)
 Chrysene: (Whole conc. entered as: 70.2 mg/kg or 0.0061%)

Copper (I) oxide: (Cation conc. entered: 285 mg/kg, converted to compound conc.:279.024 mg/kg or 0.0279%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 15.1 mg/kg or 0.00131%)
 Fluoranthene: (Whole conc. entered as: 193 mg/kg or 0.0168%)
 Fluorene: (Whole conc. entered as: 34.8 mg/kg or 0.00303%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 39.6 mg/kg or 0.00344%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 278 mg/kg, converted to compound conc.:365.026 mg/kg or 0.0365%, "Note 1" conc.: 0.0242%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 19.7 mg/kg or 0.00171%)
 Nickel dihydroxide: (Cation conc. entered: 59.9 mg/kg, converted to compound conc.:82.271 mg/kg or 0.00823%)
 pH: (Whole conc. entered as: 10.8 pH, converted to conc.:10.8 pH or 10.8 pH)
 Phenanthrene: (Whole conc. entered as: 190 mg/kg or 0.0165%)
 Pyrene: (Whole conc. entered as: 146 mg/kg or 0.0127%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1 mg/kg, converted to compound conc.:1.304 mg/kg or 0.00013%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 212 mg/kg or 0.0184%)
 Zinc oxide: (Cation conc. entered: 196 mg/kg, converted to compound conc.:212.143 mg/kg or 0.0212%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 3, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS123



Hazardous Waste

Classified as **17 05 03 ***
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS123	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing dangerous substances)
0.5 m	
Dry Weight Moisture Content:	
8%	

Hazard properties

H3-B: Flammable "liquid substances and preparations having a flash point equal to or greater than 21°C and less than or equal to 55°C."

Risk phrases hit:

R10 "Flammable"

Because of determinand:

TPH (C6 to C40) Petroleum Group: (conc.: 0.0573%)

H14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment."

Risk phrases hit:

R52/53 "Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Benzo[a]anthracene: (conc.: 0.00274%)

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000995%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0296%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000153%)

Determinands (Dry Weight Moisture Content: 8%)

Acenaphthene: (Whole conc. entered as: 1.21 mg/kg or 0.000112%)
 Acenaphthylene: (Whole conc. entered as: 2.62 mg/kg or 0.000243%)
 Anthracene: (Whole conc. entered as: 6.81 mg/kg or 0.000631%)
 Arsenic trioxide: (Cation conc. entered: 13.5 mg/kg, converted to compound conc.:16.504 mg/kg or 0.00165%)
 Benzo[a]anthracene: (Whole conc. entered as: 29.6 mg/kg or 0.00274%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 29.2 mg/kg or 0.0027%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 25.1 mg/kg or 0.00232%)

Benzo[ghi]perylene: (Whole conc. entered as: 16.8 mg/kg or 0.00156%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 21.3 mg/kg or 0.00197%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:9.948 mg/kg or 0.000995%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.595 mg/kg or <0.0000595%, "Note 1" conc.: <0.0000463%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 21.4 mg/kg, converted to compound conc.:28.96 mg/kg or 0.0029%)
 Chrysene: (Whole conc. entered as: 25.6 mg/kg or 0.00237%)
 Copper (I) oxide: (Cation conc. entered: 181 mg/kg, converted to compound conc.:188.691 mg/kg or 0.0189%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 5.68 mg/kg or 0.000526%)
 Fluoranthene: (Whole conc. entered as: 53.5 mg/kg or 0.00495%)
 Fluorene: (Whole conc. entered as: 2.19 mg/kg or 0.000203%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 16 mg/kg or 0.00148%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 212 mg/kg, converted to compound conc.:296.407 mg/kg or 0.0296%, "Note 1" conc.: 0.0196%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.627 mg/kg or <0.0000627%) **IGNORED Because: "<LOD"**
 Naphthalene: (Whole conc. entered as: 0.8 mg/kg or 0.0000741%)
 Nickel dihydroxide: (Cation conc. entered: 23 mg/kg, converted to compound conc.:33.637 mg/kg or 0.00336%)
 pH: (Whole conc. entered as: 10.9 pH, converted to conc.:10.9 pH or 10.9 pH)
 Phenanthrene: (Whole conc. entered as: 24.6 mg/kg or 0.00228%)
 Pyrene: (Whole conc. entered as: 42.3 mg/kg or 0.00392%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:1.528 mg/kg or 0.000153%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 619 mg/kg or 0.0573%)
 Zinc oxide: (Cation conc. entered: 140 mg/kg, converted to compound conc.:161.352 mg/kg or 0.0161%)

Test settings

H3-B on R10: **Force this test to hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 3, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"


Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS130

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS130	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00234%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0148%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000209%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Arsenic trioxide: (Cation conc. entered: 19.8 mg/kg, converted to compound conc.:22.733 mg/kg or 0.00227%)

Benzo[a]anthracene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)

Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)

Benzo[b]fluoranthene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)

Benzo[ghi]perylene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)

Benzo[k]fluoranthene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)

Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2 mg/kg, converted to compound conc.:23.357 mg/kg or 0.00234%)

Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**

Chromium(III) oxide: (Cation conc. entered: 66.2 mg/kg, converted to compound conc.:84.135 mg/kg or 0.00841%)

Chrysene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)

Copper (I) oxide: (Cation conc. entered: 43.3 mg/kg, converted to compound conc.:42.392 mg/kg or 0.00424%)

Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Fluoranthene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)

Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Indeno[123-cd]pyrene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 113 mg/kg, converted to compound conc.:148.374 mg/kg or 0.0148%, "Note 1" conc.: 0.00983%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
Nickel dihydroxide: (Cation conc. entered: 52.9 mg/kg, converted to compound conc.:72.657 mg/kg or 0.00727%)
pH: (Whole conc. entered as: 8.1 pH, converted to conc.:8.1 pH or 8.1 pH)
Phenanthrene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)
Pyrene: (Whole conc. entered as: 0.1 mg/kg or 0.0000087%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.6 mg/kg, converted to compound conc.:2.087 mg/kg or 0.000209%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000435%) **IGNORED Because: "<LOD"**
Zinc oxide: (Cation conc. entered: 130 mg/kg, converted to compound conc.:140.707 mg/kg or 0.0141%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Nickel dihydroxide"

Classification of sample: WS132



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS132	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
31%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00246%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0154%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000126%)

Determinands (Dry Weight Moisture Content: 31%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000763%) **IGNORED Because: "<LOD"**

Acenaphthylene: (Whole conc. entered as: 0.08 mg/kg or 0.00000611%)

Anthracene: (Whole conc. entered as: 0.09 mg/kg or 0.00000687%)

Arsenic trioxide: (Cation conc. entered: 17.6 mg/kg, converted to compound conc.:17.739 mg/kg or 0.00177%)

Benzo[a]anthracene: (Whole conc. entered as: 0.42 mg/kg or 0.0000321%)

Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.71 mg/kg or 0.0000542%)

Benzo[b]fluoranthene: (Whole conc. entered as: 0.65 mg/kg or 0.0000496%)

Benzo[ghi]perylene: (Whole conc. entered as: 0.48 mg/kg or 0.0000366%)

Benzo[k]fluoranthene: (Whole conc. entered as: 0.43 mg/kg or 0.0000328%)

Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2.4 mg/kg, converted to compound conc.:24.605 mg/kg or 0.00246%)

Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.491 mg/kg or <0.0000491%, "Note 1" conc.: <0.0000382%) **IGNORED Because: "<LOD"**

Chromium(III) oxide: (Cation conc. entered: 45.5 mg/kg, converted to compound conc.:50.764 mg/kg or 0.00508%)

Chrysene: (Whole conc. entered as: 0.6 mg/kg or 0.0000458%)

Copper (I) oxide: (Cation conc. entered: 42.2 mg/kg, converted to compound conc.:36.269 mg/kg or 0.00363%)

Dibenz[a,h]anthracene: (Whole conc. entered as: 0.07 mg/kg or 0.00000534%)

Fluoranthene: (Whole conc. entered as: 0.86 mg/kg or 0.0000656%)

Fluorene: (Whole conc. entered as: 0.01 mg/kg or 0.000000763%)

Indeno[123-cd]pyrene: (Whole conc. entered as: 0.32 mg/kg or 0.0000244%)

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 134 mg/kg, converted to compound conc.:154.458 mg/kg or 0.0154%, "Note 1" conc.: 0.0102%)

Mercury dichloride: (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:0.723 mg/kg or 0.0000723%)
Naphthalene: (Whole conc. entered as: 0.06 mg/kg or 0.00000458%)
Nickel dihydroxide: (Cation conc. entered: 39.5 mg/kg, converted to compound conc.:47.626 mg/kg or 0.00476%)
pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)
Phenanthrene: (Whole conc. entered as: 0.2 mg/kg or 0.0000153%)
Pyrene: (Whole conc. entered as: 0.75 mg/kg or 0.0000573%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:1.26 mg/kg or 0.000126%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000382%) **IGNORED Because: "<LOD"**
Zinc oxide: (Cation conc. entered: 128 mg/kg, converted to compound conc.:121.621 mg/kg or 0.0122%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Mercury dichloride"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS133



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS133	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0028%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0253%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000196%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 13.9 mg/kg, converted to compound conc.:15.959 mg/kg or 0.0016%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2.4 mg/kg, converted to compound conc.:28.028 mg/kg or 0.0028%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 30 mg/kg, converted to compound conc.:38.128 mg/kg or 0.00381%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 48.3 mg/kg, converted to compound conc.:47.287 mg/kg or 0.00473%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 193 mg/kg, converted to compound conc.:253.417 mg/kg or 0.0253%, "Note 1" conc.: 0.0168%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 30.2 mg/kg, converted to compound conc.:41.479 mg/kg or 0.00415%)
 pH: (Whole conc. entered as: 9.4 pH, converted to conc.:9.4 pH or 9.4 pH)
 Phenanthrene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Pyrene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:1.957 mg/kg or 0.000196%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000435%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 168 mg/kg, converted to compound conc.:181.836 mg/kg or 0.0182%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS135



