

**Geoenvironmental Assessment  
For  
Proposed Development  
at  
63-71 High Street, Hampton Hill  
TW12 1NH**



**REPORT PREPARED ON BEHALF OF  
LEIGH AND GLENNIE LTD**

**Issue record:**

Report Ref: SL06837-REP-02				
Issue	Description	Written By	Approved by	Date
1	Final	ESG	JRF	19 <sup>th</sup> August 2016
2	Revised for new development	JO	AM	21 <sup>st</sup> September 2020
3	Minor Amendment	JO	AM	12 <sup>th</sup> November 2020
4	Additional Site Visit 2021	JO	AM	13 <sup>th</sup> April 2022

This report is written for the sole use of **Leigh and Glennie Ltd** and their appointed agents. No other third party may rely on or reproduce the contents of this report without the written approval of HBPW LLP. If any unauthorised third party comes into possession of this report, they rely upon it entirely at their own risk and the authors do not owe them any Duty of Care or Skill.

**Report prepared by:**

pp



**Elin Griffiths - Geoenvironmental Engineer**  
Bsc (Hons) Msc FGS

Date: 19<sup>th</sup> August 2016

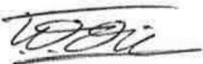
**Approved by:**



**Jay Fox - Associate Geoenvironmental**  
BEng (Hons) PGDWasteMgmt CGeol EurGeol CEnv MCIWM SiLC AIEMA FGS

Date: 19<sup>th</sup> August 2016

**Report Revised by:**



**Jon Oliver – Geotechnical Engineer**  
Date: 13<sup>th</sup> April 2022

## Contents

## Page No

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>3</b>
<b>2</b>	<b>SITE SETTING.....</b>	<b>5</b>
2.1	Site Location.....	5
2.2	Site Description.....	5
2.3	Phase 1 Report.....	5
<b>3</b>	<b>INITIAL CONCEPTUAL SITE MODEL .....</b>	<b>7</b>
<b>4</b>	<b>PHASE 2 GROUND INVESTIGATION WORKS .....</b>	<b>10</b>
4.1	Fieldwork.....	10
4.2	Laboratory Testing.....	11
<b>5</b>	<b>GROUND CONDITIONS.....</b>	<b>12</b>
5.1	Geology.....	12
5.2	Ground Model.....	12
5.3	Groundwater .....	12
5.4	Indications of Contamination .....	12
<b>6</b>	<b>ASSESSMENT OF CONTAMINATION.....</b>	<b>13</b>
6.1	Introduction.....	13
6.2	Legislative Background .....	13
6.3	Published Guidelines .....	14
6.4	Generic Qualitative Risk Assessment .....	15
6.5	Analytical Test Results .....	15
6.6	Controlled Waters.....	18
6.7	Construction Workers.....	18
6.8	Other Development Considerations.....	19
6.9	Refined Conceptual Site Model.....	20
<b>7</b>	<b>ADDITIONAL INVESTIGATION.....</b>	<b>22</b>
<b>8</b>	<b>CONCLUSIONS .....</b>	<b>23</b>
<b>9</b>	<b>LIMITATIONS.....</b>	<b>24</b>

## DRAWINGS

Exploratory Hole Location Plan

## **TABLES**

Table 3.1: Preliminary Qualitative Risk Assessment

Table 5.2: Ground Model

Table 6.5.1: Inorganic determinands assuming 'Residential without Plant Uptake' end use

Table 6.5.2: Ground Gas Monitoring

Table 6.9: Plausible Relevant Pollutant Linkages

## **APPENDICES**

Appendix 1: Risk Assessment Methodology

Appendix 2: Tier 1 Screening Values

Appendix 3: Analytical Results

Appendix 4: Ground Gas Monitoring Results

## 1. INTRODUCTION

HBPW LLP (HBPW) was instructed by Leigh and Glennie Ltd (the Client) to undertake a Geoenvironmental Site Investigation at a site known as 63-71 High Street, Hampton Hill, TW12 1NH hereafter referred to as 'the site').

The proposed permitted development comprises the refurbishment and conversion of existing office buildings to residential apartments with associated areas of carparking and access. The development is not anticipated to include any areas of private garden or soft landscaping, beyond that is currently present.

This report describes an intrusive ground investigation carried out by HBPW LLP following completion of a Phase 1 Preliminary Risk Assessment by HBPW LLP (report reference SL06837-REP-01, August 2016 and revised September 2020). It is recommended that this report be read in conjunction with the Phase 1 report.

This Report considers the content of the Phase 1 report and includes a description and interpretation of a site investigation carried out to characterise the ground conditions at the site in order to complete a Conceptual Site Model (CSM) and to undertake a Risk Based Land Quality Assessment.

This report has been prepared in general accordance with Contaminated Land Report 11 (CLR) Model Procedures for the Management of Contaminated land (DEFRA and the Environment Agency) and BS10175:2011 (Investigation of Potentially Contaminated Sites – Code of Practice).

The objectives of the investigation are as follows:-

- i) Undertake a site reconnaissance visit to inspect the site and determine appropriate ground investigation methods;
- ii) Drill two exploratory boreholes using cable percussive methods to target depths of 15 m with the installation of monitoring wells to monitor potential ground gases and groundwater;
- iii) Excavate up to six trial pits in order to obtain samples of near surface soils for geochemical and geotechnical analysis and to inspect ground stability;
- iv) Carry out in-situ and geotechnical laboratory testing to obtain soil parameters for use in the design of the proposed scheme;
- v) Carry out geochemical testing to determine the concentration of a range of common potential contaminants, as identified during the Phase 1 desk study;

- vi) Return monitoring visit to record groundwater level and concentrations of ground gases; and
- vii) Prepare an interpretative report providing an updated risk assessment and advice on the geoenvironmental and geotechnical aspects of the project.

The information and conclusions contained with this assessment have been made based upon information provided by the Client, QTS Environmental Laboratories (laboratory analysis results), Landmark Envirocheck (report reference 81953700\_1\_1) and from publicly available information published by the Environment Agency (EA), British Geological Survey (BGS), Ordnance Survey (OS), and others, where appropriate.

HBPW LLP cannot be held responsible for inaccuracies in the data supplied or published by any other party. In addition, no responsibility can be accepted by HBPW LLP for any variations in environmental liabilities which arise from information or reports not provided at the time of the assessment and where the presence of such information could not be foreseen.

This report is to be submitted as part of the documentation required to support an application for Prior Approval for the permitted development change of use of the existing B1 offices to C3 residential.

## **2 SITE SETTING**

### **2.1 Site Location**

The site address is 63-71 High Street, Hampton Hill, TW12 1NH. The subject site is located on the western side of High Street, and can be approximately located by National Grid Reference TQ 142 708.

### **2.2 Site Description**

A site reconnaissance visit was undertaken as part of the Phase 1 report (May 2016) and found the site to be in the following condition:-

The site formed a rectangular piece of land measuring 68m in a northwest to south east orientation by 38 m in a northeast to southwest direction and was occupied primarily by three buildings. Two office buildings fronted onto High Street were joined by an enclosed overhead link walkway at first floor level. The third building was located in the southwest quadrant backing onto the access road to the St. Clare Business Park.

Vehicular access to the site was gained by metal gates located centrally between the frontage buildings with a pedestrian entrance along the western boundary, adjacent to the building in the southwest corner.

To the south of the site is a mixed office and residential terrace. To the north of the site, at the time of writing, a number of houses were under construction.

### **2.3 Phase 1 Report**

A Phase 1 Preliminary Risk Assessment (reference SL06837-REP-01) was prepared for the Site. A brief summary of the report's findings are summarised below.

The site had been occupied by three residential buildings with associated gardens since at least 1869. From approximately 1959 to 1975 to 1985, the northern half of the site was in use as a builder's yard, whilst the southern half was labelled as 'Works'. After this, the site was occupied by present day developments.

Based on knowledge of the area and geological information provided by the British Geological Society, the site was anticipated to be underlain by superficial deposits of Taplow Gravel Formation (Sands and Gravel) to a depth of at least 8 m, overlain by a thin veneer of made ground. The underlying bedrock was anticipated to be London Clay Formation.

No ground stability hazards were recorded on site.

The nearest recorded surface water feature was Longford River, approximately 200m to the west of the site, flowing to the south.

BGS Groundwater Vulnerability Map Sheet 39, West London, indicated the site to be underlain by soils of a high leaching potential. Superficial deposits were recorded as a Principal Aquifer, considered to represent the Taplow Gravel Formation whilst the underlying London Clay Formation was recorded to be Unproductive Strata.

Potentially contaminative land uses were present within 250 m of the site including sheet metal workers, garages, printers and dry cleaners. A petrol filling station (PFS) was also present 240 m to the northeast of the site.



### 3 INITIAL CONCEPTUAL SITE MODEL

An initial Conceptual Site Model (CSM) was developed in the Phase 1 report, adopting the source-pathway-receptor approach.

The initial CSM is developed during the preliminary risk assessment stage and is then used to design the Phase 2 Intrusive Investigations.

For a risk from ground contamination to exist, a contaminant source, pathway for migration and viable receptor must exist. The presence of all three of these elements is known as a 'pollutant linkage'. The criteria used for risk assessment classifications in the table below are broadly based on those presented in Section 6.3 of CIRIA Report 552 "*Contaminated Land Risk Assessment: A Guide to Good Practice*".

- **Sources (S)** are potential or known contaminant sources e.g. soil contamination resulting from a former land use;
- **Pathways (P)** are environmental systems through which a contaminant could migrate e.g. air, groundwater;
- **Receptors (R)** are sensitive environmental receptors that could be adversely affected by a contaminant. e.g. Human End User (longer-term risks) or groundworkers (shorter-term risks), surface or groundwater resources and ecology.

A preliminary CSM detailing the pollutant linkages identified and the associated risks is detailed in Table 3.1 overleaf. The full methodology is presented in Appendix 1.

**Table 3.1 Preliminary Qualitative Risk Assessment**

Potential Source	Potential Receptor	Potential Pathway	Consequence	Probability	Risk	Comments
<b>S1:</b> Potential for asbestos containing materials (ACMs) present in existing buildings and made ground	<b>R1:</b> Construction/ maintenance workers/end users	<b>P1:</b> Human uptake pathways (Inhalation of fibers).	Medium	Low likelihood	Low	There is a potential for asbestos to be present within buildings at the site and within the made ground. Inspection of existing asbestos register, if present or appropriate asbestos inspections of buildings prior to refurbishment followed by appropriate removal will mitigate risks. As a precautionary measure, asbestos screening of soils during Phase 2 Intrusive Investigations will be undertaken.
<b>S2:</b> Potential for contamination within any made ground at the site.	<b>R1:</b> Construction/ maintenance workers/end users.	<b>P1:</b> Human uptake pathways (inhalation, dermal, ingestion).	Medium	Low likelihood	Low/Very Low	Phase 2 Intrusive Site investigation works with appropriate testing will assess the presence and concentration of contamination in made ground. This will inform risk based assessment of contamination. The overall risk to human health is considered likely to be low as the existing buildings and infrastructure are anticipated to remain in-situ.
<b>S3:</b> Potential for on-Site groundwater contamination resulting from previous contaminative Site use	<b>R2:</b> Controlled waters (groundwater beneath the site) <b>R4:</b> Construction Materials - Buried concrete and potable water supply pipes.	<b>P2:</b> Horizontal and vertical migration of contaminants through the unsaturated zone. <b>P3:</b> Horizontal and vertical migration of contaminants within groundwater.	Medium	Low likelihood	Moderate/Low	Groundwater is thought to be located at the boundary between the Taplow Gravels and the London Clay at approximately 8m bgl. There is likely to be a thick unsaturated zone but mobile contaminants can migrate vertically relatively quickly.
<b>S4:</b> Potential off-site sources of hazardous ground gas.	<b>R1:</b> Construction/ maintenance workers/end users.	<b>P1:</b> Human uptake pathways (inhalation).	Medium	Low likelihood	Moderate/Low	There are no landfills close to the Site or natural Peat or other organic soils with the potential to generate ground gases.

