STAGE II ENVIRONMENTAL RISK ASSESSMENT
AT
EMPIRE TREATMENT WORKS,
STUBBERS GREEN ROAD
WALSALL, WS9 8BL

ON BEHALF OF
VEOLIA ENVIRONMENTAL SERVICES PLC
CORSAIR PROJECT NO. 07-128.01
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REPORT CONTROL SHEET

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Report Issue History		Corsair Current Version Check	Corsair Team Member	Signed	Date
Date	Status				
	Final	Environmental Scientist	Elizabeth Haigh		
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This report has been prepared by Corsair on the basis of the available information received during the period of assessment. Although every reasonable effort has been made to obtain all relevant information, all potential contamination, environmental constraints or liabilities associated with the Site may not necessarily have been revealed.

Corsair has used reasonable skill, care and diligence in the design of the site assessment. The conclusions reached in this report are necessarily restricted to those which can be determined from the information consulted and may be subject to amendment in the light of additional information becoming available.

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STAGE II ENVIRONMENTAL RISK ASSESSMENT

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1.0 INTRODUCTION

1.1 PURPOSE

Corsair Environmental Consultants Ltd (Corsair) was retained by Mr S Duroe of Veolia Environmental Services PLC to undertake a Stage II Environmental Risk Assessment (ERA) of the following premises.

Empire Treatment Works, Stubbers Green Road, Aldridge, WS9 8BL (hereafter referred to as the Site).

The purpose of the investigation is to provide reference data regarding the conditions of the soils and groundwater as requested in the PPC permit improvement conditions.

The Site is to remain operational as a waste treatment facility with associated offices.

1.2 SITE LOCATION

The Site is located approximately 2.0km to the north west of Aldridge, with the centre of the Site at National Grid Reference SK043023 and occupies the Site of a former brickworks. The Site is situated at an approximate height of 160 metres (m) Above Ordnance Datum (AOD) and covers an area of approximately 2.0 Ha and is used as a waste treatment facility.

The immediate surroundings include a mixture of residential, commercial and light/medium industrial undertakings. In particular the Site is bounded to the north and to the south by quarries,

from which clay is currently being extracted for use in brick manufacture. To the west of the Site are former waste landfills which were operated by a previous site operator. These landfills are now closed and sealed, except for leachate which is removed on a regular basis. To the north east is an active landfill operated by a third party waste management company. Vegetation in the form of grasses, brushes and mature trees exists around the boundary of the Site and some areas within the Site but outside operational areas.

A Site Location Plan is presented as Figure 1.

1.3 SITE OPERATIONS

Empire works is designed primarily to treat by physico-chemical means a range of inorganic liquid and sludge wastes including acidic, alkaline and pH neutral liquids and sludges, cyanide containing wastes and contaminated waste waters including oil contaminated waste. In addition alkali used in the processes operated on Site is handled in powder form and may be product or waste derived; the latter in particular including Air Pollution Control APC residues from Municipal Waste Incinerators and similar plants. The treatment plant is permitted to receive wastes in bulk road tankers and in containers including drums and IBC's (Intermediate Bulk Containers), and other packages both for treatment on Site and for transfer off Site to other waste recovery, treatment or disposal facilities.

The main activity carried out on Site is the large scale physico-chemical treatment of both hazardous and non-hazardous waste to generate non-hazardous treatment products for final disposal. The physico-chemical treatment process can be broken down into a number of stages during which the raw wastes are subjected to different types of treatment or pre-treatment to achieve the final process end point.

1.4 PROJECT BACKGROUND

Veolia, (formally Onyx) has previously undertaken a PPC application Site report of the Site which is documented within the Onyx Application Site Report (May 2005). The Site Report identified the requirement to undertake an intrusive investigation of the Site and evaluate the presence of a variety of organic and inorganic contamination within the soil and groundwater at the Site, along with undertaking a hazardous ground gas assessment in association with any known historical and current Site activities.

Review of the non-technical summary which accompanied the Application Site Report presents a

summary of the historical use of the site as a brickworks and describes the surrounding landuses, identifying both potential sources of contamination (e.g. quarries, landfill) and potential receptors (e.g. surface water bodies).

A previous Site investigation was undertaken by Ground Investigating and Piling Ltd in June 2002 which involved the drilling of four boreholes (BH1-4) to a maximum depth of 10m bgl. Groundwater within these boreholes was encountered at depths of approximately 2-2.5m bgl. A review of client supplied information showed that, in February 2005, a number of groundwater samples were submitted for laboratory analysis of List I and II substances and organophosphorous pesticides, acid herbicides, VOCs, PCBs, heavy metals. No evidence of significant contamination was noted.

Anecdotal information obtained during the walkover inspection of the Site by a Corsair representative in February 2007 suggested that prior to the building of the current flammable waste store, localised cyanide contaminated soil was encountered and removed from Site.

1.5 LIMITATIONS TO METHODOLOGY

The information used in this report has been determined by assessing anecdotal evidence and the Onyx Application Site Report (May 2005) which have then been based on the conceptual model derived from information available to Corsair at the time.

Intrusive points chosen relate to the data collected and the risk assessment will rely on these points only. It therefore follows that some areas of the Site will not be examined because there is no evidence to suggest that any pollutant linkages exist. It is always possible that some areas not investigated may contain contaminants which would be impossible to determine due to lack of evidence or time and budget restrictions.

2.0 ENVIRONMENTAL SETTING

2.1 GEOLOGY

Geological Information was obtained from the British Geological Survey (BGS) map (1:50,000), Sheet 154 for Lichfield, Solid and Drift Edition. The Site is indicated to be directly underlain by Etruria marls, which are a member of the carboniferous upper coal measure group and consist of red and mottled marls.

2.2 HYDROGEOLOGY

The Envirocheck Report (Ref: 7322571-1-1) includes an extract copy of the relevant Environment Agency Groundwater Vulnerability map (1:100,000 Upper South Staffordshire & East Shropshire; Sheet 22), which indicates the Site as being underlain by strata classified as a Minor Aquifer (Variably permeable) with a soil classification of High Leaching Potential (U). Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) is assumed until proven otherwise.

The Environment Agency's Geological Classification Definition describes Minor Aquifers as being fractured or potentially fractured rocks which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although these aquifers will seldom produce large quantities of water for abstraction, they are important both for local supplies and in supplying base flow to rivers.

The Soil Classification Definitions describe Soils of High Leaching Potential (H) as having little ability to attenuate diffuse source pollutants and in which non adsorbed diffuse source pollutants and liquid discharges have the potential to move rapidly to underlying strata or to shallow groundwater. Because soil information for urban areas is less reliable and based on fewer observations than in rural areas, the worst case is assumed and such land is classed as High Leaching Potential (HU) until proved otherwise.

The Envirocheck Report (Ref: 7322571-1-1) indicates that there is one abstraction licence noted approximately 36m from the centre of the Site of which it is understood is no longer in existence.

The Envirocheck Report (Ref: 7322571-1-1) indicates that the Site is not located within an Environment Agency Source Protection Zone.

The Envirocheck Report (Ref: 7322571-1-1) indicates that the Site is located within a designated Nitrate Vulnerable Zone.

2.3 HYDROLOGY

Reference to the relevant OS Map (1:50,000 Birmingham & Wolverhampton Sheet 139) and the Envirocheck Report (Ref: 7322571-1-1) indicates that there are five surface watercourses within 1000m of the Site, the closest of these is the Daw End Branch of the Wyrley and Essington Canal, which is immediately east of the Site and its quality is classed as C. The Stubbers Green Brook is approximately 700m south east of the site at its closest point and its quality is classed as D. Vigo Brook is approximately 50m to the north of the Site and no information regarding its quality is provided by the EA.

Envirocheck Report (Ref: 7322571-1-1) shows that there are sixteen discharge consents within 500m of the Site, the closest of which is operated by Parkhill Estates Limited and is described as site drainage into Vigo Brook approximately 88m to the north of the Site. There are a further seventeen discharge consents to surface water between 500 and 1000m.

The Environment Agency website indicates that the Site is not located within a floodplain. Envirocheck Report (Ref: 7322571-1-1) and the Environment Agency website indicates that there are no Fluvial Floodplains located within 1000m of the Site.

Envirocheck Report (Ref: 7322571-1-1) shows that there are twenty two reported pollution incidents to controlled waters within 1000m of the Site. The closest incident is classed as category 3 (minor incident) 74m south west of the Site on the 17th May 1996 at a landfill/waste disposal site. There are no reported pollution incidents associated with the Site.

Information reported in the ASR suggests that Site surface water drainage is controlled by surface contours which direct flows to collection sumps located at low points on the Site. Water is recovered from these sumps for re-use on the Site or discharged to sewer as trade effluent after analysis to determine whether treatment through the on-Site processing plant is required.

3.0 PRELIMINARY CONCEPTUAL MODEL

3.1 UK LEGISLATION

The Environmental Protection Act 1990: Part IIA – Contaminated Land, institutes a 'suitable for use' approach for managing contaminated land in the UK. This focuses on the risks caused by land contamination, recognising that risks presented by a given level of contamination vary according to land use, and a range of other factors.

3.2 CONCEPTUAL SITE MODEL

A conceptual model is a descriptive or pictorial representation of a site that details any identified or suspected substances, any sensitive receptors that may be affected by the substances, and the pathways or process (e.g. volatilisation or leaching) by which the substances and receptors may be connected. Through identifying these components, the conceptual model describes and summarises the pollutant linkages that may be present on a site.

In this report, an initial conceptual model has been developed in using the following definitions of 'source', 'pathway' and 'receptor' from Part IIA of the Environmental Protection Act 1990:

Contaminant SOURCE	a substance which is in, on or under the land and which has the potential to cause harm or to cause pollution of controlled waters;
Exposure or migration PATHWAY	one or more routes or means by, or through, which a receptor: (a) is being exposed to, or affected by, a contaminant, or (b) could be exposed or affected"; and
RECEPTOR	"is either (a) a living organism, a group of organisms, an ecological system or a property which (i) is in a category listed in Table A** as a type of receptor, and (ii) is being, or could be, harmed, by a contaminant; or (b) controlled waters which are being, or could be, polluted by a contaminant."

** For the purposes of the legislation the receptors considered, in order of vulnerability should be: humans; controlled waters (e.g. surface waters, underground Aquifers and drinking water abstractions; vulnerable ecosystems; organisms (e.g. pets, livestock and game including fish); other vegetation (e.g. agricultural crops); or Property (buildings and monuments).

For a risk to exist as a result of the presence of contamination in, on or under land all three of the above must be present. These three components link together to form the pollutant linkages, which can be considered in greater detail to determine whether a site is contaminated.

The following sections summarise the conceptual model that has been developed for the Site.

3.2.1 SOURCES

The following potential sources of contamination have been identified at the Site:

- Soil and groundwater potentially contaminated with metals, oils, acids and solvents associated with current historical Site activities. There is one above ground storage tank (AST) containing diesel fuel on-Site which is bunded with concrete.
- Hazardous ground gas could potentially exist at the Site.

3.2.2 RECEPTORS

The following on-Site receptors for possible contamination have been identified:

- Users of the Site, including visitors such as transport drivers.
- Ground workers during any redevelopment activities.

The following off-Site receptors for possible contamination have been identified:

- The Daw End Branch of the Wyrley and Essington Canal, Vigo Brook and other surface water bodies in the vicinity.
- The closest residential properties are located approximately 300m to the north east of the Site.
- Four SSSI designations within 1000m, the closest being Swan Pool and The Swag located approximately 414m to the south west of the Site.
- Flora and fauna.

3.2.3 PATHWAYS

The following potential pathways for contaminant migration have been identified:

- Any Made Ground.
- Surface water run-off.
- Adjacent drains and nearby drain network.
- Direct contact with contamination through dermal, ingestion and inhalation exposure routes.

- Underground services.
- Volatilisation and vaporisation (of hazardous gases or organics contamination).

3.2.4 SUMMARY OF POLLUTANT LINKAGES

The plausible linkages have been identified in Table 3.2.4. The most significant are subject to further assessment as part of a Stage II Environmental Assessment.

TABLE 3.2.4 - PLAUSIBLE POLLUTANT LINKAGES

Source		Pathway	Receptor
On Site	Soil Bound Contaminants	Through underlying geology	Controlled waters
			Flora and Fauna
			Buildings and Services
			Health of Site users including ground workers
		Underground services	Health of Site users including ground workers
			Public Sewer
			Underlying geology
		Inhalation, Ingestion, Dermal Exposure.	Health of Site users including ground workers Neighbouring Site
		Surface water run-off	Controlled waters
	Groundwater Bound Contaminants	Through underlying geology	Controlled waters – surface waters Flora and Fauna. Buildings and Services Health of Site users including ground workers. Neighbouring Site
	Hazardous Ground Gas	Emission and volatilisation from soils or migration via underground services	Site users including end users.
			Neighbouring site users/local residents

3.3 RISK RATING

The plausible pollutant linkages identified above will be subject to a risk classification, which is designed to consider environmental risk in the context of alternative use strategies where redevelopment or a change of use may be required. This must be set in the context of the following hierarchy of risks as follows:-

HIGH: Significant risk of contamination without remediation. Precludes all but the least sensitive of development e.g. Car Parking. Significant potential for environmental pollution. Remediation measures expensive. Site Investigation required.

MEDIUM: Risk of contamination but allowing non-sensitive development e.g. Commercial, for reasonable costs of remediation, although more sensitive development, e.g. Housing may require substantial remedial measures. Potential for environmental pollution. Site Investigation may be required.

LOW: Little risk of contamination where all development options are likely to be possible with little or no remediation measures. Little potential for environmental pollution. Confirmatory site investigation may be required.

A risk is present if the contamination identified in the soils at a site comes into direct contact with site users and occupiers, plants and animals, any infrastructure running through contaminated soils, ground and surface waters and construction workers should the site be redeveloped.

The identified plausible pollutant linkages have been assigned a risk rating, which is shown in Table 3.3.

TABLE 3.3 - RISK RATING FOR THE IDENTIFIED PLAUSIBLE POLLUTANT LINKAGES

Source		Pathway	Receptor	Risk Rating & Justification
On Site	Soil Bound Contaminants	Through underlying geology and groundwater	Controlled waters	Medium – potentially contaminative on-Site activities, previous cyanide contamination in soils removed and validated prior to construction of the flammable stores shed. Site underlain by minor aquifer but nearest surface water (the canal) is likely to be lined and not be at risk from contamination arising from the Site.
			Flora and Fauna	Low - The SSSI is considered to be located at too great a distance to justify a higher risk rating. The Site is mainly covered with hardstanding and there is no evidence of vegetation distress in areas where there is no cover.
			Buildings and Services	Low - Site protected with acid resistant concrete.
			Health of Site users including ground workers	Low/medium – site covered in hardstanding and sealed drainage system which affords protection under 'normal' circumstances. However, any potential contamination could impact the heath of humans (particularly groundworkers) where hardstanding has been removed.
On Site	Soil Bound Contaminants	Underground services (e.g. via leaching & ingress into services) followed by ingestion, inhalation or dermal exposure	Health of Site users including ground workers	Low/medium – Only a consideration for groundworkers and if contamination is present. Any risk reduced through employment of appropriate heath and safety measures.
		Underground services (e.g. via leaching of contaminants in groundwater)	Public Sewer	Medium/high - Surface runoff collected on-Site in sumps and treated and/or discharged via foul sewer system. All tanks and the operational areas bunded. Other areas, used for the storage of waste chemicals in drums were unbunded.
		Underground services (e.g. via leaching of contaminants in groundwater)	Underlying geology Neighbouring Site	Medium – the presence of services may increase the mobility of any contamination depending on the characteristics of the contamination.

TABLE 3.3 - RISK RATING FOR THE IDENTIFIED PLAUSIBLE POLLUTANT LINKAGES

Source		Pathway	Receptor	Risk Rating & Justification
		Inhalation, Ingestion, Dermal Exposure	Health of Site users including ground workers. Neighbouring Site	Low/Medium – Potential sources of contamination identified. However, site covered in hardstanding which affords protection under 'normal' circumstances but heath risks could increase for groundworkers (for instance) where hardstanding has been removed.
		Surface water run-off.	Controlled waters	Low - nearest surface water (the canal) is likely to be lined and not be risk from contamination arising from the Site. Site served by sealed drainage system.
	Groundwater Bound Contaminants	Through underlying geology	Controlled waters Flora and Fauna Buildings and Services Health of Site users including ground workers Neighbouring Site	Low- High Similar risk ratings and justifications as soil bound contaminants.
	Hazardous Ground Gas	Emission and volatilisation from soils or migration via underground services	Site users including end users	Medium - No historical or observed evidence of hazardous gas at the Site. May be some volatilisation associated with hydrocarbons within soils but likely to be limited with heavy oils.
			Neighbouring site users/local residents	

3.4 SUMMARY OF QUALITATIVE RISK ASSESSMENT

The information available in this preliminary assessment has revealed that overall there is a medium potential risk of contamination arising from the Site or its current uses.

Previously identified cyanide contamination was encountered during the redevelopment of the current flammable stores area and was removed. Other potential sources of contamination currently exist at the Site, but given that the much of the Site is covered in protective hardstanding and surface run off is treated on-Site prior to foul discharge, it is anticipated that the subsurface will have afforded some protection from contamination arising from the Site activities.

The overall significance of contamination from the currently identified sources in respect of the potential impact on the occupation and serviceability of the Site should it be redeveloped, is considered to be of medium risk.

This Stage II intrusive investigation will examine the potential significant pollution linkages

identified above to re-assess the risk to receptors associated with the Site's use.

4.0 SITE INVESTIGATION

4.1 METHOD STATEMENT AND HEALTH & SAFETY PLAN

The sampling locations were selected based on the understanding of the Site conditions. A method statement detailing how the investigation was to be conducted was submitted to Veolia Environmental Services prior to commencing work.

A health and safety plan was completed before Site work commenced. Site investigation staff were briefed on the potential contaminants likely to be encountered, and the appropriate personal protective equipment (PPE) to be adopted for this type of investigation.

Corsair staff supervised the intrusive investigation and assessment work which was undertaken on 20th, 21st and 22nd March 2007.

All soil and groundwater sampling and gas monitoring was undertaken in accordance with Corsair's standard sampling protocols.