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS135	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00257%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0284%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00017%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.26 mg/kg or 0.0000226%)
 Anthracene: (Whole conc. entered as: 0.15 mg/kg or 0.000013%)
 Arsenic trioxide: (Cation conc. entered: 22.9 mg/kg, converted to compound conc.:26.292 mg/kg or 0.00263%)
 Benzo[a]anthracene: (Whole conc. entered as: 1.2 mg/kg or 0.000104%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 2.37 mg/kg or 0.000206%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 1.98 mg/kg or 0.000172%)
 Benzo[ghi]perylene: (Whole conc. entered as: 1.56 mg/kg or 0.000136%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 1.56 mg/kg or 0.000136%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2.2 mg/kg, converted to compound conc.:25.692 mg/kg or 0.00257%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 46.4 mg/kg, converted to compound conc.:58.971 mg/kg or 0.0059%)
 Chrysene: (Whole conc. entered as: 1.74 mg/kg or 0.000151%)
 Copper (I) oxide: (Cation conc. entered: 52.5 mg/kg, converted to compound conc.:51.399 mg/kg or 0.00514%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.32 mg/kg or 0.0000278%)
 Fluoranthene: (Whole conc. entered as: 1.69 mg/kg or 0.000147%)
 Fluorene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 1.21 mg/kg or 0.000105%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 216 mg/kg, converted to compound conc.:283.617 mg/kg or 0.0284%, "Note 1" conc.: 0.0188%)

Mercury dichloride: (Cation conc. entered: 0.6 mg/kg, converted to compound conc.: 0.706 mg/kg or 0.0000706%)
 Naphthalene: (Whole conc. entered as: 0.11 mg/kg or 0.0000957%)
 Nickel dihydroxide: (Cation conc. entered: 44 mg/kg, converted to compound conc.: 60.433 mg/kg or 0.00604%)
 pH: (Whole conc. entered as: 8.2 pH, converted to conc.: 8.2 pH or 8.2 pH)
 Phenanthrene: (Whole conc. entered as: 0.37 mg/kg or 0.0000322%)
 Pyrene: (Whole conc. entered as: 1.58 mg/kg or 0.000137%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.3 mg/kg, converted to compound conc.: 1.696 mg/kg or 0.00017%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000435%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 129 mg/kg, converted to compound conc.: 139.624 mg/kg or 0.014%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Mercury dichloride"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS105



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS105	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00163%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0341%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00013%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.1 mg/kg or 0.0000087%)
 Acenaphthylene: (Whole conc. entered as: 0.3 mg/kg or 0.0000261%)
 Anthracene: (Whole conc. entered as: 0.85 mg/kg or 0.0000739%)
 Arsenic trioxide: (Cation conc. entered: 17.2 mg/kg, converted to compound conc.:19.747 mg/kg or 0.00197%)
 Benzo[a]anthracene: (Whole conc. entered as: 2.93 mg/kg or 0.000255%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 3.28 mg/kg or 0.000285%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 2.11 mg/kg or 0.000183%)
 Benzo[ghi]perylene: (Whole conc. entered as: 1.84 mg/kg or 0.00016%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 2.56 mg/kg or 0.000223%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.4 mg/kg, converted to compound conc.:16.35 mg/kg or 0.00163%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 38.6 mg/kg, converted to compound conc.:49.057 mg/kg or 0.00491%)
 Chrysene: (Whole conc. entered as: 2.86 mg/kg or 0.000249%)
 Copper (I) oxide: (Cation conc. entered: 63.1 mg/kg, converted to compound conc.:61.777 mg/kg or 0.00618%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.53 mg/kg or 0.0000461%)
 Fluoranthene: (Whole conc. entered as: 6.5 mg/kg or 0.000565%)
 Fluorene: (Whole conc. entered as: 0.27 mg/kg or 0.0000235%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 1.58 mg/kg or 0.000137%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 260 mg/kg, converted to compound conc.:341.391 mg/kg or 0.0341%, "Note 1" conc.: 0.0226%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.24 mg/kg or 0.0000209%)
Nickel dihydroxide: (Cation conc. entered: 37.3 mg/kg, converted to compound conc.:51.231 mg/kg or 0.00512%)
pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)
Phenanthrene: (Whole conc. entered as: 3.36 mg/kg or 0.000292%)
Pyrene: (Whole conc. entered as: 5.19 mg/kg or 0.000451%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1 mg/kg, converted to compound conc.:1.304 mg/kg or 0.00013%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 33.6 mg/kg or 0.00292%)
Zinc oxide: (Cation conc. entered: 195 mg/kg, converted to compound conc.:211.06 mg/kg or 0.0211%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS106

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS106	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00152%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0393%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)
 Acenaphthylene: (Whole conc. entered as: 0.35 mg/kg or 0.0000304%)
 Anthracene: (Whole conc. entered as: 0.76 mg/kg or 0.0000661%)
 Arsenic trioxide: (Cation conc. entered: 15.4 mg/kg, converted to compound conc.:17.681 mg/kg or 0.00177%)
 Benzo[a]anthracene: (Whole conc. entered as: 3.14 mg/kg or 0.000273%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 3.98 mg/kg or 0.000346%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 3.26 mg/kg or 0.000283%)
 Benzo[ghi]perylene: (Whole conc. entered as: 2.87 mg/kg or 0.00025%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 3.02 mg/kg or 0.000263%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.3 mg/kg, converted to compound conc.:15.182 mg/kg or 0.00152%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 29.3 mg/kg, converted to compound conc.:37.238 mg/kg or 0.00372%)
 Chrysene: (Whole conc. entered as: 3.06 mg/kg or 0.000266%)
 Copper (I) oxide: (Cation conc. entered: 81.2 mg/kg, converted to compound conc.:79.498 mg/kg or 0.00795%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.81 mg/kg or 0.0000704%)
 Fluoranthene: (Whole conc. entered as: 5.86 mg/kg or 0.00051%)
 Fluorene: (Whole conc. entered as: 0.25 mg/kg or 0.0000217%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 2.43 mg/kg or 0.000211%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 299 mg/kg, converted to compound conc.:392.6 mg/kg or 0.0393%, "Note 1" conc.: 0.026%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.33 mg/kg or 0.0000287%)

Nickel dihydroxide: (Cation conc. entered: 26 mg/kg, converted to compound conc.:35.71 mg/kg or 0.00357%)

pH: (Whole conc. entered as: 8.6 pH, converted to conc.:8.6 pH or 8.6 pH)

Phenanthrene: (Whole conc. entered as: 3.27 mg/kg or 0.000284%)

Pyrene: (Whole conc. entered as: 4.74 mg/kg or 0.000412%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.043 mg/kg or 0.000104%)

TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 79.2 mg/kg or 0.00689%)

Zinc oxide: (Cation conc. entered: 139 mg/kg, converted to compound conc.:150.448 mg/kg or 0.015%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS109



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS109	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00222%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00758%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00017%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 16.9 mg/kg, converted to compound conc.:19.403 mg/kg or 0.00194%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.9 mg/kg, converted to compound conc.:22.189 mg/kg or 0.00222%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 57.5 mg/kg, converted to compound conc.:73.078 mg/kg or 0.00731%)
 Chrysene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Copper (I) oxide: (Cation conc. entered: 21.9 mg/kg, converted to compound conc.:21.441 mg/kg or 0.00214%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluoranthene: (Whole conc. entered as: 0.13 mg/kg or 0.0000113%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 57.7 mg/kg, converted to compound conc.:75.763 mg/kg or 0.00758%, "Note 1" conc.: 0.00502%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
Nickel dihydroxide: (Cation conc. entered: 38.9 mg/kg, converted to compound conc.:53.428 mg/kg or 0.00534%)
pH: (Whole conc. entered as: 7.4 pH, converted to conc.:7.4 pH or 7.4 pH)
Phenanthrene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
Pyrene: (Whole conc. entered as: 0.1 mg/kg or 0.0000087%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.3 mg/kg, converted to compound conc.:1.696 mg/kg or 0.00017%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000435%) **IGNORED Because: "<LOD"**
Zinc oxide: (Cation conc. entered: 98 mg/kg, converted to compound conc.:106.071 mg/kg or 0.0106%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS109[1]



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS109[1]	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
49%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00108%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00374%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000906%)

Determinands (Dry Weight Moisture Content: 49%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 17.4 mg/kg, converted to compound conc.:15.419 mg/kg or 0.00154%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:10.816 mg/kg or 0.00108%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.431 mg/kg or <0.0000431%, "Note 1" conc.: <0.0000336%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 63.7 mg/kg, converted to compound conc.:62.484 mg/kg or 0.00625%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 17.1 mg/kg, converted to compound conc.:12.921 mg/kg or 0.00129%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 36.9 mg/kg, converted to compound conc.:37.395 mg/kg or 0.00374%, "Note 1" conc.: 0.00248%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.454 mg/kg or <0.0000454%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 52.8 mg/kg, converted to compound conc.:55.972 mg/kg or 0.0056%)
 pH: (Whole conc. entered as: 7.7 pH, converted to conc.:7.7 pH or 7.7 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000671%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:0.906 mg/kg or 0.0000906%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000336%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 77.9 mg/kg, converted to compound conc.:65.076 mg/kg or 0.00651%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS111



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS111	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000817%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00725%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000783%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Acenaphthylene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Anthracene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Arsenic trioxide: (Cation conc. entered: 11.1 mg/kg, converted to compound conc.:12.744 mg/kg or 0.00127%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.42 mg/kg or 0.0000365%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.58 mg/kg or 0.0000504%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.48 mg/kg or 0.0000417%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.36 mg/kg or 0.0000313%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.48 mg/kg or 0.0000417%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:8.175 mg/kg or 0.000817%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 21.2 mg/kg, converted to compound conc.:26.943 mg/kg or 0.00269%)
 Chrysene: (Whole conc. entered as: 0.45 mg/kg or 0.0000391%)
 Copper (I) oxide: (Cation conc. entered: 16.8 mg/kg, converted to compound conc.:16.448 mg/kg or 0.00164%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Fluoranthene: (Whole conc. entered as: 0.58 mg/kg or 0.0000504%)
 Fluorene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.3 mg/kg or 0.0000261%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 55.2 mg/kg, converted to compound conc.:72.48 mg/kg or 0.00725%, "Note 1" conc.: 0.0048%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Nickel dihydroxide: (Cation conc. entered: 13.4 mg/kg, converted to compound conc.: 18.405 mg/kg or 0.00184%)

pH: (Whole conc. entered as: 9.4 pH, converted to conc.: 9.4 pH or 9.4 pH)

Phenanthrene: (Whole conc. entered as: 0.14 mg/kg or 0.0000122%)