	<b>R5:</b> Buildings - Hazardous ground gas accumulation and explosion.	<b>P2:</b> Horizontal and vertical migration of contaminants through the unsaturated zone;				Degradation of hydrocarbons may lead to the generation of hazardous ground gases, which will be assessed as part of the Phase 2 investigation.
<b>S5:</b> Potential for groundwater contamination from off-Site sources	<b>R1:</b> Construction/ maintenance workers/end users.  <b>R2:</b> Controlled waters (groundwater with Secondary Principal Aquifer);  <b>R4:</b> Construction Materials - Buried concrete and potable water supply pipes.	<b>P1:</b> Human uptake pathways (ingestion, dermal contact).  <b>P3:</b> Horizontal and vertical migration of contaminants within groundwater.	Medium	Low likelihood	Moderate/Low	There are a number of adjacent historical and on-going potentially contaminative Site uses that could have led to groundwater contamination.

## 4 PHASE 2 GROUND INVESTIGATION WORKS

This section explains the rationale and techniques employed during field work.

### 4.1 Fieldwork

In order to provide a suitable level of assessment based on the information obtained at desk study stage and the requirements for structural and geotechnical design, the site investigation comprised the following:

- Drilling of two cable percussion boreholes (CP1) and (CP2) using a cable percussion rig to a maximum depth of 15.05 m to assess deeper ground conditions and included Standard Penetration Tests SPT and collection of U100 samples for the purposes of foundation design. Borehole CP1 was located in the northeastern area, whilst CP2 was located in the northwestern area. The works were undertaken by Kiwa CMT Limited
- Excavation of five trial pits using a JCB3cx backhoe excavator with hydraulic breaker (TP01 to TP05). The trial pits were located throughout the external areas of hardstanding, where access allowed to a maximum depth of 2.7 m to enable investigation of shallow soils.

The site work was carried out between 19th and 20th May 2016. An Exploratory Hole Location Plan is presented later in this report.

During the excavation of the trial pits on 19<sup>th</sup> May, a small water service pipe, not previously identified during service clearance, was struck within TP01 at 0.85m depth. The Client was informed and the pipe was sealed off and repaired on 20<sup>th</sup> May 2016.

Concrete hardstanding was located across the Site at approximately 150mm thickness and reinforced in TP01. Concrete obstructions were observed at approximately 1.2 m in TP02 and 1.8 m in TP04. Within TP3 an insitu brick footings or a wall were encountered at approximately 0.3 m depth.

The exploratory holes were logged by an engineer from HBPW LLP, who attended site full time to supervise the works.

Selected representative sub-samples were retrieved and sealed in suitable containers to prevent deterioration and moisture content loss. The samples were kept cool before and during transit to the laboratory.

Standard Penetration Tests (SPTs) were undertaken in CP1 and CP2 to assess relative density (N value). The results of the tests are recorded as 'N' values and given on the borehole logs.

In order to monitor ground gas emissions and groundwater levels, a 500 mm internal diameter well was installed in each of the boreholes to a depth of 6 m bgl. The details of the construction are shown on the borehole log. A protective cover was installed at ground level over the well.

The fieldwork and laboratory testing for the investigation were carried out generally in accordance with BS 5930: 1999 +A2: 2010, 'Code of Practice for Site Investigations' and BS 1377:1990, 'Methods of test for soils for civil engineering purposes', respectively.

Full details of the fieldwork and the ground conditions are shown in the logs later in this report, Appendix 2.

#### **4.2 Laboratory Testing**

The programme of laboratory testing was designed to obtain the following data:-

- i) pH and water soluble sulphate
- ii) concentrations of commonly occurring contaminants including inorganics, cyanide and heavy metals,
- iii) speciated polycyclic aromatic hydrocarbons (PAH)
- iv) total petroleum hydrocarbons (TPH) with CWG banding including BTEX and MTBE
- v) screening for the presence of asbestos containing materials (ACM)
- vi) Volatile Organic Compounds (VOC) and Semi-Volatile Organic Compounds (SVOC)
- vii) Polychlorinated biphenyls (PCBs) and speciated phenols
- viii) Waste Acceptance Criteria (WAC) testing

Geochemical analysis was carried out between 25<sup>th</sup> May and 1<sup>st</sup> June 2016 on selected samples by QTS Environmental Limited who hold MCERTS and UKAS accreditation. The results of the laboratory testing are presented at Appendix 3.

## 5 GROUND CONDITIONS

### 5.1 Geology

The British Geological Survey (BGS) online Geology of Britain Viewer and information provided in the Landmark Envirocheck report indicated the site to be underlain by the Taplow Gravel Formation overlying the London Clay Formation.

### 5.2 Ground Model

For full descriptions of the strata encountered please refer to the exploratory hole logs presented in Appendix 3.

Table 5.2 Ground Model		
Stratum	Typical Description	Typical depth m bgl
Site Surface	<i>Flexible surfacing over 150mm nominal unreinforced Concrete</i>	To 0.150m
Made Ground	<i>Made ground was identified within both the boreholes and the trial pits. Made ground within the boreholes ranged in thickness between 1.25 and 1.75 m and typically comprised of discontinuous layers of sandy matrix with gravel and cobbles of crushed stone, concrete, brick, ash.</i>	To between 1.3 and 1.8m
Relic Topsoil	<i>A relic topsoil and subsoil layer was encountered in all trial pits this representing the previous gardens to the historical residential developments.</i>	To between 0.8 and 1.2m
Sand and Gravel – Taplow Gravel	<i>Medium dense to dense Sand and Gravel</i>	To 5.6m
London Clay	<i>Very stiff bluish grey Clay was encountered within both boreholes and extended beyond the maximum depth of the investigation.</i>	In excess of 15.05m

### 5.3 Groundwater

During drilling groundwater strikes were encountered at 4.5m within the Sands and Gravel of both boreholes CP1 and CP2 before rising to rest at 4.2m bgl.

### 5.4 Indications of Contamination

No obvious significant visual or olfactory evidence of contamination was recorded at ground level or during the intrusive investigation. Ash was noted in several exploratory hole locations. Made ground will most likely of been imported to Site or is formed from the demolition of previous structures at the Site.

## 6 ASSESSMENT OF CONTAMINATION

### 6.1 Introduction

This section describes the chemical contamination analyses carried out as part of the recent investigation and assesses the implications of any significant contamination found. The results of the chemical analyses have been reviewed against the appropriate guidelines in general use at the time of preparing this report.

A qualitative risk assessment has been carried out in terms of source-pathway-receptor analysis. The risk assessment analyses the significance of any contamination that has been identified on the proposed development and other identified site receptors.

### 6.2 Legislative Background

The legislative document regarding land contamination is the 1995 Environment Act. Forming Part 2A of the Environmental protection Act of 1990, this Act created the framework for the identification and remediation of contaminated land. It established the Environment Agency as the overall National Enforcement Agency with regional control provided by the Local Authorities.

The Act defines “contaminated land” as any land, which is deemed by the Local Authority to be “in such a condition, by reason of substances, in, on, or under the land that:-

- i) significant harm is being caused or there is significant possibility of such harm being caused; or
- ii) significant pollution of Controlled Waters is being caused, or there is significant possibility of such harm being caused”.

In relation to Regulatory intervention (Part 2A) and ‘voluntary’ investigation (including redevelopment of the sites which may be affected by contamination), the Model Procedures (CLR-11, Environment Agency 2004), provide a generic framework indicating key technical activities applicable in each of these contexts. The management of land contamination broadly comprises three components which are identified as ‘Risk Assessment’, ‘Options Appraisal’ and ‘Implementation’. These, in turn, determine if any unacceptable risks exist, ascertain the most appropriate remediation strategy for the site and demonstrate that the strategy will be effective.

In accordance with this and other current guidance, where a ‘land quality’ risk assessment is required each ‘Relevant Pollutant Linkage’ (formerly referred to as ‘source – pathway – receptor’ framework), is separately identified and a level of risk attached. The risk assessment takes account of the environment, end user behaviour and the nature of the development in relation to proven ‘unacceptable’ risk. This is the

approach supported by current guidance and therefore has been adopted in the assessment of this site.

The guidance requires a Phase 1 investigation or desk study to be undertaken as the first stage of the risk assessment. This identifies potential sources, pathways and receptors for the site taking into account the proposed end use. Potential pollutant linkages are then documented in the form of an 'Initial Conceptual Site Model'. This is then used to direct and target a Phase 2 or intrusive investigation. The outcome of the intrusive investigation and subsequent 'land quality' risk assessment is the establishment of plausible relevant pollutant linkages shown in the form of a 'Refined Conceptual Model'. This is used to determine the need for further investigation, or remediation to appropriately mitigate any determined unacceptable risks. In accordance with the Model Procedures and Regulatory preference, detailed remedial measures should be provided in a separate report to the investigation and risk assessment, generally referred to as a Remediation Method Statement (RMS).

### 6.3 Published Guidelines

In the absence of a complete published set of screening values, the results of chemical analysis from the recent investigation has been compared with the various published guidelines that are currently in use for land quality risk assessments. The following have been used in this assessment:-

- The LQM/CIEH Safe for Use Levels (S4ULs) for Human Health Risk Assessment. *'Copyright Land Quality Management Limited reproduced with permission Number S4UL3512. All rights reserved.'*
- Contaminated Land Exposure Assessment Model (CLEA) including the 2009 SGVs for certain determinands
- EIC/AGS/CL:AIRE – Soil Generic Assessment Criteria for Human Health Risk Assessment, 2010
- In house Generic Screening Values (HH-GSVs) derived by the Consultant and other non UK values where considered relevant.
- Category 4 Screening Levels (C4SLs), DEFRA, 2014
- Guidance For The Selection Of Water Supply Pipes To Be Used In Brownfield Sites, UK Water Industry Research (UKWIR) Ltd, Report Reference No. 10/WM/03/21, 2010
- Environment Agency Technical Advice to Third Parties on Pollution of Controlled Water for Part 2A



## 6.4 Generic Qualitative Risk Assessment

The following subsection reviews the results of the chemical analyses from the recent investigation, with respect to the potential receptors identified in subsection 4 of report number SL06837-Rep-01 dated May 2016 and revised September 2020.

In order to classify the anticipated risk associated with contamination identified on site, a classification system in Appendix 2 has been adopted.

The respective generic Tier 1 screening values used are presented in Appendix 3.

The proposed development is for the refurbishment and adaption of the existing office buildings into residential apartments with associated areas of hardstanding, carparking and access from High Street. As such, any areas of soft landscaping are considered likely to be limited, or comprise raised planters. Therefore, for the purposes of this assessment, the analytical results have been assessed against guidance values for a 'Residential without Plant Uptake' land-use.

In cases where contaminants are present in one or more samples in a specific averaging area, above their respective Tier 1 GAC, the results are subject to statistical assessment in accordance with current best practice to establish if the true mean (upper 95<sup>th</sup> percentile) is above the screening criteria. It is also used to determine whether elevated concentrations are outliers from the general test result population and thus can be considered as discrete 'hotspots' of contamination that could be remediated independently, or whether the concentrations would be considered representative of site-wide contamination within the soils. If so, further consideration is given to the risk presented by the contaminant of concern. This may include further detailed quantitative risk assessment and/or further sampling and testing.

## 6.5 Analytical Test Results

Some screening values for organic determinands vary according to the soil organic matter (SOM). A conservative value of 1% has been used in the application of Tier 1 screening value for this site, based on measured values.