4.2 SCOPE OF WORKS AND JUSTIFICATION OF SAMPLE LOCATIONS AND ANALYSIS

The following scope of work was undertaken to investigate the Site and the potential environmental issues identified during Corsair's Site inspection. The investigation was undertaken in accordance with BS101775:2001 Code of Practice for the Investigation of Potentially Contaminated Sites by Corsair Representatives on the 20th, 21st and 22nd March 2007, and in accordance with the requirements of the PPC permit improvement conditions to collect reference data.

- Setting out of eight locations (MW1 to MW8) across the Site to evaluate the potential for contamination of the underlying soil and groundwater, which included accessible areas in the vicinity of the following identified potential sources of contamination: chemical drum store, acid stores, flammable store and areas of waste liquid/oil.

- Drilling of eight probeholes (MW1 to MW8) using a window sampling drilling rig for the purpose of visually inspecting the underlying soils and collecting soil samples for laboratory analysis of chemical parameters that were identified as potentially impacting the Site.

- Continued drilling of the initial probeholes using a rotary drilling rig for the purpose of

targeting groundwater and to allow for the installation of monitoring wells (MW1 to MW8).

- Collection of soil samples to a UKAS/MCERTS accredited laboratory for a selection of the following chemical analysis; heavy metals (arsenic, cadmium, chromium, copper, nickel, lead, mercury, zinc, boron, selenium), iron, cyanide, total petroleum hydrocarbons (TPH), speciated TPH, polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOC), MTBE, BTEX (benzene, toluene, ethybenzene and xylene), pH, acid soluble sulphide, sulphur, phenols.

- Conversion of all the probeholes to wells (MW1 to MW8) for the purposes of monitoring hazardous ground gas and groundwater.

- Collection of groundwater samples from MW1 to MW8 and existing monitoring wells BH1 to BH4 for submission to a UKAS accredited laboratory for a selection of the following chemical analysis; heavy metals, cyanide, total petroleum hydrocarbons (TPH), speciated TPH, BTEX, MTBE, rinsing polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC).

- Monitoring of the ground gas on one visit (27th March 2007) within the eight monitoring wells for the following gaseous contents; oxygen, carbon dioxide, methane, carbon monoxide and hydrogen sulphide.

- Obtaining groundwater level measurements to ascertain the hydraulic gradient of the groundwater.

Details of the monitoring well design are provided as Figure 2. The location of the previously installed and Corsair installed monitoring wells are provided as Figure 3.

4.3 GROUND CONDITIONS

Much of the Site comprised of concrete hardstanding at the surface to a maximum depth of 0.35m in all well locations with the exception of topsoil or vegetation encountered at the surface at MW7 and MW8. The intrusive investigation identified that much of the top one and a half metres of strata across the Site is MADE GROUND to depths of between 0.3 and 1.5m bgl, comprising brick, concrete, sand fill, wood and tarmac fragments within a predominantly sand and gravel (with clayey pockets) matrix.

Below the MADE GROUND, the stratum encountered was predominantly CLAY but pockets of SAND were observed. The CLAY stratum was predominantly firm brown sandy gravely CLAY but colour did vary to red brown in areas. The CLAY was encountered in all window sampling locations.

This CLAY layer was present throughout all the window sampling points up to the maximum depth of 7.40m bgl at MW8 below which the stratum became moderately strong red brown MUDSTONE.

Groundwater was encountered in all monitoring wells; where depths were observed between 3.50m bgl and 5.50m bgl and was noted as being a fast inflow.

Visible soil and groundwater contamination was not apparent in the monitoring wells with the exception of MW2 and MW3 (located near drummed chemical waste and a fuel AST). The soil and groundwater in both these wells had a strong hydrocarbon odour and contained a dark discolouration. Samples were screened using a Photo Ion Detector (PID) before being forwarded to the laboratory for analysis.

4.4 GROUNDWATER MONITORING

Window Sampling Logs are presented in Appendix I.

Groundwater samples were collected from the monitoring wells (MW1 to MW8) on 27th March 2007.

Following installation, the monitoring wells were given four days to equilibrate within the surrounding strata in accordance with standard procedure before Corsair returned to collect groundwater samples. The depths to groundwater were measured in each monitoring well and the elevation of the top of the monitoring well covers were surveyed to establish the direction of groundwater. The standing water within each of the wells was purged in order to encourage the flow of groundwater from the aquifer into the well before collecting a representative sample.

4.5 HAZARDOUS SOIL GAS MONITORING

Hazardous soil gas monitoring was performed at the Site on 27th March 2007 using a Geotechnical Instruments GA2000 Infra Red Gas Analyser within current instrument calibration. Monitoring Wells (MW1 to MW8) were monitored for the presence of methane, carbon dioxide, oxygen, hydrogen sulphide and carbon monoxide; atmospheric pressure was also recorded.

5.0 LABORATORY ANALYSIS

5.1 CHEMICAL ANALYSIS: SOIL SAMPLES

The follows summarises the schedule of analyses that the soil samples collected from the site were submitted for.

TABLE 5.1 - SAMPLING SCHEDULE

Nine soil samples were analysed for a metals/inorganic suite consisting of; arsenic, cadmium, chromium, copper, nickel, zinc, lead, mercury, selenium, water soluble boron, total cyanide, total sulphate, sulphide, sulphur, pH, total polycyclic aromatic hydrocarbons (PAH) and monohydric phenols.
Three soil samples were analysed for CLEA metals suite of analysis.
Ten soil samples were analysed for a speciated aromatic/aliphatic TPH suite of analysis which includes BTEX compounds and MTBE.
Three soil samples were analysed for non speciated TPH suite of analysis.
Eight soil samples were analysed for VOC; a suite which includes the BTEX compounds.
Four soil samples were analysed for Basic Screen of analysis which includes heavy metals, inorganics and total PAH.
Two soil samples were analysed for SVOC; a suite which includes phenol content.

The soil samples were selected to provide information on the presence of potential contamination and around likely sources and to provide a good general coverage of the Site. A sampling location plan is provided as Figure 3.

The soil samples were sent to ALcontrol Laboratories in Chester together with the chain of custody documentation.

5.2 CHEMICAL ANALYSIS: GROUNDWATER SAMPLES

Groundwater samples from the 11 monitoring wells (MW1 - MW8, BH1, BH3 and BH4) were analysed for heavy metals, cyanide, sulphate, pH, phenols, VOC, speciated PAH, speciated TPH suite with aliphatic/aromatic split, BTEX and MTBE compounds.

The groundwater samples were submitted to ALcontrol Laboratories in Chester. All samples were submitted under strict chain of custody documentation.

6.0 DISCUSSION OF ANALYTICAL RESULTS

6.1 GUIDANCE AND METHODOLOGY

In order to assess the significance of parameter concentrations identified in the soil and groundwater samples obtained from the Site, the results have been compared with the guidance criteria outlined below.

6.2 SOIL GUIDELINE VALUES (SGV) FOR HUMAN HEALTH

With the introduction of CLEA, it is now necessary to consider chemical soil concentrations with respect to CLEA Soil Guideline Values (SGV). SGV have been introduced for a number of chemical determinants, but not yet for all. Of particular note is that no SGVs have yet been provided for many of the organic parameters.

As far as possible, chemical test results have been considered in accordance with the new CLEA guidance documents CLR 7 – 11 and SGV reports.

The CLEA model assesses risks presented by material present within the upper 1m of the soil on completion of the finished development.

In order to compare the concentrations of chemical determinants present on-site with the CLEA SGV, a 'mean value' test is undertaken (defined in CLR 9). It is necessary to first ascertain the mean concentration of these determinants over the areas with a similar site history and materials, which are similar in nature known as Averaging Areas. A simple arithmetic mean (95% Upper Contaminant Level, UCL) of the values is calculated. This statistical mean is then compared with the relevant SGV for the redevelopment which in this instance is residential end use with plant uptake which is considered to be the most stringent. This comparison assesses whether the contamination levels present statistically exceed the level where the contaminants might be considered to present a risk to site users.

A 'maximum value' test is performed on values that exceed the SGV to determine if a single elevated value could be considered as an outlier value (i.e. not being representative of the soil as a whole). The 'maximum value' test uses logarithmic measured values and is defined in CLR 9. This presents the results in a more or less symmetric distribution that is usually close enough to allow normal statistics to be used with confidence.

Tables 6.2A and 6.2B, below identifies the contaminants that were analysed and their respective Site Threshold Values (STV) for the protection of human health.

TABLE 6.2A - SUMMARY OF SOIL SCREENING VALUES FOR HUMAN HEALTH

Determinant	**Derived GAC mg/kg**	**Basis of derived GAC**
Arsenic	500	CLEA Soil Guideline Value (SGV) for Commercial/Industrial end use.
Boron	185,000	Corsair derived GAC for Commercial/Industrial end use.
Cadmium	1,400	CLEA SGV for Commercial/Industrial end use.
Chromium	5,000	CLEA SGV for Commercial/Industrial end use.
Copper	91,938.124	Corsair derived GAC for Commercial/Industrial end use.
Lead	750	CLEA SGV for Commercial/Industrial end use.
Mercury	480	CLEA SGV for Commercial/Industrial end use.
Nickel	5,000	CLEA SGV for Commercial/Industrial end use.
Selenium	8,000	Corsair derived GAC for Commercial/Industrial end use.
Zinc	550,000	Corsair derived GAC for Commercial/Industrial end use.
Iron	1,450,000	Corsair derived GAC for Commercial/Industrial end use.
Cyanide (total and free)	1,650	Corsair derived Soil Guideline Value, TOX, for Commercial/Industrial end use.
pH	<5.5 and >9.5	Professional Judgement, based on UK drinking water standards.
Benzene	0.208	GAC for Commercial/Industrial end use.
Toluene	150	1% SOM, CLEA SGV for Commercial/Industrial end use.
Ethylbenzene	48000	1% SOM, CLEA SGV for Commercial/Industrial end use.
Xylene	25.499	Corsair derived GAC for Commercial/Industrial end use.
Phenols	21,900	1% SOM, CLEA SGV for Commercial/Industrial end use.
Total Polycyclic Aromatic Hydrocarbons (PAH)	577	Professional judgement based on derived GAC for Benzo(a) pyrene multiplied by 16 (the number of individual PAHs that constitute total PAH). Conservative value due to relative toxicity of BaP.
Benzo(a)pyrene	36	Corsair derived GAC, TOX, for Commercial/Industrial end use.
Napthalene	160	Corsair derived GAC for Commercial/Industrial end use.
1,1 Dichloroethane	20.3	Corsair derived GAC for Commercial/Industrial end use.

TABLE 6.2A - SUMMARY OF SOIL SCREENING VALUES FOR HUMAN HEALTH

Determinant	**Derived GAC mg/kg**	**Basis of derived GAC**
Cis 1,2 Dichloroethane	3.46	Corsair derived GAC for Commercial/Industrial end use.
Trichloroethene	0.01	Corsair derived GAC for Commercial/Industrial end use.
Chloroform	3.45	Corsair derived GAC for Commercial/Industrial end use.
Dichloropropane	6.04	Corsair derived GAC for Commercial/Industrial end use.
Vinyl Chloride	0.002	Corsair derived GAC for Commercial/Industrial end use.
Total Petroleum Hydrocarbons Criteria Working Group (TPHCWG)	500	Professional judgement based on the landfill acceptance criteria for inert waste landfill.

TABLE 6.2B - SUMMARY OF TPH SOIL SCREENING VALUES FOR HUMAN HEALTH

TPH Fraction	**Derived GAC mg/kg**	**Basis of derived GAC**
Aliphatics C5-C6	1,000,000.0	Corsair derived GAC for commercial/industrial end use.
Aliphatics C6-C8	8.32	
Aliphatics C8-C10	43.3	
Aliphatics C10-C12	10,300.0	
Aliphatics C12-C16	48,500.0	
Aliphatics C16-C21	73,900.0	
Aliphatics C21-C35	73,900.0	
Aromatics C5 - C7	2.48	
Aromatics C7- C8	262.0	
Aromatics C8 - C10	430.0	
Aromatics C10 – C12	34,900.0	
Aromatics C12 – C16	66,100.0	
Aromatics C16 –C21	26,500.0	
Aromatics C21 - C35	26,500.0	

6.2.1 SOIL RESULTS

Tables 6.2.1A and 6.2.1B summarises the results from the soil at the Site which were compared to commercial/industrial end use guideline values and subject to the maximum and mean value statistical tests.

TABLE 6.2.1A - SUMMARY OF SOIL RESULTS

Determinant	Max. Conc. Detected (mg/kg)	95% Upper Bound (mg/kg)	SGV or derived GAC mg/kg	95% Upper Bound > STV?	Outliers detected?	Comment
Arsenic	71	< GAC	500	No	N/A	All concentrations less than STV
Boron	14	< GAC	185,000	No	N/A	All concentrations less than STV.
Cadmium	5.3	< GAC	1,400	No	N/A	All concentrations less than STV.
Chromium	2500	< GAC	5,000	No	N/A	All concentrations less than STV.
Copper	330	< GAC	91,938	No	N/A	All concentrations less than STV.
Lead	310	< GAC	750	No	N/A	All concentrations less than STV.
Mercury	6.2	< GAC	480	No	N/A	All concentrations less than STV.
Nickel	160	< GAC	5,000	No	N/A	All concentrations less than STV.
Selenium	<3	< GAC	8,000	No	N/A	All concentrations less than STV.
Zinc	1600	< GAC	550,000	No	N/A	All concentrations less than STV.
Cyanide	690	< GAC	1,650	No	N/A	All concentrations less than STV.
pH	7.65 – 9.05	< GAC	<5.5 - >9.5	No	N/A	All concentrations less than STV.
Benzene	0.022	< GAC	0.208	No	N/A	All concentrations less than STV.
Toluene	<0.010	< GAC	150	No	N/A	All concentrations less than STV.
Ethylbenzene	<0.010	< GAC	48,000	No	N/A	All concentrations less than STV.
Xylene	<0.014	< GAC	25.499	No	N/A	All concentrations less than STV.
Total phenols	<0.1	< GAC	21,900	No	N/A	All concentrations less than STV.
Total PAH Benzo(a)pyrene Naphthalene	15 0.950 0.450	< GAC	576 36 160	No	N/A	All concentrations less than STV.

TABLE 6.2.1A - SUMMARY OF SOIL RESULTS

Determinant	Max. Conc. Detected (mg/kg)	95% Upper Bound (mg/kg)	SGV or derived GAC mg/kg	95% Upper Bound > STV?	Outliers detected?	Comment
1,1 Dichloroethane	0.020	< GAC	20.3	No	N/A	All concentrations less than STV.
Cis 1,2 Dichloroethane	0.340	< GAC	3.46	No	N/A	All concentrations less than STV.
Trichloroethene	3.3	< GAC	0.01	No	No	Seven samples were found to have concentrations of TCE above the STV. The maximum concentration of 3.3mg/kg was associated with the sample from MW2 at 0.5m. No outliers.
Chloroform	0.21	< GAC	3.45	No	N/A	All concentrations less than STV.
Dichloropropane	0.39	< GAC	6.04	No	N/A	All concentrations less than STV.
TPH	6200	2487	500	Yes	No	Three samples were found to have concentrations of TPH above the STV: MW1 (0.6m) 2300mg/kg; MW3 (0.5m) 6200mg/kg and MW6 (0.5m) 1600mg/kg. Not considered outliers.

In general, the samples submitted for laboratory analysis recorded no contamination above GAC. The excepted parameters that were found at concentrations indicative of contamination were TPH and TCE (a chlorinated hydrocarbon). Elevated concentrations of TPH above STV were identified in three samples and TCE in six samples. Although other chlorinated hydrocarbons were detected, the concentrations were not above the respective STVs.

TABLE 6.2.1B - SUMMARY OF TPH RESULTS

TPH Fraction	Max. conc. detected (mg/kg)	95% upper bound (mg/kg)	Derived GAC mg/kg	95% UB > STV ?	Outliers detected	Comment
Aliphatics C5 - C6	0.01	N/A	1,000,000	No	N/A	All concentrations < derived GAC.
Aliphatics C6 - C8	0.68	N/A	8.32	No	N/A	All concentrations < derived GAC.
Aliphatics C8 - C10	0.78	N/A	43.3	No	N/A	All concentrations < derived GAC.
Aliphatics C10 -C12	2.9	N/A	10,300	No	N/A	All concentrations < derived GAC..
Aliphatics C12 - C16	270	N/A	48,500	No	N/A	All concentrations < derived GAC.

TABLE 6.2.1B - SUMMARY OF TPH RESULTS

TPH Fraction	Max. conc. detected (mg/kg)	95% upper bound (mg/kg)	Derived GAC mg/kg	95% UB > STV ?	Outliers detected	Comment
Aliphatics C16 - C21	10000	N/A	73,900	No	N/A	All concentrations < derived GAC.
Aliphatics C21 - C35	1000	N/A	73,900	No	N/A	All concentrations < derived GAC.
Aromatics C5 - C7	0.01	N/A	2.48	No	N/A	All concentrations < derived GAC.
Aromatics C7 - C8	0.01	N/A	262.0	No	N/A	All concentrations < derived GAC.
Aromatics C8 - C10	1.2	N/A	430.0	No	N/A	All concentrations < derived GAC.
Aromatics C10 - C12	4.4	N/A	34,900	No	N/A	All concentrations < derived GAC.
Aromatics C12 - C16	340	N/A	66,100	No	N/A	All concentrations < derived GAC.
Aromatics C16 - C21	860	N/A	26,500	No	N/A	All concentrations < derived GAC.
Aromatics C21 - C35	900	N/A	26,500	No	N/A	All concentrations < derived GAC

None of the speciated analytical results have found TPH fractions above the respective derived GAC, indicating that the TPH which was considered to represent a potential concern without the supporting speciated data comprises heavier chained fractions, and therefore is not of concern to human health. The identified concentrations of TCE, however, do present a possible concern to human health and may need to be considered further in the context of the site conceptual model or a detailed Quantitative Risk Assessment (DQRA).

6.3 GROUNDWATER RESULTS

Analytical results of the groundwater samples submitted for analysis have been compared with guidelines listed in the Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the Environmental Protection Act 1990 (no. 07_02). This document includes Environmental Quality Standards (EQS) and United Kingdom (UK) Drinking Water Standards (DWS). EQS and drinking water standards can be used as generic assessment values for controlled water receptors in accordance with CLR 11.

EQS values are derived for individual substances in (surface) water. They indicate the concentration of the specific substance that is protective of aquatic life, which are typically aquatic invertebrates or fish. The EQS is normally derived to protect the most sensitive group. Where a

range of EQS for freshwater is given, it is dependant upon the hardness of the water.

