Phase I-II Geo-Environmental Site Assessment

55 Vastern Road
Reading
Berkshire
RG1 8BU

Prepared for

Berkeley Homes Oxford and Chiltern
Berkeley House
Farnham Lane
Slough
SL2 3RQ

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Quality Assurance

Remarks	Final
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Executive Summary	
Site Address	55 Vastern Road, Reading, Berkshire, RG1 8BU
National Grid Reference	471566, 174120
Site Area	1.19ha
Current Site Use	The site is located within Reading Town centre, approximately 1km north of Reading Train Station. The site comprises a single two storey building within the southern section with the remainder of the site comprising an asphalt covered car parking area. An electricity power distribution infrastructure is located immediately adjacent to the eastern boundary of the site.
Site History	The site forms part of an open field until mapping dated 1900 when the site is developed to an electrical works with an ice rink built 1912. The site was then redeveloped during the 1970s to its current configuration.
Geology, Hydrology & Hydrogeology	Soils underlying the site are classified as Unproductive Strata, attributed to the clay and silt of the Alluvium Silt Member. This unit is underlain by a Principal Aquifer, the chalk of the Seaford Chalk and Newhaven Chalk Formation. Four (4no.) groundwater abstraction and three(3no.) potable groundwater abstractions are noted within 1km of the site. The closest surface water feature is located 4m to the north east of the site. The ground investigations encountered the following sequence: Made Ground (MG) was found to be predominantly granular in nature and generally ranged from 1.10m to 1.90m in thickness with thicker Made Ground ranging from 1.95 – 3.50m, as encountered in the central part of the site around the main transformer compound. Immediately underlying MG was a sequence of cohesive deposits comprising clayey and sandy SILT attributed to Alluvium (ALL). The top of the ALL was encountered at depths ranging from 0.60 – 3.50m bgl (37.57 – 35.26mAOD). Immediately underlying the ALL were sands and gravels attributed to the Kempton Park Gravel Formation (KPG), which ranged from loose to dense grey variably silty and sandy GRAVEL. The KPG ranged from 5.00 – 9.20m in thickness with an average thickness of 6.58m. Chalk bedrock was encountered immediately beneath the KPG at depths ranging from 8.10 – 12.50m bgl (30.21 - 26.21mAOD) and was proven to a maximum depth of 35.00m bgl. the Chalk was recovered as a variably sandy and silty angular to subangular GRAVEL (Grade Dc) suggesting an absence of “Putty Chalk” (Grade Dm).
Landfill Sites & Ground Gases	The Groundsure Report identified one (1no.) Environment Agency historic landfill site within 1km of the site, 587m to the north west. No further landfills or waste treatment site are recoded within 250m of the site.
Radon	With reference to the HPA Radon Atlas for England and Wales, less than 1% of properties are above the action level. At this level BRE publication BR211 indicates that no radon protective measures are required in the construction of new extensions or dwellings.
Revised Conceptual Site Model (RCSM)	
Following the completion of the risk assessment, including Tier 1 Human Health assessment a series of active pollution pathways have been identified by the RCSM. These relate to elevated metals, PAH, TPH and asbestos concentrations in the near surface soil samples. Further consideration should be given to the ground gas regime on completion of monitoring, alongside the results of further works within inaccessible areas of the site.	
Recommendations	

In order to mitigate the risks currently identified in the RCSM, remediation works are required and should be set out fully within a standalone Remediation Method Statement. At this stage, works are likely to include:

- Emplacement of soil capping system within areas of proposed soft landscaping;
- Provision of suitable mitigation measures to address the vapour risk within buildings;
- Hotspot removal of impact in area of WS1002 (subject to further assessment).

Further investigation should be completed within areas not accessible at the time of the ground investigation. This includes:

- Areas below the existing building footprint on the southern extent of the site;
- Areas below the course of oil filled cables.

Further delineation should also be completed in the area of WS1002 to confirm the risk to controlled waters.

The findings of the ground gas risk assessment should be utilised to determine the potential risk posed to the site from ground gas.

Upon completion of the risk assessment mitigation measures should be set out within a standalone Remediation Method Statement and agreed with the Regulator ahead of commencement on site.

Asbestos content in excess of the 0.1% threshold for hazardous soils were encountered within 5 of 45 locations, which is considered to be representative of localised elevated results, rather than indicative of widespread hazardous soils.

If during works any previously unidentified impact is encountered during development works, activities should be halted, and contact made with a suitably qualified Environmental Consultant in order to further investigation identified materials. As determined appropriate by the Consultant further investigation and sampling may be required to determine appropriate actions. Upon completion contact should be made with the regulator to achieve sign off of the works.

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APPENDICES

1.0 INTRODUCTION

1.1 Background

Omnia Environmental Consulting (OEC) have been commissioned by Berkeley Homes (Oxford and Chiltern) Ltd (BHOC) to undertake an Environmental Site Assessment at the site comprising 55 Vastern Road, Reading, Berkshire, RG1 8BU (Figure 1.0). This work has been commissioned to assist the planning submission. This document represents a revision to an assessment completed for Due Diligence works in April 2018 (report ref A10967/1.0). As a result borehole observations, monitoring results and regulator liaison dates back to this time, however are considered representative given the limited time that has elapsed since preparation.

The site previously fell within part of a broader site ownership boundary under the control of SSE, with BHOC since purchasing the portion of the site that was not occupied by electricity infrastructure. This site boundary is presented in Figure 3.0. Ahead of divestment the site was subject to a series of investigations, undertaken on behalf of SSE by Adler and Allan Ltd, Peter Brett Associates (PBA) and CC Ground Investigation. Information from these investigation works have been utilised within this report where falling within BHOC's ownership boundary. As necessary findings of the investigation on the neighbouring area have been utilised to provide an insight to any associated considerations that should be made for inclusion into the Conceptual Site Model. We understand that BHOC have full reliance on this data, such that it can be used for risk assessment purposes.

The site is situated in Reading Town centre, directly adjacent to the River Thames and is understood to be formerly occupied by SSE with an office building located on the southern third of the site and associated parking and infrastructure towards the north. Directly to the east of the site is utilised by SSE for electricity distribution, with a range of plant and structures in place including below ground oil-filled pipes.

It is understood that BHOC intend to develop the site to comprise the construction of up to eight (8no.) residential apartment blocks (Blocks A-G) along with associated infrastructure and communal green, as set out in Berkley Homes Preliminary Black & Plot Plan (ref: O.448.ENG.005, dated August 2019). It is understood that SSE are retaining ownership of the electrical substation, to the east of the BHOC site it currently utilises for electricity distribution.

It is understood that a pollution incident occurred on the neighbouring electrical substation site in July 2017 when an estimated 8,000 litres of cooling oil was released from a ruptured underground High Voltage (HV) cable run. The neighbouring site is understood to have undergone two (2no.) previous phases of investigation, an initial investigation undertaken in October 2017 by Adler & Allan Ltd to identify the source of the leakage and facilitate a repair, with a subsequent phase of investigation and monitoring undertaken by Peter Brett Associates (PBA) between January - April 2018.

A preliminary assessment has been issued by PBA together with a draft factual site investigation report undertaken by CCL Ground Investigations, which indicates that as a result of historic activities and contemporary land use on site (previous Electric works and Electricity Depot with electricity sub-stations) as well as the neighbouring sites use as a power station use and historic hydrocarbon infrastructure potentially both ASTs USTs) and due to a rupture of an oil pipe in 2017 on the neighbouring site, that there are environmental risks to both Human and Environmental receptors that will need to be dealt with as part of the development process.
This report assesses the factual information provided by PBA and Adler & Allan as well as follow on

intrusive and monitoring investigation undertaken by OEC and should be read in conjunction with the previously stated reports.

1.2 Proposed Development

It is understood that the proposed development consists of the construction of eight (8no.) residential apartment blocks (Blocks A-G) along with associated infrastructure and communal green, as set out in Berkley Homes Preliminary Black & Plot Plan (ref: O.448.ENG.005, dated August 2019). It is understood that the apartment block will range from 3 to 11 storeys with approximately 224no plots.

A site location map is presented as Figure 1.0, and the proposed layout is as detailed on Figure 2.0. Figures are presented within Appendix III.

1.3 Objectives

The objectives of the Geo-Environmental Site Assessment are to:

- Undertake a site walkover and inspection including interviews with key site representatives if available;
- Review historical plans, geology, hydrogeology, site sensitivity, flood-plain issues, mining records and any local authority information available in order to complete a Desk Study in line with Environment Agency (EA) document Model Procedures for the Management of Contaminated Land (Contaminated Land Report 11 (CLR11));
- Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to the future use and in relation to off-site receptors;
- Undertake a limited assessment of the near surface through restricted intrusive site investigation;
- Provide a factual and interpretative report relating to the site and provide recommendations on any potential development issues with particular consideration of Residential, Construction Worker and Environmental receptors.

1.4 Sources of Information

Background information was sought from the following sources:

- Groundsure Environmental Database Search (GS-4876555);
- Historical Ordnance Survey Mapping (1859 – 2014);
- CC Ground Investigation Ltd Factual Report (report ref: ‘C5925/01’dated March 2018);
- PBA Peter Brett Technical Note (report ref: ‘Tn002/Rev0’ dated March 2018);
- Environment Agency Groundwater Quality Review: Thames Valley Gravels, Thames Region. Report Ref: 6441R8, February 2005;
- Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 3, Selection of Representative TPH Fractions Based on Fate & Transport Considerations, July 1997;
- Environment Agency, The Effects of Contaminant Concentration on the Potential for Natural Attenuation; R&D Technical Report P2-228/TR, 2002; and,
- British Geological Survey Map Sheet 268, Reading, Solid & Drift Edition at a scale of 1:50,000.

1.5 Limitations

The limitations of this report are presented in Appendix I.

1.6 Confidentiality

OEC has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from OEC; a charge may be levied against such approval.

2.0 SITE SETTING

2.1 Site Details

Site Address	55 Vastern Road, Reading, Berkshire, RG1 8BU
National Grid Reference	471566, 174120

All acronyms used within this report are defined in the Glossary presented in Appendix II.

2.2 Current Site Use

Site Description

The area of investigation is located within Reading town centre, approximately 1km north of Reading train station on an irregularly sharped parcel of land representing the current ownership boundary, and is approximately 0.75 hectares in size. The site is located north of Vastern Road with the long axis aligned north east to south west. The site was accessed via a security gate located just north of Vastern Road.

At the time of the walkover, the site was vacant and comprised of a single two-storey building occupying the southern area. Electricity power distribution infrastructure was located directly to the east of the site boundary. Within the central eastern and northern section of the site the area was utilised as a car park, assumed to be for the vacant former SSE building.

The two-storey building within the southern section of the site was aligned alongside Vastern Road in an approximate east west orientation, with the building fronting onto Vastern Road. The majority of the building was clad with white cladding, although it is assumed that the building is brick built. The building appeared to be in a relatively good state of repair, and utilised for the storage of office furniture.

Directly to the east of the central site boundary an enclosed electrical distribution plant including electricity substations and transformers was present. It is understood that this infrastructure forms back up generators, and that this is fed by a number of oil cooled high voltage underground power lines. The infrastructure appeared to be in a good state of repair with a gravel cover present across the area and enclosed by a 2m tall security fence around the perimeter of the infrastructure.

From review of utilities information it is understood that oil cooled HV cables access the site from the south western boundary off Lynmouth Road and run into the site within the access road bounding the SSE building from the south west. Cables are noted to service a smaller substation to the west of the building prior to advancing close to the western boundary, ahead of running due east into the central area of the backup generator/substation area.

Within the north western corner of the site a small area of soft landscaping was present, containing a disused double garage assumed to be for bicycle storage, a smoking area and an electrical substation. The area was a good state of repair was grass cover across the area, with the substation enclosed by 1.5m wooden fencing.

The site was observed to be generally flat, with a previous topographic survey indicating an elevation of approximately 38.50m AOD.

Hazardous Materials Storage

No hazardous material storage other than that associated with the substation infrastructure was observed during the site walkover.

Waste Storage

At the time of the site visit no waste storage was noted within the site boundary.

Potential Asbestos Containing Material (PACM)

During the site walkover, no visible PACM was observed, however given that the on site structure was built before the year 2000 there is the potential for asbestos containing material to be present within the building fabric. Given this, an asbestos survey should be undertaken ahead of any refurbishment or demolition works in line with best practice.

2.3 Surrounding Area

The surrounding land uses are summarised below:

Direction	Land Use
North	River Thames with Christchurch Playing Fields beyond.
East	SSE Electrical Substation and AST bunded fuel tanks.
South	Commercial/Industrial with Railway Station beyond.
West	Residential Properties with private gardens.

3.0 SITE HISTORY

3.1 On-Site Historical Development

A review of historical maps pertinent to the site and within a 250m radius is summarised in Table 3.1 below. Historical maps are included within the Groundsure report presented within Appendix IV.

Table 3.1 Summary of Potentially Contaminative Historical Land Uses.

Map Edition	Historical Land Use	
	On Site	**Off Site**
1877 (1:2,500) Partial map coverage	The site area comprises open land with a tree line running along the northern edge.	Surrounding area comprises of open land with a body of water adjacent to the northern boundary running north west to south east.
1881 (1:2,500)	No significant change.	Great Western Rail Works ~ 75m south, south west of the site Goods train station situated ~200m south, south west of the site.
1889-1900 (1:2,500)	Building situated within the northern section of the site identified as electrical works.	Body of water running adjacent identified as the River Thames. Significant housing development adjacent to the western boundary. Thamesbank ironworks ~100m east Coal depot ~100m west, south west Saw mill situated ~150m north west Boat houses ~175m and ~250m east, south east and ~250m north west.
1912-1913 (1:2,500)	Building situated within the southern section of the site identified as a Skating Rink.	Ice factory and cold stores adjacent to western boundary. Iron foundry ~30m east, south east. Thamesbank ironworks ~ 100 west now identified as ironworks Timber yard ~175m north west of site Boat houses ~70m north and ~175m north west. Foundry (iron and brass) ~250m east.
1931-1932 (1:2,500)	No significant change. The buildings on site are now unidentified.	Ironworks ~ 100m east replaced by paint works ~50m east and Timber yard ~100m east Christchurch playing fields situated ~65m north east of site including tennis courts and a paddling pond.
1936 (1:2,500) Partial map coverage	Southern building now identified as a depository.	Iron foundry ~20m east of site. Overhead crane associated with saw mill ~120m west.

Map Edition	Historical Land Use	
	On Site	**Off Site**
1956-1957 (1:2,500)	Electrical works building within the northern section of the site is no longer present. Depository no longer identified.	Garage ~50m east. Well situated on the southern edge of fry's island ~60m north. Engineering works ~70m north west. Electrical substation situated ~120m north west. Great Western Railway works now defined as works situated ~130m south west. Boat house situated ~130m north of the site Two tennis courts and a bowling green situated on Fray's island ~180m north, north west of site. Warehouse situated ~190m south east. Unidentified works building ~250m east.
1959-1961 (1:2,500)	No significant change.	Ice factory and cold stores ~ adjacent western boundary identified as factory. Timber yard situated ~175m north west now defined as depot. Engineering works ~70m north west now identified as works. Saw mill ~150m north west now identified as mill.
1957-1962 (1:1,250)	No significant change.	No significant change
1969-1972 (1:1,250)	Building within the southern section of the site is now identified as an electricity depot. Three (3no.) electrical substations identified. One within the north western point, and two (2no.) along the north western section of the electricity depot.	Electricity distribution infrastructure identified immediately adjacent to western boundary of the site. Factory ~ adjacent to western boundary now identified as Ice factory and cold stores. Engineering works ~10m east. Engineering works situated ~50m north west. Tank ~60m east. Tank ~ 70m east Great Western Rail works (Works) ~ 100m south now identified as Railway Works. River conservancy depot ~125m east. Club situated ~130m north west. Electricity substation situated ~175m north west. Boat house ~175m north west now identified as store. Coal yard ~180m south east.
1979- 1982 (1:1,250) Partial map coverage	Poor mapping coverage.	Two warehouses ~135m north west of the site.
1984-1988 (1:1,250) Partial map coverage	Poor mapping coverage.	Northernmost warehouse ~ 135m west identified as offices.

Map Edition	Historical Land Use	
	On Site	Off Site
1984-1989 (1:1,250)	Building with the northern section of the site.	No significant change.
1988-1993 (1:1,250)	No significant change apparent from mapping.	Electrical substation approximately 5m south-east of the site. Engineering works ~10m east now identified as works
1994 (1:10,000)	No significant change apparent from mapping.	Car park situated ~70m south east.
2002 (1:10,000)	No significant change apparent from mapping.	No significant change.
2010 (1:10,000)	No significant change apparent from mapping.	No significant change.
2014 (1:10,000)	No significant change apparent from mapping.	No significant change.

3.2 Historical Tank Database

The Groundsure Report identified twenty-three (23no.) historical tanks within a 250m radius of the subject site based on analysis of historical ordnance survey mapping. A total of six (6no.) were identified as being located on site, with dates ranging between 1913 to 1932. Entries within a 250m radius of the site have been summarised below:

- 38m south east, Unspecified Tank, dating 1972-1989 (2 entries);
- 66m south east, Unspecified Tank, dating 1972-1989 (2 entries);
- 161m south, Unspecified Tank, dated 1879;
- 173m south west, Tank or Trough, dated 1879;
- 181m south west, Tank or Trough, dated1879;
- 188m south west, Tank or Trough, dated 1879 (2 entries);
- 216m south east, Unspecified Tank, dated 1956-1962 (4 entries);
- 220m south east, Unspecified Tank, dated 1912-1931 (2 entries);
- 240m north, Unspecified Tank, dated 1972; and,
- 250m north, Unspecified Tank, dated 1972.

3.3 Planning History

OEC has undertaken a review of on-line planning records held by Reading Borough Council. Seven (7no.) applications were identified relating to the site. Of these the following record was considered to be environmentally pertinent:

Application Ref: 050335: Change of use from ground floor warehouse with first floor extension to form additional B1 (office) floor space (Dated January 2005).

4.0 ENVIRONMENTAL SETTING

4.1 Geology & Hydrogeology

The British Geological Survey (BGS) map for the site (Reading, Sheet 268, Solid and Drift Edition at a scale of 1:50,000) indicates that the site is underlain by the following geological sequence:

Geological Unit	Classification	Description	Aquifer Classification
Superficial	Alluvium (Northernmost Area Only)	Clay, Silt, Sand & Gravel	Secondary (A) Aquifer
	Langley Silt Member	Clay and Silt	Unproductive Strata
	Kempton Park Gravels (Underlying Langley Silt)	Sand & Gravel	Secondary (A) Aquifer
Bedrock	Seaford Chalk Formation & Newhaven Chalk Formation	Chalk	Principal Aquifer

Review of the Groundsure environmental database indicates that the site is not located within a groundwater Source Protection Zone (SPZ). A Source Protection Zone 3 (SPZ3), Total Catchment, was identified approximately 28m southeast of the site and from communication with the EA is understood to be associated with a groundwater abstraction at Reading University. No potable water abstraction licences or public water supplies were identified within 250m of the site. The closest groundwater abstraction licence is located 371m northeast and is designated for Laundry Use.

A review of Environment Agency report Ref: 6441R8, regarding groundwater within the Thames Valley Gravels suggests that groundwater flow within the gravels is influenced by river flow direction and generally flows obliquely away the river at times of high flow level and obliquely towards the river during times of low flow level. A review of local topography and surface water features suggests that shallow groundwater, if present, is likely to flow in a north-easterly direction towards the River Thames.

Groundwater vulnerability data indicates the site is underlain by soils classified as a Major Aquifer with a high leaching potential, which is considered to be attributed to the Superficial geology.

4.2 Hydrology

There are six (6no.) surface water abstractions within 1km of the site. The closest entry is located 264m north west and relates to an abstraction from the River Thames, for 'Transfer between sources', attributed to Reading Borough Council.

Data obtained via the Groundsure report identified sixty (60no.) records of surface watercourses within a 250m radius of the subject site. These records have been attributed to the River Thames (closest entry is 5m north east) and an unnamed culverted watercourse located approximately 85m south.

The Groundsure Report identified eight (8no.) surface water features within influencing distance of the site. The closest of which is located approximately 4m to the north east.

The site is partially classified as both a Zone 2 and a Zone 3 floodplain with a Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating of High. The Zone 3 entry is attributed to the north eastern and north western boundary of the site, closest to the Thames.

The site is located on a British Geological Survey groundwater flooding susceptibility area, which is associated with clearwater flooding from superficial deposits at surface.

4.3 Geotechnical Data

Geotechnical Data presented within the Groundsure report identifies the following ground conditions:

Hazard	Designation
Shrink-Swell Clay	Very Low
Landslides	Very Low
Ground Dissolution	Very Low
Compressible Ground	Moderate
Collapsible Deposits	Very Low
Running Sand	Low

4.4 Mining & Ground Workings

The site is not located within an area that is affected by coal mining and therefore no Coal Authority coal mining report was obtained for the purposes of this report. The Groundsure report also indicated that the site is not affected by any other mining activities.

4.5 Radon Risk Potential

The Groundsure report indicates that the site is not located within a Radon Affected Area, as less than 1% of properties are above the action level. At this level BRE publication BR211 indicates that no radon protective measures are required in the construction of new extensions or dwellings.

4.6 Industrial Land Uses

The Groundsure Report identified twenty-three (23no.) industrial land uses within a 250m radius of the subject site. Out of these sixteen (16no.) were considered to be potentially contaminative, and are summarised below:

- Container and storage depot, located onsite;
- Three (3no.) Electrical Sub Stations, located onsite;
- Electrical Sub Station, located 47m southeast, 100m southwest, 164m west, 200m northwest, 211m north west, 212m northwest
- Bus and Coach stations, Depots and Companies, located 210m south
- Electrical Sub Station, located 211m northwest;
- Vehicle repair, testing and servicing, located 218m west, 239m west;
- Container and storage, located 220m west;
- Railway stations, junctions and halts, located 236m southwest;
- General construction supplies, located 244m west; and
- Unspecified works or factories, located 248m west.

The Groundsure report did not identify any current or historic petrol filling stations within a 250m radius of the site. The closest is located 428m north east of the site.

4.7 Sensitive Land Uses

The site is located within an area identified as being classified as a Nitrate Vulnerable Zone (NVZ). No other sensitive land uses were identified within a 250m radius of the site.

4.8 Site Sensitivity Assessment

The site is considered to be located within a High sensitivity setting due to the following reasons:

- On-site pollution incident involving the leakage of 8,000 litres of cooling oil in July 2017;
- River Thames is located approximately 5m north;
- Site is underlain by Chalk Bedrock classified as a Principal Aquifer;
- Contemporary and historic potentially contaminative land uses on-site;
- Superficial deposits classified as unproductive strata;
- The site is located within a NVZ; and,
- Surrounding area includes residential dwellings with private gardens.

5.0 CONSULTATIONS

5.1 Contaminated Land Officer

An information request was submitted to Reading Borough Council (RBC) on 12/04/2018 enquiring whether RBC held any information associated with the pollution incident that occurred at the neighbouring site in July 2017. To date, no response to the information request has been received.

5.2 Environment Agency

Contact was made with the Environment Agency on the 11/04/2018 regarding the pollution incident set out in Section 1.1 involving the leakage of 8,000 litres of cooling oil on site. A response was received via email on the 12/04/18 as follows:

"Given the location of the cable oil leak in close proximity of the River Thames, Scottish and Southern Electricity were instructed to investigate and remediate. Subsequently Adler and Allan were met on site with their consultants, who carried out an investigation. They had located the leak and made a repair but the final report of the site wide monitoring has yet to be seen. They had also been monitoring the surface water in the Thames but had not detected any hydrocarbons."

OEC made further contact on 12/04/2018 requesting confirmation of the EA's considered principal receptor. A further response was received on 12/04/2018 as follows:

"Given the proximity of the River Thames, it would be considered the principal receptor. Also, the Langley Silt, dependant on the depth of the cable, might act as a barrier to downward infiltration. The Chalk here is close to an SPZ3 for the University Abstraction. However, they have recently revoked their licence so not aware of any other abstractions. The oils used on high-voltage cables these days tend to be linear Alkyl Benzene with a low environmental impact and which do not contain PCBs. However, there is the possibility for older oil residues to remain within the cables."

5.3 Landfill & Waste Treatment Sites

The Groundsure Report identified one (1no.) Environment Agency historic landfill sites within 1km radius of the subject site.

- 587m north west, Richfield Avenue, Reading, Berkshire - Site Ref: RDG11, TP0122, Waste Type: Commercial, Household and liquid sludge;

The Groundsure Report did not identify any historic local authority landfill entries within influencing distance of the site. Furthermore no further landfills or waste treatment site entries are recorded within 250m of the site.

5.4 Potentially Infilled Land Sites

The Groundsure Report identified eight (8no.) potentially infilled land sites within a 500m radius of the subject site. There are five (5no.) records of potentially infilled land up to 250m from the site, all of which relate to a single pond, the details of which are summarised below:

- 100m north east, Pond, dated 1994, 1971, 1989, 1962 and 1967.

5.5 Regulatory Database

The following information has been obtained from a commercially available environmental database. The summary table only includes records not otherwise detailed in the report.

Table 5.1 Summary of Groundsure Data

	0-249m	250-500m	Details
Contaminated Land Register Entries and Notices	0	0	N/A
Authorised industrial processes (IPC/IPPC/LAPPC).	0	1	406m north east -Shell (UK) Limited, Thames Valley Service Station, George Street, Caversham, Reading, RG4 8DH Process: Unloading of petrol into storage at service stations. Permit type: Part B
Fuel Stations Entries	0	1	406m north east - Shell (UK) Limited, Thames Valley Service Station, George Street, Caversham, Reading, RG4 8DH
Licensed radioactive substances	0	0	N/A
Enforcements, prohibitions or prosecutions	0	0	N/A
Discharge Consents	5	5	54m north west – Effluent Type: Miscellaneous Discharges- Surface Water Receiving Water: River Thames 158m south east, Effluent Type: Trade Discharges Unspecified (Two (2no.) entries) Permit Number: CAWM.0103 Receiving Water: To the Vastern Ditch 199m south east, Effluent Type: Trade Discharges, Process Effluent, Water Company - Receiving Water: Thames (Two (2no.) entries) 258m east, Effluent type: Miscellaneous Discharges – Surface water Receiving Water – River Thames 392m east, Effluent type: Sewage Discharges, final/treated effluent – not water company 414m north west, effluent type: miscellaneous Discharges: Surface Water 432m north west – Effluent type: Miscellaneous Discharges: Surface water
Pollution Incidents	5	6	151m west – dated 17/09/2002 – Oils and fuels – no impact (Two (2no.) entries) 168m south west – dated 12/09/2001 – General biodegradable materials and waste – no impact 200m south west – dated 14/05/2003 – oils and fuel – Minor land impact. 235m south east – dated 19/11/2001 – Oils and fuel – Minor water impact 258m south west – dated 26/04/2002 – Oils and fuel – Minor land impact

	0-249m	250-500m	Details
			269m north west – dated 22/08/2001 – General biodegradable materials and waste – No impact 357m south east – dated 24/01/2002 – general biodegradable materials and waste - Minor water impact 365m south east – dated 22/04/2006 – pollutant not identified – major water impact 368m south east – dated 15/04/2002 – oils and fuel – minor water impact 406m south east – dated 12/03/2003 – oils and fuel – minor water impact
Consents issued under the Planning (Hazardous Substances) Act 1990	0	0	N/A
Control of Major Accident Hazard (COMAH) sites	0	0	N/A

6.0 PREVIOUS INVESTIGATION

A series of documents have been made available to OEC during the appraisal of the site which relate to the spillage within the neighbouring substation and divestment of the wider site of which the current area forms a part.

- Peter Brett Associates (PBA) Technical Note Tn002/Rev0 – Preliminary Summary of Ground Investigation – SSE Site, Vastern Road, Reading, dated 20th March 2018.
- CC Ground Investigations (CCGI) Report C5925/01 – Draft Factual Report – SSE Site, Vastern Road, Reading, dated 12th March 2018.
- Email communication between SSE and their consultant Adler & Allan regarding the findings of the preliminary investigation to identify the location of the leakage – Dated October 2017.