The full analytical results are presented in Appendix 5, at the back of this report.

### 6.5.1 Soils

#### i) *Inorganics*

Twelve samples of soil recorded concentrations of lead above the Tier 1 screening value of 310 mg/kg for a 'residential without plant uptake' end use. A statistical analysis was carried out on lead and summarized in Table 6.5.1.

**Table 6.5.1 Inorganic determinands assuming 'Residential without Plant Uptake' end use**

Determinand	Concentration (mg/kg)		Tier 1 Screening Value	Number of results > T1SV
	Max	Mean		
Lead	1520	350.1	310	4

The highest concentrations of lead were encountered in the made ground at 1.2 m depth in TP02 (1520 mg/kg) and at 0.85 m depth in TP04 (952 mg/kg). However, these values were considered statistically significant as even once they had been removed from the dataset, the upper confidence limit was still above the Tier 1 Screening Value. It is considered that there is a low to moderate risk from elevated concentrations of lead within the made ground. However, since these areas are considered likely to be covered by hard-standing or areas of car parking, the residual risk to end users is considered to be negligible.

All other inorganic results including total, free and complex cyanides, metals and metalloids were either below the limit of detection or below the respective Tier 1 Screening Value. Therefore, a negligible risk has been determined to end users from all of the other inorganic determinands analysed.

pH values ranged between 7.4 and 9.2, indicating a slightly alkaline soil.

#### ii) Organics

No visible staining or odours were observed within any of the exploratory holes whilst drilling.

A slightly elevated concentration of TPH was recorded at 1.2 m depth in TP02 of 1174 mg/kg. However, this does not exceed the T1 Screening Value based on a 'residential without plant uptake' end use.

All concentrations of PAH, phenols, BTEX & MTBE, VOCs and SVOCs and PCBs recorded were either below the limit of detection or did not exceed the respective Tier 1 Screening Values, as listed in Appendix 5.

#### iii) Asbestos Containing Materials (ACM)

Ten soil samples were screened for the presence of asbestos. However, the presence of asbestos was not positively identified. Therefore, a negligible risk is considered to end users from asbestos or asbestos containing materials within soil.

### 6.5.2 Ground Gas

The made ground beneath and adjacent to the site was considered a potential source of ground gas. Should any potential excavation be undertaken as part of the development process, by means of the installation of a basement, the potential for the lateral migration of ground gases was identified.

As a precautionary measure, wells were installed within CP1 and CP2 to allow the monitoring of ground gas and groundwater levels, where encountered and a return monitoring visit was undertaken on 16 June 2016.

The results of the ground gas monitoring from this investigation have been evaluated using latest guidance contained in BS8485:2015 which provides a classification system using the measured *ground gas concentrations* and the *borehole hazardous gas flow rates* ( $Q_{hg}$ ) to calculate a gas screening value (GSV). The GSV is then used with professional judgement to define a *characteristic situation (CS)* for methane and carbon dioxide for the Site.

The GSV is calculated by multiplying  $Q_{hg}$  (L/hr) by the measured gas concentration (% v/v), using the maximum recordable concentrations of methane and carbon dioxide and the maximum recordable positive gas flow rate, or the instrument limit of detection (typically 0.1L/hr) where no flow is recorded.

In the circumstance of a negative flow the instrument limit has been used and other monitoring events and site observations considered in making judgements on GSV derivation.

Once calculated, the GSV is used to determine the CS using Table 2 BS8485:2015.

A summary of the monitoring event is presented in Table 6.5.2. Full monitoring results are presented in Appendix 6.

Table 6.5.2 Ground Gas Monitoring						
Location ID	CH <sub>4</sub> %	CO <sub>2</sub> %	O <sub>2</sub> %	Flow L/hr	GSV L/hr	CS
CP1	0.0	5.5	11.2	15.4	0.847	3
CP2	0.0	4.8	15.1	15.4	0.739	3

Based on the readings, the worst case calculated GSV would place the site gas regime in CS3. The gas flow recorded at both locations was very high, but was considered erroneous as it remained constant on turning the monitor on and off and between boreholes, and so it is thought due to a fault with the gas monitor. The slightly elevated concentrations of CO<sub>2</sub>, which are considered to be as a result of materials within the made ground particularly the buried topsoil layer (maximum depth of 1.8 m) exceeded the trigger value of 5%, which would elevate the classification to CS2.

There are no landfills close to the Site but there are buried relic topsoil with the potential to generate ground gases. Should the end use of the proposed development change, it would be considered prudent to carry out further ground gas monitoring to clarify the ground gassing regime beneath the site.

### 6.5.3 Summary of End User Risk Assessment

A low to moderate risk has been determined to end users from elevated concentrations of lead within the made ground.

Concentrations of other determinands analysed within soil as part of the investigation were not considered to pose a significant risk to end users.

A negligible risk was determined to end users from asbestos containing materials. However, the inherent variability of made ground means that the potential for asbestos to be present cannot completely be dismissed. Asbestos containing materials may be present within existing buildings on the site and consequently a potential low risk associated with asbestos remains for end users.

A low risk to end users is considered from ground gas, however should the proposed development scheme change, it would be considered prudent to further categorise the gassing regime by means of further monitoring.

## **6.6 Controlled Waters**

During drilling, groundwater was encountered at 4.2 m depth within the Taplow Gravel Formation.

A return visit on 16 June 2016 recorded groundwater within the boreholes to be standing at between 2.98 and 3.07 m bgl.

Based on the very low concentrations of contaminants recorded within the soils, chemical analysis of the groundwater was not considered necessary.

A negligible risk to Controlled Waters was considered from the site.

## **6.7 Construction Workers**

Construction workers, are only likely to come into direct contact with the near surface soils during the formation of any new service trenches and remodelling of the existing carpark surfacing. The recorded concentrations of determinands within made ground/topsoil did not indicate a significant risk to construction workers. However there is always the potential for previously undiscovered contamination to be encountered. Overall a low risk was determined to ground workers.

Groundworkers should be made aware for the potential of contamination to be present within soils. Appropriate levels of personal protective equipment should be employed as a matter of course to prevent direct contact or inhalation, and damping down should be undertaken in periods of dry weather to prevent the generation of dust this to also prevent nuisance to neighbouring residential properties. Suitable welfare facilities should be established on site.

It is recommended that the buildings that are to be subjected to a 'Refurbishment' asbestos survey, unless this has already been carried out. Any asbestos containing materials identified prior to (and during) refurbishment should be appropriately managed or removed and disposed of by a specialist contractor following current statutory and best industry practice.

Groundworkers in confined spaces such as excavations may be at a low risk from elevated levels of carbon dioxide and depleted oxygen levels, and safe methods of working accounting for current Health and Safety regulations and best practice should be followed on a precautionary basis.

## **6.8 Other Development Considerations**

### **6.8.1 Off-site Receptors**

Neighbouring properties are considered to be at negligible risk from mobile and leachable contaminants migrating from the site, because of the generally low concentrations recorded within the soils and groundwater.

The general public could be subjected to nuisances from windblown dust and soil attached to the wheels of vehicles leaving the site. Precautions such as damping down during periods of dry weather to prevent the generation of dust and the use of wheel washes should be implemented as required during the site works. A low risk was determined to off-site receptors.

### **6.8.2 Potable Water Pipes**

Organic contaminants can potentially taint drinking water if some types of plastic pipes are used. Based on the very low concentrations of PAH and TPH recorded during the investigation, it is anticipated that should new potable water supply infrastructure be required as part of the proposed development, that normal plastic pipework could be adopted.

Further assessments may be required to satisfy utility provider risk assessment procedures most of which are based upon UKWIR guidance. However, testing undertaken as part of this investigation should be suitable for this purpose.

### **6.8.3 Waste Disposal**

The proposed development includes the refurbishment of the existing office buildings into residential apartments and as such, the amount of soil material produced as waste is thought to be minimal and relate only to any service trenches or hard standing remodeling.

Under the Waste Regulations, the main categories of waste are Inert, Non-Hazardous and Hazardous. The Inert category is a subgroup of Non-Hazardous.

As part of the analytical testing, one representative composite soil sample was analysed for Waste Acceptance Criteria.

Based on the results of the analytical testing, the shallow soils may be accepted as Non- Hazardous, as concentrations of Antimony exceeded the acceptance criteria limits for 'Inert'. Where it is proposed to discard soils from Site it is recommended that the chemical test results are forwarded to a waste disposal contractor or landfill operator to establish the waste classification, as they are the regulator in this regard.

All waste exported off site will need to be accompanied by waste transfer notes or consignment notes. Waste must be transported by a Licensed carrier. Copies of these waste transfer notes should be kept for inspection as necessary, as part of any validation/verification works. Details of the waste carriers and receiving treatment/landfill facilities must be clearly provided as evidence that waste removed off site has been disposed of appropriately under Duty of Care.

## **6.9 Refined Conceptual Site Model**

The refined conceptual model shown in Table 6.9 represents the relevant pollutant linkages as defined by the interpretation of the intrusive investigation. Negligible and discounted risks have not been included.

**Table 6.9 Plausible Relevant Pollutant Linkages**

Potential Source	Potential Receptor	Potential Pathway	Consequence	Probability	Risk	Comments
<b>S1:</b> Potential for asbestos containing materials (ACMs) present in existing buildings	<b>R1:</b> Construction/ maintenance workers/end users	<b>P1:</b> Human uptake pathways (inhalation).	Medium	Low	Low	There is a potential for asbestos to be present within buildings at the site. If demolition or refurbishment is proposed, appropriate asbestos inspections and removal or management is required.
<b>S2:</b> Made ground as a source of ground gases	<b>R1:</b> Construction/ maintenance workers/end users.  <b>R2:</b> Buildings - Hazardous ground gas accumulation and explosion.	<b>P1:</b> Human uptake pathways (inhalation).  <b>P2:</b> Horizontal and vertical migration of contaminants through the unsaturated zone	Medium	Low likelihood	Moderate/Low	A low risk to end users is considered from ground gas, however should the proposed development scheme change, it would be considered prudent to further categorise the gassing regime by means of further monitoring.

## 7 ADDITIONAL INVESTIGATION

Following the ground investigation undertaken in 2016 and discussions with Merton Council, HBPW attending site on the 20<sup>th</sup> October 2021 to obtain water samples.

The monitoring wells from 2016 were found to be in good condition and groundwater was encountered at depths of 3.05m and 3.03m in CP1 and CP2 respectively. Both boreholes were purged with a 40mm diameter clear view bailer and groundwater samples were taken after approximately 5, 10, 15 and 20 litres had been purged from the well.

The groundwater was visually assessed on site for free product and odour. No hydrocarbon odours were noted, additionally no free product was visible. Pictures of the groundwater samples are shown below.

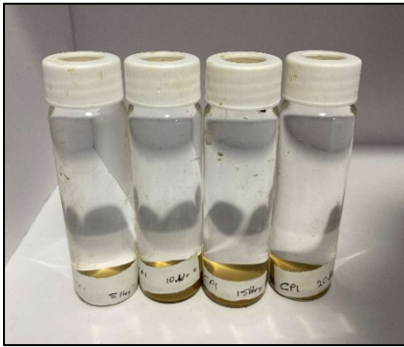


Figure 1: Groundwater samples taken from CP1

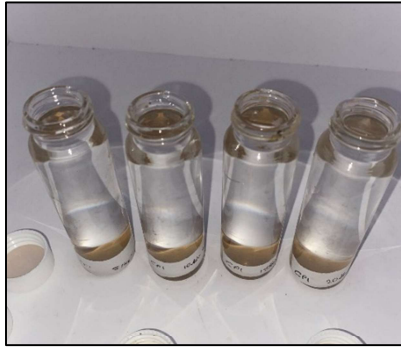


Figure 2: No visible free product in CP1 samples



Figure 3: Groundwater samples taken from CP2



Figure 4: No visible free product in CP2 samples

After reviewing topographical maps of the surrounding area, the local area falls to the east and south which is in the general direction to the River Thames. Considering the previous contamination issue the council is aware of is to the south of the site, it is considered to be down stream of the site and as such should not be an issue.