The UK DWS are taken from the Water Supply (Water Quality) Regulations 1989 (as amended), and the Water Supply (Water Quality) Regulations 2000 (as amended).

The Site is not located within a source protection zone for potable water supplies, and therefore the EQS are considered to be the most appropriate guideline values when assessing groundwater samples at the Site. The UK Drinking Water Standards or other standards have been applied where no EQS values exist.

Table 6.3A summarises the generic assessment criteria and the maximum concentrations of the parameters identified in the water samples.

TABLE 6.3A – SUMMARY OF GROUNDWATER RESULTS.

Parameter	Maximum Concentration (µg/l) in Groundwater	Assessment Criteria (µg/l)	Source of Assessment Criteria	Guidance exceeded?
MTBE	33	10	UK DWS (taste & odour)	No
Benzene	<10	30	EQS	No
Toluene	<10	50	EQS	No
Ethyl benzene	<10	20	EQS	No
Xylene (m/p and o)	<10	30	EQS	No
Aliphatics C5-C6	<10	10	UK DWS	No
Aliphatics C6-C8	220	10	UK DWS	Yes
Aliphatics C8-C10	<10	10	UK DWS	No
Aliphatics C10-C12	<10	10	UK DWS	No
Aliphatics C12-C16	4100	10	UK DWS	Yes
Aliphatics C16-C21	6900	10	UK DWS	Yes
Aliphatics C21-C35	3600	10	UK DWS	Yes
Aromatics C6-C7	<10	10	UK DWS	No
Aromatics C7-C8	<10	10	UK DWS	No
Aromatics C8-C10	<10	10	UK DWS	Yes

TABLE 6.3A – SUMMARY OF GROUNDWATER RESULTS.

Parameter	Maximum Concentration (µg/l) in Groundwater	Assessment Criteria (µg/l)	Source of Assessment Criteria	Guidance exceeded?
Aromatics C10-C12	<10	10	UK DWS	No
Aromatics C12-C16	490	10	UK DWS	Yes
Aromatics C16-C21	2100	10	UK DWS	Yes
Aromatics C21-C35	1800	10	UK DWS	Yes
Arsenic	85	50	EQS	Yes
Boron	4100	2000	EQS	No
Cadmium	36	5	EQS	No
Chromium	180	50	UK DWS	No
Hexavalent Chromium	0.04	-	No DWS, EQS or WHO guidance	-
Copper	590	2000	UK DWS	No
Lead	2	4 - 250	EQS	No
Mercury	0.06	1	EQS	No
Nickel	370	50 - 200	EQS	Yes
Selenium	76	10	UK DWS	No
Zinc	310	5000	UK DWS	No
Sulphate (soluble)	1,500,000	400,000	EQS	Yes
Sulphide	<500	0.25	EQS	Detection limit exceeds guidance level.
Cyanide	<50	50	EQS	No
Napthalene	0.380	10	EQS	No
Benzo(a)pyrene	0.065	0.01	UK DWS	No
Phenols	920	30	EQS	Yes
PAH (Total) based on;	0.262	0.1	UK DWS	Yes

TABLE 6.3A – SUMMARY OF GROUNDWATER RESULTS.

Parameter	Maximum Concentration (µg/l) in Groundwater	Assessment Criteria (µg/l)	Source of Assessment Criteria	Guidance exceeded?
Benzo(b)fluoranthene	0.120			
Benzo(k)fluoranthene	0.038			
Benzo(ghi)perylene	0.062			
Indeno(123cd)pyrene	0.042			
Vinyl Chloride (VC)	10	0.5	UK DWS	Yes
1,1 Dichloroethane (DCA)	43	30	WHO	Yes
Cis 1,2 Dichloroethene (DCE)	310	50	WHO	Yes
Trichloroethene (TCE)	280	10 (with PCE)	UK DWS	Yes
Chloroform	95	100	UK DWS	No
Carbontetrachloride	4	-	No DWS, EQS or WHO guidance	-
Tetrachloroethene (PCE)	160	10 (with TCE)	UK DWS	Yes
1,1,1 Tricloroethane (TCA)	63	100	EQS	No
pH	7.45 – 8.21	<5.5 and >9.5	UK DWS	No

The results of the laboratory analysis on groundwater samples have shown that a number of TPH fractions were identified at concentrations above DWS. The following TPH fractions are considered to be of concern: aliphatics C6-C8, aliphatics C12-C35, aromatics C8-C10 and aromatics C12-C35. PAH was also identified at a concentration of 0.262 µg/l in the sample from MW3 which is above the DWS of 0.1 µg/L (based on the total concentrations of four individual PAHs). Phenol was detected above guidance in the sample from MW5. Chlorinated solvents were detected in trace concentrations in the groundwater samples from MW1, MW2, MW3, MW4 and MW8 but were found to be above guidance in the samples from MW2 (PCE, 1,1 DCA and cis DCA), MW4 (PCE) and MW5 (PCE) with the maximum concentrations associated with the sample from MW2.

With respect to inorganic parameters analysed, concentrations of arsenic, nickel, zinc and sulphate were found to be elevated above guidance in a number of samples.

In summary, the following contaminants of concern have been identified in the groundwater at the Site.

TABLE 6.3.B - GROUNDWATER CONTAMINANTS OF CONCERN

Contaminants of Concern
Aliphatics C6-C8 (MW2), Aliphatics C12-C16 (MW3), Aliphatics C16-C21 (MW3), Aliphatics C21-C35 (MW3), Aromatics C8-C10 (MW2 and MW3), Aromatics C12-C16 (MW3), Aromatics C16-C21 (MW3), Aromatics C21-C35 (MW3) Vinyl Chloride (MW2, MW3, MW5 above method detection limit of 1 µg/l. Remainder of results showed LOD above guidance.) 1,1 Dichloroethane (MW2) Cis 1,2 Dichloroethene (MW2) Trichloroethene (MW2, MW4, MW5) Tetrachloroethene (MW2, MW4 and MW5) PAH (MW3) Phenol (MW5)
Arsenic (MW1) Nickel (assuming most stringent of the EQS range: MW1, MW2, MW5, MW6 and MW8) Sulphate (MW2, MW2, MW5, MW6) Sulphide (LOD for all results above guidance)

Laboratory Certificates of Analysis for Soils and Groundwater are presented in Appendix II.

Assessment of the groundwater analytical results has identified a number of inorganic and organic parameters above guidance concentrations in the shallow soils. Given the encountered geology of marl with fine sand lenses and the absence of surface waters or abstractions for water supply in the vicinity, it could be asserted that the guidance utilised in the assessment is overly stringent. Nevertheless, a detailed Quantitative Risk Assessment Remedial Targets Methodology Worksheets (Environment Agency) could be undertaken to ascertain whether the identified contaminants of concern are likely to impact the surrounding premises.

6.4 HAZARDOUS GROUND GAS

On-Site gas monitoring undertaken on 27th March 2007 identified methane at the instrument detection limit of 0.1%v/v (volume) in MW1, but the remaining wells recorded no methane at concentrations above 0.1% v/v. The maximum recorded concentration of carbon dioxide 1.7% which was associated with MW5; this is slightly above the BRE 212 guidance of 1.5% v/v (long term average). A summary of the most recent gas monitoring results is provided in Table 6.4A.

TABLE 6.4A SUMMARY OF GAS MONITORING 27/03/07

Well Identity	Methane (%v/v)	Carbon Dioxide (%v/v)	Oxygen (%v/v)	Flow (L/hr)	Atmospheric Pressure (mb)
MW1	0.1	0.1	14.2	0.5	0999
MW2	0	0.3	14.6	0.1	0999
MW3	0	0.4	17.8	0	1000
MW4	0	0.5	18.6	0.1	0999
MW5	0	1.7	14.4	0	0999
MW6	0	0	19.6	0.1	0999
MW7	0	0.5	18.6	0.2	0999
MW8	0	0.8	19.7	0.1	0999

On the basis of this monitoring data, hazardous ground gases are generally not considered to be of concern at the Site. The presence of one carbon dioxide reading above guidance however, indicates that further monitoring as part of an on-going program should be considered. Monitoring will also ascertain whether the detected concentrations vary according to atmospheric pressure or other weather conditions.

7.0 RISK MANAGEMENT STRATEGY

7.1 SUMMARY FROM INTRUSIVE INVESTIGATION

Few of the soil samples obtained from the Site investigation were found to contain concentrations of the analysed parameters above the respective guidance values. Given that identified TPH in the soil was characterised as comprising heavier chained hydrocarbons for which the guidance concentration are relatively high, TPH in the soils is not considered to present a concern to human health. The only potential contaminant identified in the soil was TCE, which was identified in the following seven soil samples at concentrations above the guidance: MW2 (0.35m), MW3 (1.25m), MW4(0.5m), MW5(0.7m), MW6(0.6m), MW7(0.6m) and MW8(0.65m). The identified concentrations of TCE in the soils could be considered further as part of a DQRA to ensure appropriate mitigation measures to protect human health are being maintained.

Assessment of the groundwater analytical results has identified a number of inorganic and organic parameters above guidance concentrations in the shallow soils. Given the encountered geology of marl with fine sand lenses and the absence of surface waters or abstractions for water supply in the vicinity, it could be asserted that the guidance utilised in the assessment is overly stringent. Nevertheless, a DQRA which utilises the Remedial Targets Methodology Worksheets (Environment Agency) could be undertaken to ascertain whether the identified contaminants of concern are likely to impact the surrounding premises.

On the basis of this monitoring data, hazardous ground gases are generally not considered to be of concern at the Site. The presence of one carbon dioxide above guidance however, indicates that further monitoring as part of an on-going program should be considered. Monitoring will also ascertain whether the detected concentrations vary according to atmospheric pressure or other weather conditions.

7.2 REVISED CONCEPTUAL MODEL

The conceptual model was used to plan an appropriate Site investigation in order to obtain data which could be used in a detailed Quantitative Risk Assessment. The identified pollutant linkages, together with the selected QRA model and the justification for its use are summarised in Table 7.2 below.

TABLE 7.2 - REVISED SIGNIFICANT POLLUTION LINKAGES IDENTIFIED FOR THE SITE

Source		Pathway	Receptor	Risk Rating & Justification
On Site	Soil Bound Contaminants	Through underlying geology and groundwater	Controlled waters	High – Several chemical parameters identified in the groundwater above relevant guidance, inc. chlorinated solvents. TCE at concentrations above guidance identified in the soil. No cyanide was identified in the groundwater, confirming that previous cyanide contamination identified prior to the constructing of the flammable store has been removed.
			Health of Site users including ground workers	Low/medium – Site covered in hardstanding which affords protection under 'normal' circumstances. Only TCE identified at concentrations within the soil considered contaminative for the end use.
On Site	Soil Bound Contaminants	Underground services (e.g. via leaching & ingress into services) followed by ingestion, inhalation or dermal exposure	Health of Site users including ground workers	Low/medium – Only a consideration for groundworkers and if contamination is present. Any risk reduced through employment of appropriate heath and safety measures.
		Underground services (e.g. via leaching of contaminants in groundwater)	Public Sewer	Medium/high - Surface runoff collected on-Site in sumps and treated and/or discharged via foul sewer system. All tanks and the operational areas bunded. Other areas, used for the storage of waste chemicals in drums were unbunded.
			Underlying geology Neighbouring Site	Low – Only TCE contamination identified in the soil horizon. Groundwater depth greater than the likely depth of services reducing the perceived risk from this plausible linkage.
		Inhalation, Ingestion, Dermal Exposure	Health of Site users including ground workers Neighbouring Site	Low/medium – site covered in hardstanding which affords some protection under 'normal' circumstances. However, TCE is relatively volatile so there is a potential to impact human heath and this is reflect in the CLEA UK derived GAC for TCE. Groundworkers at greater risk but are likely to be wearing PPE.

TABLE 7.2 - REVISED SIGNIFICANT POLLUTION LINKAGES IDENTIFIED FOR THE SITE

Source		Pathway	Receptor	Risk Rating & Justification
	Groundwater Bound Contaminants	Through underlying geology	Controlled waters	High – Minor aquifer found to be impacted by a number of organic and inorganic contaminants. Surface waters could potentially be impacted but given the clayey geology any flow is likely to be restricted.
	Groundwater Bound Contaminants	Through underlying geology	Buildings and Services Health of Site users including ground workers	Medium/high – greatest risk presented by volatile contaminants. Groundworker at risk due to removal of protective hardstanding. Any risk reduced through employment of appropriate heath and safety measures.
	Groundwater Bound Contaminants	Through underlying geology	Neighbouring Site	Low - No contamination identified in the groundwater sample from BH4 located down hydraulic gradient from the majority of site.
	Hazardous Ground Gas	Emission and volatilisation from soils or migration via underground services	Site users including end users	Medium - No historical or observed evidence of hazardous gas at the Site. Low - some volatilisation associated with hydrocarbons within soils but likely to be limited with heavy oils. Apart from one slightly elevated concentration of carbon dioxide, no hazardous ground gas identified. Landfill adjacent to the site more likely to present a risk.
			Neighbouring site users/local residents	

Following revision of the conceptual model initially developed for the Site, the overall risk rating, with respect to environmental risk, is considered to be **Medium** on the basis of the TCE contamination of the shallow soils and the organic and inorganic contamination identified in some of the wells (most notably MW2 located in the unbunded waste assessment area). The contamination appears to be relatively localised and no groundwater contamination was identified in BH4 located down hydraulic gradient.

8.0 CONCLUSIONS & RECOMMENDATIONS

8.1 CONCLUSIONS

The purpose of this investigation was to examine the chemical quality of the soils and groundwater on the Site. This report has provided reference data as a bench mark in identifying the chemical quality of these parameters as part of the PPC improvement conditions for the Site. Based on the findings of the initial conceptual Model, a Site investigation was designed to ascertain the conditions of the soils and groundwater beneath the Site. Soil contaminated with TCE was identified within many of the soil samples but other (chlorinated and non-chlorinated) hydrocarbons were not identified at concentrations above guidance in the soils. Review of the groundwater results indicated chlorinated solvents at concentrations above drinking water standards or EQS values. In addition, contamination by TPH, PAH, phenols, arsenic, nickel, sulphate and sulphide were also identified.

There is a potential for the slightly elevated concentrations of TCE in the soils to present a risk to human health via the volatilisation and migration through cracks in the concrete surfacing or via ingress through services and subsequent inhalation. However, the risk to Site users under normal conditions is considered to be low. Greater risk to human health is more likely to arise during groundworks when Site users may come into contact with the soil source of contamination via the volatisation, inhalation and dermal contact pathways. Protection against the temporary elevated risk from soil and groundwater contamination (via volatisation) can be obtained through deployment of PPE and safe working practices.

The presence of groundwater contamination indicates some contamination of the groundwater but since the Site's location in an area of low sensitively the impact of the contamination is limited.

8.2 RECOMMENDATIONS

The TCE contamination in the shallow soils presents a potential risk to groundworkers and, should groundworks be undertaken in these areas, consideration should be given to appropriate personal protection equipment and safe working practices.

Further monitoring of the groundwater and/or a DQRA of the groundwater contaminants will assess the likelihood of the contamination migrating off Site.

Report Prepared by:

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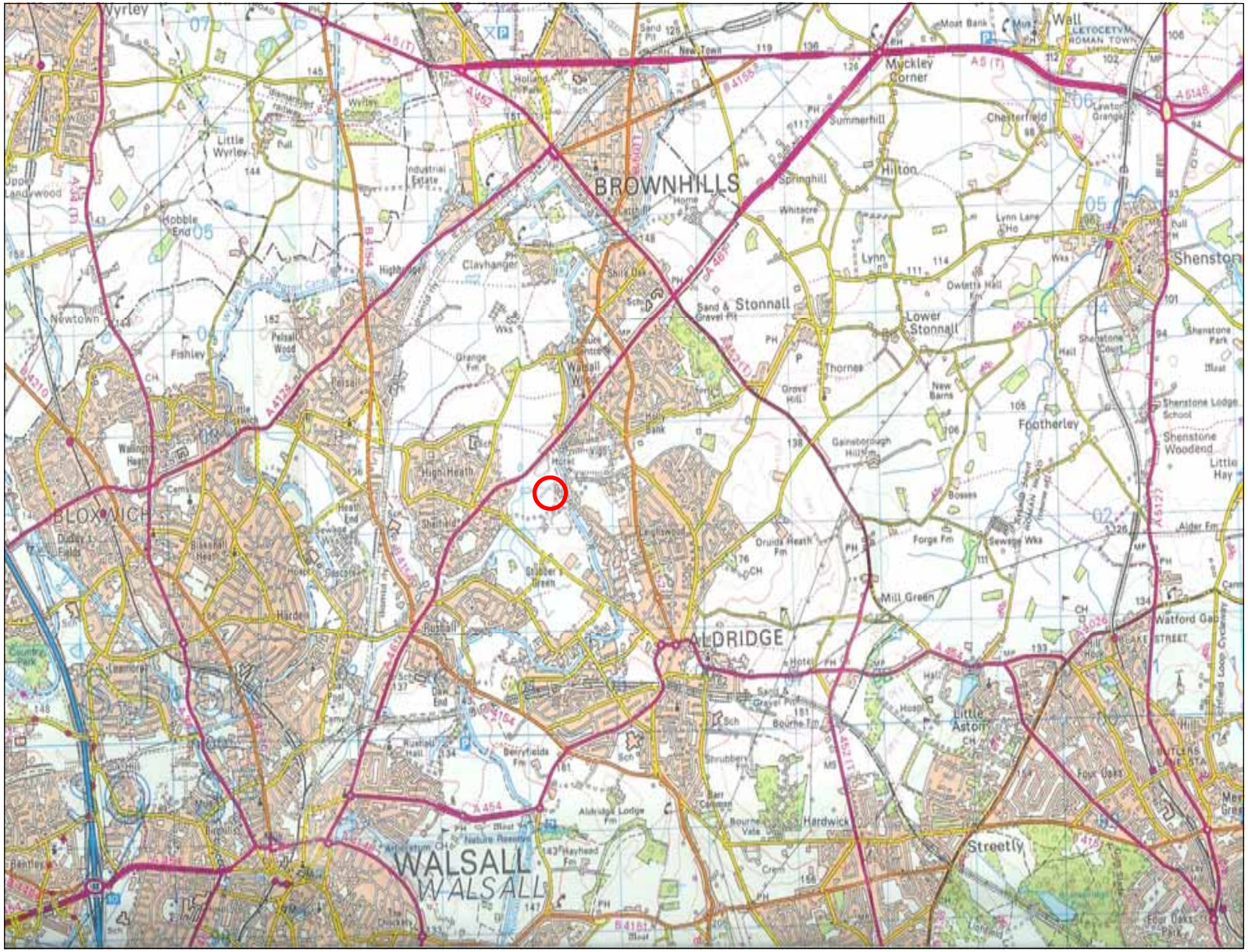
Vanessa Bell BSc (Hons), MSc, AIEMA Date
Consultant