Pyrene: (Whole conc. entered as: 0.54 mg/kg or 0.000047%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.6 mg/kg, converted to compound conc.: 0.783 mg/kg or 0.0000783%)

TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 144 mg/kg or 0.0125%)

Zinc oxide: (Cation conc. entered: 46.7 mg/kg, converted to compound conc.: 50.546 mg/kg or 0.00505%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS112



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS112	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000817%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0305%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000913%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.93 mg/kg or 0.0000809%)
 Acenaphthylene: (Whole conc. entered as: 1.3 mg/kg or 0.000113%)
 Anthracene: (Whole conc. entered as: 3.96 mg/kg or 0.000344%)
 Arsenic trioxide: (Cation conc. entered: 16.5 mg/kg, converted to compound conc.:18.944 mg/kg or 0.00189%)
 Benzo[a]anthracene: (Whole conc. entered as: 26.3 mg/kg or 0.00229%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 35.6 mg/kg or 0.0031%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 30.4 mg/kg or 0.00264%)
 Benzo[ghi]perylene: (Whole conc. entered as: 23.6 mg/kg or 0.00205%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 23.9 mg/kg or 0.00208%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:8.175 mg/kg or 0.000817%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 26.2 mg/kg, converted to compound conc.:33.298 mg/kg or 0.00333%)
 Chrysene: (Whole conc. entered as: 24.8 mg/kg or 0.00216%)
 Copper (I) oxide: (Cation conc. entered: 70 mg/kg, converted to compound conc.:68.532 mg/kg or 0.00685%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 7.74 mg/kg or 0.000673%)
 Fluoranthene: (Whole conc. entered as: 37.1 mg/kg or 0.00323%)
 Fluorene: (Whole conc. entered as: 1.18 mg/kg or 0.000103%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 20.3 mg/kg or 0.00177%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 232 mg/kg, converted to compound conc.:304.626 mg/kg or 0.0305%, "Note 1" conc.: 0.0202%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.82 mg/kg or 0.0000713%)
Nickel dihydroxide: (Cation conc. entered: 30.8 mg/kg, converted to compound conc.:42.303 mg/kg or 0.00423%)
pH: (Whole conc. entered as: 8.3 pH, converted to conc.:8.3 pH or 8.3 pH)
Phenanthrene: (Whole conc. entered as: 12.6 mg/kg or 0.0011%)
Pyrene: (Whole conc. entered as: 33.6 mg/kg or 0.00292%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:0.913 mg/kg or 0.0000913%)
TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 20.5 mg/kg or 0.00178%)
Zinc oxide: (Cation conc. entered: 137 mg/kg, converted to compound conc.:148.283 mg/kg or 0.0148%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS113



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS113	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.5 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00117%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0268%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Acenaphthylene: (Whole conc. entered as: 0.41 mg/kg or 0.0000357%)
 Anthracene: (Whole conc. entered as: 0.67 mg/kg or 0.0000583%)
 Arsenic trioxide: (Cation conc. entered: 17.5 mg/kg, converted to compound conc.:20.092 mg/kg or 0.00201%)
 Benzo[a]anthracene: (Whole conc. entered as: 4.42 mg/kg or 0.000384%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 5.05 mg/kg or 0.000439%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 4.36 mg/kg or 0.000379%)
 Benzo[ghi]perylene: (Whole conc. entered as: 3.2 mg/kg or 0.000278%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 3.68 mg/kg or 0.00032%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1 mg/kg, converted to compound conc.:11.678 mg/kg or 0.00117%)
 Cadmium sulphide: (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:1.229 mg/kg or 0.000123%, "Note 1" conc.: 0.0000957%)
 Chromium(III) oxide: (Cation conc. entered: 32.7 mg/kg, converted to compound conc.:41.559 mg/kg or 0.00416%)
 Chrysene: (Whole conc. entered as: 4.02 mg/kg or 0.00035%)
 Copper (I) oxide: (Cation conc. entered: 53 mg/kg, converted to compound conc.:51.889 mg/kg or 0.00519%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.98 mg/kg or 0.0000852%)
 Fluoranthene: (Whole conc. entered as: 7.32 mg/kg or 0.000637%)
 Fluorene: (Whole conc. entered as: 0.1 mg/kg or 0.0000087%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 2.85 mg/kg or 0.000248%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 204 mg/kg, converted to compound conc.:267.861 mg/kg or 0.0268%, "Note 1" conc.: 0.0177%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.21 mg/kg or 0.0000183%)

Nickel dihydroxide: (Cation conc. entered: 31.8 mg/kg, converted to compound conc.: 43.677 mg/kg or 0.00437%)

pH: (Whole conc. entered as: 8.6 pH, converted to conc.: 8.6 pH or 8.6 pH)

Phenanthrene: (Whole conc. entered as: 2.23 mg/kg or 0.000194%)

Pyrene: (Whole conc. entered as: 6.13 mg/kg or 0.000533%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.: 1.043 mg/kg or 0.000104%)

TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 70.5 mg/kg or 0.00613%)

Zinc oxide: (Cation conc. entered: 142 mg/kg, converted to compound conc.: 153.695 mg/kg or 0.0154%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H6 on R23, R24, R25" for determinand: "Cadmium sulphide"

Test: "H7 on R45" for determinand: "Cadmium sulphide"

Test: "H11 on R68" for determinand: "Cadmium sulphide"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS124



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS124	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00128%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0314%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000913%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)
 Acenaphthylene: (Whole conc. entered as: 0.46 mg/kg or 0.00004%)
 Anthracene: (Whole conc. entered as: 0.51 mg/kg or 0.0000443%)
 Arsenic trioxide: (Cation conc. entered: 18.3 mg/kg, converted to compound conc.:21.01 mg/kg or 0.0021%)
 Benzo[a]anthracene: (Whole conc. entered as: 3.74 mg/kg or 0.000325%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 5.17 mg/kg or 0.00045%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 4.88 mg/kg or 0.000424%)
 Benzo[ghi]perylene: (Whole conc. entered as: 3.6 mg/kg or 0.000313%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 3.31 mg/kg or 0.000288%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:12.846 mg/kg or 0.00128%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 27.3 mg/kg, converted to compound conc.:34.696 mg/kg or 0.00347%)
 Chrysene: (Whole conc. entered as: 3.42 mg/kg or 0.000297%)
 Copper (I) oxide: (Cation conc. entered: 56.8 mg/kg, converted to compound conc.:55.609 mg/kg or 0.00556%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 1.25 mg/kg or 0.000109%)
 Fluoranthene: (Whole conc. entered as: 5.39 mg/kg or 0.000469%)
 Fluorene: (Whole conc. entered as: 0.12 mg/kg or 0.0000104%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 3.43 mg/kg or 0.000298%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 239 mg/kg, converted to compound conc.:313.817 mg/kg or 0.0314%, "Note 1" conc.: 0.0208%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.35 mg/kg or 0.0000304%)
 Nickel dihydroxide: (Cation conc. entered: 30.5 mg/kg, converted to compound conc.:41.891 mg/kg or 0.00419%)
 pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)
 Phenanthrene: (Whole conc. entered as: 1.8 mg/kg or 0.000157%)
 Pyrene: (Whole conc. entered as: 4.63 mg/kg or 0.000403%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:0.913 mg/kg or 0.0000913%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 53.6 mg/kg or 0.00466%)
 Zinc oxide: (Cation conc. entered: 174 mg/kg, converted to compound conc.:188.331 mg/kg or 0.0188%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS125

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS125	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000817%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.034%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.12 mg/kg or 0.0000104%)
 Acenaphthylene: (Whole conc. entered as: 0.59 mg/kg or 0.0000513%)
 Anthracene: (Whole conc. entered as: 0.93 mg/kg or 0.0000809%)
 Arsenic trioxide: (Cation conc. entered: 18.5 mg/kg, converted to compound conc.:21.24 mg/kg or 0.00212%)
 Benzo[a]anthracene: (Whole conc. entered as: 6.57 mg/kg or 0.000571%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 7.44 mg/kg or 0.000647%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 7.17 mg/kg or 0.000623%)
 Benzo[ghi]perylene: (Whole conc. entered as: 5.04 mg/kg or 0.000438%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 4.88 mg/kg or 0.000424%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:8.175 mg/kg or 0.000817%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 26.2 mg/kg, converted to compound conc.:33.298 mg/kg or 0.00333%)
 Chrysene: (Whole conc. entered as: 4.33 mg/kg or 0.000377%)
 Copper (I) oxide: (Cation conc. entered: 72.6 mg/kg, converted to compound conc.:71.078 mg/kg or 0.00711%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 1.53 mg/kg or 0.000133%)
 Fluoranthene: (Whole conc. entered as: 9.57 mg/kg or 0.000832%)
 Fluorene: (Whole conc. entered as: 0.13 mg/kg or 0.0000113%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 4.88 mg/kg or 0.000424%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 259 mg/kg, converted to compound conc.:340.078 mg/kg or 0.034%, "Note 1" conc.: 0.0225%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.2 mg/kg or 0.0000174%)

Nickel dihydroxide: (Cation conc. entered: 29.9 mg/kg, converted to compound conc.:41.067 mg/kg or 0.00411%)

pH: (Whole conc. entered as: 10.5 pH, converted to conc.:10.5 pH or 10.5 pH)

Phenanthrene: (Whole conc. entered as: 2.42 mg/kg or 0.00021%)

Pyrene: (Whole conc. entered as: 7.93 mg/kg or 0.00069%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.043 mg/kg or 0.000104%)

TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 102 mg/kg or 0.00887%)

Zinc oxide: (Cation conc. entered: 204 mg/kg, converted to compound conc.:220.801 mg/kg or 0.0221%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: HA203



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
HA203	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.3 m	
Dry Weight Moisture Content:	
12.2%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000838%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0133%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000107%)

Determinands (Dry Weight Moisture Content: 12.2%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 12.1 mg/kg, converted to compound conc.:14.239 mg/kg or 0.00142%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:8.379 mg/kg or 0.000838%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.573 mg/kg or <0.0000573%, "Note 1" conc.: <0.0000446%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 37.5 mg/kg, converted to compound conc.:48.849 mg/kg or 0.00488%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 21.6 mg/kg, converted to compound conc.:21.675 mg/kg or 0.00217%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 98.9 mg/kg, converted to compound conc.:133.101 mg/kg or 0.0133%, "Note 1" conc.: 0.00881%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.603 mg/kg or <0.0000603%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 30.8 mg/kg, converted to compound conc.:43.359 mg/kg or 0.00434%)
 pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000891%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.07 mg/kg or 0.000107%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: 42.1 mg/kg or 0.00375%)
 Zinc oxide: (Cation conc. entered: 95.6 mg/kg, converted to compound conc.:106.056 mg/kg or 0.0106%)