This is in agreement with this ground investigation report. For the existing and proposed end use no remediation activity is considered to be required in terms of ground gas risk



## 8 CONCLUSIONS

This report supports the Prior Approval submission in connection with the Permitted Development change of use and the office buildings at 63-71 High Street, Hampton Hill, TW12 1NH to residential apartments with areas of hardstanding, car parking and access from High Street.

Based on the results of the intrusive investigations and laboratory chemical analysis and other Site observations, the following conclusions are made.

- i) Elevated concentrations of lead were encountered within the made ground across the site. However, as the area is to remain covered by either buildings or hardstanding, the pollutant linkage does not exist, and there is no significant risk to end users of the development.
- ii) Whilst no asbestos containing materials were positively identified within the soils on site, asbestos containing materials may be present within existing buildings on site and consequently a potential low risk associated with ACM remains. It is recommended that any buildings that are to be refurbished, which may require demolition of existing internal partitions and structure, as part of this development should be subjected to a 'Refurbishment' asbestos survey, unless this has already been carried out. Any asbestos containing materials identified prior to (and during) refurbishment should be appropriately removed and disposed of by a specialist contractor following best industry practice.
- iii) Notwithstanding the low levels of contamination detected to date a precautionary approach to any excavation and movement of soils is recommended;

All of the remediation recommendations made in this report will need to be approved by the Local Authority. As there is no identified risk to groundwater it is unlikely that the Environment Agency will be consulted by the LPA.

For the existing and proposed end use no remediation activity is considered to be required.

## 9 LIMITATIONS

This Report has been produced on behalf of The Client, as detailed in Section 1.0 of this Report, and no responsibility is accepted to any Third Party for all or any part.

This Report should not be relied upon or transferred to any other parties without the express written authorisation of HBPW LLP. If, as happens from time to time, any unauthorised Third Party comes into possession of this Report, they rely upon it at their own risk and HBPW LLP owes them no duty of care or skill.

Any other issues not listed in the scope of works, but subsequently identified during the completion of the Site investigation and reported herein (such as the potential presence of Schedule 2 Invasive Weeds, flood assessment studies or ecological surveys) are provided for information only and fall outside the scope of this Assessment. The Report does not constitute an archaeological or ecological assessment, nor does it constitute an 'asbestos inspection' or flood assessment.

HBPW LLP has based parts of the report on information sources detailed within the report text and believes them to be reliable, but cannot and does not guarantee the authenticity or reliability of this third party information. Advice and recommendations given in this report have been based on the findings of the investigation. It must be appreciated that not finding indicators does not mean that hazardous substances do not exist at the site. There is no warranty regarding the accuracy of the information provided to HBPW LLP who cannot accept liability for any opinions that have been expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

The locations of the exploratory holes were influenced by the proximity to buried services, practicable access and other existing site infrastructure.

Whilst this Report may express an opinion on the possible configuration of strata, contaminants or gases between or beyond exploratory hole positions or on the possible presence of features based on either visual, verbal (anecdotal) or published evidence, this is for guidance only and no liability is accepted for its accuracy.

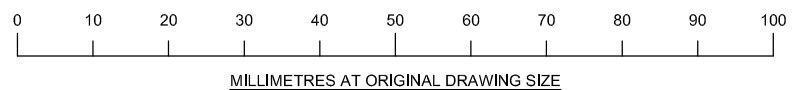
Groundwater and gas conditions vary with time, season, climatic conditions and Site activities as such any observations are strictly based upon conditions at the time of the investigations.

# Drawings

DO NOT SCALE - IF IN DOUBT ASK

NOTES

1. DO NOT SCALE
2. This drawing is to be read in conjunction with all other relevant drawings.
3. Should there be any conflict between the details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.
4. Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings and details issued are PRELIMINARY and NOT FOR CONSTRUCTION. Should the contractor commence site work prior to approval being given, it is entirely at his own risk.
5. All dimensions are in millimetres unless otherwise stated.



FIRST ISSUE	A	18/08/16	EN	JF	APPR
DESCRIPTION	REV	DATE	BY	CHKD	APPR

**HBPW**  **LLP**

43 Bridgegate  
Retford  
Nottinghamshire  
DN22 7UX

Tel: (01777) 868996  
Fax: (01777) 862491

Civil & Structural Engineering Services

DRAWING STATUS

**FOR INFORMATION**

CLIENT

**GREATPLANET LTD**

PROJECT TITLE

**63-71 HIGH STREET  
HAMPTON HILL**

DRAWING DETAIL

**SITE INVESTIGATION  
LOCATION PLAN**

DRAWN	EN	DATE
PROJECT ENGINEER	JF	AUGUST 2016
CHECKED	JF	SCALE
APPROVED	JF	AS SHOWN @ A3

DRAWING NUMBER	REVISION
SL05030/SK001	A

# **Appendix 1**

## Risk Assessment Methodology

## Contaminated Land Risk Assessment Methodology

The following classification was published by the NHBC, EA, and CIEH (2008). This was developed from *DOE Guide to Risk Assessment and Risk Management for Environmental Protection and the Statutory Guidance on Contaminated Land* (Defra September 2006).

The methodology differs from that presented in *Contaminated Land Risk Assessment, A Guide to Good Practice* (CIRIA C552, 2001), particularly in terms of the definitions of classification of consequence, which includes consideration of immediacy of hazards. The risk assessment methodology is now better aligned with health and safety and geotechnical risk assessment processes.

The designation of risk is based upon the consideration of both:

- **the magnitude of the potential consequence (i.e. severity).**  
[takes into account both the potential severity of the hazard and the sensitivity of the receptor]
- **the magnitude of probability (i.e. likelihood).**  
[takes into account both the presence of the hazard and receptor and the integrity of the pathway]

The potential consequences of contamination risks occurring at this Site are classified in accordance with Table 1 below:

**Table 1: Classification of Consequence (Source: R&D 66:2008)**

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

The probability of contamination risks occurring at this Site is classified in accordance with Table 2 below. Note: A pollution linkage must first be established before probability is classified. If there is no pollution linkage then there is no potential risk. If there is no pollution linkage then it follows that there is no need to apply tests for probability and consequence.

**Table 2: Classification of Probability**

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

For each possible pollutant linkage (source-pathway-receptor) identified, the potential risk can be evaluated based upon the following probability x consequence matrix shown in Table 3 below.

**Table 3: Overall Contamination Risk Matrix**

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High likelihood	Very high risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Moderate / Low risk	Low risk
	Low likelihood	Moderate risk	Moderate / Low risk	Low risk	Very low risk
	Unlikely	Moderate / Low risk	Low risk	Very low risk	Very low risk

R&D 66:2008 presents definitions of the risk categories, together with the investigatory and remedial actions that are likely to be necessary for each outcome. These definitions are reproduced in Table 4. These risk categories apply to each pollutant linkage, i.e. not only to each hazard or receptor.

[Continued next page]

**Table 4: Definition of Risk Categories and Likely Actions Required**

<b>Risk Category</b>	<b>Definition and likely actions required</b>
<b>Very high</b>	There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the Site without remediation action OR there is evidence that severe harm to a designated receptor is already occurring. Realisation of that risk is likely to present a substantial liability to be Site owner/or occupier. Investigation is required as a matter of urgency and remediation works likely to follow in the short-term.
<b>High</b>	Harm is likely to arise to a designated receptor from an identified hazard at the Site without remediation action. Realisation of the risk is likely to present a substantial liability to the Site owner/or occupier. Investigation is required as a matter of urgency to clarify the risk. Remediation works may be necessary in the short-term and are likely over the longer term.
<b>Moderate</b>	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely, that the harm would be relatively mild. Further investigative work is normally required to clarify the risk and to determine the potential liability to Site owner/occupier. Some remediation works may be required in the longer term.
<b>Low</b>	It is possible that harm could arise to a designated receptor from identified hazard, but it is likely at worst, that this harm if realised would normally be mild. It is unlikely that the Site owner/or occupier would face substantial liabilities from such a risk. Further investigative work (which is likely to be limited) to clarify the risk may be required. Any subsequent remediation works are likely to be relatively limited.
<b>Very low</b>	It is a low possibility that harm could arise to a designated receptor, but it is likely at worst, that this harm if realised would normally be mild or minor.
<b>No potential risk</b>	There is no potential risk if no pollution linkage has been established.



## **Appendix 2**

# **Exploratory Hole Logs**



# Borehole Log

Borehole No.

**CP1**

Sheet 1 of 2

Project Name: Hampton Hill

Project No.  
51831

Co-ords: -

Hole Type  
CP

Location: Former offices and studios, 65b High Street, Hampton Hill, Hampton, Greater London

Level:

Scale  
1:50

Client: HBPW LLP

Dates: 19/05/2016 - 19/05/2016

Logged By  
AJ

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20 - 1.20	B		0.05 0.20		MADE GROUND (bituminous surfacing) MADE GROUND (crushed stone) MADE GROUND (crushed brick and concrete)	
		1.20		N=43 (6,10/9,10,12,12)	1.30			Dense SAND and GRVEL
		1.20 - 2.00	B					
			2.50		N=31 (5,7/8,7,7,9)			
			4.00		N=37 (6,10/8,10,9,10)			
			4.50	B				
			5.50 5.60 - 6.00	B	N=22 (7,6/5,4,6,7)	5.60		Very stiff bluish grey CLAY (London Clay)
			6.00 - 6.45	U				
			7.50		N=42 (7,9/10,10,11,11)			
			9.00 - 9.45	U				
		9.45 - 9.60	D					

Continued on next sheet

Remarks

Waiting for access - 1.5 hours, hand excavated trial pit from 0.00m to 1.20m - 1 hour





# Borehole Log

Borehole No.

**CP1**

Sheet 2 of 2

Project Name: Hampton Hill

Project No.  
51831

Co-ords: -

Hole Type  
CP

Location: Former offices and studios, 65b High Street, Hampton Hill, Hampton, Greater London

Level:

Scale  
1:50

Client: HBPW LLP

Dates: 19/05/2016 - 19/05/2016

Logged By  
AJ

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50		N=55 (9,12/12,13,14,16)				
		12.00 - 12.60	U					
		13.50		N=51 (11,11/11,13,13,14)				
		14.60		N=60 (12,13/14,15,15,16)				
					15.05			
								End of borehole at 15.05 m

Remarks  
Waiting for access - 1.5 hours, hand excavated trial pit from 0.00m to 1.20m - 1 hour





# Borehole Log

Borehole No.

**CP2**

Sheet 1 of 2

Project Name: Hampton Hill

Project No.  
51831

Co-ords: -

Hole Type  
CP

Location: Former offices and studios, 65b High Street, Hampton Hill, Hampton, Greater London

Level:

Scale  
1:50

Client: HBPW LLP

Dates: 20/05/2016 - 20/05/2016

Logged By  
AJ

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40 - 1.20	B	N=5 (1,2/1,2,1,1)	0.05 0.20 0.40		MADE GROUND (Bituminous surface) MADE GROUND (Crushed Stone) MADE GROUND (Concrete) MADE GROUND (Ash and Stone fill)	
		1.20			1.80		Medium dense becoming dense SAND and GRAVEL	
		2.50 2.50 - 3.50	B	N=28 (6,7/7,6,8,7)				
		4.00		N=32 (5,6/8,7,9,8)				
		5.50 5.60 - 6.00	B	N=23 (6,8/7,6,5,5)	5.60		Very stiff bluish grey CLAY (London clay)	
		6.00 - 6.45	U					
		6.45 - 6.60	D					
		7.00 - 7.45	U					
		7.45 - 7.60	D					
		8.50		N=37 (8,8/9,9,10,9)				
	10.00 - 10.45	U						

Continued on next sheet

Remarks  
Hand excavation - 1 Hr





# Borehole Log

Borehole No.