Report Reviewed by:

……
Kate Holland BSc (Hons), MRICS Date

Project Manager
Chartered Environmental Surveyor

FIGURES



Corsair

Figure 1

Project number 07-128.01

Project: Empire Treatment Works

Description: Site Location Plan

Version Status: Final | **Version Number:** 1.0

Legend

Site Location

Grid reference of site SK043023

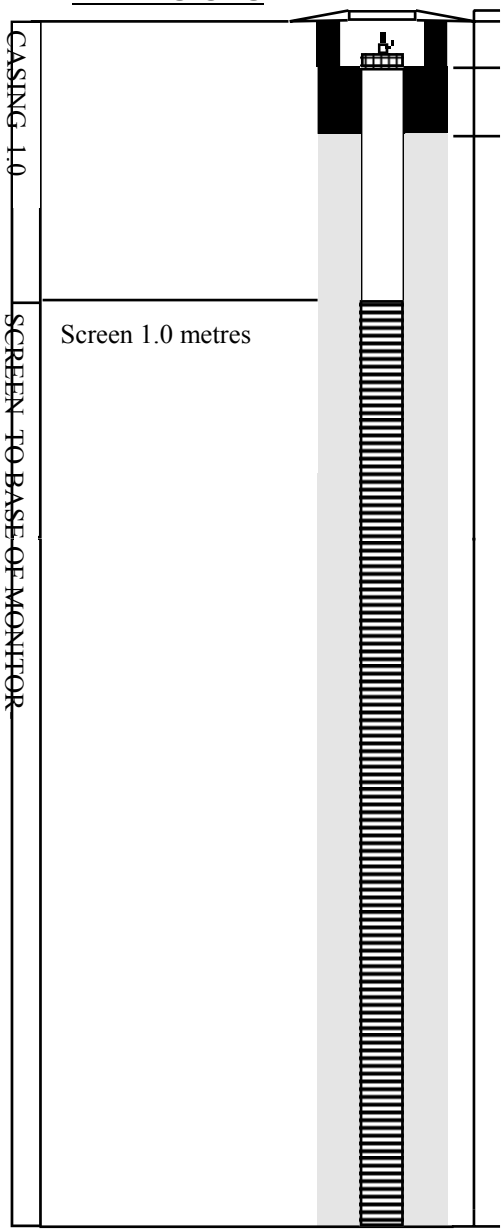
Scale: NTS

N

Drawn by JW
Verified by KEH
Authorised by GNRD

Notes

SHALLOW



Corsair

Figure 2

Project number 07-128.01

Project: Empire Works, Aldridge

Description: Monitoring Well Design

Version Status: Final | **Version Number:** 1.0

Legend

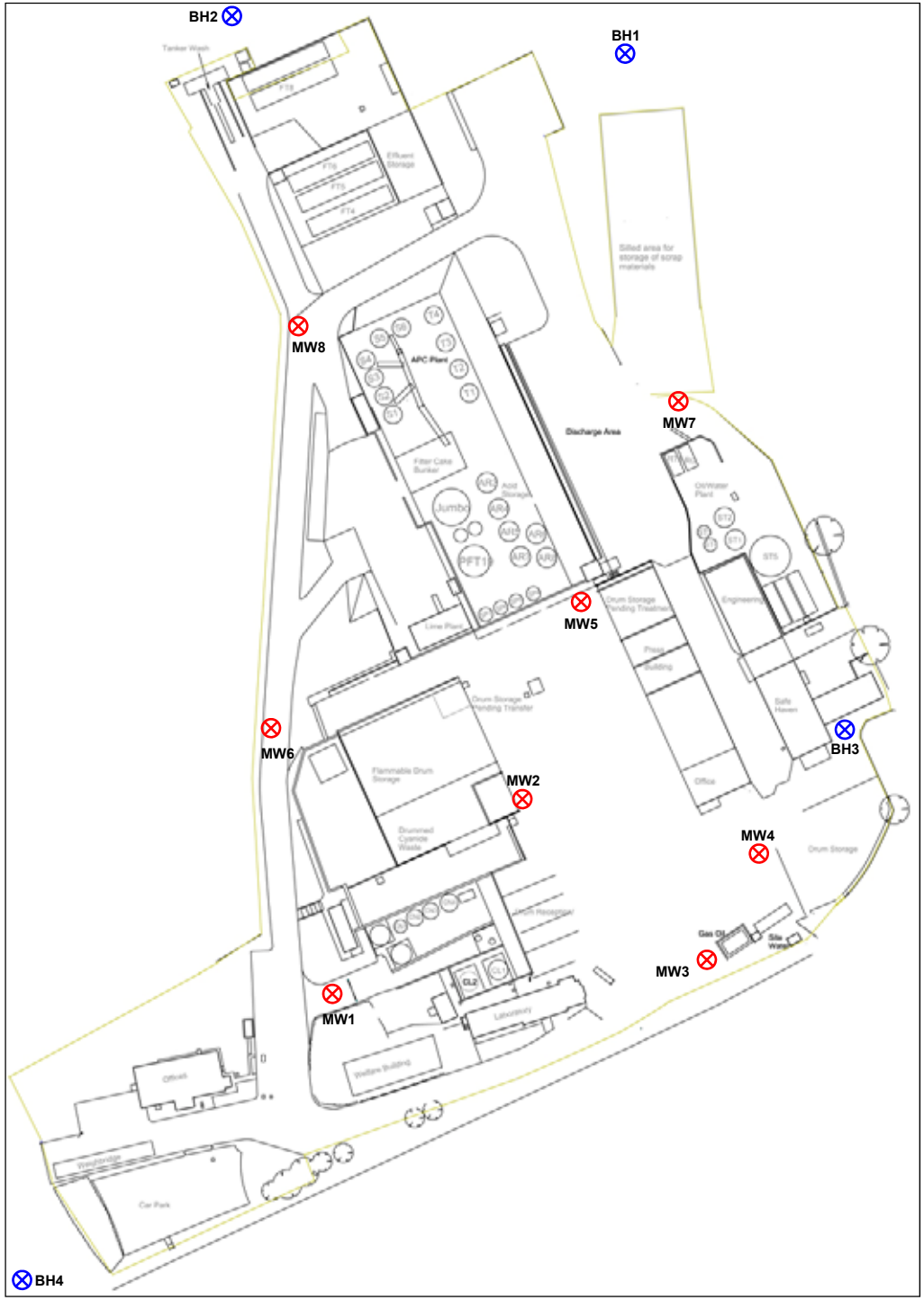
Grid reference of site

Scale: NTS

N

Drawn by	JW
Verified by	KEH
Authorised by	GNRD

Notes



Corsair

Figure 3

Project number 07-128.01

Project: Veolia, Aldridge

Description: Monitoring Well Location Plan

Version Status: Final	Version Number: 1.0

Legend

- Corsair Monitoring Wells
- Previously Installed Monitoring Wells

Scale: NTS

N

Drawn by
Verified by
Authorised by

Notes

PHOTOGRAPHS

Photograph 1: Drum Storage Area

Photograph 2: Non Hazardous Drum Storage (No Bunding)

Photograph 3: AST In South East Of Site

Photograph 4: Inside AST Bund Wall

Photograph 5: Acid Storage Area

Photograph 6: Waste Oil Containers

APPENDICES

APPENDIX I

Corsair Environmental Consultants Ltd
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Borehole No
MW1
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404380E - 302210N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 21/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.30	D		0.30	159.70		CONCRETE (MADE GROUND)
					0.50	159.50		Grey broken CONCRETE (MADE GROUND)
		0.70	D		0.75	159.25		Black weak sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick and concrete. (MADE GROUND)
					1.00	159.00		Grey broken CONCRETE (MADE GROUND)
		1.25	D					Firm brown sandy gravelly CLAY. Gravel is sub-angular to rounded fine to coarse of brick and quartz.
					2.00	158.00		Firm brown sandy CLAY.
	▽				3.60	156.40		Firm brown sandy gravelly CLAY. Gravels are sub-angular to rounded fine to coarse of brick.
					4.50	155.50		Stiff red brown CLAY.
					6.00	154.00		Moderately strong red brown MUDSTONE.
			Type	Results				End of Borehole at 10.00 m

Remarks:

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Borehole No
MW2
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404420E - 302250N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 22/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.35	D		0.35	159.65		CONCRETE (MADE GROUND)
		0.70	D		0.50	159.50		Black SAND and GRAVEL. Gravel is sub-angular to angular fine to coarse of brick. (MADE GROUND)
					1.00	159.00		Red gravelly SAND. Gravel is sub-angular to angular fine to coarse of brick. (MADE GROUND)
					1.30	158.70		Grey broken CONCRETE. (MADE GROUND)
		1.75	D					Weak brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick and broken mudstone.
					2.00	158.00		Fine brown sandy gravelly CLAY. Gravels are sub-angular to rounded fine to coarse of brick and mudstone.
	▽				4.30	155.70		Course brown gravelly SAND. Gravels are sub-angular to rounded medium of mudstone.
					5.00	155.00		Red brown sandy CLAY
					5.60	154.40		Moderately strong red brown MUDSTONE.
			Type	Results				End of Borehole at 10.00 m

Remarks:

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Borehole No
MW3
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404460E - 302220N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 21/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.30	159.70		CONCRETE (MADE GROUND)
		0.50	D		0.60	159.40		Black SAND and GRAVEL. Gravel is sub-angular to angular fine to course of concrete. Wood noted in hole. (MADE GROUND)
		1.25	D					Red and Brown sandy slightly gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick and mudstone.
					2.00	158.00		Firm red brown sandy slightly gravelly CLAY. Gravels are sub-angular to angular fine to coarse of mudstone.
	▽				4.50	155.50		Stiff red brown CLAY.
					5.50	154.50		Moderately strong red brown MUDSTONE.
			Type	Results				End of Borehole at 10.00 m

Remarks:

AGS

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Borehole No
MW4
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404470E - 302240N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 21/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.30	159.70		CONCRETE (MADE GROUND)
		0.50	D		0.75	159.25		Black SAND and GRAVEL. Gravel is sub-angular to angular fine to coarse of tarmac. (MADE GROUND)
					1.00	159.00		Red brown brick and SAND.
		1.30	D		1.25	158.75		Red brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of mudstone.
								Light brown weak sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of mudstone.
					2.00	158.00		Firm brown sandy CLAY.
	▽				3.50	156.50		Firm brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of mudstone.
					4.30	155.70		Fine brown gravelly SAND. Gravel is sub-angular to angular fine to coarse of mudstone
					5.00	155.00		Stiff brown sandy CLAY.
					6.50	153.50		Moderately strong red brown MUDSTONE.
			Type	Results				End of Borehole at 10.00 m

Remarks:

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Borehole No
MW5
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404430E - 302290N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 22/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.35	159.65		CONCRETE (MADE GROUND)
	▽	0.50	D		0.40	159.60		Black SAND and GRAVEL. Gravel is sub-angular to angular fine to coarse of brick. (MADE GROUND)
		0.60	D					
		0.70	D					
					1.00	159.00		Brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick. Patches of red brick
		1.60	D					Weak brown slightly sandy slightly gravelly CLAY. Gravel is sub-angular to rounded fine to coarse of brick.
		1.80	D		1.75	158.25		Light brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick.
					2.00	158.00		Firm brown sandy CLAY.
					4.60	155.40		Firm brown sandy gravelly CLAY. Gravel is sub-angular to rounded fine to coarse of brick and mudstone.
					5.00	155.00		Coarse brown gravelly SAND. Gravel is sub-angular to rounded fine to coarse of brick and mudstone.
					6.00	154.00		Moderately strong red brown MUDSTONE.
			Type	Results				End of Borehole at 10.00 m

1 2 3 4 5 6 7 8 9 10

Remarks:

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Borehole No
MW6
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404370E - 302270N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 21/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.30	159.70		CONCRETE (MADE GROUND)
		0.45	D		0.50	159.50		Brown slightly sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of concrete and brick.
		0.50	D					
		0.60	D		0.80	159.20		Red brown slightly sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick.
		1.00	D		1.20	158.80		Brown SAND and GRAVEL. Gravel is sub-angular to angular fine to coarse of concrete and brick.
					1.50	158.50		Brown sandy slightly gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick.
		2.00	D					Red brown sandy CLAY.
	▽							
					5.00	155.00		Stiff red brown sandy occasionally gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick.
			Type	Results				End of Borehole at 10.00 m

Remarks:

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Borehole No
MW7
Sheet 1 of 1

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404460E - 302340N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 22/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.05	D		0.10	159.90		Grass over brown gravelly SAND. Gravel is sub-angular to angular fine to coarse of concrete.
					0.25	159.75		
					0.50	159.50		CONCRETE (MADE GROUND)
		0.60	D		0.60	159.40		Orange brick and SAND.
		1.00	D					Brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of concrete.
		1.50	D					Black SAND and GRAVEL. Gravel is sub-angular and angular fine to coarse of concrete.
					1.70	158.30		Red gravelly SAND. Gravel is sub-angular to angular fine to coarse of mudstone and brick.
					2.00	158.00		Firm brown sandy CLAY
					3.60	156.40		Firm brown sandy gravelly CLAY. Gravels are sub-angular to rounded fine to medium of quartz and mudstone.
					4.50	155.50		Fine brown gravelly SAND. Gravel is sub-angular to rounded medium to coarse of mudstone and quartz.
	▽				5.51	154.50		Stiff red brown sandy CLAY
					7.00	153.00		Moderately strong red brown MUDSTONE.
			Type	Results				End of Borehole at 10.00 m

Remarks:

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Borehole No
MW8
Sheet 1 of 2

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404370E - 302350N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 21/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20	159.80		Grass over red brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick and concrete.
					0.50	159.50		Light brown SAND with broken concrete. (MADE GROUND)
		0.65	D		0.60	159.40		GRAVEL. Gravel is red brick. (MADE GROUND)
					1.00	159.00		Brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick.
		1.50	D		1.60	158.40		Brown gravelly SAND. Gravel is sub-angular to angular fine to coarse of brick.
		1.95	D		1.90	158.10		Light brown slightly sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick.
					2.00	158.00		Weak red brown sandy gravelly CLAY. Gravel is sub-angular to angular fine to coarse of brick and quartz.
								Red brown gravelly CLAY. Gravel is sub-angular to rounded fine to medium of brick.
	▽				4.50	155.50		Stiff brown CLAY.
					7.40	152.60		Weak red brown MUDSTONE.
			Type	Results				Continued next sheet

Remarks:

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Borehole No
MW8
Sheet 2 of 2

Project Name	Project No.	Co-ords:	Hole Type
Empire Works	07-128.01	404370E - 302350N	RO
Location: Aldridge		Level: 160.00 m AOD	Scale 1:50
Client: Veolia Environmental Services		Dates: 21/03/2007	Logged By EH

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Weak red brown MUDSTONE.
					12.00	148.00		End of Borehole at 12.00 m
			Type	Results				

Remarks:

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APPENDIX II

ALcontrol Geochem Analytical Services
Sample Descriptions

Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref : 07-128.01

Grain sizes

<0.063mm	Very Fine
0.1mm - 0.063mm	Fine
0.1mm - 2mm	Medium
2mm - 10mm	Coarse
>10mm	Very Coarse

Sample Identity	Depth (m)	Colour	Grain Size	Description	Batch
MW1	0.6	Dark Brown	0.1mm - 0.063mm	Silty Clay	1
MW1	1.0	Dark Brown	0.1mm - 2mm	Sandy Clay with some Stones	1
MW1	1.55	Rust	0.1mm - 2mm	Sandy Clay with some Stones	1
MW2	0.35	Brown	0.1mm - 0.063mm	Silt with some Crushed Brick	1
MW2	0.5	Red	0.1mm - 0.063mm	Silt with some Stones	1
MW2	0.75	Red	0.1mm - 2mm	Sand with some Stones	1
MW2	1.75	Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW3	0.5	Dark Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW3	1.25	Red	0.1mm - 2mm	Sandy Clay with some Stones	1
MW4	0.5	Dark Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW4	1.3	Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW5	0.5	Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW5	0.6	Brown	0.1mm - 0.063mm	Silty Clay	1
MW5	0.7	Light Brown	<0.063mm	Clay with some Stones	1
MW5	1.6	Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW5	1.8	Brown	0.1mm - 2mm	Sand with some Stones	1
MW6	0.45	Dark Grey	0.1mm - 0.063mm	Silt with some Stones	1
MW6	0.5	Brown	0.1mm - 0.063mm	Silty Clay with some Stones	1
MW6	0.6	Dark Brown	<0.063mm	Silty Clay with some Stones	1
MW6	1.0	Brown	0.1mm - 0.063mm	Silt with some Stones	1
MW6	2.0	Red	0.1mm - 2mm	Sand with some Stones	1
MW7	0.05	Red	0.1mm - 2mm	Sandy Clay with some Stones	1
MW7	0.6	Dark Brown	0.1mm - 0.063mm	Silt with some Metal	1
MW7	1.0	Black	0.1mm - 0.063mm	Silt with some Stones	1
MW8	0.65	Red	0.1mm - 0.063mm	Silt with some Stones	1
MW8	1.5	Brown	0.1mm - 2mm	Silt with some Stones	1
MW8	1.95	Dark Brown	0.1mm - 0.063mm	Silt with some Vegetation	1

* These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials-whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.
Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
[1] Sample Description supplied by client