Due to the factual nature of the reports provided, no conclusions were drawn with regards to the risks posed to Human Health or the Environment except that it was considered that some remediation would likely be required by the Environment Agency to remove free product within the neighbouring site area. Validation reporting of any remedial works has not been provided to Omnia for review.

7.0 CONCEPTUAL SITE MODEL (CSM)

7.1 Initial CSM

In accordance with Environment Agency, CLR 11 (2004) and BSI 10175 (Code of Practice for Investigation of Potentially Contaminated Land), Omnia Environmental Consulting have developed an initial CSM to identify potential contamination sources, migration pathways and receptors within the study area. A residential end use has been adopted, given the proposed site development.

Contaminant Sources

On-site Potential Sources

Contemporary
- Made Ground associated with development of the site;
- Land use as electricity depot (building in south of the site);
- Presence of electrical substations (north-west and south east of the site);
- Oil filled Electricity cables cross cutting the site from the south west from Lynmouth Road.

Historic
- Historic land use as Electrical Works and Electricity Depot; and,
- Historic land use as a skating rink.

Off-site Potential Sources

Contemporary
- Pollution Incident (July 2017) involving the leakage of cooling oil from subsurface oil-cooled high voltage infrastructure;
- Presence of underground oil cooled electrical cables;
- Presence of Power Distribution Station containing Electrical substations, transformers and associated infrastructure;
- Above Ground Storage Tanks, immediately east of the site;
- Garage situated ~50m east;
- Electrical Substation 99m south west, 137m north west, 170m, 176m and 179m west, and 191m north west;
- Warehouse situated ~190m south east; and,
- Electricity substation situated ~175m north west of site and ~190m north west.

Historic
- Historic ice factory and cold stores adjacent to western boundary;
- Historic engineering works ~10m east of the site, ~50m north west of site and ~70m north west;
- Historic Iron foundry situated ~20-30m east;
- Historic Tanks, 38m, 66m, 216m, 220m, south east, 161m south, 173m, 181m and 188m south west, 240m and 250m north;
- Historic Paint works situated ~50m east;
- Great Western Rail Works ~ 75m south, south west;
- Historic Coal depot ~100m west, south west;
- Historic Thamesbank ironworks ~100m east
- Historic saw mill situated ~150m north west;
- Historic timber yard situated ~100m east and ~175m north west;
- Historic coal yard situated ~180m south east;

- Foundry (iron and brass) ~250m east, south east;

Potential Pathways

- Ingestion of impacted soils & vegetables;
- Dermal contact with impacted soil;
- Vertical and lateral migration;
- Inhalation of vapours;
- Inhalation of fibres; and,
- Migration of ground gas into confined spaces.

Potential Receptors

- Future Site Users; and,
- Controlled Waters.

Construction workers are not considered to be a plausible receptor due to management of their exposure through the use of suitable PPE and hygienic working practices as required under HSE/CDM regulations. Furthermore, the length of any exposure is considered to be very short in comparison to the criteria for which the adopted end use has been derived.

An Initial Conceptual Site Model has been prepared for the site and is presented overleaf within Table 7.1.

Table 7.1 Initial Conceptual Site Model

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
On Site							
Made Ground associated with development of the site.	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active –** Further investigation required.
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	
	Polycyclic Aromatic Hydrocarbons (PAH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	
	Total Petroleum Hydrocarbons (TPH)	Ingestion Dermal Contact Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Moderate	Moderate	
	Asbestos Fibres	Inhalation of fibres	Future Site Users	Moderate	Moderate	Moderate	
	Ground Gas (CO_2 and CH_4)	Vertical and Lateral Migration	Future Sites Users	Moderate	Severe	High	
Land use as electricity works and depot (building in south of the site)	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active –** Further investigation required.
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	
	Polycyclic Aromatic Hydrocarbons (PAH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	
	Total Petroleum Hydrocarbons (TPH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low	
	Volatile Organic Compounds (VOC)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
		Vertical & Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
	Asbestos Fibres	Inhalation of fibres	Future Site Users	Moderate	Moderate	Moderate	
	Polychlorinated Biphenyls (PCB)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
Electrical Substations (north west and south west of site)	Polychlorinated Biphenyls (PCB)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active** – Further investigation required.
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
	TPH	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
Historic land use as Electrical Works and Electricity Depot	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active** – Further investigation required.
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	
	Polycyclic Aromatic Hydrocarbons (PAH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	
	Total Petroleum Hydrocarbons (TPH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
	Volatile Organic Compounds (VOC)	Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low	
		Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
Historic Skating Southern section of the site	Polycyclic Aromatic Hydrocarbons (PAH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active** – Further investigation required.
		Vertical and Lateral Migration	Controlled Waters	Low	Minor	Low	

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
	Total Petroleum Hydrocarbons (TPH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
	Volatile Organic Compounds (VOC)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
Oil filled Electricity cables cross cutting the site from the south west from Lynmouth Road.	Total Petroleum Hydrocarbons (TPH)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active** – Further investigation required.
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
	Polychlorinated Biphenyls (PCB)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
	Volatile Organic Compounds (VOCs)	Ingestion Dermal Contact	Future Site Users	Moderate	Moderate	Moderate	
		Inhalation of Vapours	Future Site Users	Moderate	Moderate	Moderate	
		Vertical and Lateral Migration	Controlled Waters	Moderate	Minor	Low/Moderate	
Off Site							
July 2017 Pollution Incident – Leakage of cooling oil, east of the site	Total Petroleum Hydrocarbons (TPH) PRO/DRO inc Linear Alkyl Benzene	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active** – Further investigation required.
			Controlled Waters	Moderate	Moderate	Moderate	

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
	PCBs Polychlorinated Biphenyls (PCB)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	
			Controlled Waters	Moderate	Moderate	Moderate	
	Volatile Organic Compounds (VOCs)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	
			Future Site Users	Moderate	Moderate	Moderate	
			Controlled Waters	Moderate	Minor	Low/Moderate	
Presence of underground oil cooled electrical cables, east of the site	Total Petroleum Hydrocarbons (TPH) PRO/DRO inc Linear Alkyl Benzene	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active –** Further investigation required.
			Controlled Waters	Moderate	Moderate	Moderate	
	Polychlorinated Biphenyls (PCB)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	
			Future Site Users	Moderate	Moderate	Moderate	
			Controlled Waters	Moderate	Minor	Low/Moderate	
Presence of Power Distribution Station electrical substations, transformers and associated infrastructure, immediately east of the site	Polychlorinated Biphenyls (PCB)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active –** Further investigation required.
			Controlled Waters	Moderate	Minor	Low/Moderate	
	TPH	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	
			Future Site Users	Moderate	Moderate	Moderate	
			Controlled Waters	Moderate	Minor	Low/Moderate	
Above Ground Storage Tanks, immediately east of the site	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active –** Further investigation required.
			Future Site Users	Moderate	Moderate	Moderate	
			Controlled Waters	Moderate	Minor	Low	
Historic Ice Factory and Cold Storage adjacent to western boundary	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	**Potentially Active –** Further investigation required.
	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
	Volatile Organic Compounds (VOC)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	
Historic engineering works ~ 10m east	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Low	Moderate	Low/Moderate	**Potentially Active –** Further investigation required.
	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Low	Moderate	Low/Moderate	
	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Moderate	Moderate	Moderate	
Historic Iron Foundry ~ 20 and 30m east	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Low	Moderate	Low/Moderate	**Inactive-** Given the anticipated shallow groundwater flow direction towards the east, it is considered unlikely that this source has the potential to impact the site.
	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Low	Moderate	Low/Moderate	
Tanks ~38m and 66m south east	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Low	Moderate	Low	**Inactive-** Given the anticipated shallow groundwater flow direction towards the east, it is considered unlikely that this source has the potential to impact the site.
Garage ~50m east	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the anticipated shallow groundwater flow direction towards the east, it is considered unlikely that this source has the potential to impact the site.
	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	
Historic Paint Works ~ 50m east	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the anticipated shallow groundwater flow direction towards the east, it is considered unlikely that this source has the potential to impact the site.
	Volatile Organic Compounds (VOC)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	
	Semi-volatile Organic Compounds (SVOC)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
Historic Rail Works ~ 75m south	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the anticipated shallow groundwater flow direction towards the east, it is considered unlikely that this source has the potential to impact the site.
	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	
Electrical substation 99m south west, 137m north west, 170m, 176m and 179m west and 191m north west	Polychlorinated Biphenyls (PCB)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive –**Due to the very limited mobility of PCB's and the distance between sources and the subject site It is considered unlikely that this source has the potential to impact the subject site.
Historic Coal Depot ~ 100m west	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the limited solubility and mobility of PAHs together with the distance from the site it is considered unlikely that this source has the potential to impact the subject site.
Historic Thamesbank Ironworks ~ 100m east	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the limited solubility and mobility of metals and PAHs together with the distance from the site it is considered unlikely that this source has the potential to impact the subject site.
	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	
Historic Timber Yard ~ 100m east and 175m north west	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the limited solubility and mobility of metals and PAHs together with the distance from the site it is considered unlikely that this source has the potential to impact the subject site
	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	
Historic Saw Mill ~ 150m north west	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the limited solubility and mobility of metals and PAHs together with the distance from the site it is considered unlikely that this source has the potential to impact the subject site.
	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	

Source	Contaminant	Potential migration pathway	Potential Receptors	Likelihood of Occurrence	Magnitude of Occurrence	Overall Risk Rating	Active/Inactive
Historic Coal Yard ~ 180m south east	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the limited solubility and mobility of PAHs together with the distance from the site it is considered unlikely that this source has the potential to impact the subject site.
Warehouse ~ 190m south east	Total Petroleum Hydrocarbons (TPH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the distance from site and the anticipated shallow groundwater flow direction, it is considered unlikely that this source has the potential to impact the subject site.
Foundry ~ 250m east	Metals (As, Cd, Cr, Pb, Hg, Se, Ni)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	**Inactive-** Given the limited solubility and mobility of PAHs together with the distance from the site it is considered unlikely that this source has the potential to impact the subject site.
	Polycyclic Aromatic Hydrocarbons (PAH)	Lateral Migration	Future Site Users	Very Low	Moderate	Low	

8.0 SITE INVESTIGATION

8.1 General

A ground investigation was designed based on the findings of the Phase I Desk Top Study, the Phase II Ground Investigations conducted by CC Ground Investigation Ltd on behalf of PBA and the proposed development as shown in Figure 2.0 (Appendix III).

Exploratory fieldwork was conducted over the course of four (4no.) days from 13th to 18th April 2018. Return ground gas and groundwater monitoring was undertaken during April 2018, with further groundwater monitoring completed in November 2019 alongside ongoing gas monitoring. Ground investigation works are summarised as follows:

Table 8.1 Summary of Fieldwork

Potential Source/Rationale	Location Hole	Type	Maximum Depth (m bgl)
General spread within the southern building footprint to investigate for potential contamination*. Installation of ground gas and ground water monitoring wells.	WS103**-WS106	Window Sample	2.40
Targeting contamination previously identified within WS1002, set out in PBA Tech note ref 'Tn002/Rev0'. Installation of ground gas and ground water monitoring wells.	WS107-WS108	Window Sample	2.50
General spread across the site for assessment of potential contamination.	WS109	Window Sample	1.00

**WS101 and WS102 fall outside of the development boundary.

The exploratory hole locations are illustrated on Figure 3.0 (Appendix III).

8.2 Site Constraints

During the ground investigation, exploratory locations were limited by the following constraints:

- The presence of a suspended floor within the southern building on site, limiting locations to outside of this area.
- The presence of oil filled active High Voltage electricity cables within the south western extent limiting locations away from this area.

8.3 Laboratory Analysis

Selected soil and water samples were submitted for a range of chemical analysis including, asbestos fibres in soil, CLEA Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Speciated Total Petroleum Hydrocarbons (TPH CWG), pH, Phenol, Total Cyanide, Total Organic Carbon, Water-Soluble Sulphate

(2:1 extract), Volatile Organic Compounds (VOCs) and Polychlorinated biphenyls (PCB)

Element Materials Technology, formerly knowns as Exova Jones Environmental Laboratory of Deeside undertook the analytical work in accordance with UKAS accreditation where applicable with all test certificates included in Appendix V and discussed in Section 10.0.

9.0 GROUND AND GROUNDWATER CONDITIONS

9.1 Ground Conditions

9.1.1 Summary of Ground Conditions

The summary below is based on all available data from the sources of information made available to OEC for review across the current site area. The ground conditions encountered are indicated on the exploratory hole logs, which are provided in Appendix VI.

Review of all available exploratory hole logs for the site indicates that the underlying geological succession consists of Made Ground up to 3.50m thick overlying cohesive strata of Alluvium, overlying granular strata of the Kempton Park Gravel Formation which immediately overlies bedrock of the Upper Chalk at depth.

Made Ground (MG) was found to be predominantly granular in nature, to contain variable amounts of anthropogenic material and generally ranged from 1.10m to 2.00m in thickness with thicker MG up to 3.50m encountered in the central portion of the site, to the west of the neighbouring transformer compound.

Immediately underlying MG was a sequence of cohesive deposits comprising soft, green slightly sandy, slight silt CLAY with variable gravel content attributed to Alluvium (ALL). The top of the ALL was encountered at depths ranging from 0.60 – 3.50m bgl (37.57 – 35.26mAOD). The unit ranged from 0.60 – 3.40m in thickness with an average thickness of approximately 1.70m. The base of the ALL was encountered at depths ranging from 2.30 – 4.10m bgl (36.08 – 34.11m AOD).

Immediately underlying the ALL were sands and gravels attributed to the Kempton Park Gravel Formation (KPG), which ranged from loose to dense grey variably silty and sandy GRAVEL. The KPG ranged from 5.00 – 9.20m in thickness with an average thickness of approximately 6.60m. The base of the KPG was encountered at depths ranging from 8.10 to 12.50m bgl (30.21 – 26.21mAOD).

Chalk bedrock was encountered immediately beneath the KPG at depths ranging from 8.10 – 12.50m bgl (30.21 - 26.21mAOD) and was proven to a maximum depth of 35.00m bgl at locations BH1002C (3.40m AOD), BH1003E (3.71m AOD) and BH1004 (3.31mAOD) although the base of the Upper Chalk was not proven within any of the intrusive locations. A review of the geological logs indicated that the Chalk was recovered as a variably sandy and silty angular to subangular GRAVEL (Grade Dc) suggesting an absence of “Putty Chalk” (Grade Dm) from beneath the site.

9.2 In-Situ Testing

9.2.1 On-Site VOC Screening

On-site screening for VOCs was undertaken using a Photoionisation Detector (PID) during intrusive site works, with samples screened via headspace monitoring. Where PID readings were recorded at concentrations above the equipment Limit of Detection (LOD) of 0.1ppm, values are summarised in Table 9.1. Reference should also be made to the PID results from the previous investigation, as set out on the exploratory logs within CC Ground Investigation Ltd Factual Report, Ref C5925/01.

Table 9.1 Summary of PID readings within soils.

Location	Strata	Depth (m bgl)	PID Reading (ppm)	Proposed Development Area
WS103	MG	0.40	4.8	Residential (Block C)
	MG	1.20	3.5	
	ALL	1.60	5.6	
	ALL	1.70	3.1	
WS104	MG	0.3	3.2	Residential (Block B)
	MG	0.70	13.2	
	MG	1.55	1933.0	
	ALL	1.75	367.8	
WS105	MG	0.60	4.0	Residential (Block A)
	MG	0.90	3.6	
	MG	1.70	8.5	
	ALL	2.00	2.9	
WS107	MG	1.20	0.8	Residential (Block E)
WS108	MG	0.10	0.3	Communal Open Space
	MG	1.20	3.3	
	ALL	1.50	5.6	
WS109	MG	0.10	6.1	Residential (Block D1)
	MG	0.30	1.9	

9.3 Groundwater Conditions

The depths to groundwater strikes and resting water level encountered during the previous investigations are summarised in Table 9.2 below.

Table 9.2 Summary of Groundwater Strikes encountered during drilling.

Location	Ground Level (mAOD)	Borehole Response Zone (m bgl)	Drilling Phase			
			Water Strike 1 (m bgl)	Strata	Water Strike 2 (m bgl)	Strata
BH1001	38.39	1.00 - 7.00	4.00	ALL /KPG	8.00	KPG
BH1002C	38.40	2.00 - 7.00	4.00	KPG	8.00	KPG
BH1003E	38.71	1.00 - 6.00	4.00	KPG	8.00	KPG
BH2001	38.42	3.00 - 4.00	None Recorded Prior to Adding Water Flush			
BH2002	38.37	3.00 - 4.00	None Recorded Prior to Adding Water Flush			
BH2003	38.56	3.00 - 4.00	None Recorded Prior to Adding Water Flush			
BH2004	38.76	3.30 - 3.80	None Recorded Prior to Adding Water Flush			
WS105	-	1.30-2.30	2.00	ALL	N/A	-
WS1002	38.26	N/A	1.70	MG	N/A	-
WS1003	38.21	3.00 - 5.00	3.89	ALL /KPG	N/A	-
WS1004	38.37	3.00 - 5.00	3.71	KPG	N/A	-
WS1007	36.38	1.00 - 2.00	1.10	MG	N/A	-
TP1002	38.36	N/A	4.00	ALL /KPG	N/A	-
TP1004	38.29	N/A	3.90	ALL	N/A	-
TP1006	38.44	N/A	2.40	ALL	N/A	-

Table 9.3 Summary of Average Groundwater Levels Recorded During Monitoring (22/02/2018 – 19/04/2018).

Location	Ground Level (mAOD)	Borehole Response Zone (m bgl)	22/02/2018 – 19/04/2018	
			Average Groundwater Level (m bgl)	Average Groundwater Level (mAOD)
BH1001	38.39	1.00 - 7.00	2.27	36.13
BH1002C	38.40	2.00 - 7.00	2.35	36.06
BH1003E	38.71	1.00 - 6.00	2.58	36.13
BH2001	38.42	3.00 - 4.00	2.35	36.08
BH2002	38.37	3.00 - 4.00	2.31	36.07
BH2003	38.56	3.00 - 4.00	2.41	36.15
BH2004	38.76	3.30 - 3.80	2.47	36.29
WS1003	38.21	3.00 - 5.00	2.10	36.11
WS1004	38.37	3.00 - 5.00	2.27	36.10
WS1007	36.38	1.00 - 2.00	1.04	35.34
BH1004	38.31	1.00 - 7.00	2.13	36.18
WS1002	38.26	N/A	N/A	N/A

9.3.1 Ground Gas & Groundwater Monitoring

The maximum concentrations recorded during ground gas monitoring undertaken by CC Ground Investigations Ltd others over 5no. monitoring visits, between 22/02/2019 to 19/04/2018, have been summarised in Table 9.4 overleaf. Reference should be made to the full set of data available in report ref C5925/01, which is reproduced in Appendix VII.

Additional Monitoring is currently being undertaken for the site to comprise four (4no.) ground gas and groundwater monitoring undertaken by Terramech Investigations Ltd within eleven (11no.) borehole locations. Concentrations of methane (CH_4), carbon dioxide (CO_2) and oxygen (O_2) were measured using an infrared gas analyser (GA5000), and gas flow rates were measured using an internal flow pod. Groundwater monitoring was undertaken using an electronic dip tape to record the depth to groundwater. PID screening and an interface probe to detect potential product layers are also being undertaken on boreholes.

To date two (2no.) ground gas and groundwater monitoring rounds have been undertaken on the 01/11/2019 and the 12/11/2019 and are summarised in Table 9.5.

This report will be reissued post completion of monitoring rounds where a full ground gas assessment of the site will be undertaken.

Table 9.4 Summary of Ground Gas and Groundwater Monitoring Result: CC Ground Investigations Ltd, 22/02/2019 to 19/04/2018 (Report Ref: C5925/01)

Well	CH_4 Peak %v/v	CH_4 Steady %v/v	CH_4 GSV l/hr	CO_2 Peak %v/v	CO_2 Steady %v/v	CO_2 GSV l/hr	O_2 %v/v	PID (ppm)	Flow (l/hr)
BH1001	0.2	0.2	0.0002	1.0	1.0	0.0010	17.6	2.9	<0.1
BH1002C	1.6	1.6	0.0032	0.4	0.4	0.0008	9.0	4.1	0.2
BH1003E	0.2	0.2	0.0002	0.6	0.6	0.0006	18.9	2.6	0.1
BH1004	3.0	3.0	0.009	4.0	4.0	0.012	6.5	4.5	0.3
BH2001	0.1	0.1	0.0011	1.0	1.0	0.112	19.7	3.2	11.2
BH2002	0.3	0.3	0.0003	0.6	0.6	0.0006	19.6	4.2	0.1
BH2003	0.3	0.3	0.0339	0.6	0.6	0.0678	19.7	3.9	11.3
BH2004	0.3	0.3	0.0003	0.6	0.6	0.0006	20.6	2.4	0.1
WS1003	0.2	0.2	0.0002	1.0	1.0	0.0010	19.2	4.6	0.1
WS1004	0.2	0.2	0.0002	1.8	1.8	0.0018	19.2	5.3	0.1
WS1007	0.3	0.3	0.0105	0.6	0.6	0.0210	19.5	10.3	3.5

Table 9.5 Summary of Ground Gas and Groundwater Monitoring Result: Terramech Investigation Ltd, November 2019

Well	Date	CH_4 Peak %v/v	CH_4 Steady %v/v	CH_4 GSV l/hr	CO_2 Peak %v/v	CO_2 Steady %v/v	CO_2 GSV l/hr	O_2 %v/v	Atmospheric Pressure (mbar)	PID (ppm)	Flow (l/hr)
BH1001	01/11/2019	<0.1	<0.1	0.0045	5.1	5.0	0.2295	8.0	995	0.3	4.5
	12/11/2019	<0.1	<0.1	0.0119	5.0	5.0	0.595	8.6	994	0.3	11.9
BH1002C	01/11/2019	<0.1	<0.1	0.0019	2.7	0.4	0.0513	19.4	994	0.1	1.9
	12/11/2019	<0.1	<0.1	0.0002	1.3	0.3	0.0026	16.7	994	0.1	0.2
BH1003E	01/11/2019	<0.1	<0.1	0.0001	1.0	1.0	0.001	19.4	994	0.3	0.1
	12/11/2019	<0.1	<0.1	0.0003	0.3	0.3	0.0009	21.8	994	<0.1	0.3
BH1004	01/11/2019	<0.1	<0.1	0.0216	6.5	6.5	1.404	0.1	994	0.8	21.6
	12/11/2019	<0.1	<0.1	0.0188	5.3	3.6	0.9964	11.5	995	0.2	18.8
BH2001	01/11/2019	<0.1	<0.1	0.0052	6.5	6.5	0.338	0.1	996	1.3	5.2
	12/11/2019	0.10	0.10	0.0119	1.0	0.4	0.119	20.4	994	1.8	11.9
BH2002	01/11/2019	<0.1	<0.1	0.0001	0.1	0.1	0.0001	21.0	996	0.1	0.1
	12/11/2019	<0.1	<0.1	0.0002	0.1	0.1	0.0002	21.2	994	0.1	0.2
BH2003	01/11/2019	<0.1	<0.1	0.0221	1.4	1.4	0.3094	17.8	996	2.7	22.1
	12/11/2019	<0.1	<0.1	0.0175	0.5	0.5	0.0875	19.6	994	1.4	17.5
BH2004	01/11/2019	<0.1	<0.1	0.0003	0.1	0.1	0.0003	20.1	996	0.4	0.3
	12/11/2019	<0.1	<0.1	0.0014	0.2	0.2	0.0028	21.7	994	0.7	1.4
WS1003	01/11/2019	<0.1	<0.1	0.0001	0.9	0.2	0.0009	21.0	995	0.1	<0.1
	12/11/2019	<0.1	<0.1	0.0004	0.8	0.4	0.0032	21.3	995	0.3	0.4
WS1004	01/11/2019	<0.1	<0.1	0.0043	4.2	3.7	0.1806	17.1	995	0.5	4.3
	12/11/2019	<0.1	<0.1	0.0003	2.5	1.0	0.0075	20.1	994	0.2	0.3
WS1007	01/11/2019	<0.1	<0.1	0.0248	1.7	1.7	0.4216	17.3	996	0.1	24.8
	12/11/2019	<0.1	<0.1	0.0164	0.8	0.5	0.1312	20.4	995	0.1	16.4

10.0 TIER 1 QUALITATIVE CONTAMINATED LAND RISK ASSESSMENT - SOILS

OEC has undertaken a Tier 1 qualitative risk assessment to determine if any potential contaminants within the underlying soils pose an unacceptable level of risk to the identified receptors.

10.1 Human Health Risk Assessment

At a Tier 1 stage the long term (chronic) human health toxicity of the soil has been assessed by comparing the on-site concentrations of organic and inorganic compounds with reference values published by the EA (Contaminated Land Exposure Assessment (CLEA) Soil Guideline Values (SGV)) and where absent, Generic Assessment Criteria (GACs) published by LQM/CIEH Suitable for Use Levels (S4UL) 2015.

Based on the proposed residential end use without private gardens, OEC has adopted screening values for a residential end use without home grown produce, as detailed in Table 10.1.

The origin of the GAC values are presented within Appendix VIII.