Test settings

H3-B on R10: **Force this test to non hazardous because: "TPH unlikely to be flammable at concentrations <200mg/kg"**

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

3.4.2, used on:

determinand: "TPH (C6 to C40) Petroleum Group"

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: HA204



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
HA204	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.3 m	
Dry Weight Moisture Content:	
22.4%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00154%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00408%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000735%)

Determinands (Dry Weight Moisture Content: 22.4%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 10.3 mg/kg, converted to compound conc.:11.111 mg/kg or 0.00111%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.4 mg/kg, converted to compound conc.:15.361 mg/kg or 0.00154%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.525 mg/kg or <0.0000525%, "Note 1" conc.: <0.0000408%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 45.1 mg/kg, converted to compound conc.:53.853 mg/kg or 0.00539%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 17.5 mg/kg, converted to compound conc.:16.097 mg/kg or 0.00161%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 33.1 mg/kg, converted to compound conc.:40.834 mg/kg or 0.00408%, "Note 1" conc.: 0.0027%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.553 mg/kg or <0.0000553%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 40.6 mg/kg, converted to compound conc.:52.392 mg/kg or 0.00524%)
 pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.000000817%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.6 mg/kg, converted to compound conc.:0.735 mg/kg or 0.0000735%)
 TPH (C6 to C40) Petroleum Group: (Whole conc. entered as: <5 mg/kg or <0.000408%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 62.5 mg/kg, converted to compound conc.:63.558 mg/kg or 0.00636%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Appendix A: User Defined and non CLP Substances

Acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no>

Data source date: 16/07/2012

Classification: R36, R37, R38, N; R50/53, N; R51/53

Acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no>

Data source date: 16/07/2012

Classification: R22, R26, R27, R36, R37, R38

Anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no>

Data source date: 08/03/2013

Classification: R36, R37, R38, R43, N; R50/53

Benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no>

Data source date: 16/07/2012

Classification: N; R50/53

Boron tribromide/trichloride/trifluoride (combined risk phrases)

Comments: Combines the risk phrases and the average of the conversion factors for Boron tribromide, Boron trichloride and Boron trifluoride

Data source: N/A

Data source date: 10/01/2011

Classification: R14, T+; R26/28, C; R34, C; R35

Chromium(III) oxide (CAS Number: 1308-38-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=33806&HarmOnly=no?fc=true&lang=en>

Data source date: 26/11/2012

Classification: R20, R22, R36, R37, R38, R42, R43, R50/53, R60, R61

Fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no>

Data source date: 16/07/2012

Classification: R20, R22, R36, N; R50/53

Fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory

Data source:

<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no>

Data source date: 16/07/2012

Classification: N; R50/53, R53

Indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no>
Data source date: 08/03/2013
Classification: R40

pH

Comments: Appendix C, C4.5
Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version2.2), Environment Agency
Data source date: 30/05/2008
Classification: pH; pH

Phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R22, R36, R37, R38, R40, R43

Pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R23

TPH (C6 to C40) Petroleum Group

Comments: Risk phrase data given on page A41
Data source: WM2 3rd edition, 2013
Data source date: 01/08/2013
Classification: R10, R45, R46, R63, R65, R51/53

Appendix B: Notes

3.4.2

from section: 3.4.2 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"If the identity of the oil is unknown, and the petroleum group cannot be established, then the oil contaminating the waste can be classified as non-carcinogenic due to the presence of oil if all three of the following criteria are met:

- the waste contains benzo[a]pyrene (BaP) at a concentration of less than 0.01% (1/10,000th) of the TPH concentration (This is the carcinogenic limit specified in table 3.2 of the CLP for BaP)
- this has been determined by an appropriate and representative sampling approach in accordance with the principles set out in Appendix D, and
- the analysis clearly demonstrates, for example by carbon bands or chromatograph, and the laboratory has reasonably concluded that the hydrocarbons present have not arisen from petrol or diesel

"

Additional Risk Phrase Comments

from section: Table 2.2 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"This is an additional risk phrase and such a risk phrase alone will not cause a waste to be hazardous."

C14.3: Step 3

from section: C14.3 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"... identify whether any individual ecotoxic substance is given a substance specific concentration limit in Annex VI, Table 3.2 to the CLP, and, if so, whether that substance is at or above that specific concentration limit."

C14.3: Step 4

from section: C14.3 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"identify whether any individual ecotoxic substance is present below a cut-off value shown in Table C14.1"

Note 1

from section: 1.1.3.2, Annex VI in the document: "CLP Regulations"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "CLP Regulations"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Note E

from section: 1.1.3.1, Annex VI in the document: "CLP Regulations"

"Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word 'Also'."

Appendix C: Version

Classification utilises the following:

WM2 - Hazardous Waste Technical Guidance, 3rd Edition, August 2013

CLP Regulations - Regulation (EC) No 1272/2008 of the European Parliament and of the Council: 16 December 2008

1st ATP - 1st Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 26 September 2009; binding date 1 Dec 2010

2nd ATP - 2nd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 30 March 2011; binding date 1 Dec 2012 in respect of substances and 1 June 2015 in respect of mixtures

3rd ATP - 3rd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 31 July 2012; binding date 1 Dec 2013

4th ATP - 4th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 20 June 2013; binding date 1 Jun 2015

5th ATP - 5th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 13 August 2013; binding date 13 Aug 2013

HazWasteOnline Engine: WM2 version 3 (Aug 2013)

HazWasteOnline Engine Version: 1.0.2609.5519 (05 Sep 2014)

HazWasteOnline Database: 1.0.2609.5519 (05 Sep 2014)

Waste Classification Report



C8Z6F-TZ44B-NCQ9T

Job name

LW25193 - Biggins Wood MG

Waste stream

ASI Waste Stream 1 - No TPH

Comments

Project

Site

Classified by

Name:

Card, Stuart

Date:

08/09/2014 10:27

Telephone:

01273 483119

Company:

Ashdown Site Investigation Limited

The Old Dairy

Swanborough Farm, Swanborough

Lewes

BN7 3PF

Report

Created by: Card, Stuart

Created date: 08/09/2014 10:27

Job summary

#	Sample name	Depth [m]	Classification result	Hazardous properties	Page
1	WS101	0.2	Hazardous	H14	3
2	WS114	0.2	Non Hazardous		6
3	WS115	0.7	Hazardous	H14	8
4	WS118	0.1	Non Hazardous		11
5	WS121	0.2	Non Hazardous		13
6	WS123	0.2	Non Hazardous		16
7	WS129	0.1	Non Hazardous		18
8	WS131	0.2	Non Hazardous		20
9	WS132	0.2	Non Hazardous		23
10	WS134	0.2	Non Hazardous		26
11	WS136	0.2	Non Hazardous		28
12	WS137	0.3	Non Hazardous		30
13	WS140	0.2	Non Hazardous		32
14	WS102	0.6	Non Hazardous		34
15	WS103	0.8	Non Hazardous		36
16	WS107	0.2	Non Hazardous		38
17	WS110	0.8	Non Hazardous		40
18	WS117	0.2	Non Hazardous		43
19	WS119	0.8	Non Hazardous		45

Appendices	Page
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Appendix C: Version	49

Classification of sample: WS101

 **Hazardous Waste**
 Classified as **17 05 03 ***
 in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS101	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing dangerous substances)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

H14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment."

Risk phrases hit:

R51/53 "Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Benzo[a]anthracene: (conc.: 0.0287%)

R52/53 "Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Dibenz[a,h]anthracene: (conc.: 0.00705%)

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0014%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0318%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000196%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 24.5 mg/kg or 0.00213%)
 Acenaphthylene: (Whole conc. entered as: 65.4 mg/kg or 0.00569%)
 Anthracene: (Whole conc. entered as: 152 mg/kg or 0.0132%)
 Arsenic trioxide: (Cation conc. entered: 14.6 mg/kg, converted to compound conc.:16.762 mg/kg or 0.00168%)
 Benzo[a]anthracene: (Whole conc. entered as: 330 mg/kg or 0.0287%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 341 mg/kg or 0.0297%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 274 mg/kg or 0.0238%)
 Benzo[ghi]perylene: (Whole conc. entered as: 235 mg/kg or 0.0204%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 248 mg/kg or 0.0216%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:14.014 mg/kg or 0.0014%)

Cadmium sulphide: (Cation conc. entered: 0.6 mg/kg, converted to compound conc.:0.671 mg/kg or 0.0000671%, "Note 1" conc.: 0.0000522%)
 Chromium(III) oxide: (Cation conc. entered: 37.3 mg/kg, converted to compound conc.:47.405 mg/kg or 0.00474%)
 Chrysene: (Whole conc. entered as: 300 mg/kg or 0.0261%)
 Copper (I) oxide: (Cation conc. entered: 59.8 mg/kg, converted to compound conc.:58.546 mg/kg or 0.00585%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 81.1 mg/kg or 0.00705%)
 Fluoranthene: (Whole conc. entered as: 661 mg/kg or 0.0575%)
 Fluorene: (Whole conc. entered as: 53.5 mg/kg or 0.00465%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 218 mg/kg or 0.019%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 242 mg/kg, converted to compound conc.:317.757 mg/kg or 0.0318%, "Note 1" conc.: 0.021%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 22.4 mg/kg or 0.00195%)
 Nickel dihydroxide: (Cation conc. entered: 31.5 mg/kg, converted to compound conc.:43.265 mg/kg or 0.00433%)
 pH: (Whole conc. entered as: 8.6 pH, converted to conc.:8.6 pH or 8.6 pH)
 Phenanthrene: (Whole conc. entered as: 529 mg/kg or 0.046%)
 Pyrene: (Whole conc. entered as: 545 mg/kg or 0.0474%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:1.957 mg/kg or 0.000196%)
 Zinc oxide: (Cation conc. entered: 197 mg/kg, converted to compound conc.:213.225 mg/kg or 0.0213%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 3, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H6 on R23, R24, R25" for determinand: "Cadmium sulphide"

Test: "H7 on R45" for determinand: "Cadmium sulphide"

Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H10 on R62, R63" for determinand: "Cadmium sulphide"

Test: "H11 on R68" for determinand: "Cadmium sulphide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"

Determinand notes

Note 1, used on:

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS114



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS114	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0014%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0113%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Anthracene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Arsenic trioxide: (Cation conc. entered: 12 mg/kg, converted to compound conc.:13.777 mg/kg or 0.00138%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.2 mg/kg or 0.0000174%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.28 mg/kg or 0.0000243%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.24 mg/kg or 0.0000209%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.2 mg/kg or 0.0000174%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.22 mg/kg or 0.0000191%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:14.014 mg/kg or 0.0014%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 36.8 mg/kg, converted to compound conc.:46.77 mg/kg or 0.00468%)
 Chrysene: (Whole conc. entered as: 0.22 mg/kg or 0.0000191%)
 Copper (I) oxide: (Cation conc. entered: 28.4 mg/kg, converted to compound conc.:27.805 mg/kg or 0.00278%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Fluoranthene: (Whole conc. entered as: 0.27 mg/kg or 0.0000235%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.18 mg/kg or 0.0000157%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 85.7 mg/kg, converted to compound conc.:112.528 mg/kg or 0.0113%, "Note 1" conc.: 0.00745%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Nickel dihydroxide: (Cation conc. entered: 30.2 mg/kg, converted to compound conc.:41.479 mg/kg or 0.00415%)
 pH: (Whole conc. entered as: 8.5 pH, converted to conc.:8.5 pH or 8.5 pH)
 Phenanthrene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Pyrene: (Whole conc. entered as: 0.25 mg/kg or 0.0000217%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.043 mg/kg or 0.000104%)
 Zinc oxide: (Cation conc. entered: 97.2 mg/kg, converted to compound conc.:105.205 mg/kg or 0.0105%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS115

Hazardous Waste

Classified as **17 05 03 ***
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS115	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 03 * (Soil and stones containing dangerous substances)
0.7 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

H14: Ecotoxic "waste which presents or may present immediate or delayed risks for one or more sectors of the environment."

Risk phrases hit:

R52/53 "Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment"

Because of determinand:

Benzo[a]anthracene: (conc.: 0.012%)

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0021%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0546%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00013%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 9.8 mg/kg or 0.000852%)
 Acenaphthylene: (Whole conc. entered as: 10.8 mg/kg or 0.000939%)
 Anthracene: (Whole conc. entered as: 78.4 mg/kg or 0.00682%)
 Arsenic trioxide: (Cation conc. entered: 15.8 mg/kg, converted to compound conc.:18.14 mg/kg or 0.00181%)
 Benzo[a]anthracene: (Whole conc. entered as: 138 mg/kg or 0.012%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 108 mg/kg or 0.00939%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 84.2 mg/kg or 0.00732%)
 Benzo[ghi]perylene: (Whole conc. entered as: 57 mg/kg or 0.00496%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 83.1 mg/kg or 0.00723%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.8 mg/kg, converted to compound conc.:21.021 mg/kg or 0.0021%)
 Cadmium sulphide: (Cation conc. entered: 1 mg/kg, converted to compound conc.:1.118 mg/kg or 0.000112%, "Note 1" conc.: 0.000087%)
 Chromium(III) oxide: (Cation conc. entered: 37.5 mg/kg, converted to compound conc.:47.659 mg/kg or 0.00477%)
 Chrysene: (Whole conc. entered as: 114 mg/kg or 0.00991%)

Copper (I) oxide: (Cation conc. entered: 71.8 mg/kg, converted to compound conc.: 70.295 mg/kg or 0.00703%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 20.5 mg/kg or 0.00178%)
 Fluoranthene: (Whole conc. entered as: 323 mg/kg or 0.0281%)
 Fluorene: (Whole conc. entered as: 26.7 mg/kg or 0.00232%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 55.8 mg/kg or 0.00485%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 416 mg/kg, converted to compound conc.: 546.226 mg/kg or 0.0546%, "Note 1" conc.: 0.0362%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 3.18 mg/kg or 0.000277%)
 Nickel dihydroxide: (Cation conc. entered: 29.6 mg/kg, converted to compound conc.: 40.655 mg/kg or 0.00407%)
 pH: (Whole conc. entered as: 8.7 pH, converted to conc.: 8.7 pH or 8.7 pH)
 Phenanthrene: (Whole conc. entered as: 282 mg/kg or 0.0245%)
 Pyrene: (Whole conc. entered as: 250 mg/kg or 0.0217%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1 mg/kg, converted to compound conc.: 1.304 mg/kg or 0.00013%)
 Zinc oxide: (Cation conc. entered: 396 mg/kg, converted to compound conc.: 428.615 mg/kg or 0.0429%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 3, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Cadmium sulphide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:


determinand: "Arsenic trioxide"

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS118

 **Non Hazardous Waste**
 Classified as **17 05 04**
 in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS118	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.1 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00128%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00441%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.0000913%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Arsenic trioxide: (Cation conc. entered: 11.9 mg/kg, converted to compound conc.:13.662 mg/kg or 0.00137%)

Benzo[a]anthracene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)

Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)

Benzo[b]fluoranthene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)

Benzo[ghi]perylene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)

Benzo[k]fluoranthene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)

Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:12.846 mg/kg or 0.00128%)

Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**

Chromium(III) oxide: (Cation conc. entered: 55.2 mg/kg, converted to compound conc.:70.155 mg/kg or 0.00702%)

Chrysene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)

Copper (I) oxide: (Cation conc. entered: 23.8 mg/kg, converted to compound conc.:23.301 mg/kg or 0.00233%)

Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Fluoranthene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)

Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Indeno[123-cd]pyrene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 33.6 mg/kg, converted to compound conc.:44.118 mg/kg or 0.00441%, "Note 1" conc.: 0.00292%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Nickel dihydroxide: (Cation conc. entered: 51.3 mg/kg, converted to compound conc.:70.459 mg/kg or 0.00705%)

pH: (Whole conc. entered as: 8.8 pH, converted to conc.:8.8 pH or 8.8 pH)

Phenanthrene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Pyrene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:0.913 mg/kg or 0.0000913%)

Zinc oxide: (Cation conc. entered: 62.9 mg/kg, converted to compound conc.:68.08 mg/kg or 0.00681%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS121

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS121	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000934%)

R33 "Danger of cumulative effects"

Because of determinand:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.299%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.42 mg/kg or 0.0000365%)
 Acenaphthylene: (Whole conc. entered as: 0.68 mg/kg or 0.0000591%)
 Anthracene: (Whole conc. entered as: 1.55 mg/kg or 0.000135%)
 Arsenic trioxide: (Cation conc. entered: 21.2 mg/kg, converted to compound conc.:24.34 mg/kg or 0.00243%)
 Benzo[a]anthracene: (Whole conc. entered as: 8.79 mg/kg or 0.000764%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 11.3 mg/kg or 0.000983%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 7.48 mg/kg or 0.00065%)
 Benzo[ghi]perylene: (Whole conc. entered as: 8.57 mg/kg or 0.000745%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 9.7 mg/kg or 0.000843%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:9.343 mg/kg or 0.000934%)
 Cadmium sulphide: (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:1.341 mg/kg or 0.000134%, "Note 1" conc.: 0.000104%)
 Chromium(III) oxide: (Cation conc. entered: 36.4 mg/kg, converted to compound conc.:46.261 mg/kg or 0.00463%)
 Chrysene: (Whole conc. entered as: 9.76 mg/kg or 0.000849%)
 Copper (I) oxide: (Cation conc. entered: 64.6 mg/kg, converted to compound conc.:63.246 mg/kg or 0.00632%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 2.02 mg/kg or 0.000176%)
 Fluoranthene: (Whole conc. entered as: 19.8 mg/kg or 0.00172%)
 Fluorene: (Whole conc. entered as: 0.47 mg/kg or 0.0000409%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 6.47 mg/kg or 0.000563%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 2280 mg/kg, converted to compound conc.:2993.739 mg/kg or 0.299%, "Note 1" conc.: 0.198%)
 Mercury dichloride: (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:0.824 mg/kg or 0.0000824%)
 Naphthalene: (Whole conc. entered as: 0.43 mg/kg or 0.0000374%)

Nickel dihydroxide: (Cation conc. entered: 28.4 mg/kg, converted to compound conc.:39.007 mg/kg or 0.0039%)
pH: (Whole conc. entered as: 8.6 pH, converted to conc.:8.6 pH or 8.6 pH)
Phenanthrene: (Whole conc. entered as: 7.55 mg/kg or 0.000657%)
Pyrene: (Whole conc. entered as: 15.6 mg/kg or 0.00136%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.652 mg/kg or <0.000652%) **IGNORED Because: "<LOD"**
Zinc oxide: (Cation conc. entered: 338 mg/kg, converted to compound conc.:365.838 mg/kg or 0.0366%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Mercury dichloride"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H6 on R23, R24, R25" for determinand: "Cadmium sulphide"
Test: "H7 on R45" for determinand: "Cadmium sulphide"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Cadmium sulphide"
Test: "H11 on R68" for determinand: "Cadmium sulphide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"

Determinand notes

Note 1, used on:

determinand: "Cadmium sulphide"
determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Cadmium sulphide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS123



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS123	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00152%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0222%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Acenaphthylene: (Whole conc. entered as: 0.14 mg/kg or 0.0000122%)
 Anthracene: (Whole conc. entered as: 0.19 mg/kg or 0.0000165%)
 Arsenic trioxide: (Cation conc. entered: 16.5 mg/kg, converted to compound conc.:18.944 mg/kg or 0.00189%)
 Benzo[a]anthracene: (Whole conc. entered as: 1.42 mg/kg or 0.000123%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 1.76 mg/kg or 0.000153%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 1.68 mg/kg or 0.000146%)
 Benzo[ghi]perylene: (Whole conc. entered as: 1.23 mg/kg or 0.000107%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 1.25 mg/kg or 0.000109%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.3 mg/kg, converted to compound conc.:15.182 mg/kg or 0.00152%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 32.9 mg/kg, converted to compound conc.:41.813 mg/kg or 0.00418%)
 Chrysene: (Whole conc. entered as: 1.22 mg/kg or 0.000106%)
 Copper (I) oxide: (Cation conc. entered: 68.4 mg/kg, converted to compound conc.:66.966 mg/kg or 0.0067%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.36 mg/kg or 0.0000313%)
 Fluoranthene: (Whole conc. entered as: 2.22 mg/kg or 0.000193%)
 Fluorene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 1.09 mg/kg or 0.0000948%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 169 mg/kg, converted to compound conc.:221.904 mg/kg or 0.0222%, "Note 1" conc.: 0.0147%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Nickel dihydroxide: (Cation conc. entered: 32.7 mg/kg, converted to compound conc.:44.913 mg/kg or 0.00449%)
 pH: (Whole conc. entered as: 8.6 pH, converted to conc.:8.6 pH or 8.6 pH)
 Phenanthrene: (Whole conc. entered as: 0.51 mg/kg or 0.0000443%)
 Pyrene: (Whole conc. entered as: 1.88 mg/kg or 0.000163%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:1.174 mg/kg or 0.000117%)
 Zinc oxide: (Cation conc. entered: 177 mg/kg, converted to compound conc.:191.578 mg/kg or 0.0192%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS129