**CP2**

Sheet 2 of 2

Project Name: Hampton Hill

Project No.  
51831

Co-ords: -

Hole Type  
CP

Location: Former offices and studios, 65b High Street, Hampton Hill, Hampton, Greater London

Level:

Scale  
1:50

Client: HBPW LLP

Dates: 20/05/2016 - 20/05/2016



Logged By  
AJ

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.45 - 10.60	D					
		11.50		N=43 (9,10/11,10,10,12)				
		13.00		N=50 (8,9/10,12,13,15)				
		14.00 - 14.60	U					
		14.60		N=57 (10,12/13,14,14,16)	15.05			
End of borehole at 15.05 m								

Remarks  
Hand excavation - 1 Hr



Excavation Method Trial Pit	Dimensions	Ground Level (mOD)	Client Greatplanet Ltd	Job Number SL05030
	Location	Dates 19/05/2016	Engineer HBPW LLP	Sheet 1/1



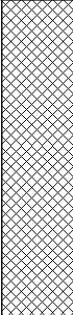
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00	D1				(0.15)	Reinforced Concrete.		
					0.15	MADE GROUND. Brown / orange sandy gravel with brick rubble. Gravel is of medium coarse mixed lithology.		
					(1.05)			
					1.20	Complete at 1.20m		



**Remarks**  
 Pot and Jar Taken for all Samples  
 Water Pipe at 0.85m  
 Pit Dry  
 Pit Stable

Scale (approx) 1:20	Logged By RB	Figure No. SL05030.TP01
------------------------	-----------------	----------------------------

Excavation Method Trial Pit	Dimensions	Ground Level (mOD)	Client Greatplanet Ltd	Job Number SL05030
	Location	Dates 19/05/2016	Engineer HBPW LLP	Sheet 1/1









Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D1				(0.15) 0.15	Unreinforced Concrete.		
					(0.20) 0.35	MADE GROUND. Orange / red gravelly sand. Gravel is of brick, sand matrix is of crushed brick. Possibly old brick pavement.		
0.60	D2				(0.85) 1.20	MADE GROUND. Dark brown silty sandy CLAY. Possibly relic top soil.		
						Complete at 1.20m		



**Remarks**  
Pot and Jar Taken for all Samples and WAC Sample Taken at 0.8m  
Concrete obstruction at 1.2m  
Pit Dry  
Pit Stable

Scale (approx) 1:20	Logged By RB	Figure No. SL05030.TP02
------------------------	-----------------	----------------------------

Excavation Method Trial Pit	Dimensions	Ground Level (mOD)	Client Greatplanet Ltd	Job Number SL05030
	Location	Dates 19/05/2016	Engineer HBPW LLP	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.60	D1				(0.15)	Unreinforced concrete.		
					0.15	MADE GROUND. Brick rubble.		
1.00	D2				(0.15)	MADE GROUND. Buff to yellow lean mix concrete.		
					0.30	MADE GROUND. Black and brown gravelly sand. Gravel is mixed of concrete, coal, brick, masonry and ash.		
2.30	D3				(0.35)	MADE GROUND. Dark brown sandy clay. Relic top soil.		
					0.70	MADE GROUND. Dark brown sandy clay. Relic top soil.		
					(0.50)	Orange gravelly SAND. Gravel is medium coarse, rounded to subangular flint and chert.		
					1.20	Orange gravelly SAND. Gravel is medium coarse, rounded to subangular flint and chert.		
					(1.50)			
					2.70	Complete at 2.70m		




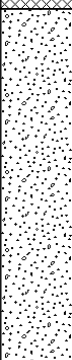


**Remarks**  
Pot and Jar Taken for all Samples and WAC Sample Taken at 2.3m  
Pit Dry  
Pit Stable

Scale (approx) 1:20	Logged By RB	Figure No. SL05030.TP03
------------------------	-----------------	----------------------------



Excavation Method Trial Pit	Dimensions	Ground Level (mOD)	Client Greatplanet Ltd	Job Number SL05030
	Location	Dates 19/05/2016	Engineer HBPW LLP	Sheet 1/1



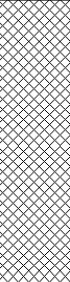

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D1				(0.15)	Unreinforced concrete.		
					0.15	MADE GROUND. Orange / red gravelly sand. Gravel is of medium to coarse brick.		
					(0.15)	MADE GROUND. Dark brown sandy clay. Relic top soil.		
0.80	D2				(0.55)			
					0.85	Orange gravelly SAND. Gravel is medium coarse, rounded to subangular flint and chert.		
1.30	D3				(0.95)			
					1.80	Complete at 1.80m		



**Remarks**  
Pit Stable  
Pit Dry  
Pot and Jar Taken for all Samples and WAC Sample Taken at 0.7m

Scale (approx) 1:20	Logged By RB	Figure No. SL05030.TP04
------------------------	-----------------	----------------------------

Excavation Method Trial Pit	Dimensions	Ground Level (mOD)	Client Greatplanet Ltd	Job Number SL05030
	Location	Dates 19/05/2016	Engineer HBPW LLP	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1				(0.15)	Unreinforced concrete.		
					0.15 (0.20)	MADE GROUND. Orange brown gravelly sand. Gravel is of medium to coarse chert and brick.		
0.90	D2				0.35	MADE GROUND. Dark brown silty sandy clay. Relic top soil.		
					(0.75)			
2.00	D3				1.10	Orange gravelly SAND. Gravel is of medium to coarse rounded to subangular flint and chert.		
					(1.50)			
					2.60	Complete at 2.60m		



**Remarks**

Pot and Jar Taken for all Samples and WAC Sample Taken at 0.3m  
Pit Dry  
Pit Stable

Scale (approx) 1:20	Logged By RB	Figure No. SL05030.TP05
------------------------	-----------------	----------------------------

## **Appendix 3**

### Tier 1 Screening Values – ‘Residential without Plant Uptake’ End Use

Determinant	Tier 1 Screening Value (mg/kg)
<b>Inorganics</b>	
Arsenic	40
Barium	1300
Beryllium	1.7
Cadmium	85
Chromium	910
Copper	7100
Lead	310
Mercury	56
Nickel	180
Selenium	430
Vanadium	1200
Water Soluble Boron	11000
Zinc	40000
phenol	750
cyanide	34
Chromium (VI)	6
<b>PAH</b>	
2-Chloronaphthalene	nv
2-Methylnaphthalene	nv
Naphthalene	2.3
Acenaphthylene	2900 (86.1)
Acenaphthene	3000 (57)
Fluorene	2800 (30.9)
Phenanthrene	1300 (36)
Anthracene	31000 (1.17)
Fluoranthene	1500
Pyrene	37000
Benzo(a)anthracene	11
Chrysene	30
Benzo(bk)fluoranthene	nv
Benzo(a)pyrene	3.2
Indeno(123cd)pyrene	45
Dibenzo(ah)anthracene	0.31
Benzo(ghi)perylene	360
Benzo(b)fluoranthene	3.9
Benzo(k)fluoranthene	110

<i>Tier 1 Screening Values Continued</i>	
<b>TPH</b>	
Aliphatics	
>C5-C6	<b>42</b>
>C6-C8	<b>100</b>
>C8-C10	<b>27</b>
>C10-C12	<b>130(48)</b>
>C12-C16	<b>1100 (24)</b>
>C21-C35	
>C35-C44	<b>65001 (8.48)</b>
Aromatics	
>C5-EC7 (benzene)	<b>370</b>
>EC7-EC8 (toluene)	<b>860</b>
>EC8-EC10	<b>47</b>
>EC10-EC12	<b>250</b>
>EC12-EC16	<b>1800</b>
>EC16-EC21	<b>1900</b>
>EC21-EC35	<b>1900</b>
>C35-C44	<b>65001 (8.48)</b>
Basic	
EPH >C6-C8	<b>100</b>
EPH >C8-C10	<b>27</b>
EPH >C10-C12	<b>130 (48)</b>
EPH >C12-C16	<b>1100 (24)</b>
EPH >C16-C21	<b>1900</b>
EPH >C21-C35	
<b>BTEX</b>	
MTBE	<b>73</b>
Benzene	<b>0.38</b>
Toluene	<b>880 (869)</b>
Ethylbenzene	<b>83</b>
m/p-Xylene	<b>79</b>
o-Xylene	<b>88</b>

*Tier 1 Screening Values Continued*

<b>SVOC/ VOC</b>	
Tetrachloroethene	<b>0.18</b>
Trichloroethene	<b>0.017</b>
Vinyl Chloride	<b>0.00077</b>
Trichloroethane (1,1,1)	<b>9</b>
Tetrachloroethane (1,1,1,2)	<b>1.5</b>
Tetrachloroethane (1,1,2,2)	<b>3.9</b>
Chlorobenzene	<b>0.46</b>
Phthalate, butylbenzyl	
Phthalate, bis (2-ethylhexyl)	
1,2-Dichloroethane	<b>0.0092</b>
Carbon Tetrachloride	<b>0.026</b>
<b>OTHER</b>	
Antimony	<b>550</b>
Molybdenum	<b>670</b>
1,1,2 Trichloroethane	<b>0.88</b>
1,1-dichloroethane	<b>2.5</b>
1,1-Dichloroethene	<b>0.23</b>
1,2,4-Trimethylbenzene	<b>0.41</b>
1,2-Dichloropropane	<b>0.024</b>
1,3,5-Trimethylbenzene	<b>nv</b>
1-Methylnaphthalene	<b>nv</b>
2,4-Dimethylphenol	<b>210</b>
2,4-Dinitrotoluene	<b>170</b>
2,6-Dinitrotoluene	<b>78</b>
2-Chloronaphthalene	<b>3.8</b>
2-Methylnaphthalene	<b>nv</b>
2-Methylphenol	<b>3700</b>
3-Methylphenol	<b>3700</b>
4-Methylphenol	<b>3700</b>
Biphenyl	<b>220</b>
Bis (2-ethylhexyl) phthalate	<b>2700</b>
Bromobenzene	<b>0.91</b>
Bromodichloromethane	<b>0.019</b>
Bromoform	<b>5.2</b>
Butyl benzyl phthalate	<b>42000</b>
Carbazole	<b>nv</b>
Chloroethane	<b>8.4</b>
Chloromethane	<b>0.0085</b>
Cis 1,2 Dichloroethene	<b>0.12</b>
Dichloromethane	<b>2.1</b>
Diethyl Phthalate	<b>1800</b>
Dimethyl phthalate	<b>nv</b>

<i>Tier 1 Screening Values Continued</i>	
Di-n-butyl phthalate	<b>450</b>
Di-n-octyl phthalate	<b>3400</b>
Hexachloroethane	<b>0.22</b>
Iso-propylbenzene	<b>12</b>
Isopropyltoluene	<b>nv</b>
Methyl tert-butyl ether	<b>73</b>
n butylbenzene	<b>nv</b>
Propylbenzene	<b>40</b>
sec butylbenzene	<b>nv</b>
Styrene	<b>35</b>
tert butylbenzene	<b>nv</b>
Trans 1,2 Dichloroethene	<b>0.34</b>
Tributyl tin oxide	<b>0.59</b>

## **Appendix 4**

### Analytical Results





Jay Fox  
HBPW  
43 Bridgegate  
Retford  
Nottinghamshire  
DN22 7UX

**QTS Environmental Ltd**  
Unit 1  
Rose Lane Industrial Estate  
Rose Lane  
Lenham Heath  
Kent  
ME17 2JN  
t: 01622 850410  
[russell.jarvis@qtsenvironmental.com](mailto:russell.jarvis@qtsenvironmental.com)