Table 10.1 Summary of Inorganic and Hydrocarbon Toxicity Assessment for a Residential End Use without Home Grown Produce

Determinant	Units	GAC	n	MC	Loc. of Ex	Path way	Assessment
Inorganic							
Arsenic	mg/kg	40	45	200	TP1003 (0.30m bgl) WS1002 (0.50m bgl) WS1003 (1.00m bgl)	1	**Further Assessment**
Cadmium	mg/kg	85	45	4	N/A	1	No Further Action
Chromium (III)	mg/kg	910	45	54	N/A	1	No Further Action
Chromium (VI)	mg/kg	6	45	<1.2	N/A	1	No Further Action
Copper	mg/kg	7100	45	540	N/A	1	No Further Action
Lead	mg/kg	310	45	2,019	BH1001 (0.50m bgl) BH1003C (0.45m bgl) BH1004 (0.60m bgl) TP1001 (0.50m bgl) TP1005 (0.30m bgl) TP1005 (0.70m bgl) WS103 (0.40-0.70m bgl) WS1002 (0.50m bgl) WS1003 (1.00m bgl) WS1004 (0.20m bgl)	1	**Further Assessment**
Mercury	mg/kg	56	45	17	N/A	4	No Further Action
Nickel	mg/kg	180	45	280	WS1003 (1.00m bgl)	1	**Further Assessment**
Selenium	mg/kg	430	45	1.3	N/A	1	No Further Action
Zinc	mg/kg	40000	45	1200	N/A	1	No Further Action

Determinant	Units	GAC	n	MC	Loc. of Ex	Path way	Assessment
Asbestos	-	0.001%	45	Detect	BH1001 (0.50m bgl) BH1002A (0.50m bgl) BH1002C (1.00m bgl) BH1003C (0.45m bgl) BH1003 (0.80m bgl) BH1004 (0.60m bgl) TP1001 (0.50m bgl) TP1002 (0.80m bgl) TP1003 (0.30m bgl) TP1005 (0.30m bgl) TP1005 (0.70m bgl) TP1007 (0.20m bgl) WS103 (0.40-0.70m bgl) WS105 (0.60-0.90m bgl) WS1001 (0.20m bgl) WS1001 (1.00m bgl) WS1002 (0.50m bgl) WS1002 (1.70m bgl) WS1003 (1.00m bgl) WS1004 (0.20m bgl) WS1004 (1.00m bgl) WS1009 (0.20m bgl) WS1013 (0.60m bgl)	6	**Further Assessment**
PAH							
Naphthalene	mg/kg	2.3	45	5.5	TP1007 (0.2m bgl) WS1002 (1.70m bgl) WS1008 (0.45m bgl)	4	**Further Assessment**
Acenaphthylene	mg/kg	2900(sol)	45	1.0	N/A	1	No Further Action
Acenaphthene	mg/kg	3000(sol)	45	14	N/A	1	No Further Action
Fluorene	mg/kg	2800(sol)	45	10	N/A	1	No Further Action
Phenanthrene	mg/kg	1300(sol)	45	140	N/A	1	No Further Action
Anthracene	mg/kg	31000(vap)	45	37	N/A	1	No Further Action
Fluoranthene	mg/kg	1500	45	160	N/A	1	No Further Action
Pyrene	mg/kg	3700	45	150	N/A	1	No Further Action
Benzo(a)Anthracene	mg/kg	11	45	88	WS1002 (1.70m bgl) TP1007 (0.20m bgl)	1	**Further Assessment**
Chrysene	mg/kg	30	45	71	WS1002 (1.70m bgl)	1	**Further Assessment**
Benzo(b)Fluoranthene(i)	mg/kg	3.9	45	74	BH1002C (1.00m bgl) BH1001 (0.50m bgl) BH1004 (0.60m bgl) BH1004 (2.00m bgl) TP1003 (0.30m bgl) TP1005 (0.70m bgl) TP1005 (0.30m bgl) TP1007 (0.20m bgl) WS1013 (0.60m bgl) WS1002 (1.70m bgl) WS103 (0.40-0.70m bgl)	1	**Further Assessment**
Benzo(k)Fluoranthene(i)	mg/kg	110	45	40	N/A	1	No Further Action

Determinant	Units	GAC	n	MC	Loc. of Ex	Path way	Assessment
Benzo(a)Pyrene	mg/kg	3.2	45	81	BH1001 (0.50m bgl) BH1002C (1.00m bgl) BH1004 (0.60m bgl) BH1004 (2.00m bgl) WS103 (0.40-0.70m bgl) WS1002 (1.70m bgl) WS1013 (0.60m bgl) TP1003 (0.30m bgl) TP1005 (0.30m bgl) TP1007 (0.20m bgl)	1	**Further Assessment**
Indeno(123-cd)Pyrene	mg/kg	45	45	33	N/A	1	No Further Action
Dibenzo(a,h)Anthracene	mg/kg	0.31	45	8.2	BH1004 (0.60m bgl) BH1004 (2.00m bgl) BH1002C (1.00m bgl) WS1002 (0.50m bgl) WS1007 (0.15m bgl) WS103 (0.40-0.70m bgl) WS1002 (1.70m bgl) WS1013 (0.60m bgl) TP1003 (0.30m bgl) TP1005 (0.30m bgl) TP1005 (0.70m bgl) TP1007 (0.20m bgl)	1	**Further Assessment**
Benzo(ghi)Perylene	mg/kg	360	45	44	N/A	1	No Further Action
BTEX							
Benzene	mg/kg	0.38	52	<0.005	N/A	4	No Further Action
Toluene	mg/kg	869	52	<0.001	N/A	4	No Further Action
Ethylbenzene	mg/kg	83	52	0.012	N/A	4	No Further Action
Xylenes	mg/kg	79	52	0.055	N/A	4	No Further Action
TPH Aliphatic							
TPH C_5-C_6	mg/kg	42	52	<0.1	N/A	4	No Further Action
TPH C_6-C_8	mg/kg	100	52	0.3	N/A	4	No Further Action
TPH C_8-C_{10}	mg/kg	27	52	2.9	N/A	4	No Further Action
TPH C_{10}-C_{12}	mg/kg	130$^{(vap)}$	52	101	N/A	4	No Further Action
TPH C_{12}-C_{16}	mg/kg	1,100$^{(sol)}$	52	1,113	WS104 (1.55-1.75m bgl)	4	**Further Assessment**
TPH C_{16}-C_{21}	mg/kg	65,000$^{(sol)}$	52	2,336	N/A	1	No Further Action
TPH C_{21}-C_{35}	mg/kg	65,000$^{(sol)}$	52	11,000	N/A	1	No Further Action
TPH Aromatic							
TPH C_5-C_6	mg/kg	370	52	<0.1	N/A	4	No Further Action
TPH C_6-C_8	mg/kg	860	52	<0.1	N/A	4	No Further Action
TPH C_8-C_{10}	mg/kg	47	52	<0.1	N/A	4	No Further Action

Determinant	Units	GAC	n	MC	Loc. of Ex	Path way	Assessment
TPH C_{10}-C_{12}	mg/kg	250	52	28	N/A	2	No Further Action
TPH C_{12}-C_{16}	mg/kg	1,800	52	790	N/A	2	No Further Action
TPH C_{16}-C_{21}	mg/kg	1,900	52	1,900	N/A	2	No Further Action
TPH C_{21}-C_{35}	mg/kg	1,900	52	8,200	WS1002 (1.70m bgl)	1	**Further Assessment**
PCB							
PCBs	mg/kg	0.23	10	<0.005	N/A	1	No Further Action

Notes
Main Exposure Pathways: 1 = Ingestion of Soil & Indoor Dust, 2 = Consumption of Homegrown Produce & Attached Soil, 3 = Dermal contact (Indoor & Outdoor); 4 = Inhalation of Vapour (Indoor & Outdoor), 5 = Inhalation of Dust (Indoor & Outdoor), 6 = Inhalation of Fibres.

Abbreviations: GAC = General Assessment Criteria

* Total cyanide Tier 1 GAC is taken from the Dutch Intervention Value (2010) for complex cyanide.

** The Tier 1 GAC for the banded hydrocarbon fraction is derived from the CIEH/S4UL assessment for petroleum hydrocarbons Criteria Working Group (CWG) for both aliphatic and aromatic compounds. OEC has utilised the lowest of the aliphatic and aromatic chain lengths in order to adopt a conservative approach, which is considered satisfactory for the protection of human health.

(sol) – GAC presented exceeds the solubility saturation limit.
(vap) – GAC presented exceeds the vapour saturation limit

10.1.1 Discussion

Referring to Table 10.1 the results of this direct comparison indicates that the Tier I screening criteria has been exceeded for a number of determinants, predominantly within near surface soils. Elevated determinants comprise:

- Arsenic
- Lead
- Nickel
- Naphthalene
- Benzo(a)Anthracene
- Benzo(b)Fluoranthene
- Benzo(a)pyrene
- Dibenzo(a,h)Anthracene
- Aliphatic C_{12}-C_{16}
- Aromatic C_{21}-C_{40}
- Asbestos

Metals and PAHs:

Elevated metals and PAH concentrations were within near surface soils across the site. Review of the potential pollution linkage for the identified concentrations identifies that soil ingestion and dermal contact are the predominant pathways for metals and PAHs. This is with the exception of Naphthalene, which is predominantly associated with a vapour risk. Given this it is considered that the identified concentrations have the potential to present a significant risk to human health within areas of proposed soft landscaping, and in the case of the locations where Naphthalene was encountered, (TP1007 and WS1008) a risk to human health below building footprints.

Hydrocarbons:

Elevated Aliphatic C_{12}-C_{16} and Aromatic C_{21}-C_{40} concentrations were present on site that exceeded the adopted Tier 1 screening values were identified within WS104, 1.5m bgl and WS1002, 1.7m bgl. The main exposure pathway for both of Aliphatic C_{12}-C_{16} and Aromatic C_{21}-C_{40} is via soil ingestion, but in the case of C_{12}- C_{16} via vapour migration. This pollution linkage when attributed to dermal contact would be active only between ground level and 0.6m bgl, therefore as concentrations are at depth are not considered to present a risk to human health.

In the case of C_{12}-C_{16} a vapour risk would persist, and it is therefore considered that the result has the potential to present a significant risk to human health.

Asbestos:

Asbestos fibres were detected within twenty-three (23no.) from the forty-five (45no.) scheduled for asbestos analysis.

The main exposure pathway for asbestos is via fibre inhalation, and therefore the identified concentrations will have the potential to present a significant risk to future site users within areas of proposed soft landscaping. The presence of asbestos will also pose a risk to construction workers, therefore the presence of asbestos should be conveyed to all parties involved in development works across the site, such that appropriate mitigation measures can be put in place in line with guidance set out in line with current asbestos legislation (Control of Asbestos Regulations, 2012).

Consideration should also be given to the quantified result in view of disposal of any soil arisings as may be required in remedial works, and future construction works. A soil with a result greater than 0.1% asbestos content is considered a hazardous waste, which was encountered within 5 of the 45 test locations across the site. This is considered to be representative of localised elevated results, rather than indicative of widespread hazardous soils.

The above risk assessment is based on results from accessible areas of the site. To allow a comprehensive site assessment further works should be completed within those areas not currently investigated, these being:

- Areas below the existing building footprint on the southern extent of the site;
- Areas below the course of oil filled cables.

As necessary the risk assessment should be revised to incorporate the findings of the above investigation works.

10.2 Ground Gas Assessment

The potential impact on the development from ground gases has been assessed with reference to standards and guidelines published in BS 8485:2015 (*Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*) and CIRIA C665 (*Assessing risks posed by hazardous ground gases to buildings*). However, it is recommended that the full ground gas assessment and any recommended protection measures are agreed with the local authority prior to their adoption on site. Furthermore, any potential ground gas protection measures should be validated by a suitably qualified engineer.

It is understood that the proposed development is to comprise residential apartment blocks as set out in drawing No. O.448.ENG.005 provided by Berkley Homes. Therefore, the proposed development is defined under BS 8485:2015 as private ownership with central building management control assessed under BS8485:2015 classed as a **Type B** building (Table 3 of BS 8485:2015).

The results of the ground gas monitoring and calculated Gas Screening Values (GSVs) for visits completed to date are presented in Table 9.4 and 9.5. Ground gas and groundwater monitoring is currently on-going and upon completion of monitoring visits, the ground gas classification of the site should be assessed in accordance with BS8485:2015.

11.0 TIER 1 QUALITATIVE TIER 1 CONTROLLED WATERS RISK ASSESSMENT

A Tier I risk assessment was undertaken with concentrations of determinants compared with the relevant Tier I screening values. OEC have utilised the analytical results of all groundwater samples collected by CC Ground Investigation Ltd across the ownership area alongside supplemental testing completed by OEC. The data set also includes supplemental testing obtained in November 2019 in order to provide up to date water results given migration times associated with contaminants.

Laboratory test certificates for groundwater are presented in Appendix V.

For the purposes of the Tier 1 assessment all laboratory test data has been compared directly to the current UK Freshwater EQS (FW EQS), due the presence of the River Thames approximately 5m northeast of the northernmost site boundary, which is considered as the principal receptor. At the time of writing, there are no FW EQS values for Total Petroleum Hydrocarbons (TPH) and therefore the WHO Guideline Values for petroleum products in drinking water have been adopted in the absence of current UK specific water quality standards for TPH. However, in the case of aromatic TPH bandings of C_6-C_7, C_7-C_8 and C_8-C_{10} the more conservative UK specific DWS value for benzene (1µg/l) and freshwater EQS values for toluene (50µg/l) and ethylbenzene (20µg/l) have been selected as the Tier 1 screening criteria respectively.

In the absence of WHO Guideline Values for the TPH Aliphatic C_{16}-C_{21} and C_{21}-C_{35} bands, the guideline value for TPH Aliphatic C_8-C_{10} through to C_{12}-C_{16} of 300µg/l has been applied. This is considered to be a conservative approach due to the increased stability and lower volatility of the longer chain length aliphatic hydrocarbons. In order to adopt a conservative approach, OEC has also adopted this value for TPH Aliphatic C_5-C_6 and C_6-C_8, which have very high WHO guideline values of 15,000µg/l (15mg/l).

The results of the direct comparison of groundwater laboratory results to the adopted EQS values are summarised in Table 11.1 overleaf.

Table 11.1: Comparison of Groundwater Analysis with Tier 1 EQS Screening Levels

Determinand	Units	UK Drinking Water Threshold	WHO DWS	FW EQS	n	MC	No of Ex	Loc of Ex	Assessment
Metals									
Arsenic	mg/l	-	-	0.05	22	0.00981	-	-	No Further Assessment
Cadmium	mg/l	-	-	0.00025	22	0.00009	-	-	No Further Assessment
Chromium	mg/l	0.05	0.05	-	22	0.0012	-	-	No Further Assessment
Copper	mg/l	-	-	0.028	22	0.011	-	-	No Further Assessment
Lead	mg/l	-	-	0.0072	22	0.0018	-	-	No Further Assessment
Mercury	mg/l	-	-	0.0005**	22	0.00008	-	-	No Further Assessment
Nickel	mg/l	-	-	0.02	22	0.011	-	-	No Further Assessment
Selenium	mg/l	0.01	0.04	-	22	0.0069	-	-	No Further Assessment
Zinc	mg/l	-	-	0.125	22	0.012	-	-	No Further Assessment
PAH									
Benzo(a)Pyrene	mg/l	-	-	0.000005**	22	<0.00001	36	**Due to LoD**	**Further Assessment**
Benzo(b)Fluoranthene	mg/l	-	-	0.00005**	22	<0.00001	-	-	No Further Assessment
Benzo(k)Fluoranthene	mg/l	-	-	0.00005**	22	<0.00001	-	-	No Further Assessment
Benzo(ghi)Perylene	mg/l	-	-	0.00005**	22	<0.00001	-	-	No Further Assessment
Indeno(123-cd)Pyrene	mg/l	-	-	0.00005**	22	<0.00001	-	-	No Further Assessment
BTEX									
Benzene	mg/l	0.001	-	-	27	<0.001	-	-	No Further Assessment
Toluene	mg/l	-	-	0.05	27	<0.001	-	-	No Further Assessment
Ethylbenzene	mg/l	-	-	0.02	27	<0.001	-	-	No Further Assessment
Xylenes	mg/l	-	-	0.03	27	<0.001	-	-	No Further Assessment
TPH Aliphatic									
Aliphatic C5-C6	mg/l	-	(0.30)*	-	27	<0.001	-	-	No Further Assessment
Aliphatic C6-C8	mg/l	-	(0.30)*	-	27	<0.001	-	-	No Further Assessment
Aliphatic C8-C10[(5)]	mg/l	-	0.30	-	27	<0.001	-	-	No Further Assessment
Aliphatic C10-C12	mg/l	-	0.30	-	27	<0.01	-		No Further Assessment

Aliphatic C12-C16	mg/l	-	0.30	-	27	0.20	-	-	No Further Assessment
Aliphatic C16-C21	mg/l	-	(0.30)*	-	27	0.090	-	-	No Further Assessment
Aliphatic C21-C35	mg/l	-	(0.30)*	-	27	<0.01	-	-	No Further Assessment
TPH Aromatic									
Aromatic C6-C7[5]	mg/l	0.001 (Benzene)	0.01 (Benzene)	-	27	<0.01	-	-	No Further Assessment
Aromatic C7-C8	mg/l	0.05 (Toluene)	0.70 (Toluene)	0.05	27	<0.01	-	-	No Further Assessment
Aromatic C8-C10[5]	mg/l	0.02 (Ethylbenzene)	0.30 (Ethylbenzene)	0.02	27	<0.01	-	- -	No Further Assessment
AromaticC10-C12[5]	mg/l	-	0.09	-	27	<0.01	-	-	No Further Assessment
Aromatic C12-C16[5]	mg/l	-	0.09	-	27	<0.01	-	-	No Further Assessment
Aromatic C16-C21	mg/l	-	0.09	-	27	<0.01	-	-	No Further Assessment
Aromatic C21-C35	mg/l	-	0.09	-	27	<0.01	-	-	-

Notes

* In a conservative approach, OEC have adopted the lower WHO guideline value for aliphatic fractions inclusive of C_8-C_{16} (300µg/l).

For the purposes of the Tier 1 assessment OEC have compared the laboratory test data directly to the relevant Tier 1 threshold values for the protection of controlled waters. The results of this direct comparison indicates that the data exceeds the screening values for the following determinands:

- Benzo(a)Pyrene.

PAHs

In the case of benzo(a)pyrene, all exceedances are the result of the laboratory LOD (0.00001mg/l) exceeding the Tier I screening value (0.000005mg/l). Given that no concentrations of PAHs greater than the laboratory LOD of 0.00001mg/l were recorded, OEC do not consider that PAHs and benzo(a)pyrene in particular at the site pose a significant risk to controlled waters.

Whilst all water results have been recorded below the adopted criteria for risk to controlled waters it is noted that elevated concentrations are present within soils in the north western corner of the site, close to the site boundary. It is therefore recommended that further consideration is given to the potential leachability of the soil result in order to confirm the risk to Controlled Waters. It is recommended that further assessment is undertaken within this area of the site.

12.0 REVISED CONCEPTUAL SITE MODEL

Following the completion of the risk assessment an active pollution pathways have been identified as detailed in the Table 12.1 below:

Table 12.1 Revised Conceptual Site Model

Source	Exposure Pathway	Potential Receptor	Probability of Exposure	Discussion of Pollutant Linkage
Soils				
Elevated concentration of metals and PAHS within shallow soil samples across the proposed residential development.	Ingestion within areas of soft landscaping	Future Site Users	Likely	It is considered that the presence of elevated concentration of metals and PAH within shallow soil samples across the site have the potential to pose a significant risk to future site users. An RMS should be produced to set out mitigation measures which will likely involve a soil capping system.
Presence of Asbestos within shallow soils samples	Dust inhalation	Future Site Users and Construction workers	Likely	It is considered that the present of asbestos within shallow soil have to potential to present a significant risk to both future site users and construction workers. A Remedial Method Statement (RMS) should be produced to set out mitigation measures which will likely involve a soil capping system.
Elevated Naphthalene and TPH (C12-C16) within near surface soils across the site.	Ingestion within areas of soft landscaping Vapour Inhalation	Future Site Users	Likely	It is considered that the presence of Naphthalene and TPH within shallow soil samples across the site have the potential to pose a significant risk to future site users both in areas of soft landscaping and inside of buildings. An RMS should be produced to set out mitigation measures, which will likely involve a soil capping system and suitable mitigation measures to address the vapour risk inside of buildings.
Controlled Waters				

Hotspot concentration within WS1002	Vertical and Lateral Migration	Controlled Waters	Moderate	Further investigation should be undertaken across this area in order to confirm whether a risk to controlled waters is present. Should remedial works be required it is considered likely this will be limited to excavation of impacted soils.

This assessment should be revised upon completion of ground gas monitoring with any requirements for gas protection measures set out accordingly.

Further investigation should also be completed within areas not accessible at the time of the ground investigation. This includes:

- Areas below the existing building footprint on the southern extent of the site;
- Areas below the course of oil filled cables.

Upon completion of additional works the risk assessment should be updated and as necessary utilised in the proposed Remediation Method Statement.

13.0 CONCLUSIONS & RECOMMENDATIONS

Revised Conceptual Site Model (RCSM)
Following the completion of the risk assessment, including Tier 1 Human Health assessment a series of active pollution pathways have been identified by the RCSM. These relate to elevated metals, PAH, TPH and asbestos concentrations in the near surface soil samples. Further consideration should be given to the ground gas regime on completion of monitoring, alongside the results of proposed further works within inaccessible areas of the site.
Recommendations
In order to mitigate the risks currently identified in the RCSM, remediation works are required and should be set out fully within a standalone Remediation Method Statement. At this stage, works are likely to include: - Emplacement of soil capping system within areas of proposed soft landscaping; - Provision of suitable mitigation measures to address the vapour risk within buildings; - Hotspot removal of impact in area of WS1002 (subject to further assessment). Further investigation should be completed within areas not accessible at the time of the ground investigation. This includes: - Areas below the existing building footprint on the southern extent of the site; - Areas below the course of oil filled cables. Further delineation should also be completed in the area of WS1002 to confirm the risk to controlled waters. The findings of the ground gas risk assessment should be utilised to determine the potential risk posed to the site from ground gas. Upon completion of the risk assessment mitigation measures should be set out within a standalone Remediation Method Statement and agreed with the Regulator ahead of commencement on site. Asbestos content in excess of the 0.1% threshold for hazardous soils were encountered within 5 of 45 locations, which is considered to be representative of localised elevated results, rather than indicative of widespread hazardous soils. If during works any previously unidentified impact is encountered during development works, activities should be halted and contact made with a suitably qualified Environmental Consultant in order to further investigation identified materials. As determined appropriate by the Consultant further investigation and sampling may be required to determine appropriate actions. Upon completion contact should be made with the regulator to achieve sign off of the works.

APPENDIX I

LIMITATIONS

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between OE Ltd and the Client as indicated in Section 1.2.

2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information, it has been assumed it is correct. No attempt has been made to verify the information.

3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination, which are enforced, by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.

4. During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.

5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.

6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.

7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials this is for indicative purposes only and do not constitute or replace full and proper surveys.

8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.

9. OE cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by OE is owned by them and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by OE in this connection without their explicit written agreement there to by OE.

10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.

APPENDIX II

GLOSSARY

AST	ABOVE GROUND STORAGE TANK
BGS	BRITISH GEOLOGICAL SURVEY
BSI	BRITISH STANDARDS INSTITUTE
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
CIEH	CHARTERED INSTITUTE OF ENVIRONMENTAL HEALTH
CIRIA	CONSTRUCTION INDUSTRY RESEARCH ASSOCIATION
CLEA	CONTAMINATED LAND EXPOSURE ASSESSMENT
CSM	CONCEPTUAL SITE MODEL
DNAPL	DENSE NON-AQUEOUS PHASE LIQUID (CHLORINATED SOLVENTS, PCB)
DWS	DRINKING WATER STANDARD
EA	ENVIRONMENT AGENCY
EQS	ENVIRONMENTAL QUALITY STANDARD
GAC	GENERAL ASSESSMENT CRITERIA
GL	GROUND LEVEL
GSV	GAS SCREENING VALUE
HCV	HEALTH CRITERIA VALUE
ICSM	INITIAL CONCEPTUAL SITE MODEL
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID (PETROL, DIESEL, KEROSENE)
ND	NOT DETECTED
LMRL	LOWER METHOD REPORTING LIMIT
NR	NOT RECORDED
PAH	POLY AROMATIC HYDROCARBON
PCB	POLY-CHLORINATED BIPHENYL
PID	PHOTO IONISATION DETECTOR
QA	QUALITY ASSURANCE
SGV	SOIL GUIDELINE VALUE
SPH	SEPARATE PHASE HYDROCARBON
SP.TPH (CWG)	TOTAL PETROLEUM HYDROCARBON (CRITERIA WORKING GROUP)
SPT	STANDARD PENETRATION TEST
SVOC	SEMI VOLATILE ORGANIC COMPOUND
UST	UNDERGROUND STORAGE TANK
VCCS	VIBRO CONCRETE COLUMNS
VOC	VOLATILE ORGANIC COMPOUND
WTE	WATER TABLE ELEVATION

UNITS

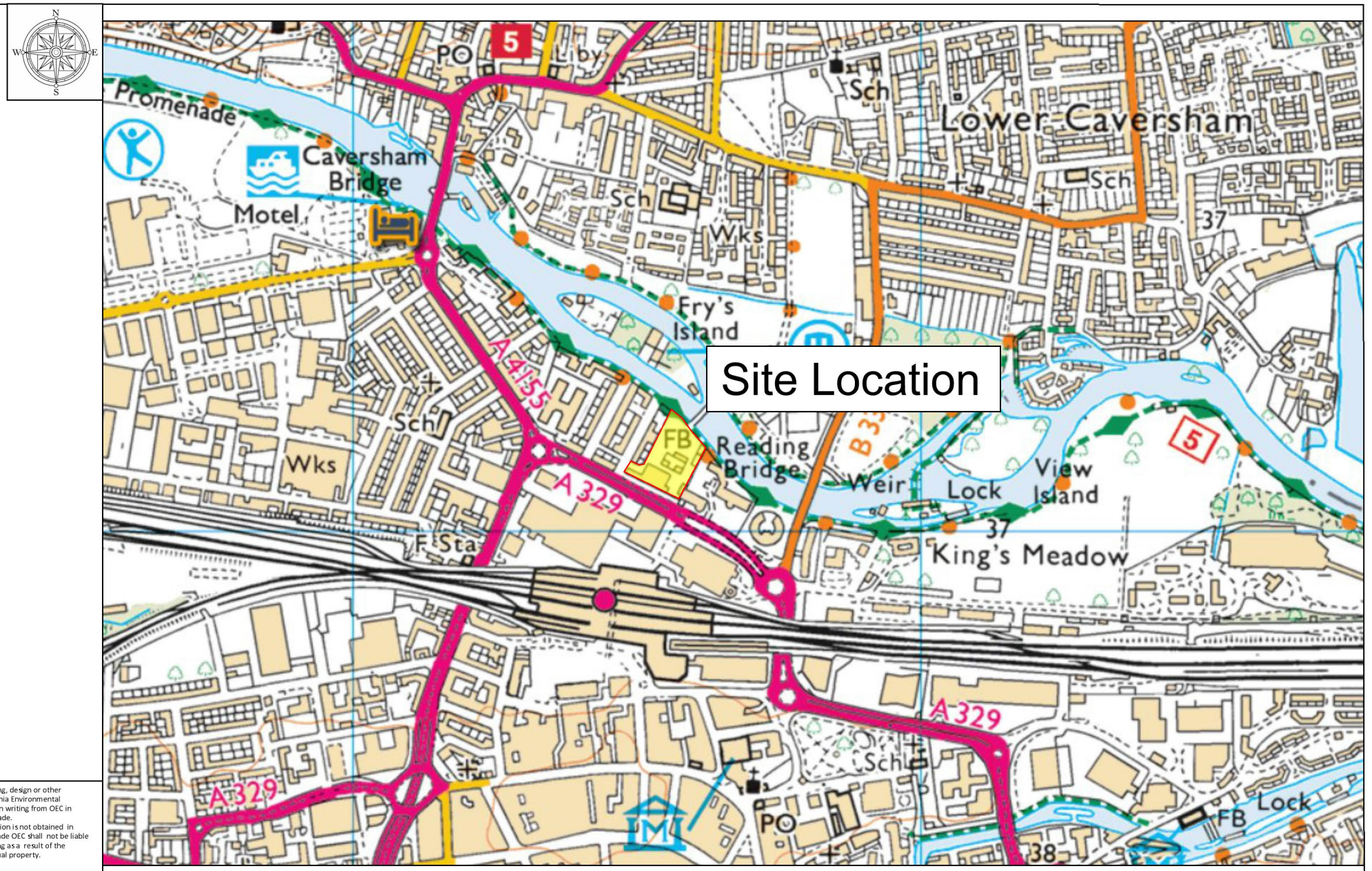
M	METRES
KM	KILOMETRES
%	PERCENT
%V/V	PERCENT VOLUME IN AIR
MB	MILLI BARS (ATMOSPHERIC PRESSURE)
L/HR	LITRES PER HOUR
µG/L	MICROGRAMS PER LITRE (PARTS PER BILLION)
PPB	PARTS PER BILLION
MG/KG	MILLIGRAMS PER KILOGRAM (PARTS PER MILLION)
PPM	PARTS PER MILLION
MG/M^3	MILLIGRAM PER METRE CUBED
M BGL	METRES BELOW GROUND LEVEL

M BCL	METRE BELOW COVER LEVEL
MAOD	METRES ABOVE ORDNANCE DATUM (SEA LEVEL)
KN/M^2	KILO NEWTONS PER METRE SQUARED
µM	MICRO METRE

APPENDIX III

FIGURES

Key



Omnia Environmental Consulting,
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W: www.omnia-consulting.co.uk

OMNIA
ENVIRONMENTAL CONSULTING

Job Title:	Client:	Project No:	Date:	Drawing Title:
55 Vastern Road, Reading	Berkley Homes (Oxford and Chiltern)	A11220	18/11/2019	Figure 1.0 - Site Location
		Drawn By: G.Larcombe	Authorised By: T.Mitchell	
		Scale: 1 squaure = 1km2	Notes:	

Key

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OMNIA
ENVIRONMENTAL CONSULTING

Job Title: 55 Vastern Road, Reading	Client: Berkley Homes (Oxford and Chiltern)	Project No: A11220	Date: 18/11/2019
		Drawn By: G.Larcombe	Authorised By: T.Mitchell
		Scale: NTS	Notes:

Drawing Title:

Figure 2.0 - Proposed Development Plan

Key

WS101 — Approximate Window Sample Probehole Location (OEC)