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS129	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.1 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0014%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0185%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000157%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Arsenic trioxide: (Cation conc. entered: 13.6 mg/kg, converted to compound conc.:15.614 mg/kg or 0.00156%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:14.014 mg/kg or 0.0014%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 43.3 mg/kg, converted to compound conc.:55.031 mg/kg or 0.0055%)
 Chrysene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Copper (I) oxide: (Cation conc. entered: 40 mg/kg, converted to compound conc.:39.161 mg/kg or 0.00392%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluoranthene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 141 mg/kg, converted to compound conc.:185.139 mg/kg or 0.0185%, "Note 1" conc.: 0.0123%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
Nickel dihydroxide: (Cation conc. entered: 29.7 mg/kg, converted to compound conc.:40.792 mg/kg or 0.00408%)
pH: (Whole conc. entered as: 8.1 pH, converted to conc.:8.1 pH or 8.1 pH)
Phenanthrene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
Pyrene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:1.565 mg/kg or 0.000157%)
Zinc oxide: (Cation conc. entered: 134 mg/kg, converted to compound conc.:145.036 mg/kg or 0.0145%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Nickel dihydroxide"

Classification of sample: WS131



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS131	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0014%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0418%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000222%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.4 mg/kg or 0.0000348%)
 Acenaphthylene: (Whole conc. entered as: 1.54 mg/kg or 0.000134%)
 Anthracene: (Whole conc. entered as: 2.05 mg/kg or 0.000178%)
 Arsenic trioxide: (Cation conc. entered: 20.3 mg/kg, converted to compound conc.:23.307 mg/kg or 0.00233%)
 Benzo[a]anthracene: (Whole conc. entered as: 12 mg/kg or 0.00104%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 15.8 mg/kg or 0.00137%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 12.8 mg/kg or 0.00111%)
 Benzo[ghi]perylene: (Whole conc. entered as: 8.96 mg/kg or 0.000779%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 11.3 mg/kg or 0.000983%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.:14.014 mg/kg or 0.0014%)
 Cadmium sulphide: (Cation conc. entered: 0.6 mg/kg, converted to compound conc.:0.671 mg/kg or 0.0000671%, "Note 1" conc.: 0.0000522%)
 Chromium(III) oxide: (Cation conc. entered: 75.9 mg/kg, converted to compound conc.:96.463 mg/kg or 0.00965%)
 Chrysene: (Whole conc. entered as: 14.4 mg/kg or 0.00125%)
 Copper (I) oxide: (Cation conc. entered: 69.1 mg/kg, converted to compound conc.:67.651 mg/kg or 0.00677%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 1.41 mg/kg or 0.000123%)
 Fluoranthene: (Whole conc. entered as: 24 mg/kg or 0.00209%)
 Fluorene: (Whole conc. entered as: 0.37 mg/kg or 0.0000322%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 6.6 mg/kg or 0.000574%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 318 mg/kg, converted to compound conc.:417.548 mg/kg or 0.0418%, "Note 1" conc.: 0.0277%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.59 mg/kg or 0.0000513%)
 Nickel dihydroxide: (Cation conc. entered: 37.2 mg/kg, converted to compound conc.:51.093 mg/kg or 0.00511%)
 pH: (Whole conc. entered as: 8.6 pH, converted to conc.:8.6 pH or 8.6 pH)
 Phenanthrene: (Whole conc. entered as: 5.95 mg/kg or 0.000517%)
 Pyrene: (Whole conc. entered as: 20.4 mg/kg or 0.00177%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.7 mg/kg, converted to compound conc.:2.217 mg/kg or 0.000222%)
 Zinc oxide: (Cation conc. entered: 242 mg/kg, converted to compound conc.:261.931 mg/kg or 0.0262%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Cadmium sulphide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Cadmium sulphide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Cadmium sulphide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS132

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS132	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00152%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0118%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000157%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Anthracene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Arsenic trioxide: (Cation conc. entered: 14.5 mg/kg, converted to compound conc.:16.648 mg/kg or 0.00166%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.18 mg/kg or 0.0000157%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.19 mg/kg or 0.0000165%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.26 mg/kg or 0.0000226%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.15 mg/kg or 0.000013%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.16 mg/kg or 0.0000139%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.3 mg/kg, converted to compound conc.:15.182 mg/kg or 0.00152%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 55 mg/kg, converted to compound conc.:69.9 mg/kg or 0.00699%)
 Chrysene: (Whole conc. entered as: 0.23 mg/kg or 0.00002%)
 Copper (I) oxide: (Cation conc. entered: 31.8 mg/kg, converted to compound conc.:31.133 mg/kg or 0.00311%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Fluoranthene: (Whole conc. entered as: 0.3 mg/kg or 0.0000261%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 89.5 mg/kg, converted to compound conc.:117.517 mg/kg or 0.0118%, "Note 1" conc.: 0.00778%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)

Nickel dihydroxide: (Cation conc. entered: 42.1 mg/kg, converted to compound conc.: 57.823 mg/kg or 0.00578%)

pH: (Whole conc. entered as: 8.3 pH, converted to conc.: 8.3 pH or 8.3 pH)

Phenanthrene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)

Pyrene: (Whole conc. entered as: 0.27 mg/kg or 0.0000235%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.2 mg/kg, converted to compound conc.: 1.565 mg/kg or 0.000157%)

Zinc oxide: (Cation conc. entered: 113 mg/kg, converted to compound conc.: 122.307 mg/kg or 0.0122%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"

Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS134



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS134	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00257%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00513%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Anthracene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)
 Arsenic trioxide: (Cation conc. entered: 10.8 mg/kg, converted to compound conc.:12.4 mg/kg or 0.00124%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.16 mg/kg or 0.0000139%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.23 mg/kg or 0.00002%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.2 mg/kg or 0.0000174%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.12 mg/kg or 0.0000104%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.14 mg/kg or 0.0000122%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2.2 mg/kg, converted to compound conc.:25.692 mg/kg or 0.00257%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 36.3 mg/kg, converted to compound conc.:46.134 mg/kg or 0.00461%)
 Chrysene: (Whole conc. entered as: 0.23 mg/kg or 0.00002%)
 Copper (I) oxide: (Cation conc. entered: 21.3 mg/kg, converted to compound conc.:20.853 mg/kg or 0.00209%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Fluoranthene: (Whole conc. entered as: 0.38 mg/kg or 0.000033%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 39.1 mg/kg, converted to compound conc.:51.34 mg/kg or 0.00513%, "Note 1" conc.: 0.0034%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
Nickel dihydroxide: (Cation conc. entered: 39.5 mg/kg, converted to compound conc.:54.252 mg/kg or 0.00543%)
pH: (Whole conc. entered as: 8.5 pH, converted to conc.:8.5 pH or 8.5 pH)
Phenanthrene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)
Pyrene: (Whole conc. entered as: 0.32 mg/kg or 0.0000278%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.043 mg/kg or 0.000104%)
Zinc oxide: (Cation conc. entered: 85.6 mg/kg, converted to compound conc.:92.65 mg/kg or 0.00927%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Nickel dihydroxide"

Classification of sample: WS136



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS136	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00187%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00689%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000143%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Arsenic trioxide: (Cation conc. entered: 12.5 mg/kg, converted to compound conc.:14.351 mg/kg or 0.00144%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.6 mg/kg, converted to compound conc.:18.685 mg/kg or 0.00187%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 44.6 mg/kg, converted to compound conc.:56.683 mg/kg or 0.00567%)
 Chrysene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Copper (I) oxide: (Cation conc. entered: 23.5 mg/kg, converted to compound conc.:23.007 mg/kg or 0.0023%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluoranthene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 52.5 mg/kg, converted to compound conc.:68.935 mg/kg or 0.00689%, "Note 1" conc.: 0.00457%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
Nickel dihydroxide: (Cation conc. entered: 44.2 mg/kg, converted to compound conc.:60.708 mg/kg or 0.00607%)
pH: (Whole conc. entered as: 8.3 pH, converted to conc.:8.3 pH or 8.3 pH)
Phenanthrene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
Pyrene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:1.435 mg/kg or 0.000143%)
Zinc oxide: (Cation conc. entered: 73.7 mg/kg, converted to compound conc.:79.77 mg/kg or 0.00798%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
determinand: "Nickel dihydroxide"

Classification of sample: WS137



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS137	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.3 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00117%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0205%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000143%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Arsenic trioxide: (Cation conc. entered: 23.5 mg/kg, converted to compound conc.:26.981 mg/kg or 0.0027%)
 Benzo[a]anthracene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Benzo[ghi]perylene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1 mg/kg, converted to compound conc.:11.678 mg/kg or 0.00117%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 44 mg/kg, converted to compound conc.:55.92 mg/kg or 0.00559%)
 Chrysene: (Whole conc. entered as: 0.11 mg/kg or 0.00000957%)
 Copper (I) oxide: (Cation conc. entered: 38.2 mg/kg, converted to compound conc.:37.399 mg/kg or 0.00374%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Fluoranthene: (Whole conc. entered as: 0.16 mg/kg or 0.0000139%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 156 mg/kg, converted to compound conc.:204.835 mg/kg or 0.0205%, "Note 1" conc.: 0.0136%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.02 mg/kg or 0.00000174%)
 Nickel dihydroxide: (Cation conc. entered: 39.8 mg/kg, converted to compound conc.: 54.664 mg/kg or 0.00547%)
 pH: (Whole conc. entered as: 8.3 pH, converted to conc.: 8.3 pH or 8.3 pH)
 Phenanthrene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Pyrene: (Whole conc. entered as: 0.14 mg/kg or 0.0000122%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.: 1.435 mg/kg or 0.000143%)
 Zinc oxide: (Cation conc. entered: 163 mg/kg, converted to compound conc.: 176.425 mg/kg or 0.0176%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS140