## **QTS Environmental Report No: 16-44642**

**Site Reference:** High Street Hampton Hill

**Project / Job Ref:** SL05030

**Order No:** 519

**Sample Receipt Date:** 25/05/2016

**Sample Scheduled Date:** 25/05/2016

**Report Issue Number:** 1

**Reporting Date:** 01/06/2016

**Authorised by:**

Russell Jarvis  
Associate Director of Client Services  
**On behalf of QTS Environmental Ltd**

**Authorised by:**

Kevin Old  
Associate Director of Laboratory  
**On behalf of QTS Environmental Ltd**

<b>Soil Analysis Certificate</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP02	TP03	TP03
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	02	01	02
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	1.20	0.70	1.20
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208547	208548	208549

Determinand	Unit	RL	Accreditation					
Asbestos Screen	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	8.0	9.2	8.9	8.3	7.8
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Complex Cyanide	mg/kg	< 2	NONE	< 2	< 2		< 2	
Free Cyanide	mg/kg	< 2	NONE	< 2	< 2		< 2	
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	1366	415	5367	1774	781
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	0.14	0.04	0.54	0.18	0.08
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	442	37		132	
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS	0.44	0.04		0.13	
Elemental Sulphur	mg/kg	< 10	NONE	< 10	< 10		< 10	
Sulphide	mg/kg	< 5	NONE	< 5	< 5	< 5	< 5	< 5
Organic Matter	%	< 0.1	MCERTS	1.8	0.5	1.4	1.5	1.9
Total Organic Carbon (TOC)	%	< 0.1	MCERTS	1.1	0.3	0.8	0.9	1.1
Fraction Organic Carbon (FOC)	Units	< 0.001	MCERTS	0.011	0.003		0.009	
Ammonium as NH <sub>4</sub>	mg/kg	< 0.5	NONE	45.4	25.8		35.6	
Ammonium as NH <sub>4</sub>	mg/l	< 0.05	NONE	4.54	2.58		3.56	
W/S Chloride (2:1)	mg/kg	< 1	MCERTS	18	9		19	
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS	9.2	4.6		9.6	
Antimony (Sb)	mg/kg	< 1	NONE	3.1	1.2		3.8	
Arsenic (As)	mg/kg	< 2	MCERTS	21	9	15	18	13
Barium (Ba)	mg/kg	< 5	NONE	171	21		320	
Beryllium (Be)	mg/kg	< 0.5	NONE	1	< 0.5		1	
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	23	11	38	28	21
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2		< 2	
Cobalt (Co)	mg/kg	< 1	NONE	11	2.1		10.2	
Copper (Cu)	mg/kg	< 4	MCERTS	66	< 4	133	38	26
Lead (Pb)	mg/kg	< 3	MCERTS	183	< 3	1520	378	213
Manganese (Mn)	mg/kg	< 5	NONE	327	45.5		219	
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Molybdenum (Mo)	mg/kg	< 1	NONE	1.8	< 1		1.6	
Nickel (Ni)	mg/kg	< 3	MCERTS	21	4	14	20	12
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	< 3	< 3
Tin (Sn)	mg/kg	< 10	NONE	< 10	< 10		< 10	
Vanadium (V)	mg/kg	< 2	NONE	46	19		47	
Zinc (Zn)	mg/kg	< 3	MCERTS	170	11	296	234	169
Total Phenols (monohydric)	mg/kg	< 2	NONE			< 2		< 2
VPH (C6 - C10)	mg/kg	< 0.05	NONE	< 0.05	< 0.05		< 0.05	
DRO (C10 - C24)	mg/kg	< 6	MCERTS	< 6	< 6		68	
EPH (C10 - C40)	mg/kg	< 6	MCERTS	7	< 6	5770	157	130
Mineral Oil (C10 - C40)	mg/kg	< 10	MCERTS	< 10	< 10		< 10	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Asbestos Analyst: Wioletta Goral

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis <sup>(S)</sup>

<b>Soil Analysis Certificate</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP03	TP04	TP04	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03	01	02	03	01
<b>Order No: 519</b>	<b>Depth (m)</b>	2.70	0.30	0.85	1.80	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208550	208551	208552	208553	208554

Determinand	Unit	RL	Accreditation	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
Asbestos Screen	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.7	7.5	7.6	7.9	8.1
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Complex Cyanide	mg/kg	< 2	NONE		< 2			< 2
Free Cyanide	mg/kg	< 2	NONE		< 2			< 2
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	< 200	3149	1823	236	1445
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	< 0.02	0.31	0.18	0.02	0.14
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS		300			39
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS		0.30			0.04
Elemental Sulphur	mg/kg	< 10	NONE		< 10			< 10
Sulphide	mg/kg	< 5	NONE	< 5	< 5	< 5	< 5	< 5
Organic Matter	%	< 0.1	MCERTS	0.3	1.3	4.5	0.7	2.4
Total Organic Carbon (TOC)	%	< 0.1	MCERTS	0.2	0.7	2.6	0.4	1.4
Fraction Organic Carbon (FOC)	Units	< 0.001	MCERTS		0.007			0.014
Ammonium as NH <sub>4</sub>	mg/kg	< 0.5	NONE		38.3			52.3
Ammonium as NH <sub>4</sub>	mg/l	< 0.05	NONE		3.83			5.23
W/S Chloride (2:1)	mg/kg	< 1	MCERTS		16			7
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS		8.2			3.7
Antimony (Sb)	mg/kg	< 1	NONE		2.8			2.5
Arsenic (As)	mg/kg	< 2	MCERTS	19	13	22	14	20
Barium (Ba)	mg/kg	< 5	NONE		218			295
Beryllium (Be)	mg/kg	< 0.5	NONE		0.8			1
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	0.3	0.6	< 0.2	0.3
Chromium (Cr)	mg/kg	< 2	MCERTS	24	26	25	19	26
Chromium (hexavalent)	mg/kg	< 2	NONE		< 2			< 2
Cobalt (Co)	mg/kg	< 1	NONE		5.7			8.3
Copper (Cu)	mg/kg	< 4	MCERTS	8	50	67	17	411
Lead (Pb)	mg/kg	< 3	MCERTS	20	209	952	72	475
Manganese (Mn)	mg/kg	< 5	NONE		264			278
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Molybdenum (Mo)	mg/kg	< 1	NONE		1.4			1.7
Nickel (Ni)	mg/kg	< 3	MCERTS	19	16	22	13	18
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	< 3	< 3
Tin (Sn)	mg/kg	< 10	NONE		< 10			309
Vanadium (V)	mg/kg	< 2	NONE		41			47
Zinc (Zn)	mg/kg	< 3	MCERTS	40	266	535	70	256
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2		< 2	< 2	
VPH (C6 - C10)	mg/kg	< 0.05	NONE		< 0.05			< 0.05
DRO (C10 - C24)	mg/kg	< 6	MCERTS		< 6			< 6
EPH (C10 - C40)	mg/kg	< 6	MCERTS	< 6	8	104	< 6	19
Mineral Oil (C10 - C40)	mg/kg	< 10	MCERTS		< 10			< 10

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Asbestos Analyst: Wioletta Goral

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis <sup>(S)</sup>

<b>Soil Analysis Certificate</b>					
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16		
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied		
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP05	TP05		
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	02	03		
<b>Order No: 519</b>	<b>Depth (m)</b>	1.10	2.60		
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208555	208556		

<b>Determinand</b>	<b>Unit</b>	<b>RL</b>	<b>Accreditation</b>		
Asbestos Screen	N/a	N/a	ISO17025	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.4	7.5
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2
Complex Cyanide	mg/kg	< 2	NONE		< 2
Free Cyanide	mg/kg	< 2	NONE		< 2
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	297	208
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	0.03	0.02
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS		23
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS		0.02
Elemental Sulphur	mg/kg	< 10	NONE		< 10
Sulphide	mg/kg	< 5	NONE	< 5	< 5
Organic Matter	%	< 0.1	MCERTS	2.1	0.6
Total Organic Carbon (TOC)	%	< 0.1	MCERTS	1.2	0.4
Fraction Organic Carbon (FOC)	Units	< 0.001	MCERTS		0.004
Ammonium as NH <sub>4</sub>	mg/kg	< 0.5	NONE		38.6
Ammonium as NH <sub>4</sub>	mg/l	< 0.05	NONE		3.86
W/S Chloride (2:1)	mg/kg	< 1	MCERTS		7
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS		3.3
Antimony (Sb)	mg/kg	< 1	NONE		1.7
Arsenic (As)	mg/kg	< 2	MCERTS	13	16
Barium (Ba)	mg/kg	< 5	NONE		48
Beryllium (Be)	mg/kg	< 0.5	NONE		0.8
W/S Boron	mg/kg	< 1	NONE	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	16	21
Chromium (hexavalent)	mg/kg	< 2	NONE		< 2
Cobalt (Co)	mg/kg	< 1	NONE		10.2
Copper (Cu)	mg/kg	< 4	MCERTS	33	13
Lead (Pb)	mg/kg	< 3	MCERTS	143	36
Manganese (Mn)	mg/kg	< 5	NONE		235
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1
Molybdenum (Mo)	mg/kg	< 1	NONE		< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	11	16
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3
Tin (Sn)	mg/kg	< 10	NONE		< 10
Vanadium (V)	mg/kg	< 2	NONE		40
Zinc (Zn)	mg/kg	< 3	MCERTS	86	42
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	
VPH (C6 - C10)	mg/kg	< 0.05	NONE		< 0.05
DRO (C10 - C24)	mg/kg	< 6	MCERTS		< 6
EPH (C10 - C40)	mg/kg	< 6	MCERTS	< 6	< 6
Mineral Oil (C10 - C40)	mg/kg	< 10	MCERTS		< 10

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Asbestos Analyst: Wioletta Goral

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis <sup>(S)</sup>



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - Speciated PAHs</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP02	TP03	TP03
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	02	01	02
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	1.20	0.70	1.20
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208547	208548	208549

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	0.15	< 0.1	0.21	0.64	1.43
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.13	0.12
Fluoranthene	mg/kg	< 0.1	MCERTS	0.44	< 0.1	0.40	1.66	2.43
Pyrene	mg/kg	< 0.1	MCERTS	0.41	< 0.1	0.41	1.76	2.08
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.21	< 0.1	0.17	0.73	0.75
Chrysene	mg/kg	< 0.1	MCERTS	0.23	< 0.1	0.23	0.86	0.94
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.33	< 0.1	0.26	0.94	1.16
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.15	< 0.1	< 0.1	0.34	0.40
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.23	< 0.1	0.17	0.74	0.79
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.17	< 0.1	0.13	0.39	0.46
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.19	< 0.1	0.11	0.38	0.41
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	2.5	< 1.6	2.1	8.6	11

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - Speciated PAHs</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP03	TP04	TP04	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03	01	02	03	01
<b>Order No: 519</b>	<b>Depth (m)</b>	2.70	0.30	0.85	1.80	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208550	208551	208552	208553	208554

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.14	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	0.32	1.54	0.15	0.24
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.32	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.75	4.82	0.31	0.78
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.67	4.28	0.27	0.71
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	0.37	2.27	0.12	0.39
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	0.37	2.47	0.15	0.44
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.51	3.51	0.19	0.70
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.20	1.16	< 0.1	0.24
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.36	2.54	0.13	0.46
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.21	1.60	< 0.1	0.33
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.23	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	0.20	1.42	< 0.1	0.30
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	4	26.3	< 1.6	4.6

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - Speciated PAHs</b>					
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16		
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied		
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP05	TP05		
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	02	03		
<b>Order No: 519</b>	<b>Depth (m)</b>	1.10	2.60		
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208555	208556		