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
Total Sulphate	-	690	-	-	-	580	690	2300	340	TM129[#M]	<100 mg/kg
Boron Water Soluble	-	13	7.1	-	-	<3.5	7.6	7.6	<3.5	TM129[#M]	<3.5 mg/kg
Arsenic	-	71	7	-	-	11	18	12	4	TM129[#M]	<3.0 mg/kg
Barium	-	-	160	-	-	-	-	-	-	TM129[#M]	<6.0 mg/kg
Beryllium	-	-	<0.4	-	-	-	-	-	-	TM129	<0.4 mg/kg
Cadmium	-	1.6	<0.3	-	-	0.7	3.1	5.5	<0.3	TM129	<0.3 mg/kg
Chromium	-	21	18	-	-	38	280	2500	39	TM129[#M]	<4.5 mg/kg
Copper	-	160	83	-	-	20	29	330	16	TM129[#M]	<6 mg/kg
Lead	-	46	31	-	-	46	84	310	27	TM129[#M]	<2 mg/kg
Mercury	-	<0.6	<0.6	-	-	<0.6	<0.6	<0.6	<0.6	TM129[#M]	<0.6 mg/kg
Nickel	-	45	21	-	-	15	150	160	20	TM129[#M]	<0.9 mg/kg
Selenium	-	<3	<3	-	-	<3	<3	<3	<3	TM129[#M]	<3 mg/kg
Vanadium	-	-	60	-	-	-	-	-	-	TM129[#M]	<1.5 mg/kg
Zinc	-	180	48	-	-	43	50	1600	68	TM129[#M]	<2.5 mg/kg
Acid Soluble Sulphide	-	<50	-	-	-	<50	<50	220	<50	TM101	<50 mg/kg
Hexavalent Chromium	-	<3.0	-	-	-	0.4	-	<0.3	-	TM151[#]	<0.3 mg/kg
Phenols Monohydric	-	<0.15	-	-	-	<0.15	<0.15	<0.15	<0.15	TM062[#M]	<0.15 mg/kg
Thiocyanate	-	2	-	-	-	<1	-	<1	-	TM153[#M]	<1 mg/kg
Total Cyanide	-	690	-	-	-	<1	9	2	<1	TM153[#M]	<1 mg/kg
Free Cyanide	-	1	-	-	-	<1	-	<1	-	TM153[#M]	<1 mg/kg
Elemental Sulphur	-	-	-	-	-	-	75	-	<70	TM136[#M]	<70 mg/kg
pH Value	-	9.35	-	-	-	7.65	7.84	8.74	8.97	TM133[#M]	<1.00 pH Units
Total Sulphur	-	0.12	-	-	-	0.05	-	0.21	-	TM068[#]	<0.01 %

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
GRO (C4-C12)	2100	-	-	-	1200	-	140	9200	<10	TM089[#M]	<10 ug/kg
MTBE	<10	-	-	-	<10	-	<10	<10	<10	TM089[#]	<10 ug/kg
Benzene	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
Toluene	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
Ethyl benzene	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
m & p Xylene	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
o Xylene	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
Aliphatics C5-C6	<10	-	-	-	<10	-	<10	<10	<10	TM089	<10 ug/kg
Aliphatics >C6-C8	<10	-	-	-	680	-	110	<10	<10	TM089	<10 ug/kg
Aliphatics >C8-C10	140	-	-	-	200	-	14	780	<10	TM089	<10 ug/kg
Aliphatics >C10-C12	720	-	-	-	<10	-	<10	2900	<10	TM089	<10 ug/kg
Aliphatics >C12-C16	270000	-	-	-	<100	-	<100	1100000	30000	TM173[#]	<100 ug/kg
Aliphatics >C16-C21	1000000	-	-	-	<100	-	<100	2400000	100000	TM173[#]	<100 ug/kg
Aliphatics >C21-C35	490000	-	-	-	13000	-	<100	1000000	76000	TM173[#]	<100 ug/kg
Total Aliphatics C5-C35	1800000	-	-	-	14000	-	120	4500000	210000	TM61/89	<100 ug/kg
Aromatics C6-C7	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
Aromatics >C7-C8	<10	-	-	-	<10	-	<10	<10	<10	TM089[#M]	<10 ug/kg
Aromatics >EC8-EC10	210	-	-	-	290	-	22	1200	<10	TM089	<10 ug/kg
Aromatics >EC10-EC12	1100	-	-	-	<10	-	<10	4400	<10	TM089	<10 ug/kg
Aromatics >EC12-EC16	80000	-	-	-	<100	-	<100	340000	<100	TM173[#]	<100 ug/kg
Aromatics >EC16-EC21	280000	-	-	-	<100	-	<100	860000	<100	TM173[#]	<100 ug/kg
Aromatics >EC21-EC35	230000	-	-	-	<100	-	<100	540000	<100	TM173[#]	<100 ug/kg
Total Aromatics C6-C35	580000	-	-	-	290	-	<100	1700000	<100	TM61/89	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	2300000	-	-	-	14000	-	140	6200000	210000	TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ☑
Preliminary ☐

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
TPH C6-40	-	-	-	-	-	-	-	-	-	TM154[#]	<10 mg/kg
PAH Total	-	-	-	-	-	-	<10	-	<10	TM154	<10 mg/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
PAH by GCMS											
Naphthalene	-	260	-	-	-	11	-	230	-	TM074[#M]	<10 ug/kg
Acenaphthylene	-	13	-	-	-	<5	-	460	-	TM074[#M]	<5 ug/kg
Acenaphthene	-	32	-	-	-	<14	-	1400	-	TM074[#M]	<14 ug/kg
Fluorene	-	20	-	-	-	<12	-	730	-	TM074[#M]	<12 ug/kg
Phenanthrene	-	230	-	-	-	<21	-	950	-	TM074[#M]	<21 ug/kg
Anthracene	-	46	-	-	-	<9	-	360	-	TM074[#M]	<9 ug/kg
Fluoranthene	-	210	-	-	-	<25	-	2000	-	TM074[#M]	<25 ug/kg
Pyrene	-	170	-	-	-	<22	-	2800	-	TM074[#M]	<22 ug/kg
Benz(a)anthracene	-	98	-	-	-	14	-	700	-	TM074[#M]	<12 ug/kg
Chrysene	-	150	-	-	-	<10	-	1200	-	TM074[#M]	<10 ug/kg
Benzo(b)fluoranthene	-	140	-	-	-	<16	-	1100	-	TM074[#M]	<16 ug/kg
Benzo(k)fluoranthene	-	69	-	-	-	<25	-	560	-	TM074[#M]	<25 ug/kg
Benzo(a)pyrene	-	81	-	-	-	<12	-	790	-	TM074[#M]	<12 ug/kg
Indeno(123cd)pyrene	-	62	-	-	-	<11	-	500	-	TM074[#M]	<11 ug/kg
Dibenzo(ah)anthracene	-	17	-	-	-	<8	-	250	-	TM074[#M]	<8 ug/kg
Benzo(ghi)perylene	-	96	-	-	-	<10	-	700	-	TM074[#M]	<10 ug/kg
PAH 16 Total	-	1700	-	-	-	25	-	15000	-	TM074[#M]	<25 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
SVOC by GCMS											
Phenols											
2-Chlorophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2-Methylphenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2-Nitrophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2,4-Dichlorophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2,4-Dimethylphenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2,4,5-Trichlorophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2,4,6-Trichlorophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Chloro-3-methylphenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Methylphenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Nitrophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Pentachlorophenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Phenol	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
[*] Subcontracted test
[»] Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
PAHs											
2-Chloronaphthalene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2-Methylnaphthalene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Acenaphthene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Acenaphthylene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Anthracene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Benzo(a)anthracene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Benzo(a)pyrene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Benzo(b)fluoranthene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Benzo(ghi)perylene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Benzo(k)fluoranthene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Chrysene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Dibenzo(a,h)anthracene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Fluoranthene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Fluorene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Indeno(1,2,3-cd)pyrene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Naphthalene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Phenanthrene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Pyrene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Phthalates											
Bis(2-ethylhexyl) phthalate	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Butylbenzyl phthalate	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Di-n-butyl phthalate	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Di-n-Octyl phthalate	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Diethyl phthalate	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Dimethyl phthalate	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Other Semi-volatiles											
1,2-Dichlorobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
1,2,4-Trichlorobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
Other Semi-volatiles (cont)											
1,3-Dichlorobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
1,4-Dichlorobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2-Nitroaniline	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2,4-Dinitrotoluene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
2,6-Dinitrotoluene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
3-Nitroaniline	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Bromophenylphenylether	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Chloroaniline	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Chlorophenylphenylether	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
4-Nitroaniline	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Azobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Bis(2-chloroethoxy)methane	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Bis(2-chloroethyl)ether	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Carbazole	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Dibenzofuran	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Hexachlorobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Hexachlorobutadiene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Hexachlorocyclopentadiene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Hexachloroethane	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Isophorone	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
N-nitrosodi-n-propylamine	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg
Nitrobenzene	-	-	<100	-	-	-	-	-	-	TM157	<100 ug/kg

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ALcontrol Geochem Analytical Services
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[#] ISO 17025 accredited
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
Volatile Organic Compounds											
Dichlorodifluoromethane	<4	-	-	<4	-	-	-	<4	-	TM116[#]	<4 ug/kg
Chloromethane	<7	-	-	<7	-	-	-	<7	-	TM116[#]	<7 ug/kg
Vinyl Chloride	<10	-	-	<10	-	-	-	<10	-	TM116[#M]	<10 ug/kg
Bromomethane	<13	-	-	<13	-	-	-	<13	-	TM116[#]	<13 ug/kg
Chloroethane	<14	-	-	<14	-	-	-	<14	-	TM116[#]	<14 ug/kg
Trichlorofluoromethane	<6	-	-	<6	-	-	-	<6	-	TM116[#M]	<6 ug/kg
trans-1-2-Dichloroethene	<11	-	-	<11	-	-	-	<11	-	TM116[#]	<11 ug/kg
Dichloromethane	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
Carbon Disulphide	<7	-	-	<7	-	-	-	<7	-	TM116[#M]	<7 ug/kg
1.1-Dichloroethene	<10	-	-	<10	-	-	-	<10	-	TM116[#M]	<10 ug/kg
1.1-Dichloroethane	<8	-	-	20	-	-	-	<8	-	TM116[#M]	<8 ug/kg
Methyl Tertiary Butyl Ether	<11	-	-	<11	-	-	-	<11	-	TM116[#M]	<11 ug/kg
cis-1-2-Dichloroethene	<5	-	-	340	-	-	-	22	-	TM116[#M]	<5 ug/kg
Bromochloromethane	<14	-	-	<14	-	-	-	<14	-	TM116[#]	<14 ug/kg
Chloroform	<8	-	-	68	-	-	-	<8	-	TM116[#M]	<8 ug/kg
2.2-Dichloropropane	<12	-	-	<12	-	-	-	<12	-	TM116[#]	<12 ug/kg
1.2-Dichloroethane	<5	-	-	<5	-	-	-	<5	-	TM116[#]	<5 ug/kg
1.1.1-Trichloroethane	<7	-	-	100	-	-	-	<7	-	TM116[#M]	<7 ug/kg
1.1-Dichloropropene	<11	-	-	<11	-	-	-	<11	-	TM116[#M]	<11 ug/kg
Benzene	<9	-	-	22	-	-	-	<9	-	TM116[#M]	<9 ug/kg
Carbontetrachloride	<14	-	-	<14	-	-	-	<14	-	TM116[#M]	<14 ug/kg
Dibromomethane	<9	-	-	<9	-	-	-	<9	-	TM116[#]	<9 ug/kg
1.2-Dichloropropane	<12	-	-	390	-	-	-	<12	-	TM116[#M]	<12 ug/kg
Bromodichloromethane	<7	-	-	<7	-	-	-	<7	-	TM116[#M]	<7 ug/kg
Trichloroethene	<9	-	-	3300	-	-	-	51	-	TM116[#M]	<9 ug/kg
cis-1-3-Dichloropropene	<14	-	-	<14	-	-	-	<14	-	TM116[#M]	<14 ug/kg
trans-1-3-Dichloropropene	<14	-	-	<14	-	-	-	<14	-	TM116[#M]	<14 ug/kg
1.1.2-Trichloroethane	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
Toluene	<5	-	-	<5	-	-	-	<5	-	TM116[#M]	<5 ug/kg
1.3-Dichloropropane	<7	-	-	<7	-	-	-	<7	-	TM116[#]	<7 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
Volatile Organic Compounds (cont)											
Dibromochloromethane	<13	-	-	<13	-	-	-	<13	-	TM116[#]	<13 ug/kg
1.2-Dibromoethane	<12	-	-	<12	-	-	-	<12	-	TM116[#]	<12 ug/kg
Tetrachloroethene	<5	-	-	3200	-	-	-	11	-	TM116[#]	<5 ug/kg
1.1.1.2-Tetrachloroethane	<10	-	-	<10	-	-	-	<10	-	TM116[#M]	<10 ug/kg
Chlorobenzene	<5	-	-	<5	-	-	-	<5	-	TM116[#M]	<5 ug/kg
Ethylbenzene	<4	-	-	<4	-	-	-	<4	-	TM116[#]	<4 ug/kg
p/m-Xylene	<14	-	-	<14	-	-	-	<14	-	TM116[#]	<14 ug/kg
Bromoform	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
Styrene	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
1.1.2.2-Tetrachloroethane	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
o-Xylene	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
1.2.3-Trichloropropane	<17	-	-	<17	-	-	-	<17	-	TM116[#]	<17 ug/kg
Isopropylbenzene	<5	-	-	<5	-	-	-	<5	-	TM116[#]	<5 ug/kg
Bromobenzene	<10	-	-	230	-	-	-	<10	-	TM116[#M]	<10 ug/kg
2-Chlorotoluene	<9	-	-	<9	-	-	-	<9	-	TM116[#]	<9 ug/kg
Propylbenzene	<11	-	-	<11	-	-	-	<11	-	TM116[#]	<11 ug/kg
4-Chlorotoluene	<12	-	-	<12	-	-	-	<12	-	TM116[#]	<12 ug/kg
1.2.4-Trimethylbenzene	<9	-	-	<9	-	-	-	<9	-	TM116[#]	<9 ug/kg
4-Isopropyltoluene	<11	-	-	<11	-	-	-	<11	-	TM116[#]	<11 ug/kg
1.3.5-Trimethylbenzene	<8	-	-	<8	-	-	-	54	-	TM116[#]	<8 ug/kg
1.2-Dichlorobenzene	<12	-	-	<12	-	-	-	<12	-	TM116[#M]	<12 ug/kg
1.4-Dichlorobenzene	<5	-	-	<5	-	-	-	<5	-	TM116[#M]	<5 ug/kg
sec-Butylbenzene	33	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
tert-Butylbenzene	<12	-	-	<12	-	-	-	<12	-	TM116[#]	<12 ug/kg
1.3-Dichlorobenzene	<6	-	-	<6	-	-	-	<6	-	TM116[#]	<6 ug/kg
n-Butylbenzene	<10	-	-	<10	-	-	-	<10	-	TM116[#]	<10 ug/kg
1.2-Dibromo-3-chloropropane	<14	-	-	<14	-	-	-	<14	-	TM116[#]	<14 ug/kg
1.2.4-Trichlorobenzene	<6	-	-	<6	-	-	-	<6	-	TM116[#]	<6 ug/kg
Naphthalene	<13	-	-	<13	-	-	-	<13	-	TM116[#]	<13 ug/kg
1.2.3-Trichlorobenzene	<11	-	-	<11	-	-	-	<11	-	TM116[#]	<11 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW1	MW1	MW1	MW2	MW2	MW2	MW2	MW3	MW3	Method Code	LoD/Units
Depth (m)	0.6	1.0	1.55	0.35	0.5	0.75	1.75	0.5	1.25		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**1-2**	**3-4**	**5**	**6**	**7**	**8**	**9-10**	**11-13**	**14-15**		
Volatile Organic Compounds (cont)											
Hexachlorobutadiene	<12	-	-	<12	-	-	-	<12	-	TM116[#]	<12 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
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ALcontrol Geochem Analytical Services
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[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
Total Sulphate	1800	310	3000	-	-	450	-	400	-	TM129[#M]	<100 mg/kg
Boron Water Soluble	<3.5	<3.5	14	-	-	7.8	-	<3.5	-	TM129[#M]	<3.5 mg/kg
Arsenic	12	4	7	-	-	<3	-	5	-	TM129[#M]	<3.0 mg/kg
Barium	-	-	-	-	-	-	-	-	-	TM129[#M]	<6.0 mg/kg
Beryllium	-	-	-	-	-	-	-	-	-	TM129	<0.4 mg/kg
Cadmium	1.1	<0.3	4.2	-	-	<0.3	-	4.1	-	TM129	<0.3 mg/kg
Chromium	19	12	1200	-	-	11	-	130	-	TM129[#M]	<4.5 mg/kg
Copper	94	22	190	-	-	12	-	160	-	TM129[#M]	<6 mg/kg
Lead	29	35	170	-	-	26	-	47	-	TM129[#M]	<2 mg/kg
Mercury	<0.6	<0.6	<0.6	-	-	<0.6	-	<0.6	-	TM129[#M]	<0.6 mg/kg
Nickel	59	11	98	-	-	6.1	-	57	-	TM129[#M]	<0.9 mg/kg
Selenium	<3	<3	<3	-	-	<3	-	<3	-	TM129[#M]	<3 mg/kg
Vanadium	-	-	-	-	-	-	-	-	-	TM129[#M]	<1.5 mg/kg
Zinc	230	60	650	-	-	28	-	210	-	TM129[#M]	<2.5 mg/kg
Acid Soluble Sulphide	<50	<50	<50	-	-	<50	-	<50	-	TM101	<50 mg/kg
Hexavalent Chromium	<3.0	-	<0.3	-	-	<0.3	-	0.5	-	TM151[#]	<0.3 mg/kg
Phenols Monohydric	<0.15	<0.15	<0.15	-	-	<0.15	-	<0.15	-	TM062[#M]	<0.15 mg/kg
Thiocyanate	<1	-	<1	-	-	<1	-	<1	-	TM153[#M]	<1 mg/kg
Total Cyanide	4	<1	<1	-	-	<1	-	<1	-	TM153[#M]	<1 mg/kg
Free Cyanide	<1	-	<1	-	-	<1	-	<1	-	TM153[#M]	<1 mg/kg
Elemental Sulphur	-	<70	-	-	-	-	-	-	-	TM136[#M]	<70 mg/kg
pH Value	7.70	7.52	9.05	-	-	7.72	-	8.30	-	TM133[#M]	<1.00 pH Units
Total Sulphur	0.29	-	0.20	-	-	0.03	-	0.25	-	TM068[#]	<0.01 %

All results expressed on a dry weight basis.