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS140	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00163%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00293%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 8.4 mg/kg, converted to compound conc.:9.644 mg/kg or 0.000964%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.4 mg/kg, converted to compound conc.:16.35 mg/kg or 0.00163%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 31.7 mg/kg, converted to compound conc.:40.288 mg/kg or 0.00403%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 17.5 mg/kg, converted to compound conc.:17.133 mg/kg or 0.00171%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 22.3 mg/kg, converted to compound conc.:29.281 mg/kg or 0.00293%, "Note 1" conc.: 0.00194%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 39.9 mg/kg, converted to compound conc.:54.802 mg/kg or 0.00548%)
 pH: (Whole conc. entered as: 8.2 pH, converted to conc.:8.2 pH or 8.2 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.:1.043 mg/kg or 0.000104%)
 Zinc oxide: (Cation conc. entered: 50.5 mg/kg, converted to compound conc.:54.659 mg/kg or 0.00547%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS102



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS102	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.6 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.0021%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0343%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.06 mg/kg or 0.00000522%)
 Acenaphthylene: (Whole conc. entered as: 0.18 mg/kg or 0.0000157%)
 Anthracene: (Whole conc. entered as: 0.27 mg/kg or 0.0000235%)
 Arsenic trioxide: (Cation conc. entered: 15.7 mg/kg, converted to compound conc.:18.025 mg/kg or 0.0018%)
 Benzo[a]anthracene: (Whole conc. entered as: 1.73 mg/kg or 0.00015%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 2.21 mg/kg or 0.000192%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 1.54 mg/kg or 0.000134%)
 Benzo[ghi]perylene: (Whole conc. entered as: 1.16 mg/kg or 0.000101%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 1.56 mg/kg or 0.000136%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.8 mg/kg, converted to compound conc.:21.021 mg/kg or 0.0021%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 43.3 mg/kg, converted to compound conc.:55.031 mg/kg or 0.0055%)
 Chrysene: (Whole conc. entered as: 2.23 mg/kg or 0.000194%)
 Copper (I) oxide: (Cation conc. entered: 52.8 mg/kg, converted to compound conc.:51.693 mg/kg or 0.00517%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.22 mg/kg or 0.0000191%)
 Fluoranthene: (Whole conc. entered as: 3.77 mg/kg or 0.000328%)
 Fluorene: (Whole conc. entered as: 0.08 mg/kg or 0.00000696%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 0.92 mg/kg or 0.00008%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 261 mg/kg, converted to compound conc.:342.704 mg/kg or 0.0343%, "Note 1" conc.: 0.0227%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Nickel dihydroxide: (Cation conc. entered: 40.5 mg/kg, converted to compound conc.:55.626 mg/kg or 0.00556%)
 pH: (Whole conc. entered as: 8.1 pH, converted to conc.:8.1 pH or 8.1 pH)
 Phenanthrene: (Whole conc. entered as: 1.28 mg/kg or 0.000111%)
 Pyrene: (Whole conc. entered as: 3.04 mg/kg or 0.000264%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:1.174 mg/kg or 0.000117%)
 Zinc oxide: (Cation conc. entered: 153 mg/kg, converted to compound conc.:165.601 mg/kg or 0.0166%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS103



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS103	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00245%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0218%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000143%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 15.9 mg/kg, converted to compound conc.:18.255 mg/kg or 0.00183%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 2.1 mg/kg, converted to compound conc.:24.524 mg/kg or 0.00245%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 42.7 mg/kg, converted to compound conc.:54.268 mg/kg or 0.00543%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 39.2 mg/kg, converted to compound conc.:38.378 mg/kg or 0.00384%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 166 mg/kg, converted to compound conc.: 217.965 mg/kg or 0.0218%, "Note 1" conc.: 0.0144%)
 Mercury dichloride: (Cation conc. entered: 0.8 mg/kg, converted to compound conc.: 0.942 mg/kg or 0.0000942%)
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.0000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 36.3 mg/kg, converted to compound conc.: 49.857 mg/kg or 0.00499%)
 pH: (Whole conc. entered as: 7.7 pH, converted to conc.: 7.7 pH or 7.7 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.0000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.0000087%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.: 1.435 mg/kg or 0.000143%)
 Zinc oxide: (Cation conc. entered: 107 mg/kg, converted to compound conc.: 115.813 mg/kg or 0.0116%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Mercury dichloride"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS107



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS107	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00128%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0353%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000117%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)
 Acenaphthylene: (Whole conc. entered as: 0.17 mg/kg or 0.0000148%)
 Anthracene: (Whole conc. entered as: 0.27 mg/kg or 0.0000235%)
 Arsenic trioxide: (Cation conc. entered: 16.4 mg/kg, converted to compound conc.:18.829 mg/kg or 0.00188%)
 Benzo[a]anthracene: (Whole conc. entered as: 1.43 mg/kg or 0.000124%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 1.88 mg/kg or 0.000163%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 1.58 mg/kg or 0.000137%)
 Benzo[ghi]perylene: (Whole conc. entered as: 1.28 mg/kg or 0.000111%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 1.37 mg/kg or 0.000119%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.1 mg/kg, converted to compound conc.:12.846 mg/kg or 0.00128%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 35 mg/kg, converted to compound conc.:44.482 mg/kg or 0.00445%)
 Chrysene: (Whole conc. entered as: 1.38 mg/kg or 0.00012%)
 Copper (I) oxide: (Cation conc. entered: 54.6 mg/kg, converted to compound conc.:53.455 mg/kg or 0.00535%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.36 mg/kg or 0.0000313%)
 Fluoranthene: (Whole conc. entered as: 2.18 mg/kg or 0.00019%)
 Fluorene: (Whole conc. entered as: 0.05 mg/kg or 0.00000435%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 1.09 mg/kg or 0.0000948%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 269 mg/kg, converted to compound conc.:353.209 mg/kg or 0.0353%, "Note 1" conc.: 0.0234%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: 0.07 mg/kg or 0.00000609%)
 Nickel dihydroxide: (Cation conc. entered: 34.1 mg/kg, converted to compound conc.:46.836 mg/kg or 0.00468%)
 pH: (Whole conc. entered as: 7.9 pH, converted to conc.:7.9 pH or 7.9 pH)
 Phenanthrene: (Whole conc. entered as: 0.66 mg/kg or 0.0000574%)
 Pyrene: (Whole conc. entered as: 1.9 mg/kg or 0.000165%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.9 mg/kg, converted to compound conc.:1.174 mg/kg or 0.000117%)
 Zinc oxide: (Cation conc. entered: 434 mg/kg, converted to compound conc.:469.744 mg/kg or 0.047%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS110



Non Hazardous Waste

Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS110	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00152%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.114%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.00013%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.04 mg/kg or 0.00000348%)
 Acenaphthylene: (Whole conc. entered as: 0.33 mg/kg or 0.0000287%)
 Anthracene: (Whole conc. entered as: 0.26 mg/kg or 0.0000226%)
 Arsenic trioxide: (Cation conc. entered: 31.1 mg/kg, converted to compound conc.:35.706 mg/kg or 0.00357%)
 Benzo[a]anthracene: (Whole conc. entered as: 1.99 mg/kg or 0.000173%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 2.82 mg/kg or 0.000245%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 2.32 mg/kg or 0.000202%)
 Benzo[ghi]perylene: (Whole conc. entered as: 2.23 mg/kg or 0.000194%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 2.23 mg/kg or 0.000194%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.3 mg/kg, converted to compound conc.:15.182 mg/kg or 0.00152%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 33.6 mg/kg, converted to compound conc.:42.703 mg/kg or 0.00427%)
 Chrysene: (Whole conc. entered as: 2.1 mg/kg or 0.000183%)
 Copper (I) oxide: (Cation conc. entered: 249 mg/kg, converted to compound conc.:243.779 mg/kg or 0.0244%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 0.56 mg/kg or 0.0000487%)
 Fluoranthene: (Whole conc. entered as: 3.22 mg/kg or 0.00028%)
 Fluorene: (Whole conc. entered as: 0.03 mg/kg or 0.00000261%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 1.82 mg/kg or 0.000158%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 868 mg/kg, converted to compound conc.:1139.722 mg/kg or 0.114%, "Note 1" conc.: 0.0755%)

Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
Naphthalene: (Whole conc. entered as: 0.14 mg/kg or 0.0000122%)
Nickel dihydroxide: (Cation conc. entered: 41.6 mg/kg, converted to compound conc.:57.137 mg/kg or 0.00571%)
pH: (Whole conc. entered as: 11.4 pH, converted to conc.:11.4 pH or 11.4 pH)
Phenanthrene: (Whole conc. entered as: 0.8 mg/kg or 0.0000696%)
Pyrene: (Whole conc. entered as: 2.68 mg/kg or 0.000233%)
Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 1 mg/kg, converted to compound conc.:1.304 mg/kg or 0.00013%)
Zinc oxide: (Cation conc. entered: 241 mg/kg, converted to compound conc.:260.849 mg/kg or 0.0261%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Note 1, used on:

Test: "H5 on R20, R21, R22, R65" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R60, R61" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H10 on R62, R63" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

determinand: "Nickel dihydroxide"

Classification of sample: WS117



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS117	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.2 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.000817%)

R33 "Danger of cumulative effects"