<b>Determinand</b>	<b>Unit</b>	<b>RL</b>	<b>Accreditation</b>				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	0.21	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	0.57	0.12		
Pyrene	mg/kg	< 0.1	MCERTS	0.48	< 0.1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.26	< 0.1		
Chrysene	mg/kg	< 0.1	MCERTS	0.33	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.45	< 0.1		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.15	< 0.1		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.29	< 0.1		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.17	< 0.1		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.15	< 0.1		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	3.1	< 1.6		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



Soil Analysis Certificate - TPH CWG Banded						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP02	TP03	TP03
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	02	01	02
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	1.20	0.70	1.20
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208547	208548	208549

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	7	< 3	< 3
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	207	< 3	< 3
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	648	< 10	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	861	< 21	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	6	< 3	69	< 3	6
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	244	< 10	14
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21	313	< 21	< 21
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	1174	< 42	< 42

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C





**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - TPH CWG Banded</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP03	TP04	TP04	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03	01	02	03	01
<b>Order No: 519</b>	<b>Depth (m)</b>	2.70	0.30	0.85	1.80	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208550	208551	208552	208553	208554

<b>Determinand</b>	<b>Unit</b>	<b>RL</b>	<b>Accreditation</b>					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	10	< 3	< 3
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	42	< 10	< 10
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21	52	< 21	< 21
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	52	< 42	< 42

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



Soil Analysis Certificate - TPH CWG Banded					
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16		
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied		
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP05	TP05		
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	02	03		
<b>Order No: 519</b>	<b>Depth (m)</b>	1.10	2.60		
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208555	208556		

Determinand	Unit	RL	Accreditation				
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01		
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05		
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2		
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2		
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3		
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3		
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10		
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21		
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01		
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05		
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2		
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2		
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2		
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3		
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10		
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21		
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - BTEX / MTBE</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP02	TP03	TP03
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	02	01	02
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	1.20	0.70	1.20
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208547	208548	208549

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - BTEX / MTBE</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP03	TP04	TP04	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03	01	02	03	01
<b>Order No: 519</b>	<b>Depth (m)</b>	2.70	0.30	0.85	1.80	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208550	208551	208552	208553	208554

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



Soil Analysis Certificate - BTEX / MTBE					
<b>QTS Environmental Report No: 16-44642</b>		<b>Date Sampled</b>	19/05/16	19/05/16	
<b>HBPW</b>		<b>Time Sampled</b>	None Supplied	None Supplied	
<b>Site Reference: High Street Hampton Hill</b>		<b>TP / BH No</b>	TP05	TP05	
<b>Project / Job Ref: SL05030</b>		<b>Additional Refs</b>	02	03	
<b>Order No: 519</b>		<b>Depth (m)</b>	1.10	2.60	
<b>Reporting Date: 01/06/2016</b>		<b>QTSE Sample No</b>	208555	208556	

Determinand	Unit	RL	Accreditation				
Benzene	ug/kg	< 2	MCERTS	< 2	< 2		
Toluene	ug/kg	< 5	MCERTS	< 5	< 5		
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2		
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2		
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2		
MTBE	ug/kg	< 5	MCERTS	< 5	< 5		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

<b>Soil Analysis Certificate - Volatile Organic Compounds (VOC)</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP03	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	01	01	01
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	0.70	0.30	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208548	208551	208554

<b>Determinand</b>	<b>Unit</b>	<b>RL</b>	<b>Accreditation</b>					
Dichlorodifluoromethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Chloromethane	ug/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Chloroethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Bromomethane	ug/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Trichlorofluoromethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
2,2-Dichloropropane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Chloroform	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Bromochloromethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1,1-Trichloroethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1-Dichloropropene	ug/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Carbon Tetrachloride	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
1,2-Dichloropropane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Trichloroethene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Bromodichloromethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Dibromomethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
TAME	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
cis-1,3-Dichloropropene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
trans-1,3-Dichloropropene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane	ug/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
1,3-Dichloropropane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,2-Dibromoethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Chlorobenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1,1,2-Tetrachloroethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethyl Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
m,p-Xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-Xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Styrene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Bromoform	ug/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Isopropylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,2,3-Trichloropropane	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
n-Propylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Bromobenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
2-Chlorotoluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,3,5-Trimethylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
4-Chlorotoluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
tert-Butylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,2,4-Trimethylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
sec-Butylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
p-Isopropyltoluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,3-Dichlorobenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,4-Dichlorobenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
n-Butylbenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,2-Dichlorobenzene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
1,2-Dibromo-3-chloropropane	ug/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Hexachlorobutadiene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Soil Analysis Certificate - Volatile Organic Compounds (VOC)					
QTS Environmental Report No: 16-44642	Date Sampled	19/05/16			
HBPW	Time Sampled	None Supplied			
Site Reference: High Street Hampton Hill	TP / BH No	TP05			
Project / Job Ref: SL05030	Additional Refs	03			
Order No: 519	Depth (m)	2.60			
Reporting Date: 01/06/2016	QTSE Sample No	208556			

Determinand	Unit	RL	Accreditation			
Dichlorodifluoromethane	ug/kg	< 5	MCERTS	< 5		
Vinyl Chloride	ug/kg	< 5	MCERTS	< 5		
Chloromethane	ug/kg	< 10	MCERTS	< 10		
Chloroethane	ug/kg	< 5	MCERTS	< 5		
Bromomethane	ug/kg	< 10	MCERTS	< 10		
Trichlorofluoromethane	ug/kg	< 5	MCERTS	< 5		
1,1-Dichloroethene	ug/kg	< 5	MCERTS	< 5		
MTBE	ug/kg	< 5	MCERTS	< 5		
trans-1,2-Dichloroethene	ug/kg	< 5	MCERTS	< 5		
1,1-Dichloroethane	ug/kg	< 5	MCERTS	< 5		
cis-1,2-Dichloroethene	ug/kg	< 5	MCERTS	< 5		
2,2-Dichloropropane	ug/kg	< 5	MCERTS	< 5		
Chloroform	ug/kg	< 5	MCERTS	< 5		
Bromochloromethane	ug/kg	< 5	MCERTS	< 5		
1,1,1-Trichloroethane	ug/kg	< 5	MCERTS	< 5		
1,1-Dichloropropene	ug/kg	< 10	MCERTS	< 10		
Carbon Tetrachloride	ug/kg	< 5	MCERTS	< 5		
1,2-Dichloroethane	ug/kg	< 5	MCERTS	< 5		
Benzene	ug/kg	< 2	MCERTS	< 2		
1,2-Dichloropropane	ug/kg	< 5	MCERTS	< 5		
Trichloroethene	ug/kg	< 5	MCERTS	< 5		
Bromodichloromethane	ug/kg	< 5	MCERTS	< 5		
Dibromomethane	ug/kg	< 5	MCERTS	< 5		
TAME	ug/kg	< 5	MCERTS	< 5		
cis-1,3-Dichloropropene	ug/kg	< 5	MCERTS	< 5		
Toluene	ug/kg	< 5	MCERTS	< 5		
trans-1,3-Dichloropropene	ug/kg	< 5	MCERTS	< 5		
1,1,2-Trichloroethane	ug/kg	< 10	MCERTS	< 10		
1,3-Dichloropropane	ug/kg	< 5	MCERTS	< 5		
Tetrachloroethene	ug/kg	< 5	MCERTS	< 5		
Dibromochloromethane	ug/kg	< 5	MCERTS	< 5		
1,2-Dibromoethane	ug/kg	< 5	MCERTS	< 5		
Chlorobenzene	ug/kg	< 5	MCERTS	< 5		
1,1,1,2-Tetrachloroethane	ug/kg	< 5	MCERTS	< 5		
Ethyl Benzene	ug/kg	< 2	MCERTS	< 2		
m,p-Xylene	ug/kg	< 2	MCERTS	< 2		
o-Xylene	ug/kg	< 2	MCERTS	< 2		
Styrene	ug/kg	< 5	MCERTS	< 5		
Bromoform	ug/kg	< 10	MCERTS	< 10		
Isopropylbenzene	ug/kg	< 5	MCERTS	< 5		
1,1,2,2-Tetrachloroethane	ug/kg	< 5	MCERTS	< 5		
1,2,3-Trichloropropane	ug/kg	< 5	MCERTS	< 5		
n-Propylbenzene	ug/kg	< 5	MCERTS	< 5		
Bromobenzene	ug/kg	< 5	MCERTS	< 5		
2-Chlorotoluene	ug/kg	< 5	MCERTS	< 5		
1,3,5-Trimethylbenzene	ug/kg	< 5	MCERTS	< 5		
4-Chlorotoluene	ug/kg	< 5	MCERTS	< 5		
tert-Butylbenzene	ug/kg	< 5	MCERTS	< 5		
1,2,4-Trimethylbenzene	ug/kg	< 5	MCERTS	< 5		
sec-Butylbenzene	ug/kg	< 5	MCERTS	< 5		
p-Isopropyltoluene	ug/kg	< 5	MCERTS	< 5		
1,3-Dichlorobenzene	ug/kg	< 5	MCERTS	< 5		
1,4-Dichlorobenzene	ug/kg	< 5	MCERTS	< 5		
n-Butylbenzene	ug/kg	< 5	MCERTS	< 5		
1,2-Dichlorobenzene	ug/kg	< 5	MCERTS	< 5		
1,2-Dibromo-3-chloropropane	ug/kg	< 10	MCERTS	< 10		
Hexachlorobutadiene	ug/kg	< 5	MCERTS	< 5		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Soil Analysis Certificate - Semi Volatile Organic Compounds (SVOC)						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP03	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	01	01	01
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	0.70	0.30	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208548	208551	208554

Determinand	Unit	RL	Accreditation	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
Phenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitrophenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nitrobenzene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
0-Cresol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
bis(2-chloroethoxy)methane	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
bis(2-chloroethyl)ether	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	mg/kg	< 0.15	ISO17025	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
Isophorone	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachloroethane	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
p-Cresol	mg/kg	< 0.15	MCERTS	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
2,4,6-Trichlorophenol	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	< 0.15	MCERTS	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
2-Nitroaniline	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	mg/kg	< 0.1	MCERTS	0.1	< 0.1	0.1	< 0.1	0.1
Hexachlorocyclopentadiene	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethyl phthalate	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloroaniline	mg/kg	< 0.15	NONE	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
4-Nitrophenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenyl phenyl ether	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenyl phenyl ether	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl phthalate	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibutyl phthalate	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
bis(2-ethylhexyl)phthalate	mg/kg	< 0.15	MCERTS	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
Benzyl butyl phthalate	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octyl phthalate	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C





**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



<b>Soil Analysis Certificate - Semi Volatile Organic Compounds (SVOC)</b>					
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16			
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied			
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP05			
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03			
<b>Order No: 519</b>	<b>Depth (m)</b>	2.60			
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208556			