Current Site Boundary

Former Site Boundary

Omnia Environmental Consulting,
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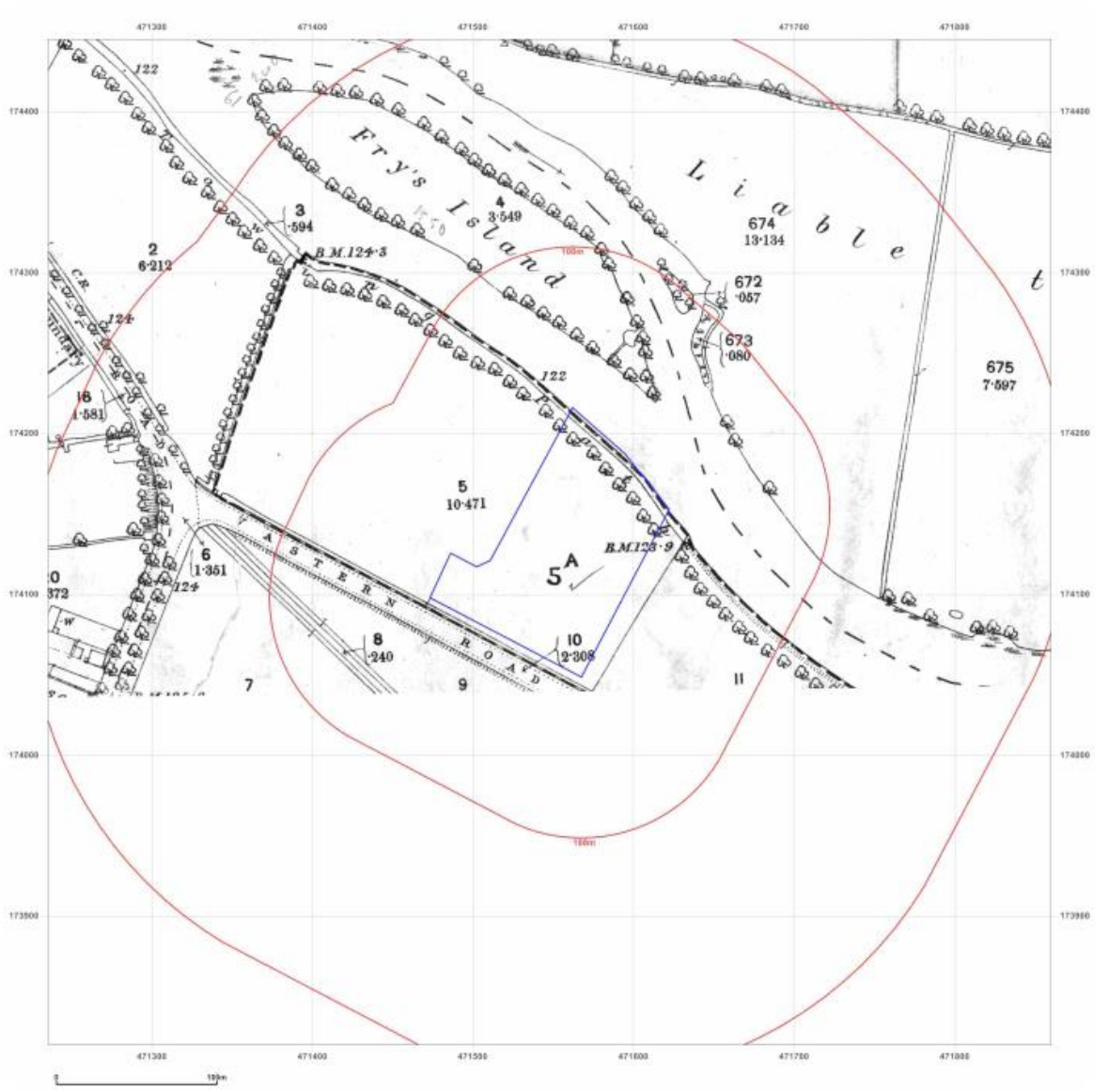
OMNIA ENVIRONMENTAL CONSULTING

Job Title: 55 Vastern Road, Reading	Client: Berkley Homes (Oxford and Chiltern)	Project No: A11220	Date: 18/11/2019
		Drawn By: G.Larcombe	Authorised By: T.Mitchell
		Scale: NTS	Notes:

Drawing Title: Figure 3.0 - Intrusive Location Plan

APPENDIX IV

HISTORICAL MAPS



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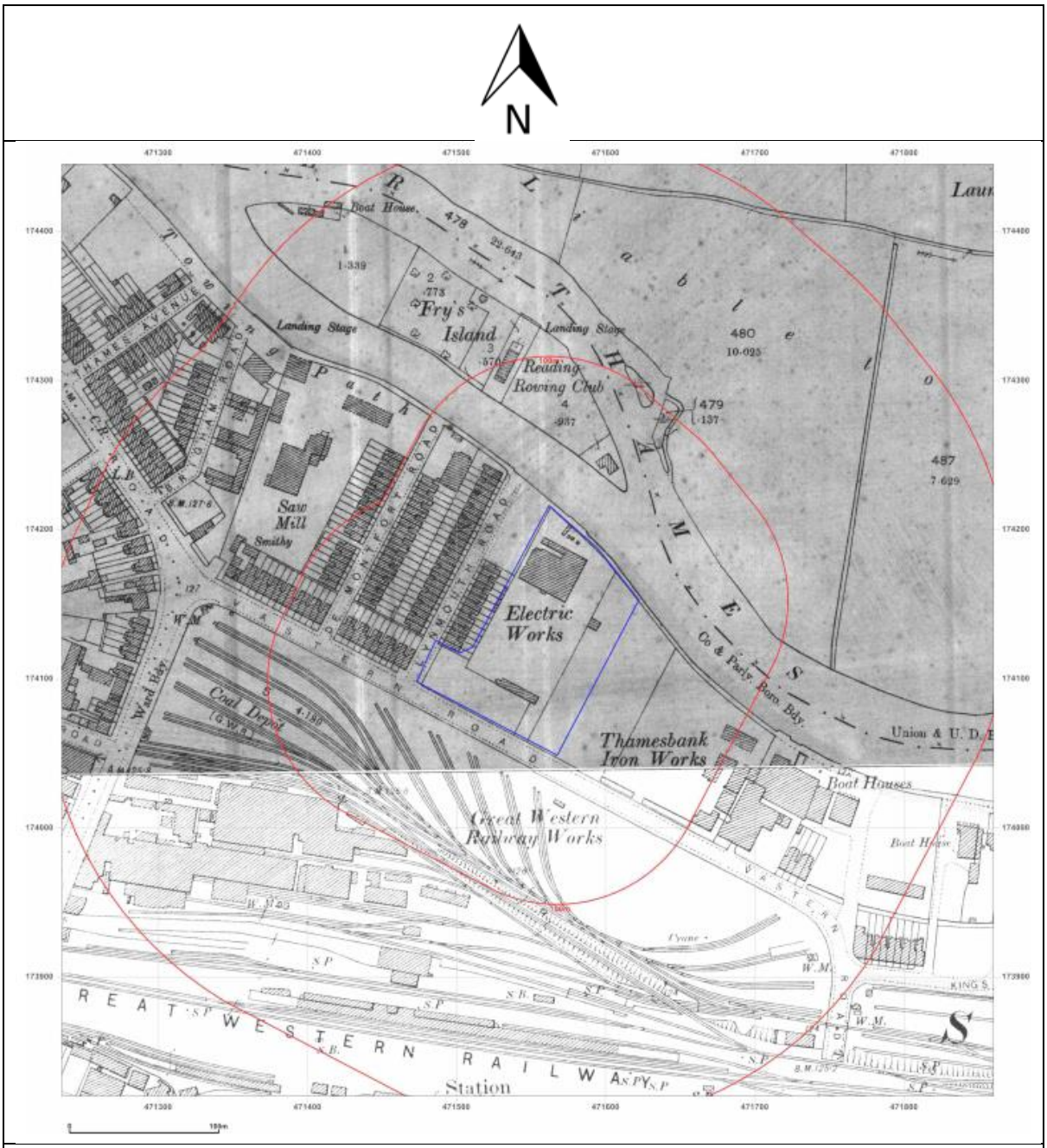

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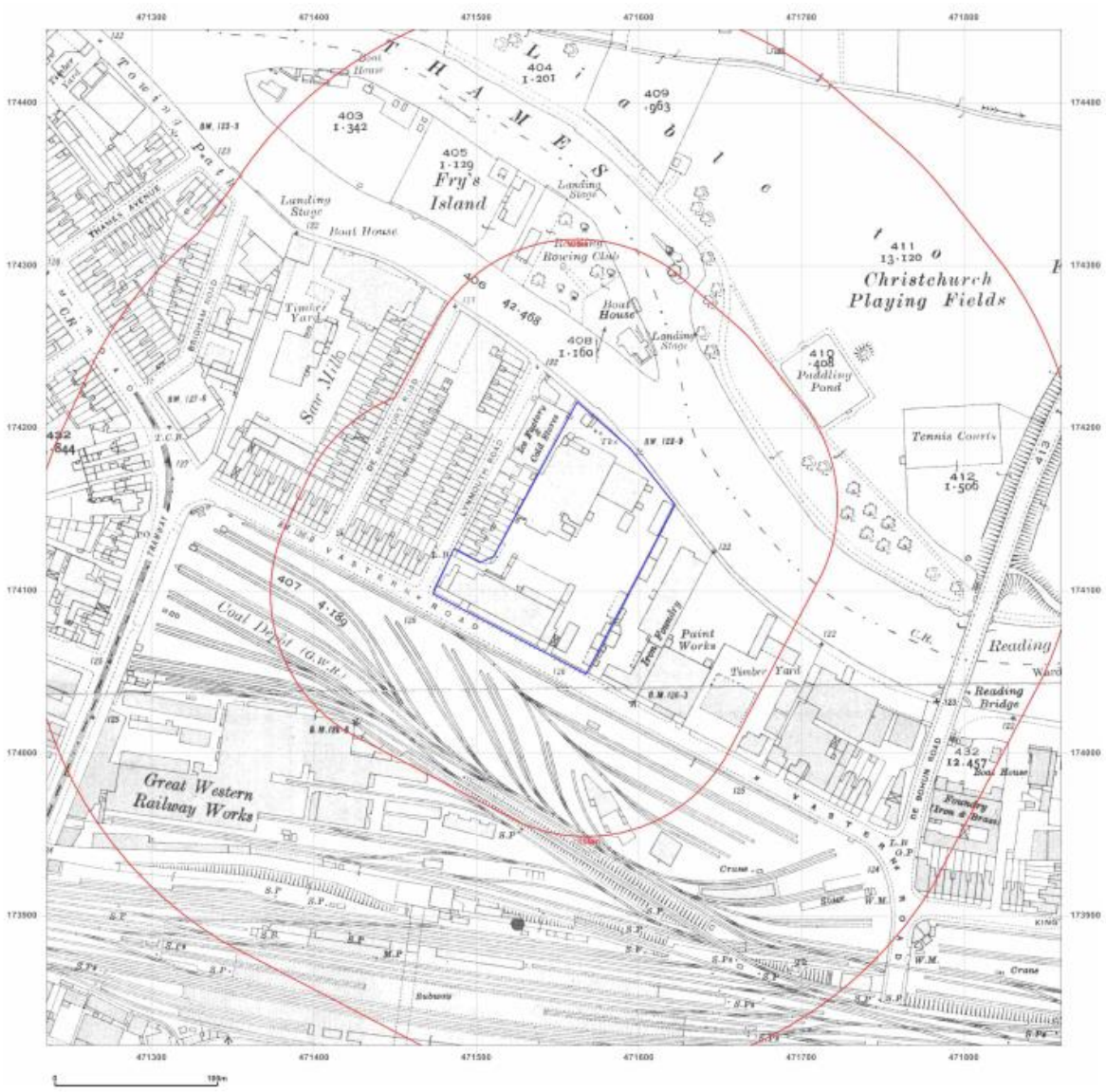

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Grid Ref: 471548, 174132

55 Vastern Road
Date: 1956-1957
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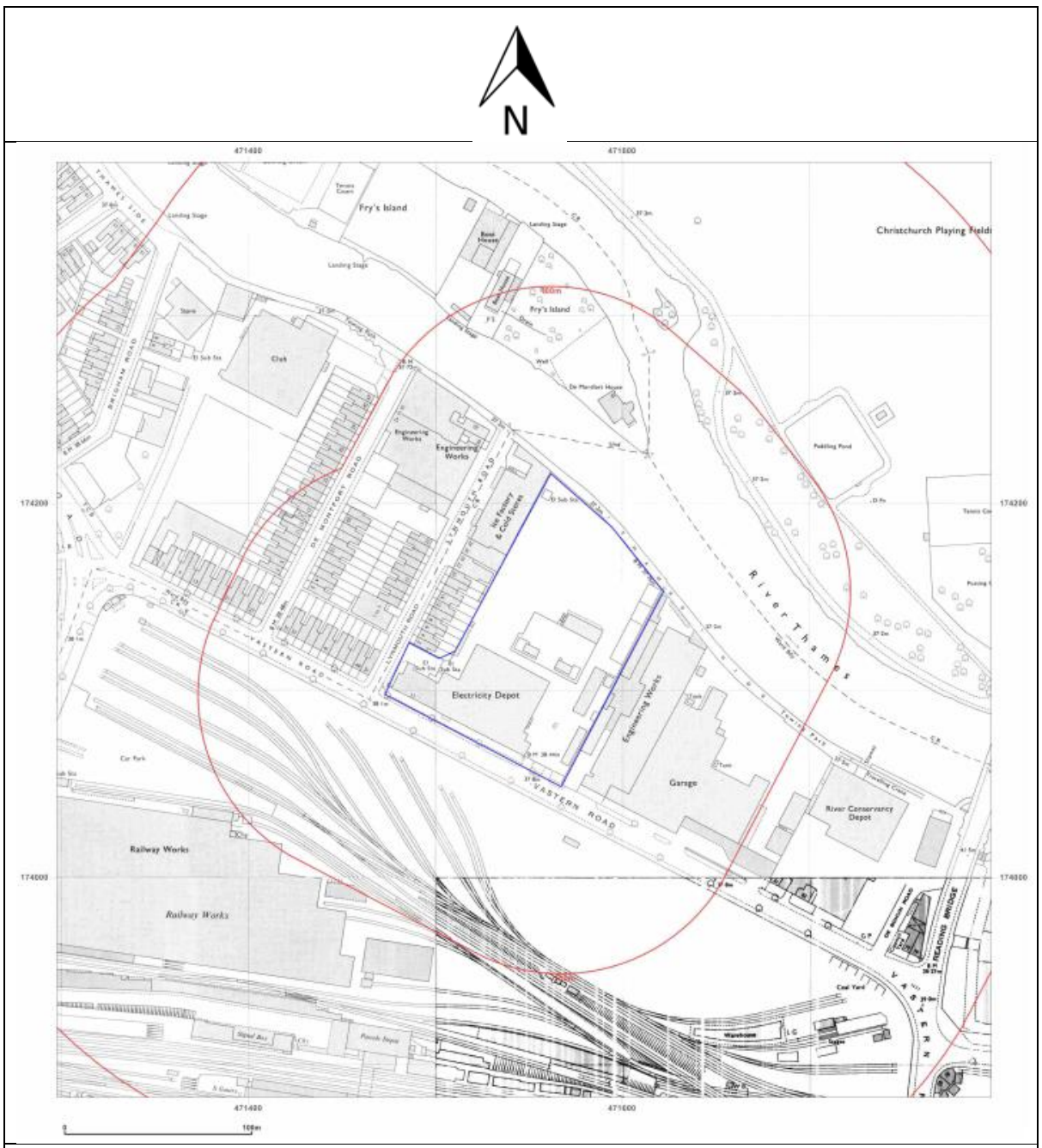
Grid Ref: 471548, 174132



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55 Vastern Road
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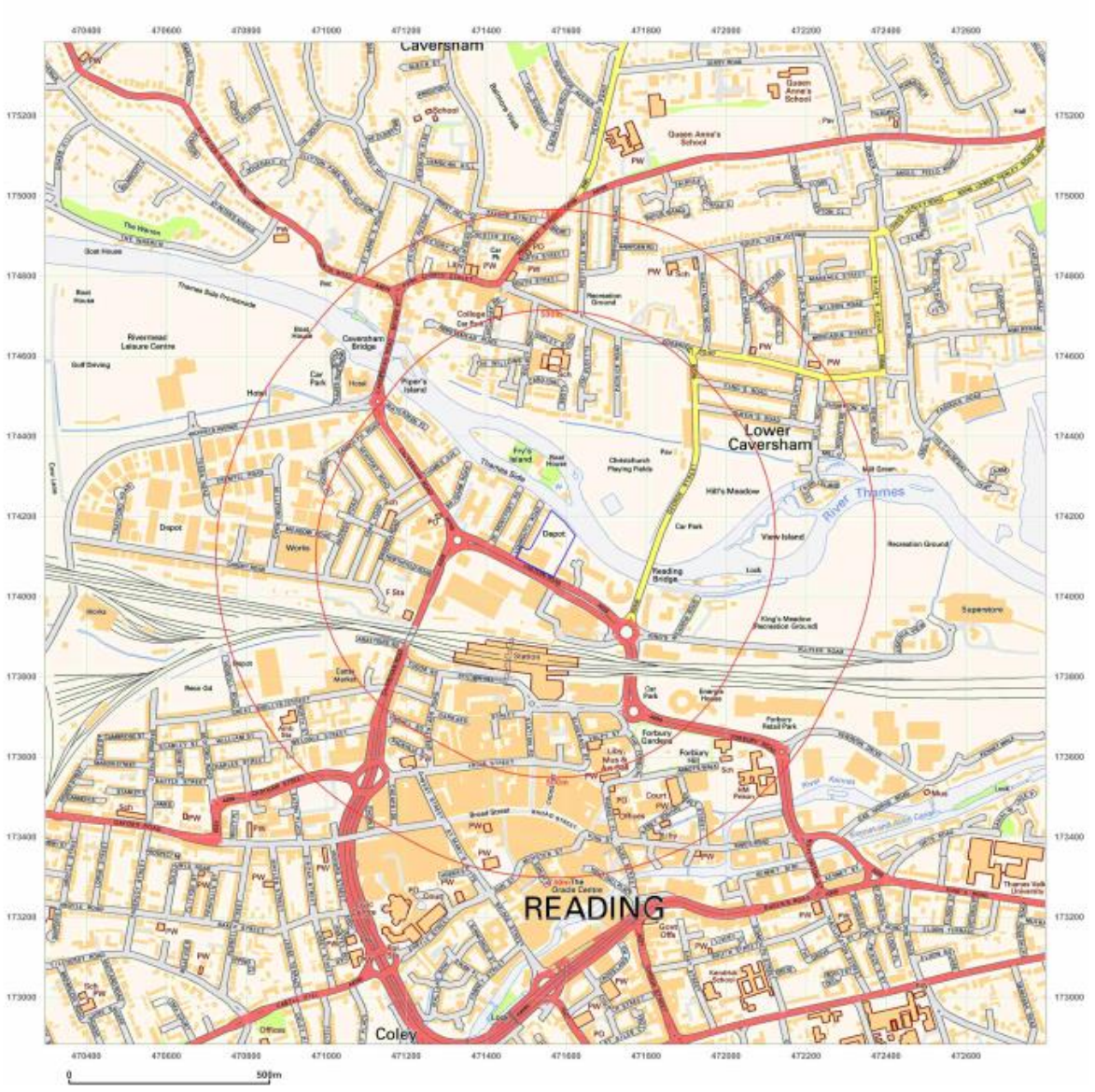
Scale: 1:2,500
Grid Ref: 471548, 174132



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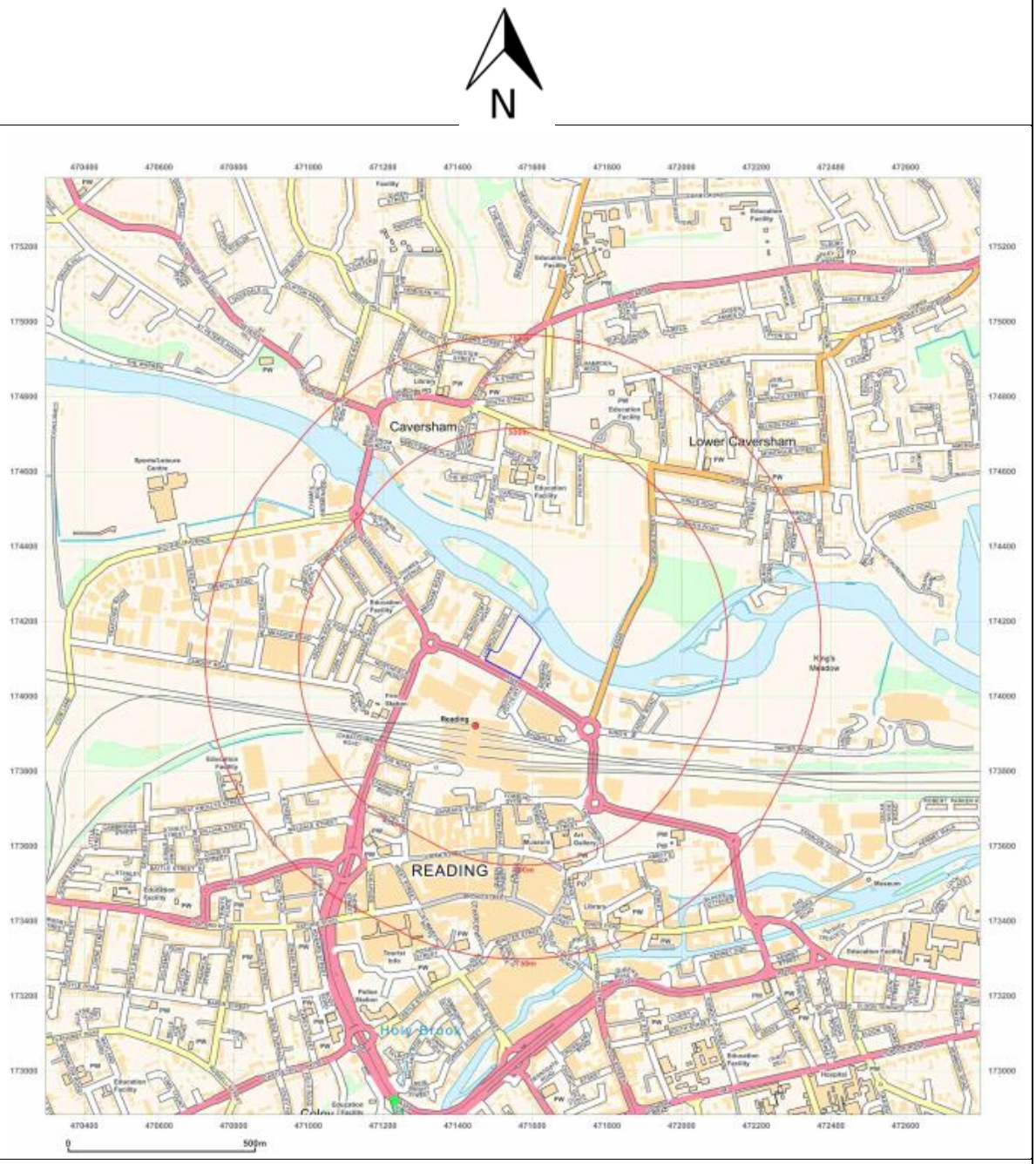

55 Vastern Road
Date: 2014
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Grid Ref: 471548, 174132

APPENDIX V

CHEMICAL LABORATORY RESULTS

Certificate of Analysis

Certificate Number 18-04338

27-Feb-18

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

Our Reference 18-04338

Client Reference PSL18/0791

Order No (not supplied)

Contract Title SSE Site, Vastern Road, Reading

Description 8 Soil samples.

Date Received 22-Feb-18

Date Started 22-Feb-18

Date Completed 27-Feb-18

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

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Adam Fenwick
Contracts Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 18-04338
Client Ref PSL18/0791
Contract Title SSE Site, Vastern Road, Reading

				Lab No	1301877	1301878	1301879	1301880	1301881	1301882	1301883	1301884
				Sample ID	BH1001	BH1002C	BH1002C	BH1002C	BH1003E	BH1004	BH1004	BH1005
				Depth	4.00-4.45	0.65-1.10	7.00-7.50	23.50-24.00	1.30-1.40	2.00-2.40	8.50-9.00	5.00-5.50
				Other ID								
				Sample Type	B	B	B	B	B	B	B	B
				Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**									
Metals												
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10	< 10	< 10	< 10	16	14	< 10	< 10
Inorganics												
pH	DETSC 2008#			7.9	8.1	8.4	8.5	8.6	7.4	8.5	8.6
Chloride Aqueous Extract	DETSC 2055	1	mg/l	10	300	5.4	17	110	160	8.8	7.7
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0	3.0	< 1.0	< 1.0	3.1	< 1.0	< 1.0	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	34	31	36	25	22	80	25	11
Sulphur as S, Total	DETSC 2320	0.01	%	0.11	0.03	0.01	0.01	0.02	0.08	0.01	< 0.01
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.08	0.06	0.04	0.05	0.05	0.13	0.05	0.02

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 18-04338
Client Ref PSL18/0791
Contract SSE Site, Vastern Road, Reading

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1301877	BH1001 4.00-4.45 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301878	BH1002C 0.65-1.10 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301879	BH1002C 7.00-7.50 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301880	BH1002C 23.50-24.00 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301881	BH1003E 1.30-1.40 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301882	BH1004 2.00-2.40 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301883	BH1004 8.50-9.00 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	
1301884	BH1005 5.00-5.50 SOIL		PT 500ml	Sample date not supplied, Anions 2:1 (365 days), Total Sulphur ICP (365 days), Total Sulphate ICP (730 days), Metals ICP Prep (365 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

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

Information in Support of the Analytical Results

Our Ref 18-04338
Client Ref PSL18/0791
Contract SSE Site, Vastern Road, Reading

Soil Analysis Notes

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

Disposal

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

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CC Ground Investigation Ltd
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Innsworth Tech Park
Innsworth Lane
Gloucester
GL3 1DL

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f: 01452 739 220
e: jon@ccground.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name:	SSE Site, Vastern Road, Reading	**Samples received on:**	01/02/2018
Your job number:	C5925	**Samples instructed on:**	02/02/2018
Your order number:	C5925	**Analysis completed by:**	13/02/2018
Report Issue Number:	1	**Report issued on:**	07/03/2018
Samples Analysed:	59 soil samples		

Signed:

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901082	901097	901098	901150	901151
Sample Reference				BH1003	BH1002A	BH1002C	BH1005	BH1005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.50	1.00	0.70	2.00
Date Sampled				01/02/2018	30/01/2018	30/01/2018	30/01/2018	31/01/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	9.8	22	12	30
Total mass of sample received	kg	0.001	NONE	1.0	1.3	0.96	0.99	0.80
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	Chrysotile & Crocidolite & Amosite	Chrysotile & Crocidolite	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	0.199	0.009	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	0.199	0.009	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	10.4	9.4	8.2	9.1	7.8
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	480	1900	85	73	84
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.24	0.96	0.042	0.037	0.042
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	241	955	42.4	36.6	41.8
Organic Matter	%	0.1	MCERTS	2.8	4.7	2.7	6.4	1.9
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.22	0.49	0.23	0.31	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.91	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.38	0.21	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.83	0.21	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.9	0.94	11	1.9	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.58	0.18	3.0	0.54	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	3.6	1.5	14	2.7	< 0.05
Pyrene	mg/kg	0.05	MCERTS	3.0	1.2	11	2.4	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.0	1.2	5.9	1.9	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.8	0.96	5.1	1.6	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.8	1.8	8.1	2.9	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.2	0.67	2.6	1.8	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.0	1.3	5.5	2.4	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.3	0.72	3.3	1.8	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.66	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	0.75	2.7	1.6	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	21.4	11.6	74.4	22.3	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	23	19	16	27
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	17	17	20	16	38
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	17	21	17	39
Copper (aqua regia extractable)	mg/kg	1	MCERTS	38	53	37	37	6.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	140	44	140	94	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.0	5.2	0.5	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	26	24	25	24	28
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	1.3	1.3	< 1.0	1.4
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	75	140	300	61	49
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	85000	56000	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901082	901097	901098	901150	901151
Sample Reference				BH1003	BH1002A	BH1002C	BH1005	BH1005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.50	1.00	0.70	2.00
Date Sampled				01/02/2018	30/01/2018	30/01/2018	30/01/2018	31/01/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.4	1.2	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	3.4	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	37	97	32	71	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	42	110	45	74	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	2.4	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	2.2	3.4	9.4	5.9	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	13	16	45	30	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	82	320	51	160	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	98	340	110	190	< 10

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901082	901097	901098	901150	901151
Sample Reference				BH1003	BH1002A	BH1002C	BH1005	BH1005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.50	1.00	0.70	2.00
Date Sampled				01/02/2018	30/01/2018	30/01/2018	30/01/2018	31/01/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	1	NONE	-	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-	-
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
Styrene	µg/kg	1	MCERTS	-	-	-	-	-
Tribromomethane	µg/kg	1	NONE	-	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901082	901097	901098	901150	901151
Sample Reference				BH1003	BH1002A	BH1002C	BH1005	BH1005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.50	1.00	0.70	2.00
Date Sampled				01/02/2018	30/01/2018	30/01/2018	30/01/2018	31/01/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901082	901097	901098	901150	901151
Sample Reference				BH1003	BH1002A	BH1002C	BH1005	BH1005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.50	1.00	0.70	2.00
Date Sampled				01/02/2018	30/01/2018	30/01/2018	30/01/2018	31/01/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-

The results included within the report are representative of the samples submitted for analysis.