Date 30.04.2007

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
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* Subcontracted test
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
GRO (C4-C12)	580	-	-	<10	-	-	-	-	3500	TM089[#M]	<10 ug/kg
MTBE	<10	-	-	<10	-	-	-	-	<10	TM089[#]	<10 ug/kg
Benzene	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
Toluene	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
Ethyl benzene	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
m & p Xylene	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
o Xylene	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
Aliphatics C5-C6	<10	-	-	<10	-	-	-	-	<10	TM089	<10 ug/kg
Aliphatics >C6-C8	440	-	-	<10	-	-	-	-	<10	TM089	<10 ug/kg
Aliphatics >C8-C10	56	-	-	<10	-	-	-	-	500	TM089	<10 ug/kg
Aliphatics >C10-C12	<10	-	-	<10	-	-	-	-	900	TM089	<10 ug/kg
Aliphatics >C12-C16	7700	-	-	NDP	-	-	-	-	9000	TM173[#]	<100 ug/kg
Aliphatics >C16-C21	10000	-	-	NDP	-	-	-	-	45000	TM173[#]	<100 ug/kg
Aliphatics >C21-C35	22000	-	-	NDP	-	-	-	-	590000	TM173[#]	<100 ug/kg
Total Aliphatics C5-C35	41000	-	-	NDP	-	-	-	-	650000	TM61/89	<100 ug/kg
Aromatics C6-C7	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
Aromatics >C7-C8	<10	-	-	<10	-	-	-	-	<10	TM089[#M]	<10 ug/kg
Aromatics >EC8-EC10	84	-	-	<10	-	-	-	-	760	TM089	<10 ug/kg
Aromatics >EC10-EC12	<10	-	-	<10	-	-	-	-	1300	TM089	<10 ug/kg
Aromatics >EC12-EC16	13000	-	-	NDP	-	-	-	-	8200	TM173[#]	<100 ug/kg
Aromatics >EC16-EC21	32000	-	-	NDP	-	-	-	-	30000	TM173[#]	<100 ug/kg
Aromatics >EC21-EC35	110000	-	-	NDP	-	-	-	-	900000	TM173[#]	<100 ug/kg
Total Aromatics C6-C35	150000	-	-	NDP	-	-	-	-	940000	TM61/89	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	190000	-	-	NDP	-	-	-	-	1600000	TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
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* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
TPH C6-40	-	<10	-	-	-	-	<10	-	-	TM154[#]	<10 mg/kg
PAH Total	-	<10	-	-	-	-	-	-	-	TM154	<10 mg/kg

All results expressed on a dry weight basis.

Date 30.04.2007

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Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
PAH by GCMS											
Naphthalene	450	-	310	-	-	82	-	260	-	TM074#M	<10 ug/kg
Acenaphthylene	19	-	35	-	-	<5	-	<50	-	TM074#M	<5 ug/kg
Acenaphthene	100	-	78	-	-	20	-	<140	-	TM074#M	<14 ug/kg
Fluorene	74	-	60	-	-	<12	-	<120	-	TM074#M	<12 ug/kg
Phenanthrene	1600	-	570	-	-	37	-	270	-	TM074#M	<21 ug/kg
Anthracene	150	-	120	-	-	<9	-	<90	-	TM074#M	<9 ug/kg
Fluoranthene	520	-	890	-	-	37	-	340	-	TM074#M	<25 ug/kg
Pyrene	490	-	730	-	-	30	-	390	-	TM074#M	<22 ug/kg
Benz(a)anthracene	270	-	430	-	-	29	-	150	-	TM074#M	<12 ug/kg
Chrysene	340	-	520	-	-	29	-	810	-	TM074#M	<10 ug/kg
Benzo(b)fluoranthene	240	-	520	-	-	21	-	300	-	TM074#M	<16 ug/kg
Benzo(k)fluoranthene	110	-	340	-	-	<25	-	<250	-	TM074#M	<25 ug/kg
Benzo(a)pyrene	170	-	460	-	-	15	-	200	-	TM074#M	<12 ug/kg
Indeno(123cd)pyrene	110	-	330	-	-	<11	-	<110	-	TM074#M	<11 ug/kg
Dibenzo(ah)anthracene	39	-	100	-	-	<8	-	82	-	TM074#M	<8 ug/kg
Benzo(ghi)perylene	240	-	430	-	-	12	-	130	-	TM074#M	<10 ug/kg
PAH 16 Total	4900	-	5900	-	-	310	-	2900	-	TM074#M	<25 ug/kg

All results expressed on a dry weight basis.

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
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* Subcontracted test
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
SVOC by GCMS											
Volatile Organic Compounds											
Dichlorodifluoromethane	<4	-	-	-	<4	-	-	-	-	TM116[#]	<4 ug/kg
Chloromethane	<7	-	-	-	<7	-	-	-	-	TM116[#]	<7 ug/kg
Vinyl Chloride	<10	-	-	-	<10	-	-	-	-	TM116[#M]	<10 ug/kg
Bromomethane	<13	-	-	-	<13	-	-	-	-	TM116[#]	<13 ug/kg
Chloroethane	<14	-	-	-	<14	-	-	-	-	TM116[#]	<14 ug/kg
Trichlorofluoromethane	<6	-	-	-	<6	-	-	-	-	TM116[#M]	<6 ug/kg
trans-1-2-Dichloroethene	<11	-	-	-	<11	-	-	-	-	TM116[#]	<11 ug/kg
Dichloromethane	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
Carbon Disulphide	<7	-	-	-	<7	-	-	-	-	TM116[#M]	<7 ug/kg
1.1-Dichloroethene	<10	-	-	-	<10	-	-	-	-	TM116[#M]	<10 ug/kg
1.1-Dichloroethane	33	-	-	-	<8	-	-	-	-	TM116[#M]	<8 ug/kg
Methyl Tertiary Butyl Ether	<11	-	-	-	<11	-	-	-	-	TM116[#M]	<11 ug/kg
cis-1-2-Dichloroethene	<5	-	-	-	<5	-	-	-	-	TM116[#M]	<5 ug/kg
Bromochloromethane	<14	-	-	-	<14	-	-	-	-	TM116[#]	<14 ug/kg
Chloroform	210	-	-	-	<8	-	-	-	-	TM116[#M]	<8 ug/kg
2.2-Dichloropropane	<12	-	-	-	<12	-	-	-	-	TM116[#]	<12 ug/kg
1.2-Dichloroethane	<5	-	-	-	<5	-	-	-	-	TM116[#]	<5 ug/kg
1.1.1-Trichloroethane	1300	-	-	-	<7	-	-	-	-	TM116[#M]	<7 ug/kg
1.1-Dichloropropene	<11	-	-	-	<11	-	-	-	-	TM116[#M]	<11 ug/kg
Benzene	<9	-	-	-	<9	-	-	-	-	TM116[#M]	<9 ug/kg
Carbontetrachloride	130	-	-	-	<14	-	-	-	-	TM116[#M]	<14 ug/kg
Dibromomethane	<9	-	-	-	<9	-	-	-	-	TM116[#]	<9 ug/kg
1.2-Dichloropropane	<12	-	-	-	<12	-	-	-	-	TM116[#M]	<12 ug/kg
Bromodichloromethane	<7	-	-	-	<7	-	-	-	-	TM116[#M]	<7 ug/kg
Trichloroethene	3000	-	-	-	37	-	-	-	-	TM116[#M]	<9 ug/kg
cis-1-3-Dichloropropene	<14	-	-	-	<14	-	-	-	-	TM116[#M]	<14 ug/kg
trans-1-3-Dichloropropene	<14	-	-	-	<14	-	-	-	-	TM116[#M]	<14 ug/kg
1.1.2-Trichloroethane	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
Toluene	<5	-	-	-	<5	-	-	-	-	TM116[#M]	<5 ug/kg

All results expressed on a dry weight basis.

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
Volatile Organic Compounds (cont)											
1.3-Dichloropropane	<7	-	-	-	<7	-	-	-	-	TM116[#]	<7 ug/kg
Dibromochloromethane	<13	-	-	-	<13	-	-	-	-	TM116[#]	<13 ug/kg
1.2-Dibromoethane	<12	-	-	-	<12	-	-	-	-	TM116[#]	<12 ug/kg
Tetrachloroethene	2600	-	-	-	120	-	-	-	-	TM116[#]	<5 ug/kg
1.1.1.2-Tetrachloroethane	<10	-	-	-	<10	-	-	-	-	TM116[#M]	<10 ug/kg
Chlorobenzene	<5	-	-	-	<5	-	-	-	-	TM116[#M]	<5 ug/kg
Ethylbenzene	<4	-	-	-	<4	-	-	-	-	TM116[#]	<4 ug/kg
p/m-Xylene	<14	-	-	-	<14	-	-	-	-	TM116[#]	<14 ug/kg
Bromoform	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
Styrene	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
1.1.2.2-Tetrachloroethane	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
o-Xylene	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
1.2.3-Trichloropropane	<17	-	-	-	<17	-	-	-	-	TM116[#]	<17 ug/kg
Isopropylbenzene	<5	-	-	-	<5	-	-	-	-	TM116[#]	<5 ug/kg
Bromobenzene	<10	-	-	-	<10	-	-	-	-	TM116[#M]	<10 ug/kg
2-Chlorotoluene	<9	-	-	-	<9	-	-	-	-	TM116[#]	<9 ug/kg
Propylbenzene	<11	-	-	-	<11	-	-	-	-	TM116[#]	<11 ug/kg
4-Chlorotoluene	<12	-	-	-	<12	-	-	-	-	TM116[#]	<12 ug/kg
1.2.4-Trimethylbenzene	<9	-	-	-	<9	-	-	-	-	TM116[#]	<9 ug/kg
4-Isopropyltoluene	<11	-	-	-	<11	-	-	-	-	TM116[#]	<11 ug/kg
1.3.5-Trimethylbenzene	<8	-	-	-	<8	-	-	-	-	TM116[#]	<8 ug/kg
1.2-Dichlorobenzene	<12	-	-	-	<12	-	-	-	-	TM116[#M]	<12 ug/kg
1.4-Dichlorobenzene	<5	-	-	-	<5	-	-	-	-	TM116[#M]	<5 ug/kg
sec-Butylbenzene	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
tert-Butylbenzene	<12	-	-	-	<12	-	-	-	-	TM116[#]	<12 ug/kg
1.3-Dichlorobenzene	<6	-	-	-	<6	-	-	-	-	TM116[#]	<6 ug/kg
n-Butylbenzene	<10	-	-	-	<10	-	-	-	-	TM116[#]	<10 ug/kg
1.2-Dibromo-3-chloropropane	<14	-	-	-	<14	-	-	-	-	TM116[#]	<14 ug/kg
1.2.4-Trichlorobenzene	<6	-	-	-	<6	-	-	-	-	TM116[#]	<6 ug/kg
Naphthalene	<13	-	-	-	<13	-	-	-	-	TM116[#]	<13 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW4	MW4	MW5	MW5	MW5	MW5	MW5	MW6	MW6	Method Code	LoD/Units
Depth (m)	0.5	1.3	0.5	0.6	0.7	1.6	1.8	0.45	0.5		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**16-18**	**19-20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**		
Volatile Organic Compounds (cont)											
1.2.3-Trichlorobenzene	<11	-	-	-	<11	-	-	-	-	TM116[#]	<11 ug/kg
Hexachlorobutadiene	<12	-	-	-	<12	-	-	-	-	TM116[#]	<12 ug/kg

All results expressed on a dry weight basis.

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Validated ✓
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ALcontrol Geochem Analytical Services
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[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
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Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
Total Sulphate	-	-	6800	-	1700	-	1800	-	-	TM129[#M]	<100 mg/kg
Boron Water Soluble	-	-	3.6	<3.5	4.5	-	<3.5	5.6	-	TM129[#M]	<3.5 mg/kg
Arsenic	-	-	8	22	29	-	53	17	-	TM129[#M]	<3.0 mg/kg
Barium	-	-	-	340	-	-	-	310	-	TM129[#M]	<6.0 mg/kg
Beryllium	-	-	-	0.6	-	-	-	8.3	-	TM129	<0.4 mg/kg
Cadmium	-	-	0.7	19	1.5	-	2.9	0.9	-	TM129	<0.3 mg/kg
Chromium	-	-	15	200	29	-	130	31	-	TM129[#M]	<4.5 mg/kg
Copper	-	-	44	170	120	-	94	89	-	TM129[#M]	<6 mg/kg
Lead	-	-	82	170	40	-	140	51	-	TM129[#M]	<2 mg/kg
Mercury	-	-	<0.6	6.2	<0.6	-	<0.6	<0.6	-	TM129[#M]	<0.6 mg/kg
Nickel	-	-	32	160	130	-	68	110	-	TM129[#M]	<0.9 mg/kg
Selenium	-	-	<3	<3	<3	-	<3	<3	-	TM129[#M]	<3 mg/kg
Vanadium	-	-	-	38	-	-	-	97	-	TM129[#M]	<1.5 mg/kg
Zinc	-	-	110	600	360	-	390	250	-	TM129[#M]	<2.5 mg/kg
Acid Soluble Sulphide	-	-	<50	-	<50	-	59	-	-	TM101	<50 mg/kg
Hexavalent Chromium	-	-	-	-	<0.3	-	<0.3	-	-	TM151[#]	<0.3 mg/kg
Phenols Monohydric	-	-	<0.15	-	<0.15	-	<0.15	-	-	TM062[#M]	<0.15 mg/kg
Thiocyanate	-	-	-	-	<1	-	<1	-	-	TM153[#M]	<1 mg/kg
Total Cyanide	-	-	2	-	<1	-	5	-	-	TM153[#M]	<1 mg/kg
Free Cyanide	-	-	-	-	<1	-	<1	-	-	TM153[#M]	<1 mg/kg
Elemental Sulphur	-	-	<70	-	-	-	-	-	-	TM136[#M]	<70 mg/kg
pH Value	-	-	7.80	-	8.24	-	8.29	8.36	-	TM133[#M]	<1.00 pH Units
Total Sulphur	-	-	-	-	0.24	-	0.14	-	-	TM068[#]	<0.01 %

All results expressed on a dry weight basis.

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Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
GRO (C4-C12)	-	-	-	-	-	54	<10	-	-	TM089[#M]	<10 ug/kg
MTBE	-	-	-	-	-	<10	<10	-	-	TM089[#]	<10 ug/kg
Benzene	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
Toluene	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
Ethyl benzene	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
m & p Xylene	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
o Xylene	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
Aliphatics C5-C6	-	-	-	-	-	<10	<10	-	-	TM089	<10 ug/kg
Aliphatics >C6-C8	-	-	-	-	-	54	<10	-	-	TM089	<10 ug/kg
Aliphatics >C8-C10	-	-	-	-	-	<10	<10	-	-	TM089	<10 ug/kg
Aliphatics >C10-C12	-	-	-	-	-	<10	<10	-	-	TM089	<10 ug/kg
Aliphatics >C12-C16	-	-	-	-	-	<100	8900	-	-	TM173[#]	<100 ug/kg
Aliphatics >C16-C21	-	-	-	-	-	<100	43000	-	-	TM173[#]	<100 ug/kg
Aliphatics >C21-C35	-	-	-	-	-	48000	230000	-	-	TM173[#]	<100 ug/kg
Total Aliphatics C5-C35	-	-	-	-	-	48000	280000	-	-	TM61/89	<100 ug/kg
Aromatics C6-C7	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
Aromatics >C7-C8	-	-	-	-	-	<10	<10	-	-	TM089[#M]	<10 ug/kg
Aromatics >EC8-EC10	-	-	-	-	-	<10	<10	-	-	TM089	<10 ug/kg
Aromatics >EC10-EC12	-	-	-	-	-	<10	<10	-	-	TM089	<10 ug/kg
Aromatics >EC12-EC16	-	-	-	-	-	<100	5700	-	-	TM173[#]	<100 ug/kg
Aromatics >EC16-EC21	-	-	-	-	-	<100	19000	-	-	TM173[#]	<100 ug/kg
Aromatics >EC21-EC35	-	-	-	-	-	<100	170000	-	-	TM173[#]	<100 ug/kg
Total Aromatics C6-C35	-	-	-	-	-	<100	200000	-	-	TM61/89	<100 ug/kg
TPH (Aliphatics and Aromatics C5-C35)	-	-	-	-	-	48000	480000	-	-	TM61/89	<100 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
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ALcontrol Geochem Analytical Services
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[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
TPH C6-40	-	<10	-	-	-	-	-	-	-	TM154[#]	<10 mg/kg
PAH Total	-	-	<10	-	-	-	-	-	-	TM154	<10 mg/kg

All results expressed on a dry weight basis.

Date 30.04.2007

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
PAH by GCMS											
Naphthalene	-	-	-	-	170	-	290	-	-	TM074[#M]	<10 ug/kg
Acenaphthylene	-	-	-	-	5	-	110	-	-	TM074[#M]	<5 ug/kg
Acenaphthene	-	-	-	-	15	-	130	-	-	TM074[#M]	<14 ug/kg
Fluorene	-	-	-	-	<12	-	91	-	-	TM074[#M]	<12 ug/kg
Phenanthrene	-	-	-	-	480	-	1100	-	-	TM074[#M]	<21 ug/kg
Anthracene	-	-	-	-	26	-	240	-	-	TM074[#M]	<9 ug/kg
Fluoranthene	-	-	-	-	190	-	2100	-	-	TM074[#M]	<25 ug/kg
Pyrene	-	-	-	-	150	-	1900	-	-	TM074[#M]	<22 ug/kg
Benz(a)anthracene	-	-	-	-	95	-	810	-	-	TM074[#M]	<12 ug/kg
Chrysene	-	-	-	-	140	-	1100	-	-	TM074[#M]	<10 ug/kg
Benzo(b)fluoranthene	-	-	-	-	83	-	1400	-	-	TM074[#M]	<16 ug/kg
Benzo(k)fluoranthene	-	-	-	-	47	-	700	-	-	TM074[#M]	<25 ug/kg
Benzo(a)pyrene	-	-	-	-	66	-	950	-	-	TM074[#M]	<12 ug/kg
Indeno(123cd)pyrene	-	-	-	-	40	-	670	-	-	TM074[#M]	<11 ug/kg
Dibenzo(ah)anthracene	-	-	-	-	13	-	180	-	-	TM074[#M]	<8 ug/kg
Benzo(ghi)perylene	-	-	-	-	120	-	820	-	-	TM074[#M]	<10 ug/kg
PAH 16 Total	-	-	-	-	1600	-	13000	-	-	TM074[#M]	<25 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

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ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
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[*] Subcontracted test
[»] Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
SVOC by GCMS											
Phenols											
2-Chlorophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2-Methylphenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2-Nitrophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2,4-Dichlorophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2,4-Dimethylphenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2,4,5-Trichlorophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2,4,6-Trichlorophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Chloro-3-methylphenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Methylphenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Nitrophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Pentachlorophenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Phenol	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg

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ALcontrol Geochem Analytical Services
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[#] ISO 17025 accredited
[M] MCERTS accredited
[*] Subcontracted test
[»] Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
PAHs											
2-Chloronaphthalene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2-Methylnaphthalene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Acenaphthene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Acenaphthylene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Anthracene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Benzo(a)anthracene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Benzo(a)pyrene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Benzo(b)fluoranthene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Benzo(ghi)perylene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Benzo(k)fluoranthene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Chrysene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Dibenzo(a,h)anthracene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Fluoranthene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Fluorene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Indeno(1,2,3-cd)pyrene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Naphthalene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Phenanthrene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Pyrene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Phthalates											
Bis(2-ethylhexyl) phthalate	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Butylbenzyl phthalate	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Di-n-butyl phthalate	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Di-n-Octyl phthalate	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Diethyl phthalate	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Dimethyl phthalate	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Other Semi-volatiles											
1,2-Dichlorobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
1,2,4-Trichlorobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg

All results expressed on a dry weight basis.