<b>Determinand</b>	<b>Unit</b>	<b>RL</b>	<b>Accreditation</b>				
Phenol	mg/kg	< 0.1	NONE	< 0.1			
1,2,4-Trichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1			
2-Nitrophenol	mg/kg	< 0.1	NONE	< 0.1			
Nitrobenzene	mg/kg	< 0.1	MCERTS	< 0.1			
0-Cresol	mg/kg	< 0.1	NONE	< 0.1			
bis(2-chloroethoxy)methane	mg/kg	< 0.1	MCERTS	< 0.1			
bis(2-chloroethyl)ether	mg/kg	< 0.1	MCERTS	< 0.1			
2,4-Dichlorophenol	mg/kg	< 0.1	MCERTS	< 0.1			
2-Chlorophenol	mg/kg	< 0.1	ISO17025	< 0.1			
1,3-Dichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1			
1,4-Dichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1			
1,2-Dichlorobenzene	mg/kg	< 0.1	ISO17025	< 0.1			
2,4-Dimethylphenol	mg/kg	< 0.15	ISO17025	< 0.15			
Isophorone	mg/kg	< 0.1	NONE	< 0.1			
Hexachloroethane	mg/kg	< 0.1	MCERTS	< 0.1			
p-Cresol	mg/kg	< 0.15	MCERTS	< 0.15			
2,4,6-Trichlorophenol	mg/kg	< 0.1	MCERTS	< 0.1			
2,4,5-Trichlorophenol	mg/kg	< 0.15	MCERTS	< 0.15			
2-Nitroaniline	mg/kg	< 0.1	NONE	< 0.1			
4-Chloro-3-methylphenol	mg/kg	< 0.1	NONE	< 0.1			
2-Methylnaphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
Hexachlorocyclopentadiene	mg/kg	< 0.1	NONE	< 0.1			
Hexachlorobutadiene	mg/kg	< 0.1	ISO17025	< 0.1			
2,6-Dinitrotoluene	mg/kg	< 0.1	MCERTS	< 0.1			
Dimethyl phthalate	mg/kg	< 0.1	NONE	< 0.1			
2-Chloronaphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
4-Chloroaniline	mg/kg	< 0.15	NONE	< 0.15			
4-Nitrophenol	mg/kg	< 0.1	NONE	< 0.1			
4-Chlorophenyl phenyl ether	mg/kg	< 0.1	MCERTS	< 0.1			
3-Nitroaniline	mg/kg	< 0.1	NONE	< 0.1			
4-Nitroaniline	mg/kg	< 0.1	NONE	< 0.1			
4-Bromophenyl phenyl ether	mg/kg	< 0.1	MCERTS	< 0.1			
Hexachlorobenzene	mg/kg	< 0.1	MCERTS	< 0.1			
2,4-Dinitrotoluene	mg/kg	< 0.1	MCERTS	< 0.1			
Diethyl phthalate	mg/kg	< 0.1	MCERTS	< 0.1			
Dibenzofuran	mg/kg	< 0.1	MCERTS	< 0.1			
Azobenzene	mg/kg	< 0.1	NONE	< 0.1			
Dibutyl phthalate	mg/kg	< 0.1	ISO17025	< 0.1			
Carbazole	mg/kg	< 0.1	ISO17025	< 0.1			
bis(2-ethylhexyl)phthalate	mg/kg	< 0.15	MCERTS	< 0.15			
Benzyl butyl phthalate	mg/kg	< 0.1	MCERTS	< 0.1			
Di-n-octyl phthalate	mg/kg	< 0.1	MCERTS	< 0.1			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**

<b>Soil Analysis Certificate - PCB (7 Congeners)</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP03	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	01	01	01
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	0.70	0.30	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208548	208551	208554

<b>Determinand</b>	<b>Unit</b>	<b>RL</b>	<b>Accreditation</b>					
PCB Congener 28	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 52	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 101	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 118	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 138	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 153	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
PCB Congener 180	mg/kg	0.008	NONE	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**

Soil Analysis Certificate - PCB (7 Congeners)					
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16			
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied			
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP05			
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03			
<b>Order No: 519</b>	<b>Depth (m)</b>	2.60			
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208556			

Determinand	Unit	RL	Accreditation				
PCB Congener 28	mg/kg	0.008	NONE	< 0.008			
PCB Congener 52	mg/kg	0.008	NONE	< 0.008			
PCB Congener 101	mg/kg	0.008	NONE	< 0.008			
PCB Congener 118	mg/kg	0.008	NONE	< 0.008			
PCB Congener 138	mg/kg	0.008	NONE	< 0.008			
PCB Congener 153	mg/kg	0.008	NONE	< 0.008			
PCB Congener 180	mg/kg	0.008	NONE	< 0.008			
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**

<b>Soil Analysis Certificate - Speciated Phenols</b>						
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	19/05/16	19/05/16	19/05/16	19/05/16
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP01	TP02	TP03	TP04	TP05
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	01	01	01	01	01
<b>Order No: 519</b>	<b>Depth (m)</b>	0.90	0.35	0.70	0.30	0.40
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208545	208546	208548	208551	208554

Determinand	Unit	RL	Accreditation					
2, 3, 5-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2, 3, 6-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2, 3-xylenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2, 4, 6-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2, 4-xylenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2, 5-xylenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2, 6-xylenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-ethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-isopropylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3, 4, 5-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3, 4-xylenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3, 5-xylenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-ethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-isopropylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-ethylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-isopropylphenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m-cresol (3-methylphenol)	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
o-cresol (2-methylphenol)	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
p-cresol (4-methylphenol)	mg/kg	< 0.15	NONE	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
phenol	mg/kg	< 0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**

Soil Analysis Certificate - Speciated Phenols			
<b>QTS Environmental Report No: 16-44642</b>	<b>Date Sampled</b>	19/05/16	
<b>HBPW</b>	<b>Time Sampled</b>	None Supplied	
<b>Site Reference: High Street Hampton Hill</b>	<b>TP / BH No</b>	TP05	
<b>Project / Job Ref: SL05030</b>	<b>Additional Refs</b>	03	
<b>Order No: 519</b>	<b>Depth (m)</b>	2.60	
<b>Reporting Date: 01/06/2016</b>	<b>QTSE Sample No</b>	208556	

Determinand	Unit	RL	Accreditation				
2, 3, 5-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1			
2, 3, 6-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1			
2, 3-xylenol	mg/kg	< 0.1	NONE	< 0.1			
2, 4, 6-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1			
2, 4-xylenol	mg/kg	< 0.1	NONE	< 0.1			
2, 5-xylenol	mg/kg	< 0.1	NONE	< 0.1			
2, 6-xylenol	mg/kg	< 0.1	NONE	< 0.1			
2-ethylphenol	mg/kg	< 0.1	NONE	< 0.1			
2-isopropylphenol	mg/kg	< 0.1	NONE	< 0.1			
3, 4, 5-trimethylphenol	mg/kg	< 0.1	NONE	< 0.1			
3, 4-xylenol	mg/kg	< 0.1	NONE	< 0.1			
3, 5-xylenol	mg/kg	< 0.1	NONE	< 0.1			
3-ethylphenol	mg/kg	< 0.1	NONE	< 0.1			
3-isopropylphenol	mg/kg	< 0.1	NONE	< 0.1			
4-ethylphenol	mg/kg	< 0.1	NONE	< 0.1			
4-isopropylphenol	mg/kg	< 0.1	NONE	< 0.1			
m-cresol (3-methylphenol)	mg/kg	< 0.1	NONE	< 0.1			
o-cresol (2-methylphenol)	mg/kg	< 0.1	NONE	< 0.1			
p-cresol (4-methylphenol)	mg/kg	< 0.15	NONE	< 0.15			
phenol	mg/kg	< 0.1	NONE	< 0.1			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



**QTS Environmental Ltd**  
**Unit 1, Rose Lane Industrial Estate**  
**Rose Lane**  
**Lenham Heath**  
**Maidstone**  
**Kent ME17 2JN**  
**Tel : 01622 850410**



Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3								
QTS Environmental Report No: 16-44642		Date Sampled	19/05/16			Landfill Waste Acceptance Criteria Limits		
HBPW		Time Sampled	None Supplied			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Site Reference: High Street Hampton Hill		TP / BH No	WAC Composite					
Project / Job Ref: SL05030		Additional Refs	None Supplied					
Order No: 519		Depth (m)	None Supplied					
Reporting Date: 01/06/2016		QTSE Sample No	208557					
Determinand	Unit	MDL						
TOC <sup>MU</sup>	%	< 0.1	0.6			3%	5%	6%
Loss on Ignition	%	< 0.01	2			--	--	10%
BTEX <sup>MU</sup>	mg/kg	< 0.05	< 0.05			6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1			1	--	--
Mineral Oil <sup>MU</sup>	mg/kg	< 10	< 10			500	--	--
Total PAH <sup>MU</sup>	mg/kg	< 1.7	< 1.7			100	--	--
pH <sup>MU</sup>	pH Units	N/a	10.2			--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	1.9			--	To be evaluated	To be evaluated
Eluate Analysis			2:1 mg/l	8:1 mg/l	Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)		
Arsenic <sup>U</sup>		< 0.01	< 0.01		< 0.2	0.5	2	25
Barium <sup>U</sup>		0.09	0.02		0.3	20	100	300
Cadmium <sup>U</sup>		< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium <sup>U</sup>		0.049	0.010		< 0.20	0.5	10	70
Copper <sup>U</sup>		0.08	< 0.01		< 0.5	2	50	100
Mercury <sup>U</sup>		< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum <sup>U</sup>		0.011	0.002		< 0.1	0.5	10	30
Nickel <sup>U</sup>		< 0.007	< 0.007		< 0.2	0.4	10	40
Lead <sup>U</sup>		< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony <sup>U</sup>		0.020	0.007		0.09	0.06	0.7	5
Selenium <sup>U</sup>		< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc <sup>U</sup>		< 0.005	< 0.005		< 0.2	4	50	200
Chloride <sup>U</sup>		4	1		17	800	15000	25000
Fluoride <sup>U</sup>		0.6	< 0.5		< 1	10	150	500
Sulphate <sup>U</sup>		257	25		540	1000	20000	50000
TDS		369	92		1271	4000	60000	100000
Phenol Index		< 0.01	< 0.01		< 0.5	1	-	-
DOC		17.6	4.4		60.7	500	800	1000
Leach Test Information								
Sample Mass (kg)			0.20					
Dry Matter (%)			87.7					
Moisture (%)			14					
Stage 1								
Volume Eluate L2 (litres)			0.33					
Filtered Eluate VE1 (litres)			0.22					
Results are expressed on a dry weight basis, after correction for moisture content where applicable								
Stated limits are for guidance only and QTS Environmental cannot be held responsible for any discrepancies with current legislation								
M Denotes MCERTS accredited test								
U Denotes ISO17025 accredited test								

**Soil Analysis Certificate - Sample Descriptions**

QTS Environmental Report No: 16-44642

HBPW

Site Reference: High Street Hampton Hill

Project / Job Ref: SL05030

Order No: 519

Reporting Date: 01/06/2016

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
208545	TP01	1	0.90	10.6	Brown sandy gravel with stones
208546	TP02	1	0.35	9.6	Orange sand with stones
208547	TP02	2	1.20	14.5	Light brown sandy gravel with stones
208548	TP03	1	0.70	13.8	Brown gravelly sand with stones
208549	TP03	2	1.20	15.2	Brown gravelly clay with stones
208550	TP03	3	2.70	9.1	Orange sand with stones
208551	TP04	1	0.30	12.9	Light brown gravelly sand with stones
208552	TP04	2	0.85	13.7	Brown gravelly clay with stones and vegetation
208553	TP04	3	1.80	7.3	Orange sand with stones
208554	TP05	1	0.40	14.5	Brown gravelly sand with stones
208555	TP05	2	1.10	14.3	Light brown sand with stones
208556	TP05	3	2.60	8.8	Light brown gravelly sand with stones
208557	WAC Composite	None Supplied	None Supplied	12.3	Light brown gravelly sand with rubble

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample <sup>1/S</sup>

Unsuitable Sample <sup>U/S</sup>

<b>Soil Analysis Certificate - Methodology &amp; Miscellaneous Information</b>
<b>QTS Environmental Report No: 16-44642</b>
<b>HBPW</b>
<b>Site Reference: High Street Hampton Hill</b>
<b>Project / Job Ref: SL05030</b>
<b>Order No: 519</b>
<b>Reporting Date: 01/06/2016</b>

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

**D Dried**  
**AR As Received**



# **Appendix 5**

## Gas Monitoring Results