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901281	901282	906407	906429	906430
Sample Reference				BH1001	BH1001	BH1003E	WS1003	WS1003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.30	1.00	1.70
Date Sampled				30/01/2018	30/01/2018	05/02/2018	06/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	31	< 0.1	< 0.1	18	< 0.1
Moisture Content	%	N/A	NONE	9.6	30	12	23	26
Total mass of sample received	kg	0.001	NONE	1.7	1.3	2.0	0.35	1.1
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile & Amosite	-	-	Chrysotile	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	1.311	-	-	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	1.31	-	-	< 0.001	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	10.1	7.8	8.7	8.3	8.3
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	330	73	37	230	55
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.17	0.037	0.018	0.12	0.028
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	167	36.7	18.3	116	27.6
Organic Matter	%	0.1	MCERTS	1.5	1.5	0.6	5.2	1.6
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	1.3	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.65	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.56	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	6.2	< 0.05	0.49	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	1.3	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	7.9	< 0.05	0.89	0.49	< 0.05
Pyrene	mg/kg	0.05	MCERTS	6.9	< 0.05	0.84	0.46	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.1	< 0.05	0.36	0.48	< 0.05
Chrysene	mg/kg	0.05	MCERTS	4.2	< 0.05	0.54	0.63	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	5.4	< 0.05	0.47	1.2	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.6	< 0.05	0.30	0.49	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	4.8	< 0.05	0.52	0.72	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2.4	< 0.05	< 0.05	0.59	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.7	< 0.05	< 0.05	0.76	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	51.0	< 0.80	4.41	5.83	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.7	16	19	200	16
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	14	27	20	54	32
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	27	21	55	32
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	16	58	540	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	440	15	100	510	36
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	24	25	280	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	42	81	330	59
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901281	901282	906407	906429	906430
Sample Reference				BH1001	BH1001	BH1003E	WS1003	WS1003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.30	1.00	1.70
Date Sampled				30/01/2018	30/01/2018	05/02/2018	06/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	16	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	16	< 10	< 10	10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	6.9	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	6.5	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	29	< 10	11	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	88	< 10	14	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	130	< 10	28	16	< 10

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901281	901282	906407	906429	906430
Sample Reference				BH1001	BH1001	BH1003E	WS1003	WS1003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.30	1.00	1.70
Date Sampled				30/01/2018	30/01/2018	05/02/2018	06/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	1	NONE	-	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-	-
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
Styrene	µg/kg	1	MCERTS	-	-	-	-	-
Tribromomethane	µg/kg	1	NONE	-	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901281	901282	906407	906429	906430
Sample Reference				BH1001	BH1001	BH1003E	WS1003	WS1003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.30	1.00	1.70
Date Sampled				30/01/2018	30/01/2018	05/02/2018	06/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				901281	901282	906407	906429	906430
Sample Reference				BH1001	BH1001	BH1003E	WS1003	WS1003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	2.00	1.30	1.00	1.70
Date Sampled				30/01/2018	30/01/2018	05/02/2018	06/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906563	906567	906568	906569	906570
Sample Reference				WS1009	WS1008	BH1003C	TP1003	WS1018
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.45	0.45	0.30	0.15
Date Sampled				05/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	9.2	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	9.4	12	10	11	2.9
Total mass of sample received	kg	0.001	NONE	1.6	1.3	1.5	2.0	1.1
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	-	Chrysotile	Chrysotile & Amosite	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	-	0.009	0.033	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	-	0.009	0.033	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	10.3	10.4	9.4	10.3	9.3
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	450	820	160	650	190
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.22	0.41	0.078	0.33	0.095
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	224	409	77.7	326	95.2
Organic Matter	%	0.1	MCERTS	0.6	7.4	3.4	2.3	10
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	2.9	< 0.05	0.69	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.59
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	1.4	< 0.05	0.90	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	1.2	< 0.05	1.0	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	6.3	3.4	7.2	1.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	1.2	0.80	2.0	0.55
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	5.6	4.8	13	4.5
Pyrene	mg/kg	0.05	MCERTS	< 0.05	4.6	3.9	12	4.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	3.3	2.7	9.1	4.7
Chrysene	mg/kg	0.05	MCERTS	< 0.05	2.4	1.9	5.7	3.6
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.3	2.7	11	7.5
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.9	1.4	4.8	3.2
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.6	1.8	8.0	5.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.7	1.6	5.9	3.6
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.4	0.88
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	1.3	1.1	4.3	4.5
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	39.6	26.0	86.7	44.4
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	37	11	21	48	5.0
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.0	< 0.2	< 0.2	1.9	0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	10	17	14	18	4.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	10	17	14	18	4.5
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	34	100	41	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	66	41	380	150	14
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	16	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	32	23	22	6.9
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	210	110	110	550	49
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906563	906567	906568	906569	906570
Sample Reference				WS1009	WS1008	BH1003C	TP1003	WS1018
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.45	0.45	0.30	0.15
Date Sampled				05/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	6.3	< 1.0	1.8	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	14	140	< 2.0	110	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	49	390	16	300	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	68	350	100	200	180
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	130	890	120	610	190

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	1.8	7.3	< 1.0	1.6	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	20	51	9.2	65	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	51	150	46	220	19
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	80	210	180	260	750
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	150	420	240	540	770

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906563	906567	906568	906569	906570
Sample Reference				WS1009	WS1008	BH1003C	TP1003	WS1018
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.45	0.45	0.30	0.15
Date Sampled				05/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Chloroethane	µg/kg	1	NONE	-	-	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Tribromomethane	µg/kg	1	NONE	-	-	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906563	906567	906568	906569	906570
Sample Reference				WS1009	WS1008	BH1003C	TP1003	WS1018
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.45	0.45	0.30	0.15
Date Sampled				05/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	0.4	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	3.4	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	0.80	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	0.6	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	0.8	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	4.8	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	3.9	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	2.7	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	1.9	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	2.7	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	1.4	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	1.8	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	1.6	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	1.1	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906563	906567	906568	906569	906570
Sample Reference				WS1009	WS1008	BH1003C	TP1003	WS1018
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.45	0.45	0.30	0.15
Date Sampled				05/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	< 0.001	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	< 0.007	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906571	906572	906573	906574	906578
Sample Reference				WS1007	WS1007	WS1002	WS017	WS1006
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	1.00	0.50	0.20	0.50
Date Sampled				05/02/2018	05/02/2018	07/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	16	< 0.1	< 0.1	19	42
Moisture Content	%	N/A	NONE	7.5	13	16	6.5	4.5
Total mass of sample received	kg	0.001	NONE	1.3	1.5	0.92	1.4	1.6
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile & Amosite & Crocidolite	Chrysotile	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	0.440	< 0.001	0.002
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	0.440	< 0.001	0.002
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	9.2	8.7	8.5	11.3	10.4
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	330	54	170	200	240
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.17	0.027	0.085	0.10	0.12
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	167	26.9	84.6	101	119
Organic Matter	%	0.1	MCERTS	1.0	0.5	6.5	4.1	1.0
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.40	0.44	0.29
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.44	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.21	0.27	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.20	0.33	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.46	< 0.05	3.1	4.5	1.8
Anthracene	mg/kg	0.05	MCERTS	0.18	< 0.05	0.59	1.2	0.40
Fluoranthene	mg/kg	0.05	MCERTS	1.4	< 0.05	4.7	11	2.8
Pyrene	mg/kg	0.05	MCERTS	1.5	< 0.05	6.3	9.2	2.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	< 0.05	3.8	8.2	1.8
Chrysene	mg/kg	0.05	MCERTS	1.4	< 0.05	2.6	5.7	0.97
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	3.6	< 0.05	3.6	11	1.9
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.2	< 0.05	1.7	5.0	0.80
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	< 0.05	2.9	7.7	1.5
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.6	< 0.05	1.6	6.1	0.82
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.51	< 0.05	0.48	1.6	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2	< 0.05	1.4	3.8	0.74
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	16.8	< 0.80	33.5	77.3	16.3
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.8	9.7	47	12	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	1.3	0.3	0.5
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	20	8.2	41	17	7.6
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	8.3	41	17	7.6
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	15	250	180	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	33	44	500	96	310
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	9.9	11	98	29	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	42	36	470	130	140
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906571	906572	906573	906574	906578
Sample Reference				WS1007	WS1007	WS1002	WS017	WS1006
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	1.00	0.50	0.20	0.50
Date Sampled				05/02/2018	05/02/2018	07/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	8.9	3.4	2.1
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	12	< 8.0	120	46	20
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	33	< 8.0	240	94	49
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	45	< 10	370	140	73

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	13	8.0	5.7
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	19	< 10	210	61	25
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	110	< 10	440	180	100
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	130	< 10	660	250	130

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906571	906572	906573	906574	906578
Sample Reference				WS1007	WS1007	WS1002	WS017	WS1006
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	1.00	0.50	0.20	0.50
Date Sampled				05/02/2018	05/02/2018	07/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906571	906572	906573	906574	906578
Sample Reference				WS1007	WS1007	WS1002	WS017	WS1006
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	1.00	0.50	0.20	0.50
Date Sampled				05/02/2018	05/02/2018	07/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	0.46	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	0.18	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	1.4	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	1.5	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	1.4	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	3.6	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.2	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.6	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.51	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906571	906572	906573	906574	906578
Sample Reference				WS1007	WS1007	WS1002	WS017	WS1006
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15	1.00	0.50	0.20	0.50
Date Sampled				05/02/2018	05/02/2018	07/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906579	906580	906581	906587	906588
Sample Reference				TP1005	BH1004	BH1004	WS1019	WS1019
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.60	2.00	0.50	1.80
Date Sampled				09/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	12	22	38	13	41
Total mass of sample received	kg	0.001	NONE	2.0	1.1	2.0	1.7	0.93
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile & Amosite & Crocidolite	Chrysotile	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.156	< 0.001	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	0.156	< 0.001	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	9.6	8.4	7.7	10.4	7.9
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	450	110	170	270	410
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.23	0.053	0.084	0.13	0.20
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	227	53.2	83.9	133	203
Organic Matter	%	0.1	MCERTS	1.2	6.3	4.7	2.9	5.7
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.47	0.31	0.41	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.42	0.63	0.83	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.37	0.12	0.71	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.42	0.23	1.7	0.19	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	4.1	3.2	12	3.3	0.96
Anthracene	mg/kg	0.05	MCERTS	1.0	0.73	2.4	1.2	0.24
Fluoranthene	mg/kg	0.05	MCERTS	6.3	7.5	12	12	1.0
Pyrene	mg/kg	0.05	MCERTS	5.6	6.3	8.7	10	0.92
Benzo(a)anthracene	mg/kg	0.05	MCERTS	4.6	5.0	5.8	8.0	0.55
Chrysene	mg/kg	0.05	MCERTS	2.4	3.0	3.2	5.1	0.38
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	5.7	6.3	5.5	9.8	0.61
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.8	2.4	2.1	4.7	0.16
Benzo(a)pyrene	mg/kg	0.05	MCERTS	4.2	4.3	3.9	7.1	0.37
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2.8	3.0	1.9	5.0	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.60	0.78	0.54	1.2	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.9	2.4	1.6	3.6	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	42.3	46.1	62.1	72.1	5.20
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	27	16	21	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	21	21	43	22	47
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	21	43	23	47
Copper (aqua regia extractable)	mg/kg	1	MCERTS	37	340	20	96	36
Lead (aqua regia extractable)	mg/kg	1	MCERTS	1100	1800	95	470	80
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	1.9	14	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	34	27	25	30
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	480	330	79	170	85
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906579	906580	906581	906587	906588
Sample Reference				TP1005	BH1004	BH1004	WS1019	WS1019
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.60	2.00	0.50	1.80
Date Sampled				09/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	1.4	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	5.8	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	24	< 8.0	< 8.0	8.4	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	90	22	< 8.0	35	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	120	23	< 10	44	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	1.9	3.6	2.1	< 1.0	1.5
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	12	11	18	5.1	6.2
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	50	64	120	67	15
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	180	120	190	170	40
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	240	200	330	250	62

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906579	906580	906581	906587	906588
Sample Reference				TP1005	BH1004	BH1004	WS1019	WS1019
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.60	2.00	0.50	1.80
Date Sampled				09/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906579	906580	906581	906587	906588
Sample Reference				TP1005	BH1004	BH1004	WS1019	WS1019
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.60	2.00	0.50	1.80
Date Sampled				09/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	0.41	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	0.5	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	0.63	0.83	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	0.71	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	1.0	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	1.7	0.19	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	12	3.3	-
Anthracene	mg/kg	0.05	MCERTS	-	-	2.4	1.2	-
Carbazole	mg/kg	0.3	MCERTS	-	-	1.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	1.7	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	12	12	-
Pyrene	mg/kg	0.05	MCERTS	-	-	8.7	10	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	5.8	8.0	-
Chrysene	mg/kg	0.05	MCERTS	-	-	3.2	5.1	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	5.5	9.8	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	2.1	4.7	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	3.9	7.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	1.9	5.0	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	0.54	1.2	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	1.6	3.6	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906579	906580	906581	906587	906588
Sample Reference				TP1005	BH1004	BH1004	WS1019	WS1019
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70	0.60	2.00	0.50	1.80
Date Sampled				09/02/2018	05/02/2018	05/02/2018	07/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	< 0.001	< 0.001	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	< 0.007	< 0.007	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906589	906590	906591	906592	906623
Sample Reference				TP1001	WS1004	WS1005	WS1005	TP1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.20	0.30	0.50	1.50
Date Sampled				05/02/2018	06/02/2018	08/02/2018	08/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	23	44	30	< 0.1
Moisture Content	%	N/A	NONE	22	12	2.0	4.5	31
Total mass of sample received	kg	0.001	NONE	2.0	0.88	2.0	1.6	1.9
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile & Crocidolite	-	Chrysotile	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	0.667	-	0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	0.667	-	0.001	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.4	10.9	9.1	9.2	7.3
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	55	570	82	91	830
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.028	0.28	0.041	0.046	0.42
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	27.5	283	40.9	45.7	417
Organic Matter	%	0.1	MCERTS	1.4	3.1	0.4	1.0	5.4
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.20	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.54	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.20	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.3	< 0.05	2.4	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.39	< 0.05	0.67	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.5	< 0.05	4.6	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	4.2	< 0.05	3.9	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	2.7	< 0.05	2.7	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.7	< 0.05	1.8	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.9	< 0.05	3.0	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.2	< 0.05	1.3	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.3	< 0.05	2.3	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.4	< 0.05	1.4	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	1.1	< 0.05	1.1	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	23.2	< 0.80	25.5	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.7	33	6.4	9.8	17
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	1.4	0.8	0.8	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	23	28	4.4	9.1	32
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	29	4.4	9.2	33
Copper (aqua regia extractable)	mg/kg	1	MCERTS	10	71	14	31	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	37	380	25	100	120
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	36	4.6	10	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	56	750	130	170	66
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

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Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906589	906590	906591	906592	906623
Sample Reference				TP1001	WS1004	WS1005	WS1005	TP1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.20	0.30	0.50	1.50
Date Sampled				05/02/2018	06/02/2018	08/02/2018	08/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.7	< 1.0	3.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	2.3	< 2.0	4.6	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	9.0	< 8.0	69	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	65	< 8.0	110	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	78	< 10	180	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	1.6	< 1.0	1.2	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	8.8	< 2.0	9.8	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	38	< 10	52	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	170	< 10	120	16
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	220	< 10	190	20

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906589	906590	906591	906592	906623
Sample Reference				TP1001	WS1004	WS1005	WS1005	TP1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.20	0.30	0.50	1.50
Date Sampled				05/02/2018	06/02/2018	08/02/2018	08/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	1	NONE	-	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-	-
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
Styrene	µg/kg	1	MCERTS	-	-	-	-	-
Tribromomethane	µg/kg	1	NONE	-	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906589	906590	906591	906592	906623
Sample Reference				TP1001	WS1004	WS1005	WS1005	TP1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.20	0.30	0.50	1.50
Date Sampled				05/02/2018	06/02/2018	08/02/2018	08/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906589	906590	906591	906592	906623
Sample Reference				TP1001	WS1004	WS1005	WS1005	TP1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.20	0.30	0.50	1.50
Date Sampled				05/02/2018	06/02/2018	08/02/2018	08/02/2018	07/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906626	906627	906634	908320	908321
Sample Reference				WS013	TP1007	TP1008	TP1002	TP1002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.20	1.50	0.80	1.70
Date Sampled				08/02/2018	09/02/2018	09/02/2018	12/02/2018	12/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	63	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	4.3	11	13	7.6	27
Total mass of sample received	kg	0.001	NONE	1.7	2.0	2.0	2.0	1.9
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	Chrysotile & Amosite	-	Chrysotile	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	< 0.001	-	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	< 0.001	-	< 0.001	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	11.3	9.6	8.8	8.6	7.9
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	290	140	28	1200	370
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.14	0.072	0.014	0.58	0.18
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	143	72.2	14.2	582	184
Organic Matter	%	0.1	MCERTS	1.7	2.6	0.7	2.7	4.4
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.33	5.5	< 0.05	0.29	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	1.0	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.42	3.6	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.37	4.1	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	5.8	28	< 0.05	0.50	< 0.05
Anthracene	mg/kg	0.05	MCERTS	1.5	11	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	11	36	< 0.05	0.74	< 0.05
Pyrene	mg/kg	0.05	MCERTS	9.0	33	< 0.05	0.69	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	6.3	43	< 0.05	0.41	< 0.05
Chrysene	mg/kg	0.05	MCERTS	4.4	23	< 0.05	0.49	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	8.6	67	< 0.05	0.67	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.4	14	< 0.05	0.31	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	6.0	44	< 0.05	0.57	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.5	29	< 0.05	0.32	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.1	7.9	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.7	20	< 0.05	0.47	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	63.1	370	< 0.80	5.46	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	8.7	17	14	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.3	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	21	12	24	15	30
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	12	24	15	31
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16	49	30	29	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	23	130	180	64	43
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	2.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	14	26	23	23
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	200	77	160	65
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906626	906627	906634	908320	908321
Sample Reference				WS013	TP1007	TP1008	TP1002	TP1002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.20	1.50	0.80	1.70
Date Sampled				08/02/2018	09/02/2018	09/02/2018	12/02/2018	12/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	6.7	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	21	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	9.6	110	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	120	290	< 8.0	57	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	130	420	< 10	65	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	4.1	6.7	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	17	44	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	89	410	< 10	11	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	480	1200	< 10	87	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	590	1600	< 10	100	< 10

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906626	906627	906634	908320	908321
Sample Reference				WS013	TP1007	TP1008	TP1002	TP1002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.20	1.50	0.80	1.70
Date Sampled				08/02/2018	09/02/2018	09/02/2018	12/02/2018	12/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906626	906627	906634	908320	908321
Sample Reference				WS013	TP1007	TP1008	TP1002	TP1002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.20	1.50	0.80	1.70
Date Sampled				08/02/2018	09/02/2018	09/02/2018	12/02/2018	12/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	0.33	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	0.5	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.42	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	0.9	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	0.37	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	5.8	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	1.5	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	1.5	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	11	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	9.0	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	6.3	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	4.4	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	8.6	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.4	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	6.0	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	3.5	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.1	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.7	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				906626	906627	906634	908320	908321
Sample Reference				WS013	TP1007	TP1008	TP1002	TP1002
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.20	1.50	0.80	1.70
Date Sampled				08/02/2018	09/02/2018	09/02/2018	12/02/2018	12/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908408	908409	908422	908442	908443
Sample Reference				TP1005	WS1002	WS1006	TP1008	W1001
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.70	1.90	0.40	0.20
Date Sampled				09/02/2018	07/02/2018	08/02/2018	09/02/2018	08/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	11	22	28	12	14
Total mass of sample received	kg	0.001	NONE	1.9	0.97	1.2	1.8	1.3
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile & Amosite	Chrysotile	-	-	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.013	< 0.001	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	0.013	< 0.001	-	-	< 0.001
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	10.2	7.0	7.8	11.2	8.3
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	480	760	580	250	38
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.24	0.38	0.29	0.12	0.019
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	241	381	288	124	18.9
Organic Matter	%	0.1	MCERTS	1.2	13	2.4	0.8	5.1
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	1.2	3.0	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.36	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.97	14	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.98	10	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	11	140	0.45	< 0.05	1.4
Anthracene	mg/kg	0.05	MCERTS	2.5	37	< 0.05	< 0.05	0.27
Fluoranthene	mg/kg	0.05	MCERTS	15	160	0.60	0.33	2.6
Pyrene	mg/kg	0.05	MCERTS	13	150	0.55	0.31	2.4
Benzo(a)anthracene	mg/kg	0.05	MCERTS	8.3	88	0.24	< 0.05	1.3
Chrysene	mg/kg	0.05	MCERTS	6.9	71	0.28	< 0.05	1.5
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	7.6	74	0.39	< 0.05	1.7
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	5.1	40	0.50	< 0.05	0.65
Benzo(a)pyrene	mg/kg	0.05	MCERTS	8.2	81	0.26	< 0.05	1.4
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.8	33	0.14	< 0.05	0.82
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.3	8.2	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	5.6	44	0.18	< 0.05	1.1
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	92.3	962	3.59	< 0.80	15.2
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.1	28	11	12	34
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.0	< 0.2	< 0.2	< 0.2	4.0
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	14	17	23	11	28
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	17	23	11	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	170	94	17	54	140
Lead (aqua regia extractable)	mg/kg	1	MCERTS	330	180	24	240	240
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	7.6	< 0.3	< 0.3	< 0.3	17
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	37	20	15	97
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.1	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	180	130	58	38	1200
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908408	908409	908422	908442	908443
Sample Reference				TP1005	WS1002	WS1006	TP1008	W1001
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.70	1.90	0.40	0.20
Date Sampled				09/02/2018	07/02/2018	08/02/2018	09/02/2018	08/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	1.1	46	< 1.0	1.8	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	28	89	< 2.0	7.2	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	120	1000	< 8.0	36	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	360	11000	< 8.0	150	9.2
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	500	12000	< 10	200	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	8.6	28	1.1	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	34	280	4.7	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	210	1900	14	< 10	13
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	560	8200	110	62	27
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	810	10000	130	71	41

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908408	908409	908422	908442	908443
Sample Reference				TP1005	WS1002	WS1006	TP1008	W1001
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.70	1.90	0.40	0.20
Date Sampled				09/02/2018	07/02/2018	08/02/2018	09/02/2018	08/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Tribromomethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908408	908409	908422	908442	908443
Sample Reference				TP1005	WS1002	WS1006	TP1008	W1001
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.70	1.90	0.40	0.20
Date Sampled				09/02/2018	07/02/2018	08/02/2018	09/02/2018	08/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	1.2	3.0	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	0.5	6.5	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.36	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.97	14	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	0.6	7.5	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	0.98	10	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	11	140	0.45	-	-
Anthracene	mg/kg	0.05	MCERTS	2.5	37	< 0.05	-	-
Carbazole	mg/kg	0.3	MCERTS	1.1	4.1	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	11	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	15	160	0.60	-	-
Pyrene	mg/kg	0.05	MCERTS	13	150	0.55	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	8.3	88	0.24	-	-
Chrysene	mg/kg	0.05	MCERTS	6.9	71	0.28	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	7.6	74	0.39	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	5.1	40	0.50	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	8.2	81	0.26	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.8	33	0.14	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.3	8.2	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	5.6	44	0.18	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908408	908409	908422	908442	908443
Sample Reference				TP1005	WS1002	WS1006	TP1008	W1001
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.70	1.90	0.40	0.20
Date Sampled				09/02/2018	07/02/2018	08/02/2018	09/02/2018	08/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	< 0.007	< 0.007	< 0.007	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908444	908445	908458	908459	908460
Sample Reference				W1001	TP1001	BH2003	BH2003	BH2003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.50	2.40	3.50	4.20
Date Sampled				08/02/2018	07/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	43	< 0.1
Moisture Content	%	N/A	NONE	17	8.5	32	6.5	3.5
Total mass of sample received	kg	0.001	NONE	1.4	1.8	2.0	2.0	2.0
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	Chrysotile & Amosite & Crocidolite	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	0.001	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	0.001	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.3	10.1	8.3	8.0	7.6
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	65	660	110	130	19
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.032	0.33	0.053	0.064	0.0096
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	32.3	329	53.2	63.8	9.6
Organic Matter	%	0.1	MCERTS	2.5	3.5	2.2	1.0	0.3
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.75	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.56	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.31	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	4.1	1.6	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.88	0.36	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	3.8	2.3	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	3.3	2.1	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.6	1.0	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.7	1.2	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.4	1.4	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.92	0.55	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.6	1.3	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.66	0.66	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.93	0.89	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	22.4	13.4	< 0.80	< 0.80	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	17	20	18	30	38
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.5	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	22	20	33	32	26
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	21	33	32	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	61	59	8.9	5.0	3.5
Lead (aqua regia extractable)	mg/kg	1	MCERTS	90	400	15	14	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	26	29	25	41	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	83	390	63	56	45
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908444	908445	908458	908459	908460
Sample Reference				W1001	TP1001	BH2003	BH2003	BH2003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.50	2.40	3.50	4.20
Date Sampled				08/02/2018	07/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	2.4	2.3	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	100	140	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	370	960	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	15	71	32	60	11
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	18	75	510	1200	15

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	1.3	< 1.0	4.1	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	7.5	2.2	450	790	5.4
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	26	18	370	730	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	38	77	19	41	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	73	97	850	1600	13

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908444	908445	908458	908459	908460
Sample Reference				W1001	TP1001	BH2003	BH2003	BH2003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.50	2.40	3.50	4.20
Date Sampled				08/02/2018	07/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	-	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	-	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908444	908445	908458	908459	908460
Sample Reference				W1001	TP1001	BH2003	BH2003	BH2003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.50	2.40	3.50	4.20
Date Sampled				08/02/2018	07/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908444	908445	908458	908459	908460
Sample Reference				W1001	TP1001	BH2003	BH2003	BH2003
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.50	2.40	3.50	4.20
Date Sampled				08/02/2018	07/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	< 0.007	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908464	908465	908508	908650	908667
Sample Reference				BH2001	BH2001	BH2004	BH1003E	W1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	4.00	0.60	1.00
Date Sampled				13/02/2017	13/02/2017	13/02/2018	05/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	53	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	26	35	3.5	10	12
Total mass of sample received	kg	0.001	NONE	2.0	1.9	2.0	2.0	1.0
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	< 0.001
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.4	8.0	8.8	9.3	8.5
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	34	260	41	210	120
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.017	0.13	0.021	0.11	0.062
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	16.9	132	20.6	106	62.4
Organic Matter	%	0.1	MCERTS	1.6	3.3	0.2	1.0	1.7
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.48	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.53	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	4.7	0.47
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.3	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	5.1	0.75
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	4.3	0.67
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.4	0.34
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.3	0.37
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.4	0.47
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.2	0.21
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	2.4	0.37
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.1	0.24
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.27	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	1.2	0.26
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	29.5	4.15
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	14	15	26	24
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	26	35	17	20	21
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	35	17	20	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	20	19	34	29
Lead (aqua regia extractable)	mg/kg	1	MCERTS	24	38	12	190	75
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	25	21	24	26
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	50	63	23	100	700
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908464	908465	908508	908650	908667
Sample Reference				BH2001	BH2001	BH2004	BH1003E	W1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	4.00	0.60	1.00
Date Sampled				13/02/2017	13/02/2017	13/02/2018	05/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	19	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	21	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	24	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	55	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	82	< 10