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Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
[*] Subcontracted test
[»] Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
Other Semi-volatiles (cont)											
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
1,4-Dichlorobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2-Nitroaniline	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2,4-Dinitrotoluene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
2,6-Dinitrotoluene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
3-Nitroaniline	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Bromophenylphenylether	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Chloroaniline	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Chlorophenylphenylether	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
4-Nitroaniline	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Azobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Bis(2-chloroethoxy)methane	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Bis(2-chloroethyl)ether	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Carbazole	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Dibenzofuran	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Hexachlorobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Hexachlorobutadiene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Hexachlorocyclopentadiene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Hexachloroethane	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Isophorone	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
N-nitrosodi-n-propylamine	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg
Nitrobenzene	-	-	-	-	-	-	-	-	<100	TM157	<100 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
Volatile Organic Compounds											
Dichlorodifluoromethane	<4	-	-	-	<4	-	<4	-	-	TM116[#]	<4 ug/kg
Chloromethane	<7	-	-	-	<7	-	<7	-	-	TM116[#]	<7 ug/kg
Vinyl Chloride	<10	-	-	-	<10	-	<10	-	-	TM116[#M]	<10 ug/kg
Bromomethane	<13	-	-	-	<13	-	<13	-	-	TM116[#]	<13 ug/kg
Chloroethane	<14	-	-	-	<14	-	<14	-	-	TM116[#]	<14 ug/kg
Trichlorofluoromethane	<6	-	-	-	<6	-	<6	-	-	TM116[#M]	<6 ug/kg
trans-1-2-Dichloroethene	<11	-	-	-	<11	-	<11	-	-	TM116[#]	<11 ug/kg
Dichloromethane	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
Carbon Disulphide	<7	-	-	-	<7	-	<7	-	-	TM116[#M]	<7 ug/kg
1.1-Dichloroethene	<10	-	-	-	<10	-	<10	-	-	TM116[#M]	<10 ug/kg
1.1-Dichloroethane	<8	-	-	-	<8	-	<8	-	-	TM116[#M]	<8 ug/kg
Methyl Tertiary Butyl Ether	<11	-	-	-	<11	-	<11	-	-	TM116[#M]	<11 ug/kg
cis-1-2-Dichloroethene	<5	-	-	-	<5	-	<5	-	-	TM116[#M]	<5 ug/kg
Bromochloromethane	<14	-	-	-	<14	-	<14	-	-	TM116[#]	<14 ug/kg
Chloroform	<8	-	-	-	<8	-	<8	-	-	TM116[#M]	<8 ug/kg
2.2-Dichloropropane	<12	-	-	-	<12	-	<12	-	-	TM116[#]	<12 ug/kg
1.2-Dichloroethane	<5	-	-	-	<5	-	<5	-	-	TM116[#]	<5 ug/kg
1.1.1-Trichloroethane	<7	-	-	-	24	-	<7	-	-	TM116[#M]	<7 ug/kg
1.1-Dichloropropene	<11	-	-	-	<11	-	<11	-	-	TM116[#M]	<11 ug/kg
Benzene	<9	-	-	-	<9	-	<9	-	-	TM116[#M]	<9 ug/kg
Carbontetrachloride	<14	-	-	-	<14	-	<14	-	-	TM116[#M]	<14 ug/kg
Dibromomethane	<9	-	-	-	<9	-	<9	-	-	TM116[#]	<9 ug/kg
1.2-Dichloropropane	<12	-	-	-	<12	-	<12	-	-	TM116[#M]	<12 ug/kg
Bromodichloromethane	<7	-	-	-	<7	-	<7	-	-	TM116[#M]	<7 ug/kg
Trichloroethene	17	-	-	-	300	-	14	-	-	TM116[#M]	<9 ug/kg
cis-1-3-Dichloropropene	<14	-	-	-	<14	-	<14	-	-	TM116[#M]	<14 ug/kg
trans-1-3-Dichloropropene	<14	-	-	-	<14	-	<14	-	-	TM116[#M]	<14 ug/kg
1.1.2-Trichloroethane	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
Toluene	<5	-	-	-	9	-	<5	-	-	TM116[#M]	<5 ug/kg
1.3-Dichloropropane	<7	-	-	-	<7	-	<7	-	-	TM116[#]	<7 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
Volatile Organic Compounds (cont)											
Dibromochloromethane	<13	-	-	-	<13	-	<13	-	-	TM116[#]	<13 ug/kg
1.2-Dibromoethane	<12	-	-	-	<12	-	<12	-	-	TM116[#]	<12 ug/kg
Tetrachloroethene	11	-	-	-	53	-	35	-	-	TM116[#]	<5 ug/kg
1.1.1.2-Tetrachloroethane	<10	-	-	-	<10	-	<10	-	-	TM116[#M]	<10 ug/kg
Chlorobenzene	<5	-	-	-	<5	-	<5	-	-	TM116[#M]	<5 ug/kg
Ethylbenzene	8	-	-	-	<4	-	<4	-	-	TM116[#]	<4 ug/kg
p/m-Xylene	<14	-	-	-	<14	-	<14	-	-	TM116[#]	<14 ug/kg
Bromoform	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
Styrene	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
1.1.2.2-Tetrachloroethane	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
o-Xylene	26	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
1.2.3-Trichloropropane	<17	-	-	-	<17	-	<17	-	-	TM116[#]	<17 ug/kg
Isopropylbenzene	<5	-	-	-	<5	-	<5	-	-	TM116[#]	<5 ug/kg
Bromobenzene	<10	-	-	-	<10	-	<10	-	-	TM116[#M]	<10 ug/kg
2-Chlorotoluene	<9	-	-	-	<9	-	<9	-	-	TM116[#]	<9 ug/kg
Propylbenzene	<11	-	-	-	<11	-	<11	-	-	TM116[#]	<11 ug/kg
4-Chlorotoluene	<12	-	-	-	<12	-	<12	-	-	TM116[#]	<12 ug/kg
1.2.4-Trimethylbenzene	15	-	-	-	<9	-	<9	-	-	TM116[#]	<9 ug/kg
4-Isopropyltoluene	<11	-	-	-	<11	-	<11	-	-	TM116[#]	<11 ug/kg
1.3.5-Trimethylbenzene	12	-	-	-	<8	-	<8	-	-	TM116[#]	<8 ug/kg
1.2-Dichlorobenzene	<12	-	-	-	<12	-	<12	-	-	TM116[#M]	<12 ug/kg
1.4-Dichlorobenzene	<5	-	-	-	<5	-	<5	-	-	TM116[#M]	<5 ug/kg
sec-Butylbenzene	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
tert-Butylbenzene	<12	-	-	-	<12	-	<12	-	-	TM116[#]	<12 ug/kg
1.3-Dichlorobenzene	<6	-	-	-	<6	-	<6	-	-	TM116[#]	<6 ug/kg
n-Butylbenzene	<10	-	-	-	<10	-	<10	-	-	TM116[#]	<10 ug/kg
1.2-Dibromo-3-chloropropane	<14	-	-	-	<14	-	<14	-	-	TM116[#]	<14 ug/kg
1.2.4-Trichlorobenzene	<6	-	-	-	<6	-	<6	-	-	TM116[#]	<6 ug/kg
Naphthalene	<13	-	-	-	<13	-	<13	-	-	TM116[#]	<13 ug/kg
1.2.3-Trichlorobenzene	<11	-	-	-	<11	-	<11	-	-	TM116[#]	<11 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** SOLID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW6	MW6	MW6	MW7	MW7	MW7	MW8	MW8	MW8	Method Code	LoD/Units
Depth (m)	0.6	1.0	2.0	0.05	0.6	1.0	0.65	1.5	1.95		
Sample Type	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID	SOLID		
Sampled Date	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07	20.03.07		
Sample Received Date	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07	22.03.07		
Batch	1	1	1	1	1	1	1	1	1		
Sample Number(s)	**28**	**29**	**30**	**31**	**32-33**	**34**	**35-37**	**38**	**39**		
Volatile Organic Compounds (cont)											
Hexachlorobutadiene	<12	-	-	-	<12	-	<12	-	-	TM116[#]	<12 ug/kg

All results expressed on a dry weight basis.

Date 30.04.2007

ALcontrol Geochem Analytical Services
Table Of Results - Appendix

Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref. No.: 07-128.01

Report Key :

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03×10^{-7}

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFD	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

Summary of Method Codes contained within report :

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample [1]	Surrogate Corrected
TM062	MEWAM BOOK 124 1988.HMSO/ Method 17.7, Second Site property, March 2003	Determination of Phenolic compounds by HPLC with electro-chemical detection	✓	✓	WET	
TM068	ASTM D-1552	Total sulphur determination by combustion method	✓		DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS. MCERTS Accreditation on Soils for Naphthalene except when Kerosene present.	✓		DRY	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS. MCERTS Accreditation on Soils for Naphthalene except when Kerosene present.	✓	✓	DRY	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)			WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		WET	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓	✓	WET	
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser			WET	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓		WET	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓	✓	WET	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer			DRY	
TM129	Method 3120B, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 3050B	Determination of Metal Cations by IRIS Emission Spectrometer	✓	✓	DRY	
TM133	BS 1377: Part 3 1990	Determination of pH in Soil and Water using the GLpH pH Meter	✓	✓	WET	
TM136	Method 17.10, Second Site property, March 2003	Determination of Sulphur by HPLC	✓	✓	DRY	

[1] Applies to Solid samples only. **DRY** indicates samples have been dried at 35°C. **NA** = not applicable.

ALcontrol Geochem Analytical Services
Table Of Results - Appendix

Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref. No.: 07-128.01

Report Key :

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03×10^{-7}

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFD	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

Summary of Method Codes contained within report :

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample [1]	Surrogate Corrected
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser	✓		WET	
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the "Skalar SANS+ System" Segmented Flow Analyser	✓	✓	WET	
TM154	In - house Method	Determination of Petroleum Hydrocarbons by EZ Flash GC-FID in the Carbon range C6- C40			WET	
TM154	In - house Method	Determination of Petroleum Hydrocarbons by EZ Flash GC-FID in the Carbon range C6- C40	✓		WET	
TM157		Determination of SVOC in Soils by GC-MS extracted by sonication in DCM/Acetone			WET	
TM173		Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GC-FID	✓		DRY	
TM61/89		see TM061 and TM089 for details			WET	

[1] Applies to Solid samples only. **DRY** indicates samples have been dried at 35°C. **NA** = not applicable.

ALcontrol Geochem Analytical Services
Table Of Results - Appendix

Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref. No.: 07-128.01

Summary of Coolbox temperatures

Batch No.	Coolbox Temperature (°C)
1	5.2

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	BH1	BH3	BH4	MW1	MW2	MW3	MW4	MW5	MW6	Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID		
Sampled Date	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07		
Sample Received Date	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07		
Batch	2	2	2	2	2	2	2	2	2		
Sample Number(s)	**40-43**	**44-47**	**48-51**	**52-55**	**56-59**	**60-63**	**64-67**	**68-71**	**72-75**		
Arsenic Dissolved (ICP-MS)	<1	<1	1	85	18	5	2	22	26	TM152[#]	<1 ug/l
Boron Dissolved (ICP-MS)	250	340	340	2400	1900	1300	990	4100	3000	TM152[#]	<10 ug/l
Cadmium Dissolved (ICP-MS)	<0.4	<0.4	<0.4	29	36	<0.4	<0.4	1.3	0.6	TM152[#]	<0.4 ug/l
Chromium Dissolved (ICP-MS)	7	10	6	3	2	<1	8	180	<1	TM152[#]	<1 ug/l
Copper Dissolved (ICP-MS)	4	3	3	590	12	10	2	15	3	TM152[#]	<1 ug/l
Lead Dissolved (ICP-MS)	<1	2	<1	<1	2	<1	<1	1	1	TM152[#]	<1 ug/l
Nickel Dissolved (ICP-MS)	4	6	7	170	370	16	13	210	170	TM152[#]	<1 ug/l
Selenium Dissolved (ICP-MS)	<1	<1	1	76	49	16	9	63	75	TM152[#]	<1 ug/l
Zinc Dissolved (ICP-MS)	<3	5	<3	5	310	<3	12	33	58	TM152[#]	<3 ug/l
Mercury Dissolved (CVAA)	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	TM127[#]	<0.05 ug/l
Sulphate (soluble)	190	120	65	540	480	140	320	740	1500	TM098[#]	<3 mg/l
Sulphide	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	TM101	<0.5 mg/l
Hexavalent Chromium	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.30	<0.03	TM151[#]	<0.03 mg/l
Phenols Monohydric	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.92	<0.01	TM062[#]	<0.01 mg/l
Thiocyanate	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	TM153[#]	<0.05 mg/l
Total Cyanide	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	TM153[#]	<0.05 mg/l
Free Cyanide	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	TM153[#]	<0.05 mg/l
Free Sulphur	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	TM136[#]	<0.05 mg/l
pH Value	8.21	7.99	8.06	8.55	7.47	7.73	7.70	7.65	8.03	TM133[#]	<1.00 pH Units

Date 03.05.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	BH1	BH3	BH4	MW1	MW2	MW3	MW4	MW5	MW6	Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID		
Sampled Date	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07		
Sample Received Date	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07		
Batch	2	2	2	2	2	2	2	2	2		
Sample Number(s)	**40-43**	**44-47**	**48-51**	**52-55**	**56-59**	**60-63**	**64-67**	**68-71**	**72-75**		
GRO (C4-C12)	<10	<10	<10	<10	250	<10	<10	<10	<10	TM089[#]	<10 ug/l
MTBE	<10	<10	<10	<10	33	<10	<10	<10	<10	TM089[#]	<10 ug/l
Benzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
Toluene	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
Ethyl benzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
m & p Xylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
o Xylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
Aliphatics C5-C6	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089	<10 ug/l
Aliphatics >C6-C8	<10	<10	<10	<10	220	<10	<10	<10	<10	TM089	<10 ug/l
Aliphatics >C8-C10	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089	<10 ug/l
Aliphatics >C10-C12	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089	<10 ug/l
Aliphatics >C12-C16	<10	<10	<10	<10	<10	4100	<10	<10	<10	TM174	<10 ug/l
Aliphatics >C16-C21	<10	<10	<10	<10	<10	6900	<10	<10	<10	TM174	<10 ug/l
Aliphatics >C21-C35	<10	<10	<10	<10	<10	3600	<10	<10	<10	TM174	<10 ug/l
Total Aliphatics C5-C35	<10	<10	<10	<10	220	15000	<10	<10	<10	TM61/89	<10 ug/l
Aromatics C6-C7	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
Aromatics >C7-C8	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089[#]	<10 ug/l
Aromatics >EC8-EC10	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089	<10 ug/l
Aromatics >EC10-EC12	<10	<10	<10	<10	<10	<10	<10	<10	<10	TM089	<10 ug/l
Aromatics >EC12-EC16	<10	<10	<10	<10	<10	490	<10	<10	<10	TM174	<10 ug/l
Aromatics >EC16-EC21	<10	<10	<10	<10	<10	2100	<10	<10	<10	TM174	<10 ug/l
Aromatics >EC21-EC35	<10	<10	<10	<10	<10	1800	<10	<10	<10	TM174	<10 ug/l
Total Aromatics C6-C35	<10	<10	<10	<10	<10	4400	<10	<10	<10	TM61/89	<10 ug/l
TPH (Aliphatics and Aromatics C5-C35)	<10	<10	<10	<10	220	19000	<10	<10	<10	TM61/89	<10 ug/l

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	BH1	BH3	BH4	MW1	MW2	MW3	MW4	MW5	MW6	Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID		
Sampled Date	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07		
Sample Received Date	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07		
Batch	2	2	2	2	2	2	2	2	2		
Sample Number(s)	**40-43**	**44-47**	**48-51**	**52-55**	**56-59**	**60-63**	**64-67**	**68-71**	**72-75**		
PAH by GCMS											
Naphthalene	<26	<26	<26	<26	<26	380	<26	<26	<26	TM074	<26 ng/l
Acenaphthylene	<11	<11	<11	<11	<11	370	<11	<11	<11	TM074	<11 ng/l
Acenaphthene	<15	<15	<15	<15	<15	1700	<15	<15	<15	TM074	<15 ng/l
Fluorene	<14	<14	<14	<14	<14	1800	<14	<14	<14	TM074	<14 ng/l
Phenanthrene	<22	<22	<22	<22	<22	2400	<22	<22	<22	TM074	<22 ng/l
Anthracene	<15	<15	<15	<15	<15	2400	<15	<15	<15	TM074	<15 ng/l
Fluoranthene	<17	<17	<17	<17	<17	1400	<17	<17	<17	TM074	<17 ng/l
Pyrene	<15	<15	<15	<15	<15	3200	<15	<15	<15	TM074	<15 ng/l
Benz(a)anthracene	<17	<17	<17	<17	<17	200	<17	<17	<17	TM074	<17 ng/l
Chrysene	<13	<13	<13	<13	<13	520	<13	<13	<13	TM074	<13 ng/l
Benzo(b)fluoranthene	<23	<23	<23	<23	<23	120	<23	<23	<23	TM074	<23 ng/l
Benzo(k)fluoranthene	<27	<27	<27	<27	<27	38	<27	<27	<27	TM074	<27 ng/l
Benzo(a)pyrene	<9	<9	<9	<9	<9	65	<9	<9	<9	TM074	<9 ng/l
Indeno(123cd)pyrene	<14	<14	<14	<14	<14	42	<14	<14	<14	TM074	<14 ng/l
Dibenzo(ah)anthracene	<16	<16	<16	<16	<16	<16	<16	<16	<16	TM074	<16 ng/l
Benzo(ghi)perylene	<16	<16	<16	<16	<16	62	<16	<16	<16	TM074	<16 ng/l
PAH 16 Total	<27	<27	<27	<27	<27	15000	<27	<27	<27	TM074	<27 ng/l