Because of determinand:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.0135%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: 0.09 mg/kg or 0.00000783%)
 Acenaphthylene: (Whole conc. entered as: 2.41 mg/kg or 0.00021%)
 Anthracene: (Whole conc. entered as: 3.41 mg/kg or 0.000297%)
 Arsenic trioxide: (Cation conc. entered: 8.8 mg/kg, converted to compound conc.:10.103 mg/kg or 0.00101%)
 Benzo[a]anthracene: (Whole conc. entered as: 20.8 mg/kg or 0.00181%)
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: 28.2 mg/kg or 0.00245%)
 Benzo[b]fluoranthene: (Whole conc. entered as: 25.7 mg/kg or 0.00223%)
 Benzo[ghi]perylene: (Whole conc. entered as: 21.6 mg/kg or 0.00188%)
 Benzo[k]fluoranthene: (Whole conc. entered as: 19.3 mg/kg or 0.00168%)
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 0.7 mg/kg, converted to compound conc.:8.175 mg/kg or 0.000817%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 8.1 mg/kg, converted to compound conc.:10.294 mg/kg or 0.00103%)
 Chrysene: (Whole conc. entered as: 19.4 mg/kg or 0.00169%)
 Copper (I) oxide: (Cation conc. entered: 22.9 mg/kg, converted to compound conc.:22.42 mg/kg or 0.00224%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: 7.63 mg/kg or 0.000663%)
 Fluoranthene: (Whole conc. entered as: 27.4 mg/kg or 0.00238%)
 Fluorene: (Whole conc. entered as: 0.21 mg/kg or 0.0000183%)
 Indeno[123-cd]pyrene: (Whole conc. entered as: 19.5 mg/kg or 0.0017%)
 Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 103 mg/kg, converted to compound conc.:135.243 mg/kg or 0.0135%, "Note 1" conc.: 0.00896%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"

Naphthalene: (Whole conc. entered as: 1.1 mg/kg or 0.0000957%)
 Nickel dihydroxide: (Cation conc. entered: 9.4 mg/kg, converted to compound conc.:12.911 mg/kg or 0.00129%)
 pH: (Whole conc. entered as: 10 pH, converted to conc.:10 pH or 10 pH)
 Phenanthrene: (Whole conc. entered as: 4.67 mg/kg or 0.000406%)
 Pyrene: (Whole conc. entered as: 23.6 mg/kg or 0.00205%)
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.652 mg/kg or <0.0000652%) **IGNORED Because: "<LOD"**
 Zinc oxide: (Cation conc. entered: 50.2 mg/kg, converted to compound conc.:54.334 mg/kg or 0.00543%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluorene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Acenaphthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[a]pyrene; benzo[def]chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[b]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[ghi]perylene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Benzo[k]fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chrysene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Dibenz[a,h]anthracene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Naphthalene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Phenanthrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Pyrene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Classification of sample: WS119



Non Hazardous Waste
Classified as **17 05 04**
in the European Waste Catalogue 2002

Sample details

Sample Name:	EWC 2002 code:
WS119	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.8 m	
Dry Weight Moisture Content:	
15%	

Hazard properties

None identified

Additional: Additional Risk Phrases "This is an additional risk phrase and such a risk phrases alone will not cause a waste to be hazardous."

Risk phrases hit:

R14 "Reacts violently with water"

Because of determinand:

Boron tribromide/trichloride/trifluoride (combined risk phrases): (compound conc.:0.00175%)

R33 "Danger of cumulative effects"

Because of determinands:

Lead compounds (with the exception of those listed separately in this Annex): (compound conc.:0.00341%)

Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (compound conc.:0.000104%)

Determinands (Dry Weight Moisture Content: 15%)

Acenaphthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Acenaphthylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Arsenic trioxide: (Cation conc. entered: 16.3 mg/kg, converted to compound conc.:18.714 mg/kg or 0.00187%)
 Benzo[a]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[a]pyrene; benzo[def]chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[b]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[ghi]perylene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Benzo[k]fluoranthene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Boron tribromide/trichloride/trifluoride (combined risk phrases): (Cation conc. entered: 1.5 mg/kg, converted to compound conc.:17.517 mg/kg or 0.00175%)
 Cadmium sulphide: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.:<0.559 mg/kg or <0.0000559%, "Note 1" conc.: <0.0000435%) **IGNORED Because: "<LOD"**
 Chromium(III) oxide: (Cation conc. entered: 30.4 mg/kg, converted to compound conc.:38.636 mg/kg or 0.00386%)
 Chrysene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Copper (I) oxide: (Cation conc. entered: 18.5 mg/kg, converted to compound conc.:18.112 mg/kg or 0.00181%)
 Dibenz[a,h]anthracene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Fluoranthene: (Whole conc. entered as: 0.01 mg/kg or 0.00000087%)
 Fluorene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Indeno[123-cd]pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**

Lead compounds (with the exception of those listed separately in this Annex): (Cation conc. entered: 26 mg/kg, converted to compound conc.: 34.139 mg/kg or 0.00341%, "Note 1" conc.: 0.00226%)
 Mercury dichloride: (Cation conc. entered: <0.5 mg/kg, converted to compound conc.: <0.588 mg/kg or <0.0000588%)
IGNORED Because: "<LOD"
 Naphthalene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Nickel dihydroxide: (Cation conc. entered: 41.6 mg/kg, converted to compound conc.: 57.137 mg/kg or 0.00571%)
 pH: (Whole conc. entered as: 8.1 pH, converted to conc.: 8.1 pH or 8.1 pH)
 Phenanthrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Pyrene: (Whole conc. entered as: <0.01 mg/kg or <0.00000087%) **IGNORED Because: "<LOD"**
 Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite): (Cation conc. entered: 0.8 mg/kg, converted to compound conc.: 1.043 mg/kg or 0.000104%)
 Zinc oxide: (Cation conc. entered: 55 mg/kg, converted to compound conc.: 59.53 mg/kg or 0.00595%)

Notes utilised in assessment

Additional Risk Phrase Comments, used on:

Test: "Additional on R14" for determinand: "Boron tribromide/trichloride/trifluoride (combined risk phrases)"
 Test: "Additional on R33" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

C14.3: Step 4, used on:

Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Arsenic trioxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Chromium(III) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Copper (I) oxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Fluoranthene"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Nickel dihydroxide"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"
 Test: "H14 on R50, R52, R53, R50/53, R51/53, R52/53" for determinand: "Zinc oxide"

Determinand notes

Note 1, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"

Note A, used on:

determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Selenium compounds (with the exception of cadmium sulphoselenide and sodium selenite)"

Note E, used on:

determinand: "Arsenic trioxide"
 determinand: "Lead compounds (with the exception of those listed separately in this Annex)"
 determinand: "Nickel dihydroxide"

Appendix A: User Defined and non CLP Substances

Acenaphthene (CAS Number: 83-32-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=133563&HarmOnly=no>
Data source date: 16/07/2012
Classification: R36, R37, R38, N; R50/53, N; R51/53

Acenaphthylene (CAS Number: 208-96-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=59285&HarmOnly=no>
Data source date: 16/07/2012
Classification: R22, R26, R27, R36, R37, R38

Anthracene (CAS Number: 120-12-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=101102&HarmOnly=no>
Data source date: 08/03/2013
Classification: N; R50/53, R36, R37, R38, R43

Benzo[ghi]perylene (CAS Number: 191-24-2)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=15793&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53

Boron tribromide/trichloride/trifluoride (combined risk phrases)

Comments: Combines the risk phrases and the average of the conversion factors for Boron tribromide, Boron trichloride and Boron trifluoride
Data source: N/A
Data source date: 10/01/2011
Classification: R14, T+; R26/28, C; R34, C; R35

Chromium(III) oxide (CAS Number: 1308-38-9)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=33806&HarmOnly=no?fc=true&lang=en>
Data source date: 26/11/2012
Classification: R20, R22, R36, R37, R38, R42, R43, R60, R61, R50/53

Fluoranthene (CAS Number: 206-44-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=56375&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R20, R22, R36

Fluorene (CAS Number: 86-73-7)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=81845&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R53

Indeno[123-cd]pyrene (CAS Number: 193-39-5)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=128806&HarmOnly=no>
Data source date: 08/03/2013
Classification: R40

pH

Comments: Appendix C, C4.5
Data source: WM2 - Interpretation of the definition and classification of hazardous waste (Second Edition, version 2.2), Environment Agency
Data source date: 30/05/2008
Classification: pH; pH

Phenanthrene (CAS Number: 85-01-8)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=109754&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R22, R36, R37, R38, R40, R43

Pyrene (CAS Number: 129-00-0)

Comments: Risk phrase data taken from European Chemicals Agency's Classification & Labelling Inventory
Data source:
<http://clp-inventory.echa.europa.eu/SummaryOfClassAndLabelling.aspx?SubstanceID=87484&HarmOnly=no>
Data source date: 16/07/2012
Classification: N; R50/53, R23

Appendix B: Notes

Additional Risk Phrase Comments

from section: Table 2.2 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"This is an additional risk phrase and such a risk phrase alone will not cause a waste to be hazardous."

C14.3: Step 3

from section: C14.3 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"... identify whether any individual ecotoxic substance is given a substance specific concentration limit in Annex VI, Table 3.2 to the CLP, and, if so, whether that substance is at or above that specific concentration limit."

C14.3: Step 4

from section: C14.3 in the document: "[WM2 - Hazardous Waste Technical Guidance](#)"

"identify whether any individual ecotoxic substance is present below a cut-off value shown in Table C14.1"

Note 1

from section: 1.1.3.2, Annex VI in the document: "[CLP Regulations](#)"

"The concentration stated or, in the absence of such concentrations, the generic concentrations of this Regulation (Table 3.1) or the generic concentrations of Directive 1999/45/EC (Table 3.2), are the percentages by weight of the metallic element calculated with reference to the total weight of the mixture."

Note A

from section: 1.1.3.1, Annex VI in the document: "[CLP Regulations](#)"

"Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as '... compounds' or '... salts'. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4."

Note E

from section: 1.1.3.1, Annex VI in the document: "[CLP Regulations](#)"

"Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23,

R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word 'Also'."

Appendix C: Version

Classification utilises the following:

WM2 - Hazardous Waste Technical Guidance, 3rd Edition, August 2013

CLP Regulations - Regulation (EC) No 1272/2008 of the European Parliament and of the Council: 16 December 2008

1st ATP - 1st Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 26 September 2009; binding date 1 Dec 2010

2nd ATP - 2nd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 30 March 2011; binding date 1 Dec 2012 in respect of substances and 1 June 2015 in respect of mixtures

3rd ATP - 3rd Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 31 July 2012; binding date 1 Dec 2013

4th ATP - 4th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 20 June 2013; binding date 1 Jun 2015

5th ATP - 5th Adaptation to Technical Progress for European Regulation 1272/2008: Date entered into force 13 August 2013; binding date 13 Aug 2013

HazWasteOnline Engine: WM2 version 3 (Aug 2013)

HazWasteOnline Engine Version: 1.0.2609.5519 (05 Sep 2014)

HazWasteOnline Database: 1.0.2609.5519 (05 Sep 2014)