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908464	908465	908508	908650	908667
Sample Reference				BH2001	BH2001	BH2004	BH1003E	W1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	4.00	0.60	1.00
Date Sampled				13/02/2017	13/02/2017	13/02/2018	05/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Chloroethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
Benzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Styrene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Tribromomethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908464	908465	908508	908650	908667
Sample Reference				BH2001	BH2001	BH2004	BH1003E	W1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	4.00	0.60	1.00
Date Sampled				13/02/2017	13/02/2017	13/02/2018	05/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.47
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.75
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.67
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.34
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.37
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.47
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.21
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.37
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.24
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.26

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908464	908465	908508	908650	908667
Sample Reference				BH2001	BH2001	BH2004	BH1003E	W1004
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	4.00	0.60	1.00
Date Sampled				13/02/2017	13/02/2017	13/02/2018	05/02/2018	06/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	< 0.007	< 0.007	-	< 0.007

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908686	908687	908688	909146	909147
Sample Reference				BH2002	BH2002	BH2002	BH2005	BH2005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	2.20	1.75	1.90
Date Sampled				12/02/2018	12/02/2018	12/02/2018	14/02/2018	14/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	20	34	29	29	23
Total mass of sample received	kg	0.001	NONE	1.9	2.0	1.6	1.7	1.8
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.9	8.2	8.0	7.9	7.8
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	130	70	170	160	110
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.065	0.035	0.084	0.081	0.057
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	64.9	34.8	83.6	81.1	56.6
Organic Matter	%	0.1	MCERTS	0.3	1.6	2.3	2.9	5.5
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.27	< 0.05	< 0.05	0.45	0.29
Pyrene	mg/kg	0.05	MCERTS	0.29	< 0.05	< 0.05	0.45	0.27
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	0.17
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.41	0.26
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.66	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.22	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.50	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.30	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	3.65	0.99
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.6	17	11	17	21
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	0.3
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	3.2	26	32	27	14
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	3.6	26	32	27	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	50	11	15	47	190
Lead (aqua regia extractable)	mg/kg	1	MCERTS	43	16	16	140	730
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	19	21	24	29	37
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	36	54	55	78	200
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	-

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908686	908687	908688	909146	909147
Sample Reference				BH2002	BH2002	BH2002	BH2005	BH2005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	2.20	1.75	1.90
Date Sampled				12/02/2018	12/02/2018	12/02/2018	14/02/2018	14/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	4.0	< 1.0	< 1.0	16
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	10	60	< 2.0	< 2.0	860
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	14	66	< 8.0	< 8.0	2200
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	9.9	8.3	< 8.0	< 8.0	97
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	34	140	< 10	< 10	3200

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	5.4	< 1.0	< 1.0	47
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	31	< 2.0	53	3600
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	52	< 10	110	3900
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	13	< 10	< 10	91
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	100	< 10	160	7600

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908686	908687	908688	909146	909147
Sample Reference				BH2002	BH2002	BH2002	BH2005	BH2005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	2.20	1.75	1.90
Date Sampled				12/02/2018	12/02/2018	12/02/2018	14/02/2018	14/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908686	908687	908688	909146	909147
Sample Reference				BH2002	BH2002	BH2002	BH2005	BH2005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	2.20	1.75	1.90
Date Sampled				12/02/2018	12/02/2018	12/02/2018	14/02/2018	14/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	0.27	-	-	-	0.29
Pyrene	mg/kg	0.05	MCERTS	0.29	-	-	-	0.27
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	0.17
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	0.26
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	< 0.05

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				908686	908687	908688	909146	909147
Sample Reference				BH2002	BH2002	BH2002	BH2005	BH2005
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	1.50	2.20	1.75	1.90
Date Sampled				12/02/2018	12/02/2018	12/02/2018	14/02/2018	14/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	-	-	-	< 0.001
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	< 0.007	-	-	-	< 0.007

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				909148	909199	909200	909201	
Sample Reference				BH2005	BH2006	BH2006	BH2006	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				2.40	1.40	1.80	2.40	
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	40	40	28	35	
Total mass of sample received	kg	0.001	NONE	1.8	1.4	2.0	1.8	
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.9	7.7	8.0	7.7	
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	610	190	130	350	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.30	0.097	0.066	0.18	
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	305	96.9	65.6	176	
Organic Matter	%	0.1	MCERTS	3.4	1.8	4.7	3.2	
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.89	< 0.05	
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.73	< 0.05	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.94	< 0.05	
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.90	< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.40	< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.35	< 0.05	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.29	< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	4.50	< 0.80	
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	20	31	34	17	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	
Chromium (III)	mg/kg	1	NONE	63	30	50	38	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	63	30	51	38	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	18	11	130	10	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	40	41	560	31	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.6	100	< 0.3	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	39	37	53	30	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	96	92	220	64	
Calcium (aqua regia extractable)	mg/kg	20	ISO 17025	-	-	-	-	

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				909148	909199	909200	909201	
Sample Reference				BH2005	BH2006	BH2006	BH2006	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				2.40	1.40	1.80	2.40	
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	1.9	< 1.0	
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	2.5	37	< 2.0	
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	88	< 8.0	
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	35	< 8.0	
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	17	160	< 10	

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	30	20	180	8.7	
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	42	24	160	11	
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	16	< 10	
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	74	48	360	28	

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				909148	909199	909200	909201	
Sample Reference				BH2005	BH2006	BH2006	BH2006	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				2.40	1.40	1.80	2.40	
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Chloroethane	µg/kg	1	NONE	-	-	< 1.0	-	
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Vinyl Chloride	µg/kg	1	NONE	-	-	< 1.0	-	
Trichlorofluoromethane	µg/kg	1	NONE	-	-	< 1.0	-	
1,1-Dichloroethene	µg/kg	1	NONE	-	-	< 1.0	-	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	-	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	-	
Trichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	< 1.0	-	
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Tetrachloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	-	
Trichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Dibromomethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
Bromodichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Tetrachloroethene	µg/kg	1	NONE	-	-	< 1.0	-	
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
Chlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
p & m-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Styrene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Tribromomethane	µg/kg	1	NONE	-	-	< 1.0	-	
o-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	
Isopropylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Bromobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	-	
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	< 1.0	-	
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	-	
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	< 1.0	-	
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				909148	909199	909200	909201	
Sample Reference				BH2005	BH2006	BH2006	BH2006	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				2.40	1.40	1.80	2.40	
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-	
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Phenanthrene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-	
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.89	-	
Pyrene	mg/kg	0.05	MCERTS	-	-	0.73	-	
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.94	-	
Chrysene	mg/kg	0.05	MCERTS	-	-	0.90	-	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.40	-	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.35	-	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.29	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Lab Sample Number				909148	909199	909200	909201	
Sample Reference				BH2005	BH2006	BH2006	BH2006	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				2.40	1.40	1.80	2.40	
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	< 0.001	-	
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	< 0.007	-	

Combined Report SSE Site, Vastern Road - Soil
Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
901082	BH1003	0.80	164	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
901097	BH1002A	0.50	142	Loose Fibrous Debris & Rope & Loose Fibres & Hard/Cement Type Material	**Chrysotile & Crocidolite & Amosite**	0.199	**0.199**
901098	BH1002C	1.00	130	Loose Fibres	**Chrysotile & Crocidolite**	0.009	**0.009**
901281	BH1001	0.50	152	Loose Fibrous Debris	**Chrysotile & Amosite**	1.311	**1.31**
906429	WS1003	1.00	112	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
906563	WS1009	0.20	149	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
906568	BH1003C	0.45	147	Loose Fibres & Loose Fibrous Debris	**Chrysotile**	0.009	**0.009**
906569	TP1003	0.30	173	Loose Fibrous Debris & Loose Fibres	**Chrysotile & Amosite**	0.033	**0.033**
906573	WS1002	0.50	130	Loose Fibrous Debris	**Chrysotile & Amosite & Crocidolite**	0.440	**0.440**
906574	WS017	0.20	147	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
906578	WS1006	0.50	145	Loose Fibres	**Chrysotile**	0.002	**0.002**
906579	TP1005	0.70	140	Loose Fibres & Loose Fibrous Debris	**Chrysotile & Amosite & Crocidolite**	0.156	**0.156**
906580	BH1004	0.60	122	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**

Combined Report SSE Site, Vastern Road - Soil
Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
906590	WS1004	0.20	139	Hard/Cement Type Material & Bitumen & Loose Fibrous Debris & Loose Fibres	**Chrysotile & Crocidolite**	0.667	**0.667**
906592	WS1005	0.50	157	Loose Fibrous Debris	**Chrysotile**	0.001	**0.001**
906626	WS013	0.60	170	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**

Combined Report SSE Site, Vastern Road - Soil
Project / Site name: SSE Site, Vastern Road, Reading
Your Order No: C5925

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
906627	TP1007	0.20	151	Loose Fibres	**Chrysotile & Amosite**	< 0.001	**< 0.001**
908408	TP1005	0.30	157	Loose Fibres & Hard/Cement Type Material	**Chrysotile & Amosite**	0.013	**0.013**
908409	WS1002	1.70	110	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
908443	W1001	0.20	142	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
908444	W1001	1.00	123	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**
908667	W1004	1.00	163	Loose Fibres	**Chrysotile**	< 0.001	**< 0.001**

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

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
901082	BH1003	None Supplied	0.80	Brown gravelly sand with rubble.
901097	BH1002A	None Supplied	0.50	Grey gravelly sand with rubble.
901098	BH1002C	None Supplied	1.00	Brown clay and sand with rubble and gravel
901150	BH1005	None Supplied	0.70	Brown sand with gravel and rubble.
901151	BH1005	None Supplied	2.00	Light brown clay and sand.
901281	BH1001	None Supplied	0.50	Brown gravelly sand with rubble and stones.
901282	BH1001	None Supplied	2.00	Grey clay with gravel.
906407	BH1003E	None Supplied	1.30	Brown clay and sand with rubble and gravel
906429	WS1003	None Supplied	1.00	Brown gravelly sand with stones.
906430	WS1003	None Supplied	1.70	Brown clay.
906563	WS1009	None Supplied	0.20	Light brown sandy gravel with brick.
906567	WS1008	None Supplied	0.45	Black gravelly sand with stones.
906568	BH1003C	None Supplied	0.45	Brown gravelly sand.
906569	TP1003	None Supplied	0.30	Brown gravelly loam with brick.
906570	WS1018	None Supplied	0.15	Black gravelly sand with clinker.
906571	WS1007	None Supplied	0.15	Light brown gravelly loam with stones.
906572	WS1007	None Supplied	1.00	Brown clay with chalk and gravel
906573	WS1002	None Supplied	0.50	Black sandy loam with gravel.
906574	WS017	None Supplied	0.20	Grey sand with gravel and stones.
906578	WS1006	None Supplied	0.50	Brown gravelly clay with stones.
906579	TP1005	None Supplied	0.70	Brown gravelly sand with brick.
906580	BH1004	None Supplied	0.60	Black gravelly clay.
906581	BH1004	None Supplied	2.00	Grey clay and sand.
906587	WS1019	None Supplied	0.50	Brown gravelly clay with brick.
906588	WS1019	None Supplied	1.80	Grey clay and sand.
906589	TP1001	None Supplied	1.00	Brown loam and clay with gravel.
906590	WS1004	None Supplied	0.20	Brown gravelly loam with stones.
906591	WS1005	None Supplied	0.30	Brown gravel with stones.
906592	WS1005	None Supplied	0.50	Brown gravel with stones.
906623	TP1004	None Supplied	1.50	Grey sandy clay with gravel.
906626	WS013	None Supplied	0.60	Grey gravelly sand with stones and rubble.
906627	TP1007	None Supplied	0.20	Brown sand with gravel.
906634	TP1008	None Supplied	1.50	Brown clay and gravel.
908320	TP1002	None Supplied	0.80	Brown clay and sand with rubble and tar.
908321	TP1002	None Supplied	1.70	Brown clay and sand.
908408	TP1005	None Supplied	0.30	Brown sand with brick and rubble.
908409	WS1002	None Supplied	1.70	Grey clay and sand with gravel.
908422	WS1006	None Supplied	1.90	Light brown clay and sand.
908442	TP1008	None Supplied	0.40	Light brown clay and sand with chalk and rubble.
908443	W1001	None Supplied	0.20	Brown loam and clay with rubble and vegetation.
908444	W1001	None Supplied	1.00	Brown clay and sand with gravel.
908445	TP1001	None Supplied	0.50	Brown loam and sand with brick and rubble.
908458	BH2003	None Supplied	2.40	Grey clay.
908459	BH2003	None Supplied	3.50	Light brown clay and sand with stones and gravel.
908460	BH2003	None Supplied	4.20	Light brown gravelly sand.
908464	BH2001	None Supplied	1.00	Brown clay.
908465	BH2001	None Supplied	1.50	Grey clay and sand.
908508	BH2004	None Supplied	4.00	Light brown sandy gravel with stones.
908650	BH1003E	None Supplied	0.60	Light brown clay and sand with rubble and brick.
908667	W1004	None Supplied	1.00	Light brown clay and sand with gravel and rubble.
908686	BH2002	None Supplied	1.00	White chalk with gravel. **
908687	BH2002	None Supplied	1.50	Light brown clay and sand.
908688	BH2002	None Supplied	2.20	Light brown clay and sand.
909146	BH2005	None Supplied	1.75	Light brown clay and sand.
909147	BH2005	None Supplied	1.90	Grey clay and sand with gravel and chalk.
909148	BH2005	None Supplied	2.40	Brown clay.
909199	BH2006	None Supplied	1.40	Brown clay.
909200	BH2006	None Supplied	1.80	Brown clay and sand with gravel.
909201	BH2006	None Supplied	2.40	Grey clay.

**Non MCERTS matrix.

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Cations in soil by ICP-OES	Determination of cations in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	ISO 17025
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS

Combined Report : SSE Site, Vastern Road - Soil

Project / Site name: SSE Site, Vastern Road, Reading

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPH Chromatogram	TPH Chromatogram.	In-house method	L064-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS1018		S	18-75799	906570	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
WS1018		S	18-75799	906570	b	Monohydric phenols in soil	L080-PL	b
WS1018		S	18-75799	906570	b	Speciated EPA-16 PAHs in soil	L064-PL	b
WS1018		S	18-75799	906570	b	TPH Chromatogram	L064-PL	b
WS1018		S	18-75799	906570	b	TPHCWG (Soil)	L088/76-PL	b

Key: a - No sampling date b - Incorrect container
c - Holding time d - Headspace e - Temperature

Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
BH2001		S	18-76104	908464	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
BH2001		S	18-76104	908464	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
BH2001		S	18-76104	908464	c	Cr (III) in soil	L080-PL	c
BH2001		S	18-76104	908464	c	Monohydric phenols in soil	L080-PL	c
BH2001		S	18-76104	908464	c	Organic matter (Automated) in soil	L009-PL	c
BH2001		S	18-76104	908464	c	Speciated EPA-16 PAHs in soil	L064-PL	c
BH2001		S	18-76104	908464	c	TPH Chromatogram	L064-PL	c
BH2001		S	18-76104	908464	c	TPHCWG (Soil)	L088/76-PL	c
BH2001		S	18-76104	908464	c	pH in soil (automated)	L099-PL	c
BH2001		S	18-76104	908465	c	Hexavalent chromium in soil (Lower Level)	L080-PL	c
BH2001		S	18-76104	908465	c	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	c
BH2001		S	18-76104	908465	c	Cr (III) in soil	L080-PL	c
BH2001		S	18-76104	908465	c	Monohydric phenols in soil	L080-PL	c
BH2001		S	18-76104	908465	c	Organic matter (Automated) in soil	L009-PL	c
BH2001		S	18-76104	908465	c	PCB's By GC-MS in soil	L027-PL	c
BH2001		S	18-76104	908465	c	Semi-volatile organic compounds in soil	L064-PL	c
BH2001		S	18-76104	908465	c	Speciated EPA-16 PAHs in soil	L064-PL	c
BH2001		S	18-76104	908465	c	TPH Chromatogram	L064-PL	c
BH2001		S	18-76104	908465	c	TPHCWG (Soil)	L088/76-PL	c
BH2001		S	18-76104	908465	c	Volatile organic compounds in soil	L073B-PL	c
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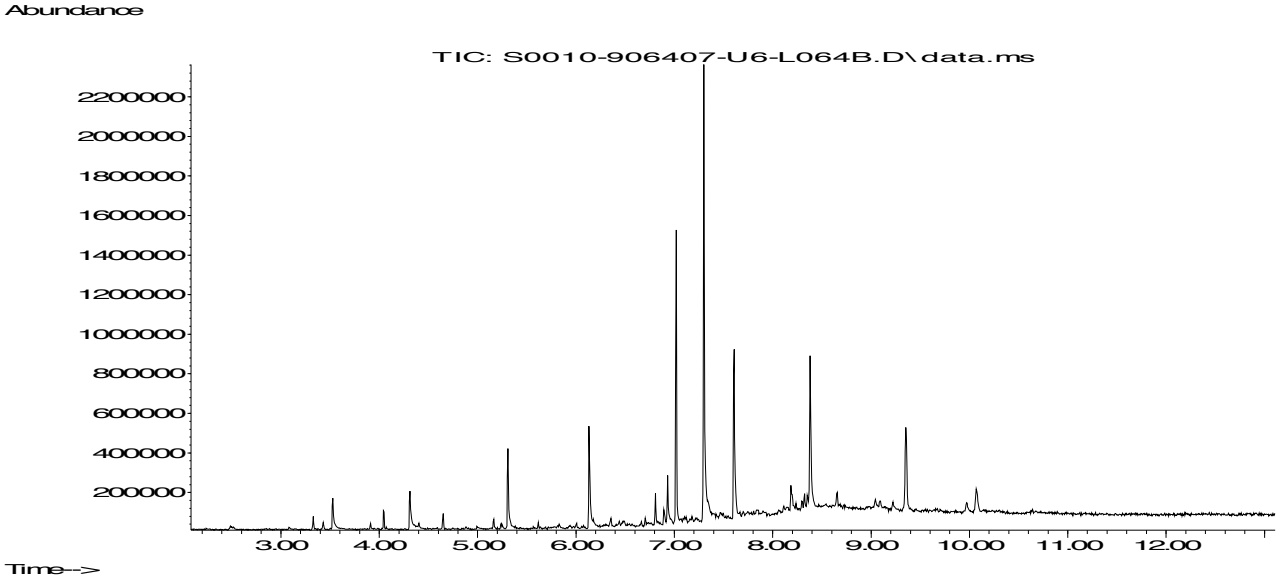
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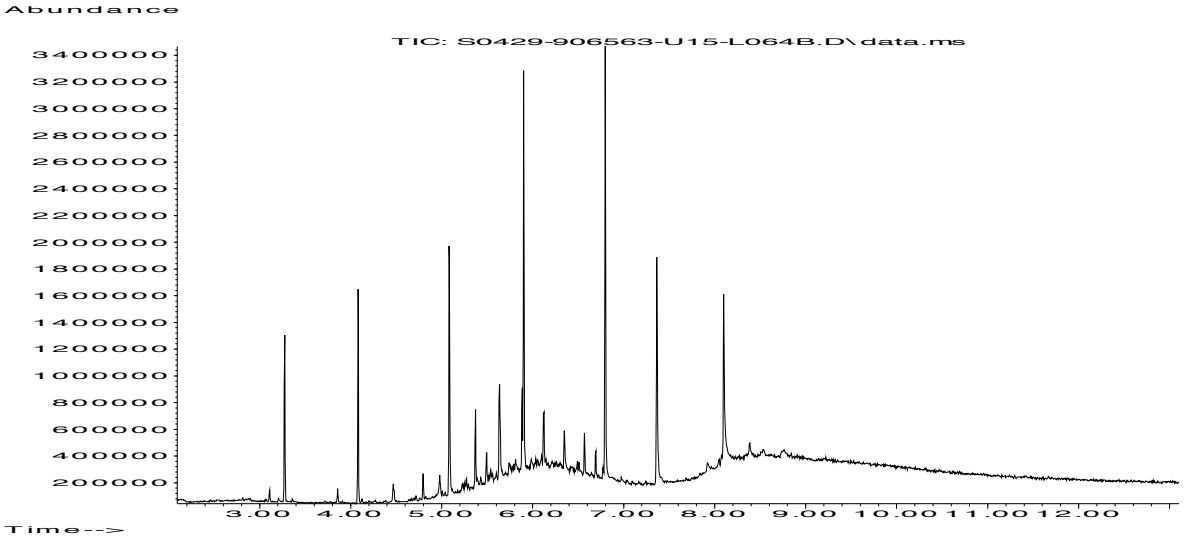
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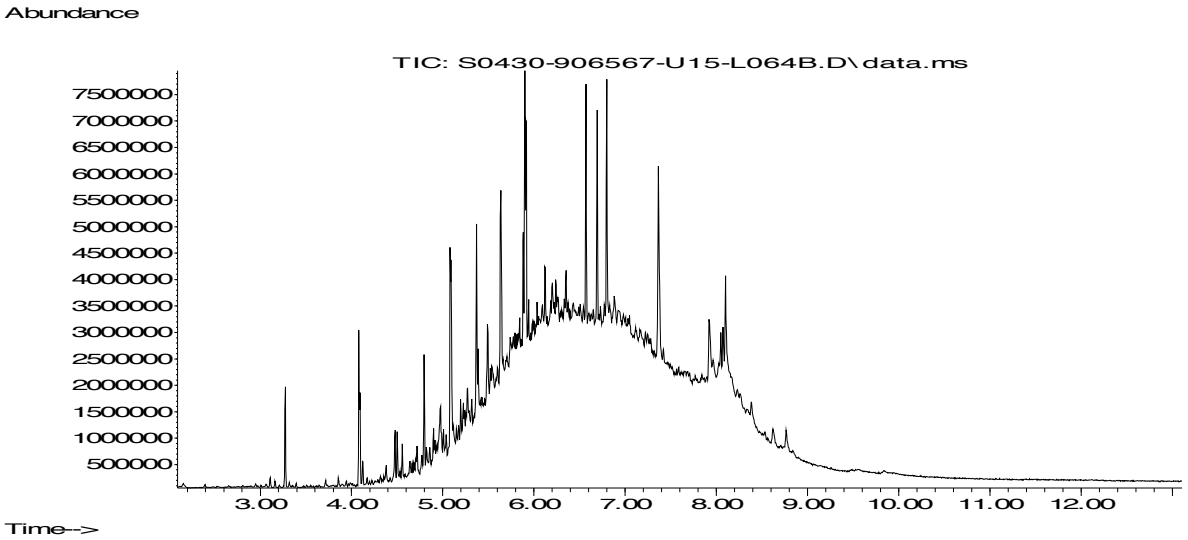
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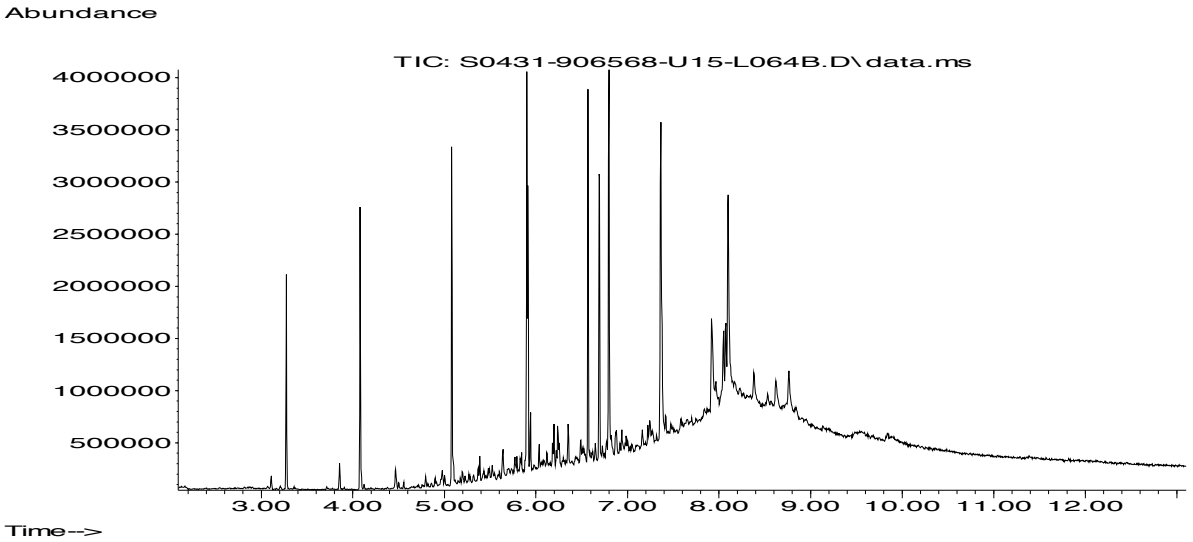
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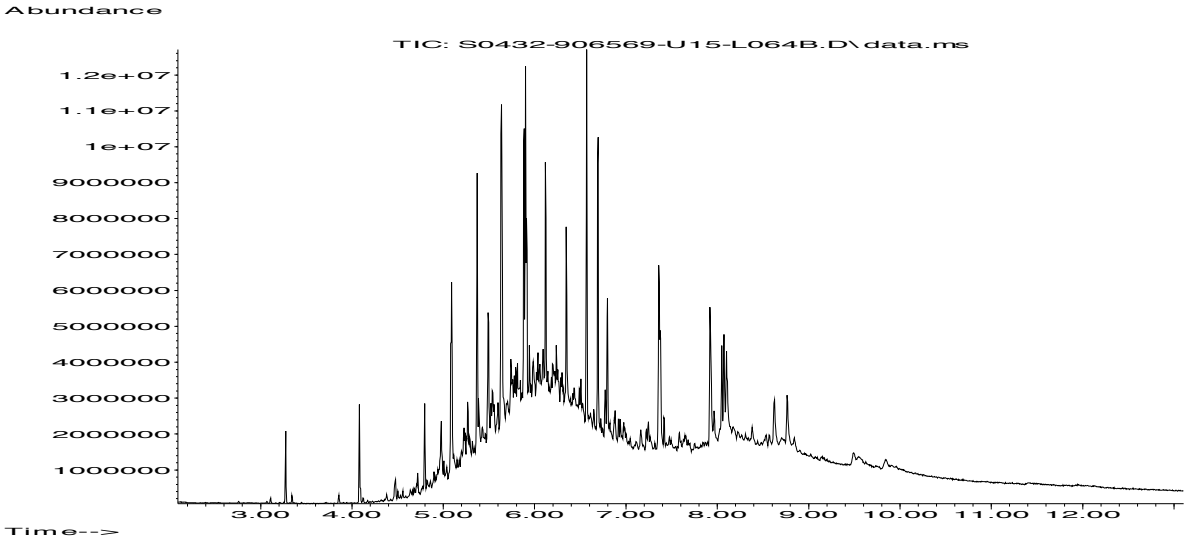
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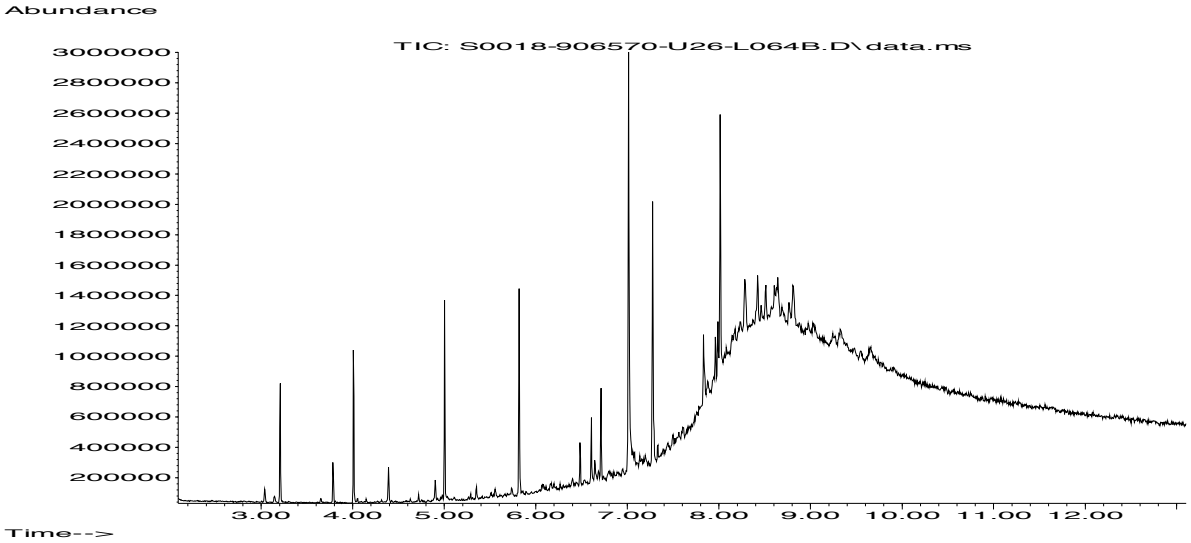
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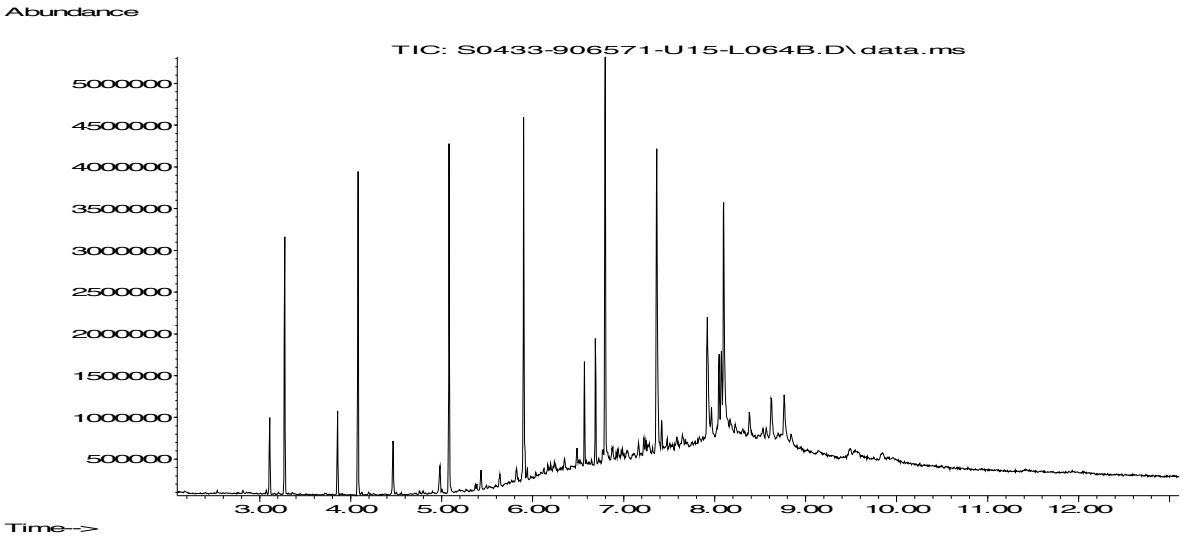
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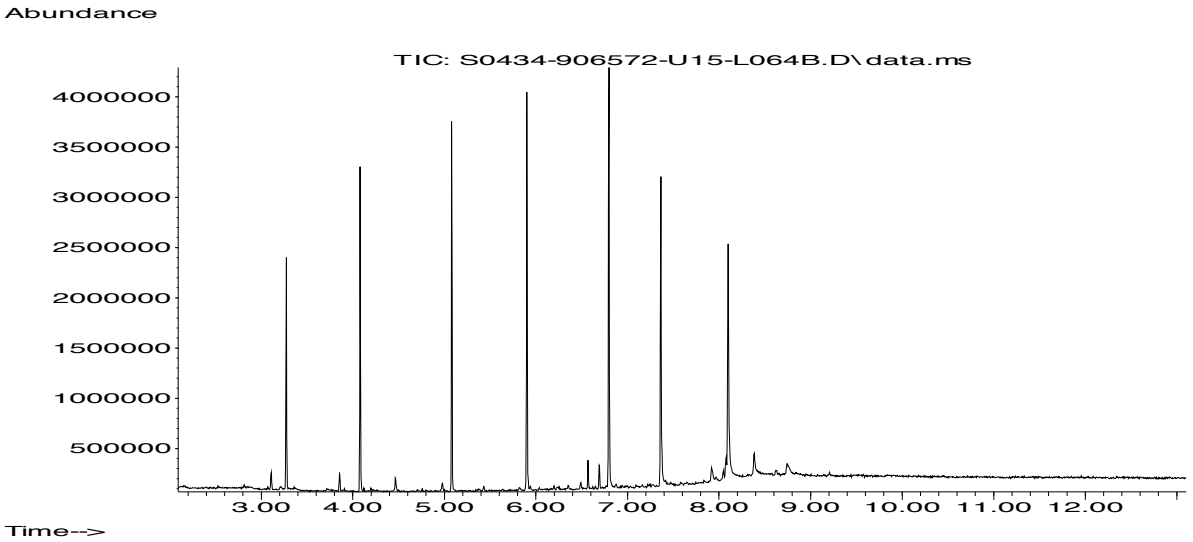
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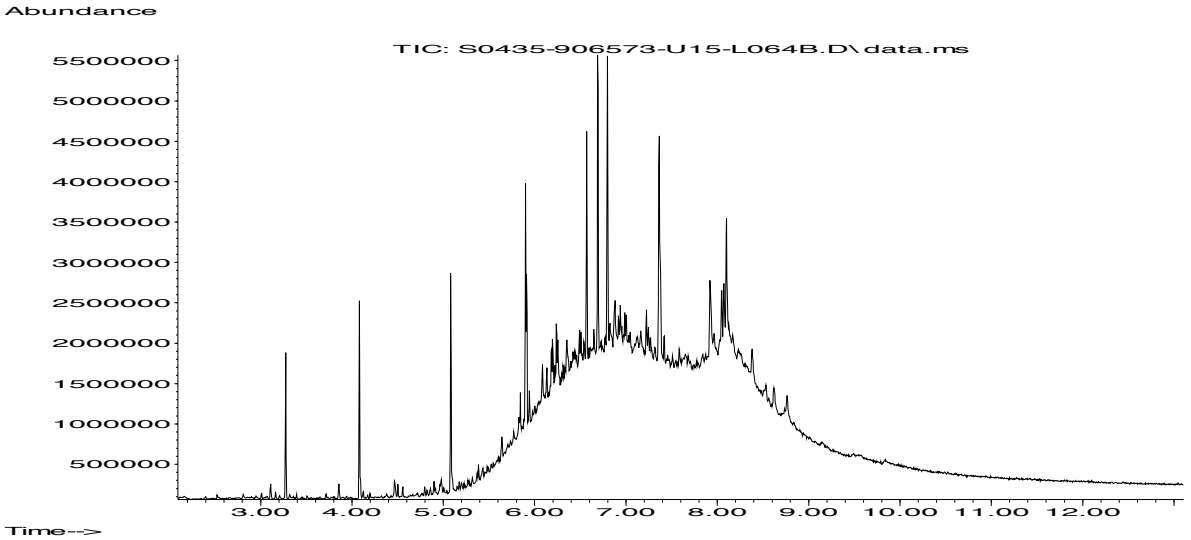