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	BH1	BH3	BH4	MW1	MW2	MW3	MW4	MW5	MW6	Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID		
Sampled Date	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07		
Sample Received Date	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07		
Batch	2	2	2	2	2	2	2	2	2		
Sample Number(s)	**40-43**	**44-47**	**48-51**	**52-55**	**56-59**	**60-63**	**64-67**	**68-71**	**72-75**		
Volatile Organic Compounds											
Dichlorodifluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Vinyl Chloride	<1	<1	<1	<1	10	4	<1	3	<1	TM116[#]	<1 ug/l
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
trans-1-2-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Dichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Carbon Disulphide	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.1-Dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.1-Dichloroethane	<1	<1	<1	<1	43	7	<1	8	<1	TM116[#]	<1 ug/l
Methyl Tertiary Butyl Ether	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
cis-1-2-Dichloroethene	<1	<1	<1	4	310	5	3	4	<1	TM116[#]	<1 ug/l
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Chloroform	<1	<1	<1	95	54	<1	9	20	<1	TM116[#]	<1 ug/l
2.2-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2-Dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.1.1-Trichloroethane	<1	<1	<1	4	63	<1	38	3	<1	TM116[#]	<1 ug/l
1.1-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Carbontetrachloride	<1	<1	<1	<1	4	<1	3	<1	<1	TM116[#]	<1 ug/l
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Trichloroethene	<1	<1	<1	<1	280	4	18	12	<1	TM116[#]	<1 ug/l
cis-1-3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
trans-1-3-Dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.1.2-Trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Toluene	<1	<1	<1	<1	<1	13	<1	<1	<1	TM116[#]	<1 ug/l
1.3-Dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	BH1	BH3	BH4	MW1	MW2	MW3	MW4	MW5	MW6	Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID		
Sampled Date	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07		
Sample Received Date	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07		
Batch	2	2	2	2	2	2	2	2	2		
Sample Number(s)	**40-43**	**44-47**	**48-51**	**52-55**	**56-59**	**60-63**	**64-67**	**68-71**	**72-75**		
Volatile Organic Compounds (cont)											
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2-Dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Tetrachloroethene	<1	<1	<1	<1	160	<1	7	21	<1	TM116[#]	<1 ug/l
1.1.1.2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
p/m-Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.1.2.2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
o-Xylene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2.3-Trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Isopropylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Bromobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
2-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Propylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
4-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2.4-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
4-Isopropyltoluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.3.5-Trimethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
sec-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
tert-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
n-Butylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2-Dibromo-3-chloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2.4-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
Naphthalene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l
1.2.3-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	BH1	BH3	BH4	MW1	MW2	MW3	MW4	MW5	MW6	Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID	LIQUID		
Sampled Date	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07	27.03.07		
Sample Received Date	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07	30.03.07		
Batch	2	2	2	2	2	2	2	2	2		
Sample Number(s)	**40-43**	**44-47**	**48-51**	**52-55**	**56-59**	**60-63**	**64-67**	**68-71**	**72-75**		
Volatile Organic Compounds (cont)											
Hexachlorobutadiene	<1	<1	<1	<1	<1	<1	<1	<1	<1	TM116[#]	<1 ug/l

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW7	MW8								Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID									
Sampled Date	27.03.07	27.03.07									
Sample Received Date	30.03.07	30.03.07									
Batch	2	2									
Sample Number(s)	**76-79**	**80-83**									
Arsenic Dissolved (ICP-MS)	2	7								TM152[#]	<1 ug/l
Boron Dissolved (ICP-MS)	570	1100								TM152[#]	<10 ug/l
Cadmium Dissolved (ICP-MS)	<0.4	1.0								TM152[#]	<0.4 ug/l
Chromium Dissolved (ICP-MS)	<1	1								TM152[#]	<1 ug/l
Copper Dissolved (ICP-MS)	<1	6								TM152[#]	<1 ug/l
Lead Dissolved (ICP-MS)	<1	1								TM152[#]	<1 ug/l
Nickel Dissolved (ICP-MS)	7	66								TM152[#]	<1 ug/l
Selenium Dissolved (ICP-MS)	6	19								TM152[#]	<1 ug/l
Zinc Dissolved (ICP-MS)	<3	150								TM152[#]	<3 ug/l
Mercury Dissolved (CVAA)	<0.05	<0.05								TM127[#]	<0.05 ug/l
Sulphate (soluble)	440	310								TM098[#]	<3 mg/l
Sulphide	<0.5	<0.5								TM101	<0.5 mg/l
Hexavalent Chromium	0.04	<0.03								TM151[#]	<0.03 mg/l
Phenols Monohydric	<0.01	<0.01								TM062[#]	<0.01 mg/l
Thiocyanate	<0.05	<0.05								TM153[#]	<0.05 mg/l
Total Cyanide	<0.05	<0.05								TM153[#]	<0.05 mg/l
Free Cyanide	<0.05	<0.05								TM153[#]	<0.05 mg/l
Free Sulphur	<0.05	<0.05								TM136[#]	<0.05 mg/l
pH Value	8.01	7.81								TM133[#]	<1.00 pH Units

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW7	MW8								Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID									
Sampled Date	27.03.07	27.03.07									
Sample Received Date	30.03.07	30.03.07									
Batch	2	2									
Sample Number(s)	76-79	80-83									
GRO (C4-C12)	<10	<10								TM089[#]	<10 ug/l
MTBE	<10	<10								TM089[#]	<10 ug/l
Benzene	<10	<10								TM089[#]	<10 ug/l
Toluene	<10	<10								TM089[#]	<10 ug/l
Ethyl benzene	<10	<10								TM089[#]	<10 ug/l
m & p Xylene	<10	<10								TM089[#]	<10 ug/l
o Xylene	<10	<10								TM089[#]	<10 ug/l
Aliphatics C5-C6	<10	<10								TM089	<10 ug/l
Aliphatics >C6-C8	<10	<10								TM089	<10 ug/l
Aliphatics >C8-C10	<10	<10								TM089	<10 ug/l
Aliphatics >C10-C12	<10	<10								TM089	<10 ug/l
Aliphatics >C12-C16	<10	<10								TM174	<10 ug/l
Aliphatics >C16-C21	<10	<10								TM174	<10 ug/l
Aliphatics >C21-C35	<10	<10								TM174	<10 ug/l
Total Aliphatics C5-C35	<10	<10								TM61/89	<10 ug/l
Aromatics C6-C7	<10	<10								TM089[#]	<10 ug/l
Aromatics >C7-C8	<10	<10								TM089[#]	<10 ug/l
Aromatics >EC8-EC10	<10	<10								TM089	<10 ug/l
Aromatics >EC10-EC12	<10	<10								TM089	<10 ug/l
Aromatics >EC12-EC16	<10	<10								TM174	<10 ug/l
Aromatics >EC16-EC21	<10	<10								TM174	<10 ug/l
Aromatics >EC21-EC35	<10	<10								TM174	<10 ug/l
Total Aromatics C6-C35	<10	<10								TM61/89	<10 ug/l
TPH (Aliphatics and Aromatics C5-C35)	<10	<10								TM61/89	<10 ug/l

Date 03.05.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW7	MW8								Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID									
Sampled Date	27.03.07	27.03.07									
Sample Received Date	30.03.07	30.03.07									
Batch	2	2									
Sample Number(s)	**76-79**	**80-83**									
PAH by GCMS											
Naphthalene	<26	95								TM074	<26 ng/l
Acenaphthylene	<11	15								TM074	<11 ng/l
Acenaphthene	<15	<15								TM074	<15 ng/l
Fluorene	<14	<14								TM074	<14 ng/l
Phenanthrene	<22	<22								TM074	<22 ng/l
Anthracene	<15	16								TM074	<15 ng/l
Fluoranthene	<17	<17								TM074	<17 ng/l
Pyrene	<15	<15								TM074	<15 ng/l
Benz(a)anthracene	<17	<17								TM074	<17 ng/l
Chrysene	<13	<13								TM074	<13 ng/l
Benzo(b)fluoranthene	<23	<23								TM074	<23 ng/l
Benzo(k)fluoranthene	<27	<27								TM074	<27 ng/l
Benzo(a)pyrene	<9	<9								TM074	<9 ng/l
Indeno(123cd)pyrene	<14	<14								TM074	<14 ng/l
Dibenzo(ah)anthracene	<16	<16								TM074	<16 ng/l
Benzo(ghi)perylene	<16	<16								TM074	<16 ng/l
PAH 16 Total	<27	130								TM074	<27 ng/l

Date 03.05.2007

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Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW7	MW8								Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID									
Sampled Date	27.03.07	27.03.07									
Sample Received Date	30.03.07	30.03.07									
Batch	2	2									
Sample Number(s)	**76-79**	**80-83**									
Volatile Organic Compounds											
Dichlorodifluoromethane	<1	<1								TM116[#]	<1 ug/l
Chloromethane	<1	<1								TM116[#]	<1 ug/l
Vinyl Chloride	<1	<1								TM116[#]	<1 ug/l
Bromomethane	<1	<1								TM116[#]	<1 ug/l
Chloroethane	<1	<1								TM116[#]	<1 ug/l
Trichlorofluoromethane	<1	<1								TM116[#]	<1 ug/l
trans-1-2-Dichloroethene	<1	<1								TM116[#]	<1 ug/l
Dichloromethane	<1	<1								TM116[#]	<1 ug/l
Carbon Disulphide	<1	<1								TM116[#]	<1 ug/l
1.1-Dichloroethene	<1	<1								TM116[#]	<1 ug/l
1.1-Dichloroethane	<1	5								TM116[#]	<1 ug/l
Methyl Tertiary Butyl Ether	<1	<1								TM116[#]	<1 ug/l
cis-1-2-Dichloroethene	<1	2								TM116[#]	<1 ug/l
Bromochloromethane	<1	<1								TM116[#]	<1 ug/l
Chloroform	<1	<1								TM116[#]	<1 ug/l
2.2-Dichloropropane	<1	<1								TM116[#]	<1 ug/l
1.2-Dichloroethane	<1	<1								TM116[#]	<1 ug/l
1.1.1-Trichloroethane	<1	<1								TM116[#]	<1 ug/l
1.1-Dichloropropene	<1	<1								TM116[#]	<1 ug/l
Benzene	<1	<1								TM116[#]	<1 ug/l
Carbontetrachloride	<1	<1								TM116[#]	<1 ug/l
Dibromomethane	<1	<1								TM116[#]	<1 ug/l
1.2-Dichloropropane	<1	<1								TM116[#]	<1 ug/l
Bromodichloromethane	<1	<1								TM116[#]	<1 ug/l
Trichloroethene	<1	<1								TM116[#]	<1 ug/l
cis-1-3-Dichloropropene	<1	<1								TM116[#]	<1 ug/l
trans-1-3-Dichloropropene	<1	<1								TM116[#]	<1 ug/l
1.1.2-Trichloroethane	<1	<1								TM116[#]	<1 ug/l
Toluene	<1	<1								TM116[#]	<1 ug/l
1.3-Dichloropropane	<1	<1								TM116[#]	<1 ug/l

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ALcontrol Geochem Analytical Services
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[*] Subcontracted test
[»] Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW7	MW8								Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID									
Sampled Date	27.03.07	27.03.07									
Sample Received Date	30.03.07	30.03.07									
Batch	2	2									
Sample Number(s)	**76-79**	**80-83**									
Volatile Organic Compounds (cont)											
Dibromochloromethane	<1	<1								TM116[#]	<1 ug/l
1.2-Dibromoethane	<1	<1								TM116[#]	<1 ug/l
Tetrachloroethene	<1	<1								TM116[#]	<1 ug/l
1.1.1.2-Tetrachloroethane	<1	<1								TM116[#]	<1 ug/l
Chlorobenzene	<1	<1								TM116[#]	<1 ug/l
Ethylbenzene	<1	<1								TM116[#]	<1 ug/l
p/m-Xylene	<1	<1								TM116[#]	<1 ug/l
Bromoform	<1	<1								TM116[#]	<1 ug/l
Styrene	<1	<1								TM116[#]	<1 ug/l
1.1.2.2-Tetrachloroethane	<1	<1								TM116[#]	<1 ug/l
o-Xylene	<1	<1								TM116[#]	<1 ug/l
1.2.3-Trichloropropane	<1	<1								TM116[#]	<1 ug/l
Isopropylbenzene	<1	<1								TM116[#]	<1 ug/l
Bromobenzene	<1	<1								TM116[#]	<1 ug/l
2-Chlorotoluene	<1	<1								TM116[#]	<1 ug/l
Propylbenzene	<1	<1								TM116[#]	<1 ug/l
4-Chlorotoluene	<1	<1								TM116[#]	<1 ug/l
1.2.4-Trimethylbenzene	<1	<1								TM116[#]	<1 ug/l
4-Isopropyltoluene	<1	<1								TM116[#]	<1 ug/l
1.3.5-Trimethylbenzene	<1	<1								TM116[#]	<1 ug/l
1.2-Dichlorobenzene	<1	<1								TM116[#]	<1 ug/l
1.4-Dichlorobenzene	<1	<1								TM116[#]	<1 ug/l
sec-Butylbenzene	<1	<1								TM116[#]	<1 ug/l
tert-Butylbenzene	<1	<1								TM116[#]	<1 ug/l
1.3-Dichlorobenzene	<1	<1								TM116[#]	<1 ug/l
n-Butylbenzene	<1	<1								TM116[#]	<1 ug/l
1.2-Dibromo-3-chloropropane	<1	<1								TM116[#]	<1 ug/l
1.2.4-Trichlorobenzene	<1	<1								TM116[#]	<1 ug/l
Naphthalene	<1	<1								TM116[#]	<1 ug/l
1.2.3-Trichlorobenzene	<1	<1								TM116[#]	<1 ug/l

Date 03.05.2007

Validated ✓
Preliminary

ALcontrol Geochem Analytical Services
Table Of Results

[#] ISO 17025 accredited
[M] MCERTS accredited
* Subcontracted test
» Shown on prev. report

Job Number: 07/05241/02/01 **Matrix:** LIQUID
Client: Corsair Environmental **Location:** ALDRIDGE
Client Ref. No.: 07-128.01 **Client Contact:** Norman Watson

Sample Identity	MW7	MW8								Method Code	LoD/Units
Depth (m)											
Sample Type	LIQUID	LIQUID									
Sampled Date	27.03.07	27.03.07									
Sample Received Date	30.03.07	30.03.07									
Batch	2	2									
Sample Number(s)	**76-79**	**80-83**									
Volatile Organic Compounds (cont)											
Hexachlorobutadiene	<1	<1								TM116[#]	<1 ug/l

Date 03.05.2007

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Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref. No.: 07-128.01

Report Key :

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03×10^{-7}

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFD	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

Summary of Method Codes contained within report :

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample [1]	Surrogate Corrected
TM062	MEWAM BOOK 124 1988.HMSO/ Method 17.7, Second Site property, March 2003	Determination of Phenolic compounds by HPLC with electro-chemical detection	✓		NA	
TM074	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS. MCERTS Accreditation on Soils for Naphthalene except when Kerosene present.			NA	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)			NA	
TM089	Modified: US EPA Methods 8020 & 602	Determination of Gasoline Range Hydrocarbons (GRO) and BTEX (MTBE) compounds by Headspace GC-FID (C4-C12)	✓		NA	
TM098	Method 4500E, AWWA/APHA, 20th Ed., 1999	Determination of Sulphate using the Kone Analyser	✓		NA	
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser			NA	
TM116	Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602	Determination of Volatile Organic Compounds by Headspace / GC-MS	✓		NA	
TM127	Method 3112B, AWWA/APHA, 20th Ed., 1999	The Determination of Trace Level Mercury in Aqueous Media and Soil Extracts by Atomic Absorption Spectroscopy	✓		NA	
TM133	BS 1377: Part 3 1990	Determination of pH in Soil and Water using the GLpH pH Meter	✓		NA	
TM136	Method 17.10, Second Site property, March 2003	Determination of Sulphur by HPLC	✓		NA	
TM151	Method 3500D, AWWA/APHA, 20th Ed., 1999	Determination of Hexavalent Chromium using Kone analyser	✓		NA	
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS	✓		NA	
TM153	Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the "Skalar SANS+ System" Segmented Flow Analyser	✓		NA	
TM174		Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID			NA	

[1] Applies to Solid samples only. **DRY** indicates samples have been dried at 35°C. **NA** = not applicable.

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Table Of Results - Appendix

Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref. No.: 07-128.01

Report Key :

Results expressed as (e.g.) 1.03E-07 is equivalent to 1.03×10^{-7}

NDP	No Determination Possible	*	Subcontracted test
NFD	No Fibres Detected	»	Result previously reported (Incremental reports only)
#	ISO 17025 accredited	M	MCERTS Accredited
PFD	Possible Fibres Detected	EC	Equivalent Carbon (Aromatics C8-C35)

Note: Method detection limits are not always achievable due to various circumstances beyond our control.

Summary of Method Codes contained within report :

Method No.	Reference	Description	ISO 17025 Accredited	MCERTS Accredited	Wet/Dry Sample [1]	Surrogate Corrected
TM61/89		see TM061 and TM089 for details			NA	

[1] Applies to Solid samples only. **DRY** indicates samples have been dried at 35°C. **NA** = not applicable.

ALcontrol Geochem Analytical Services
Table Of Results - Appendix

Job Number: 07/05241/02/01
Client: Corsair Environmental
Client Ref. No.: 07-128.01

Summary of Coolbox temperatures

Batch No.	Coolbox Temperature (°C)
2	8.2*C