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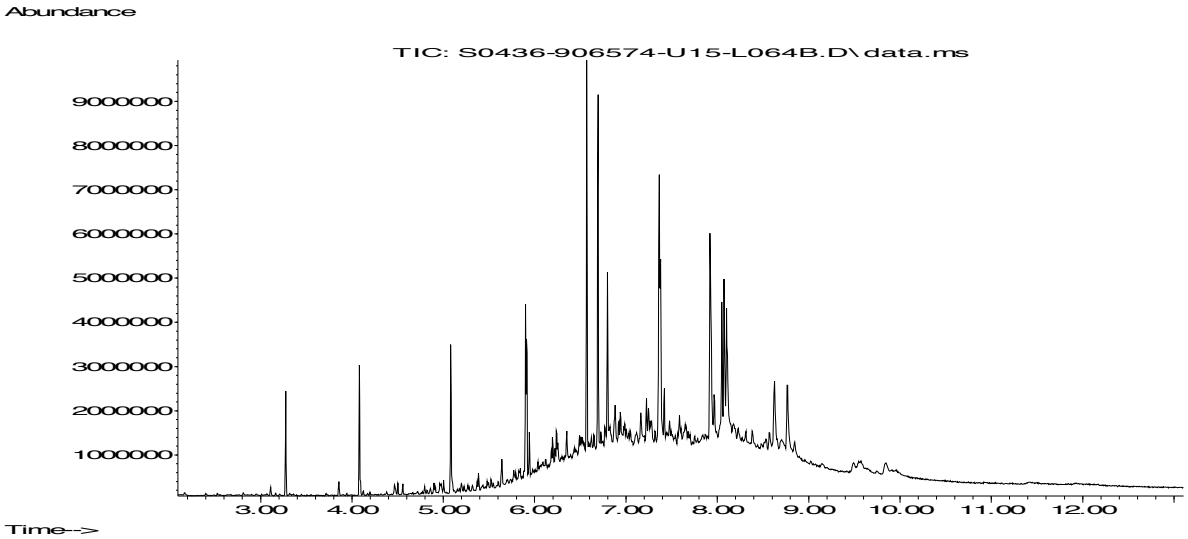
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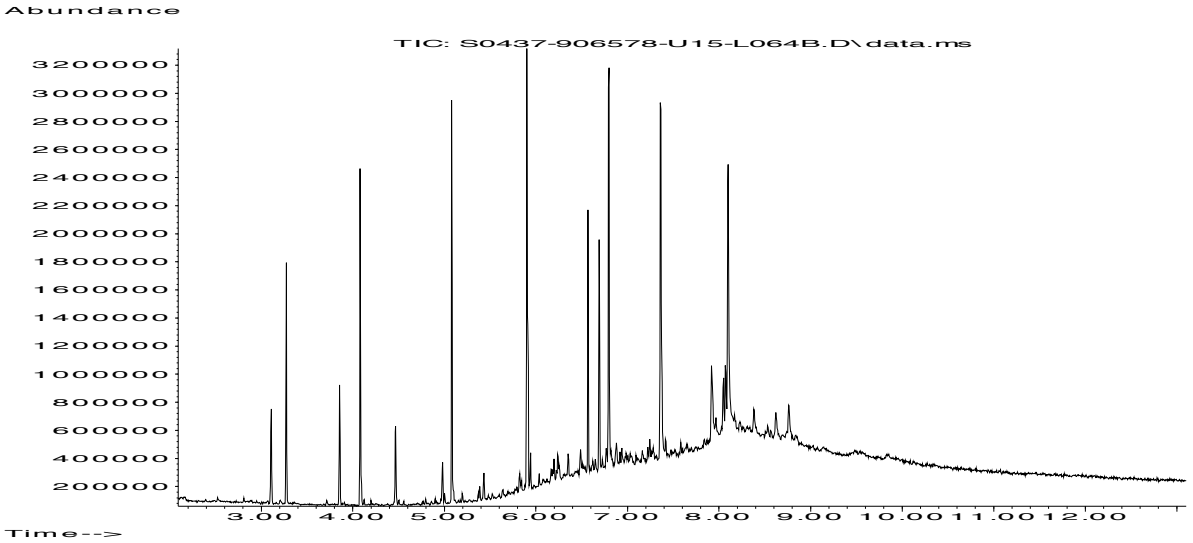
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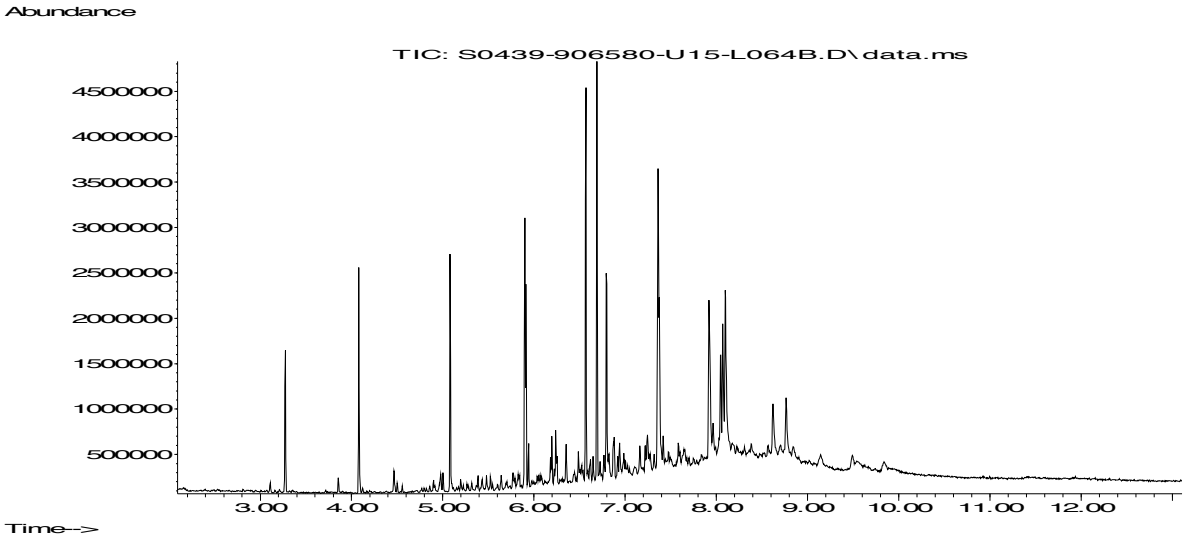
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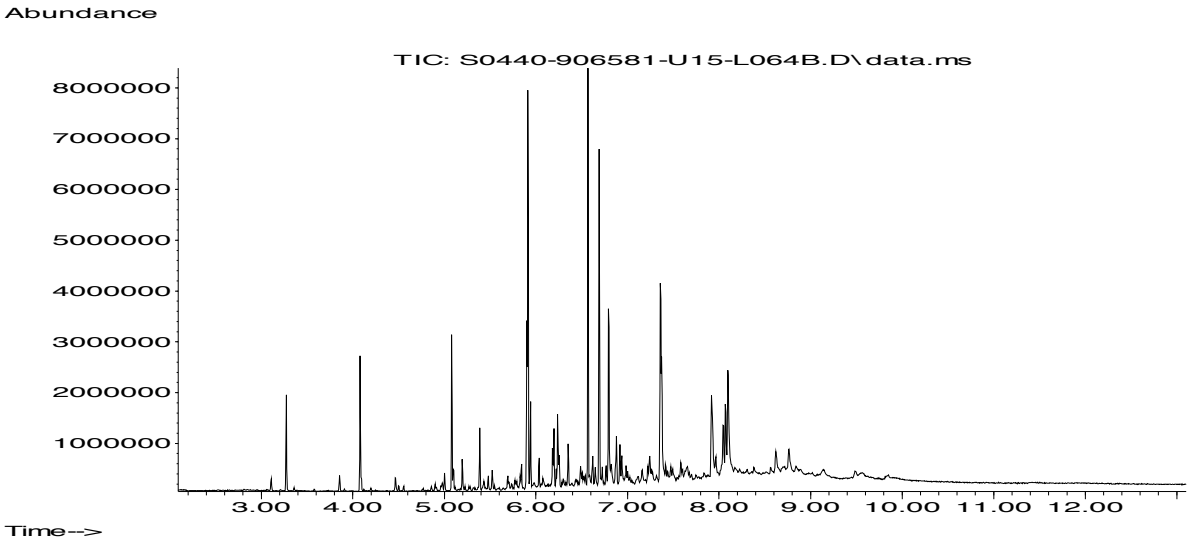
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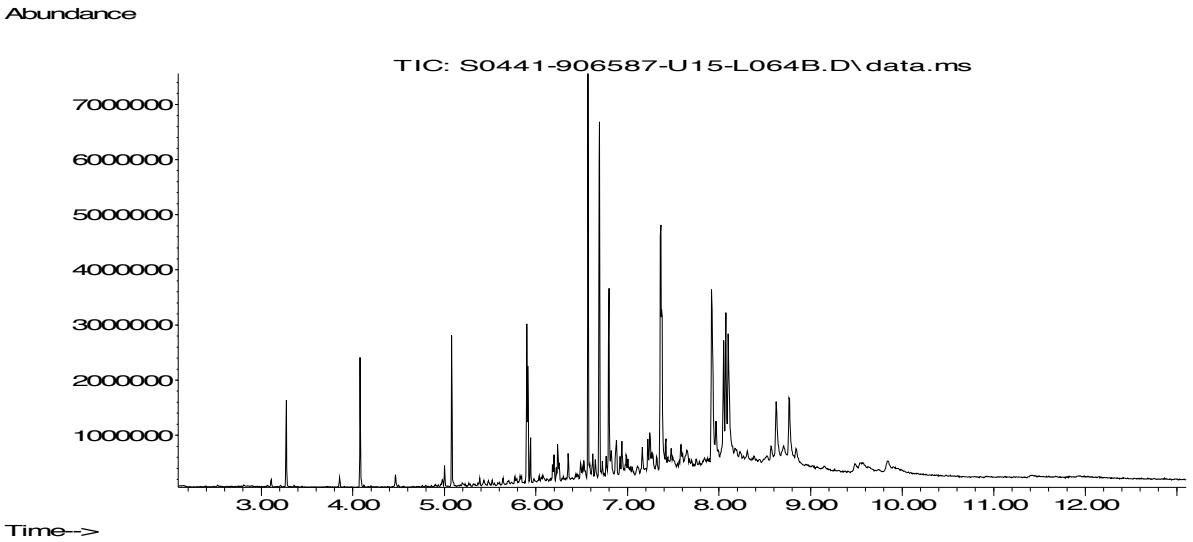
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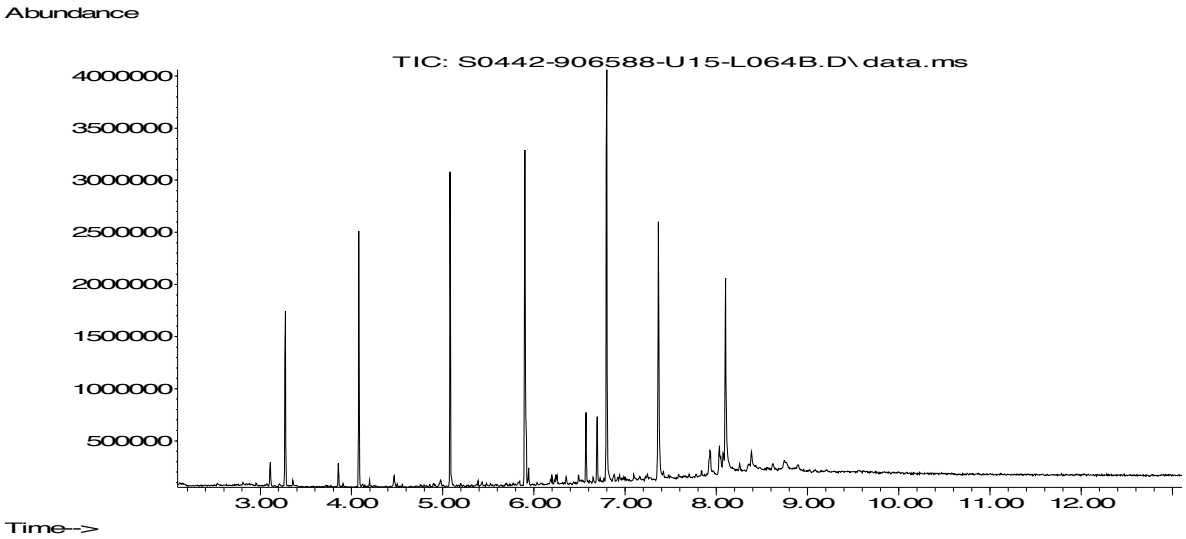
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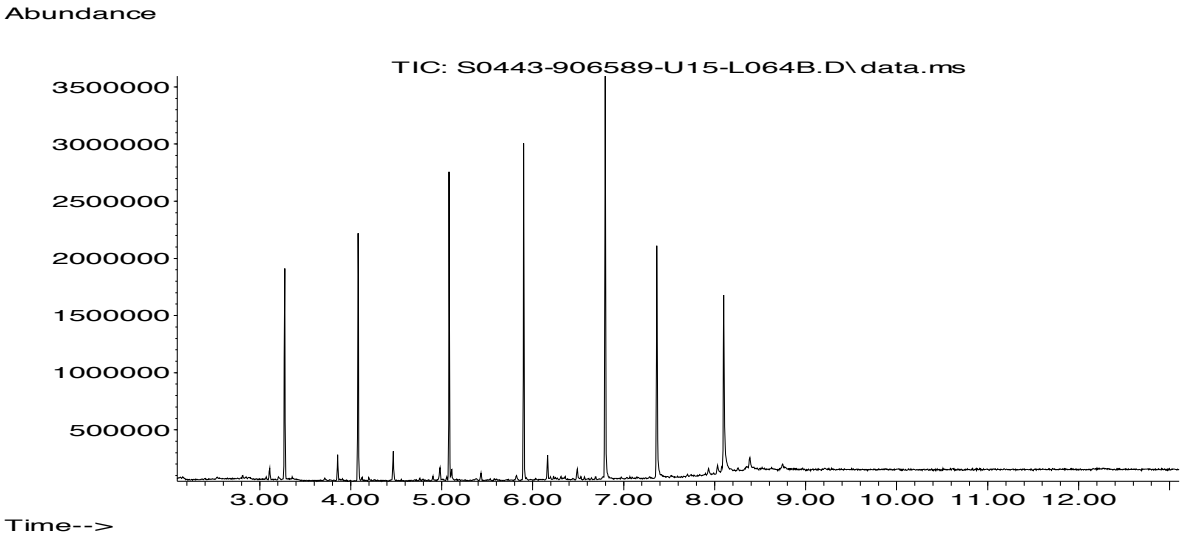
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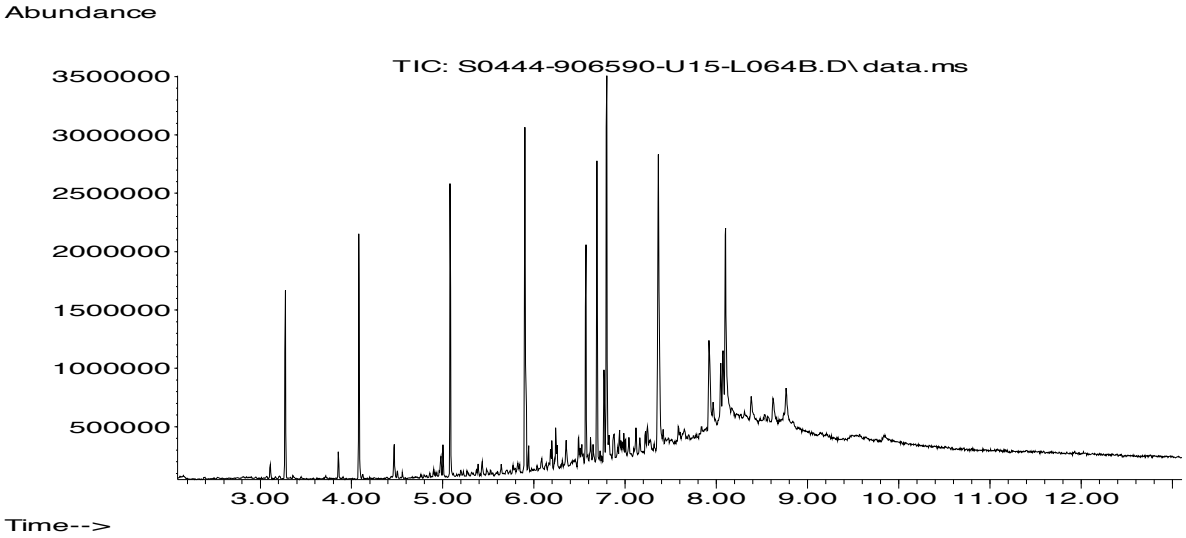
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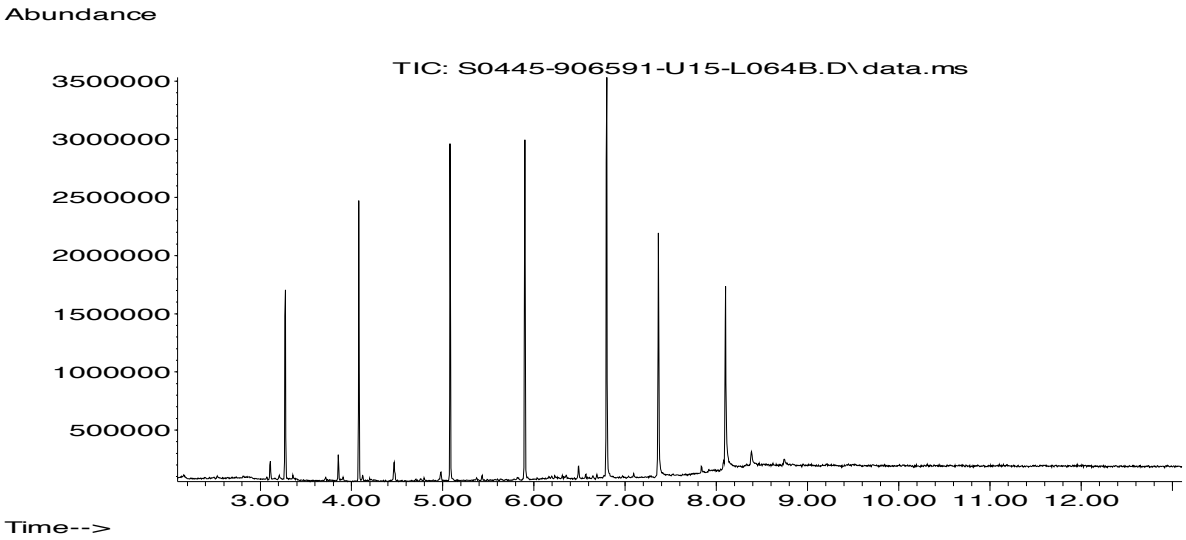
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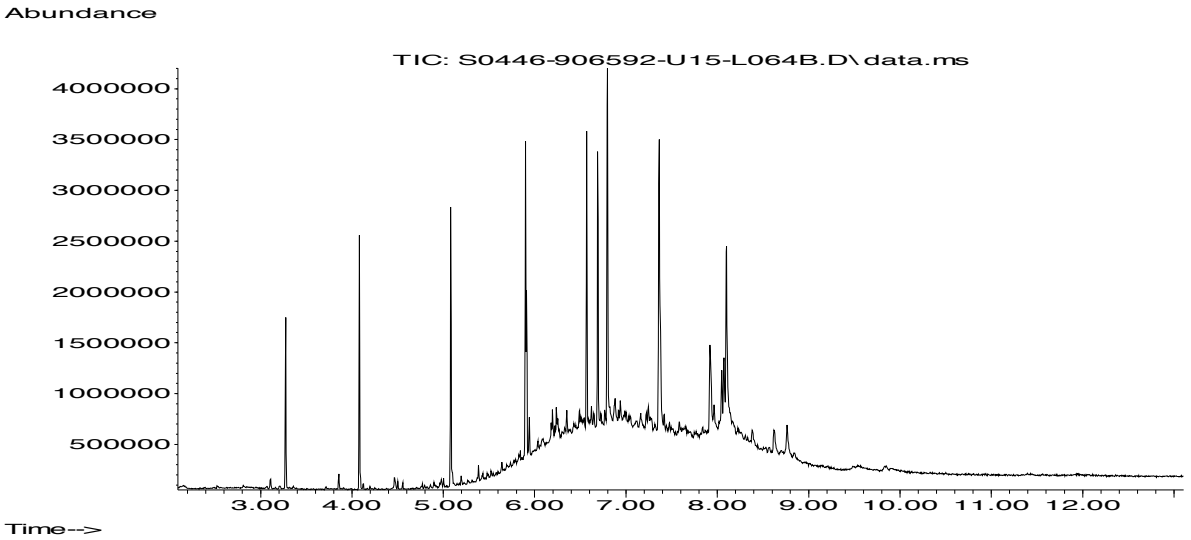
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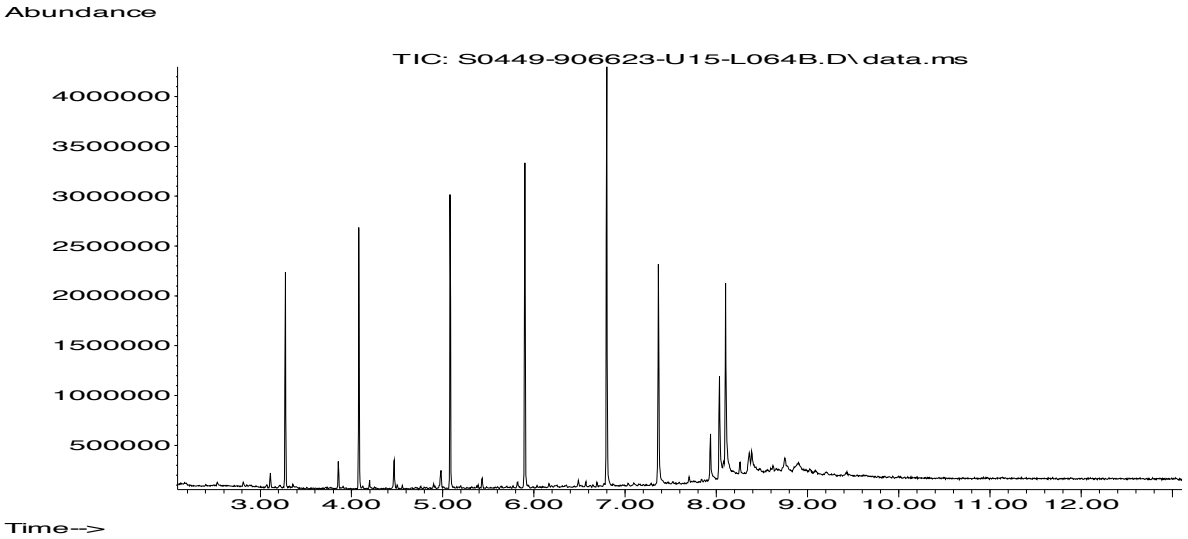
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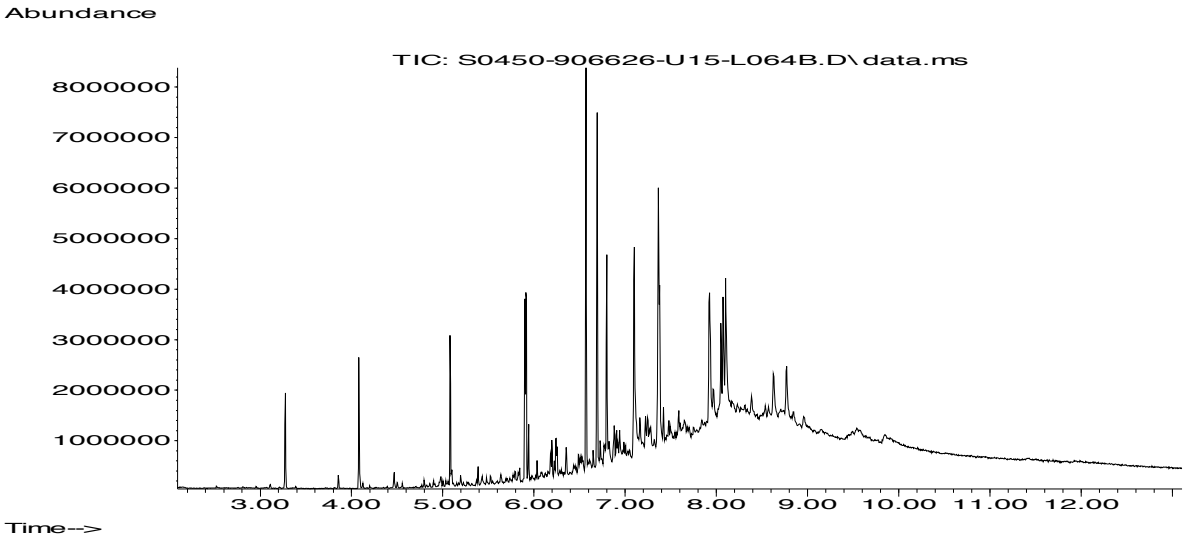
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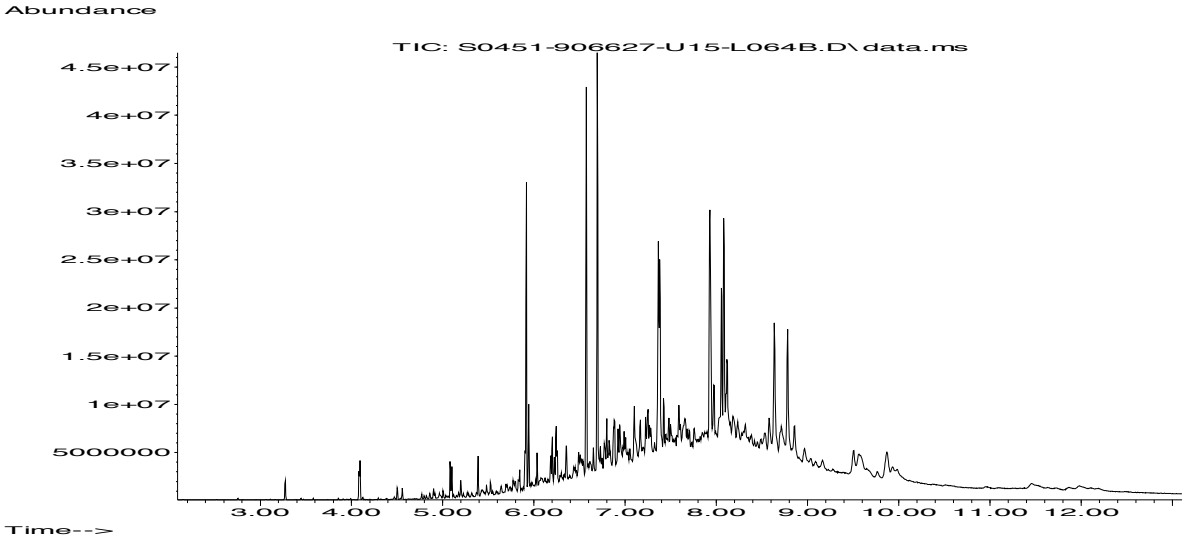
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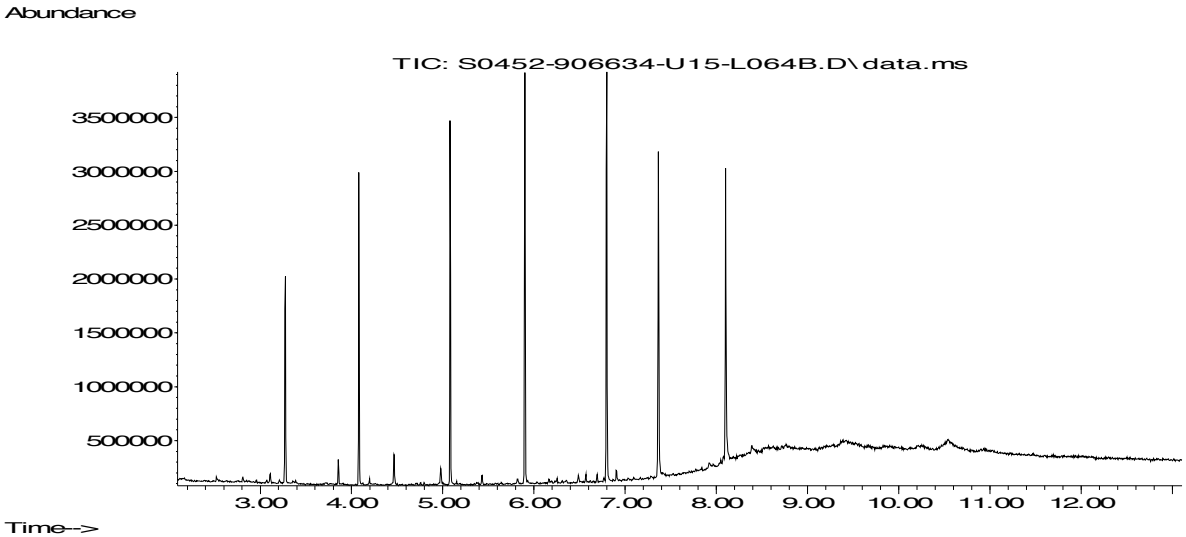
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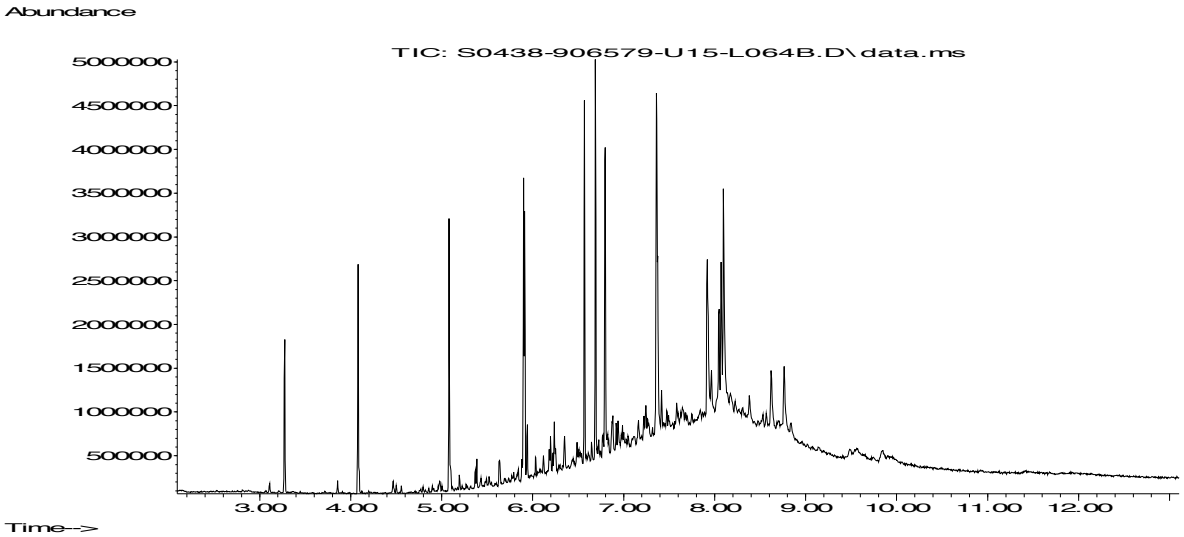
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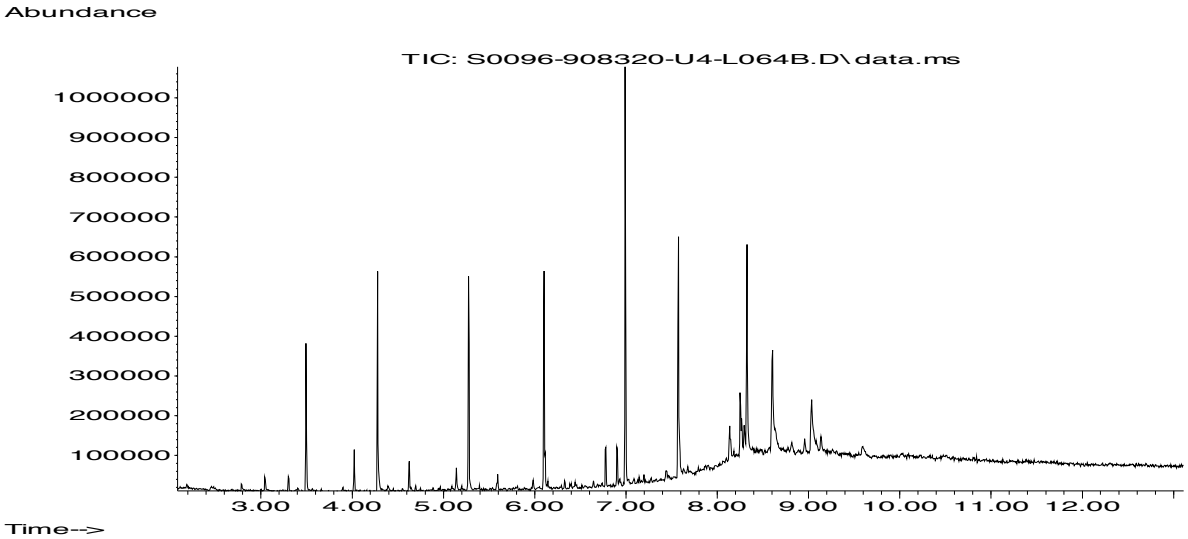
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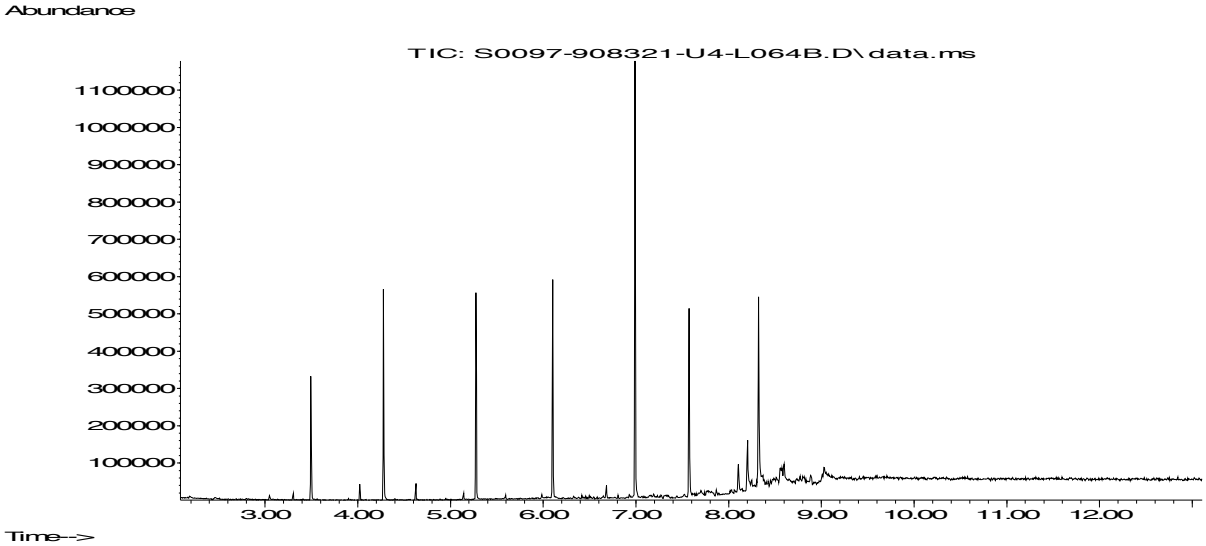
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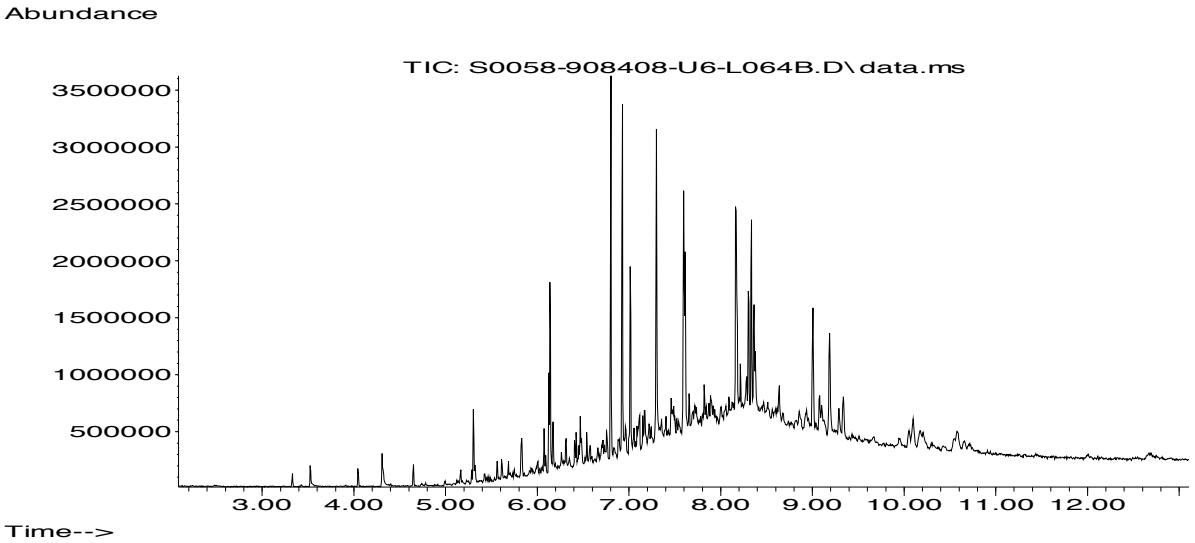
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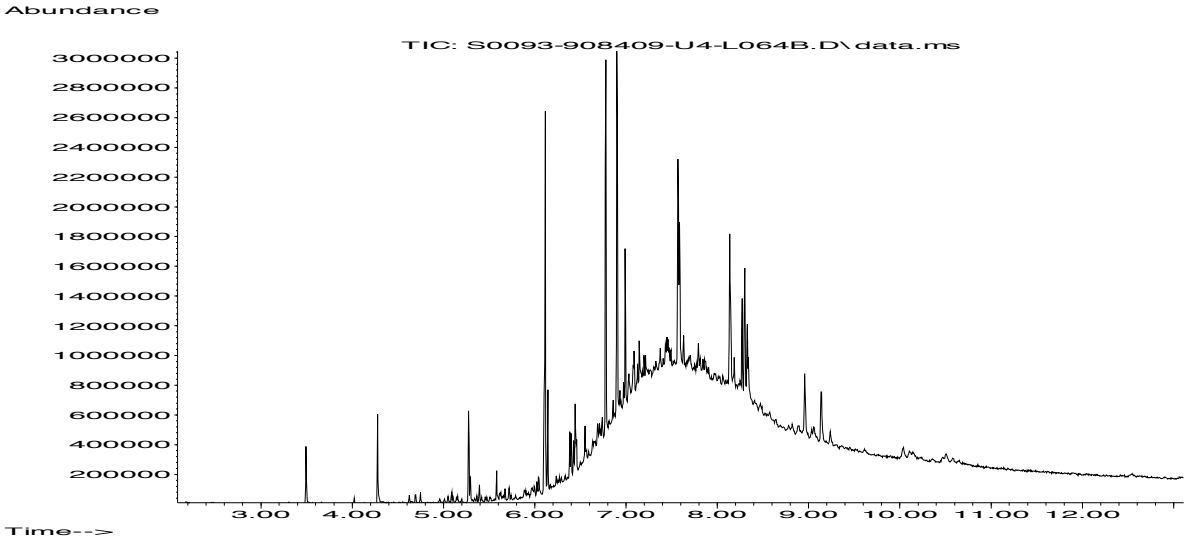
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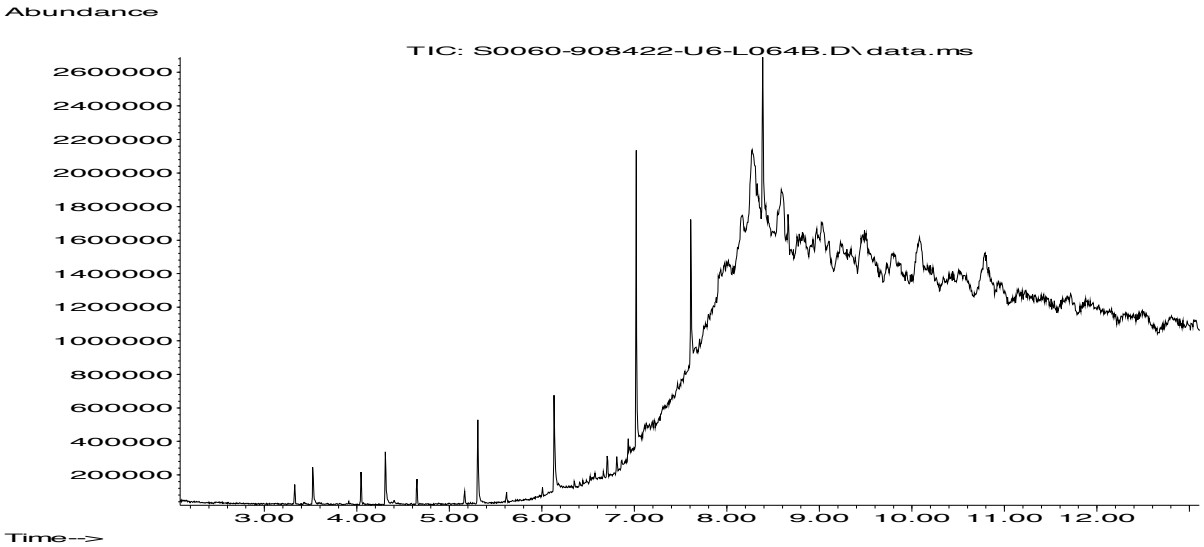
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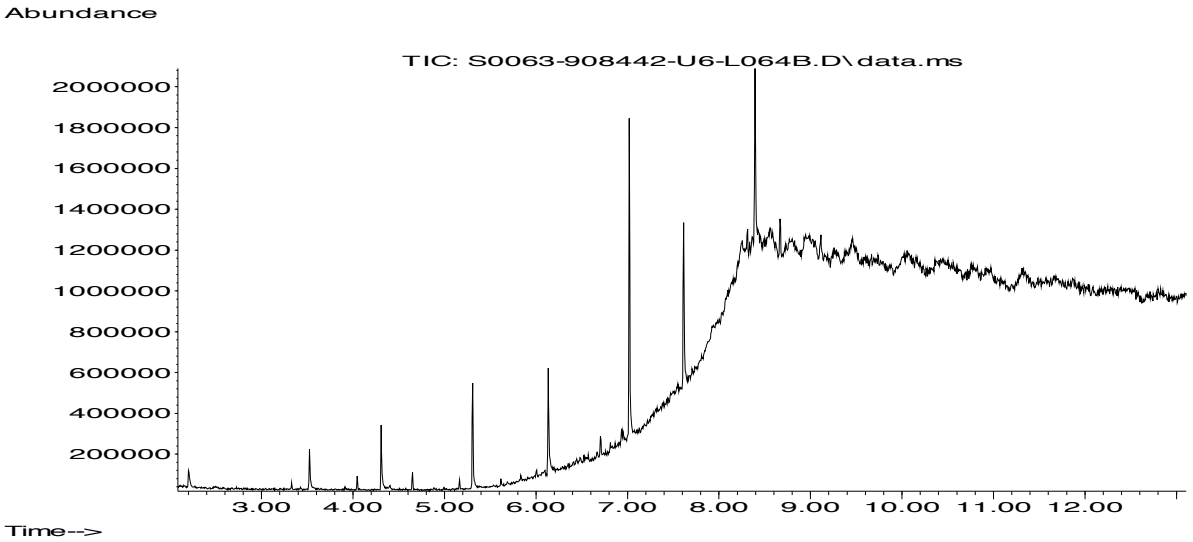
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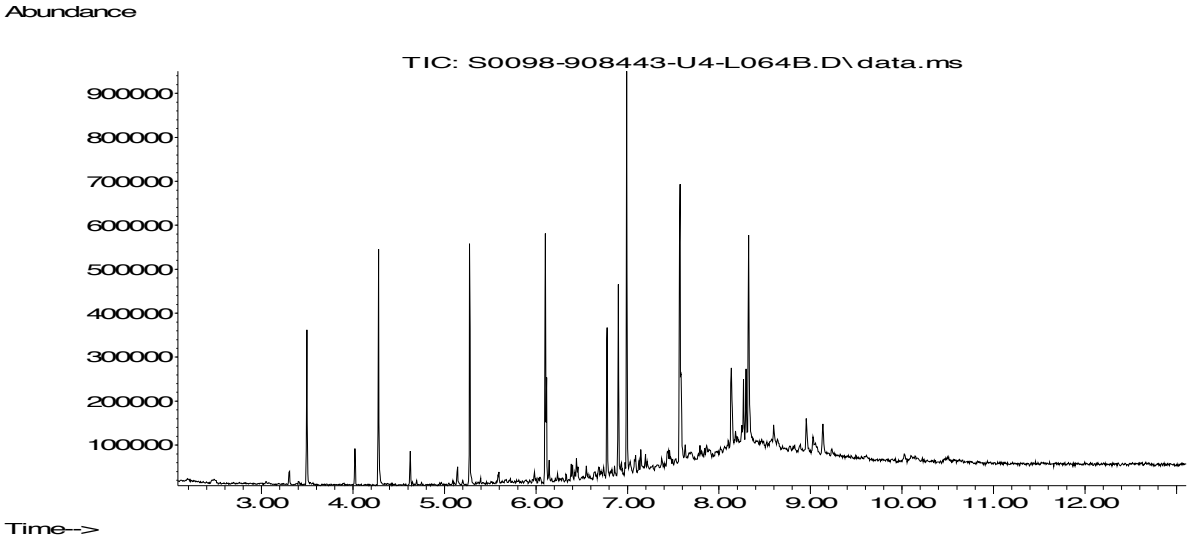
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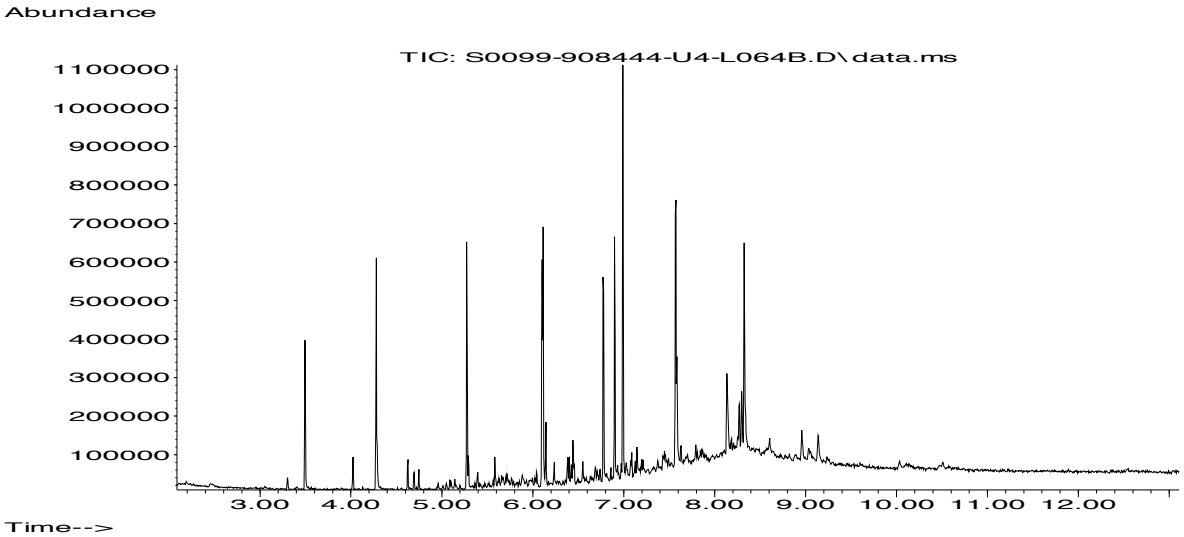
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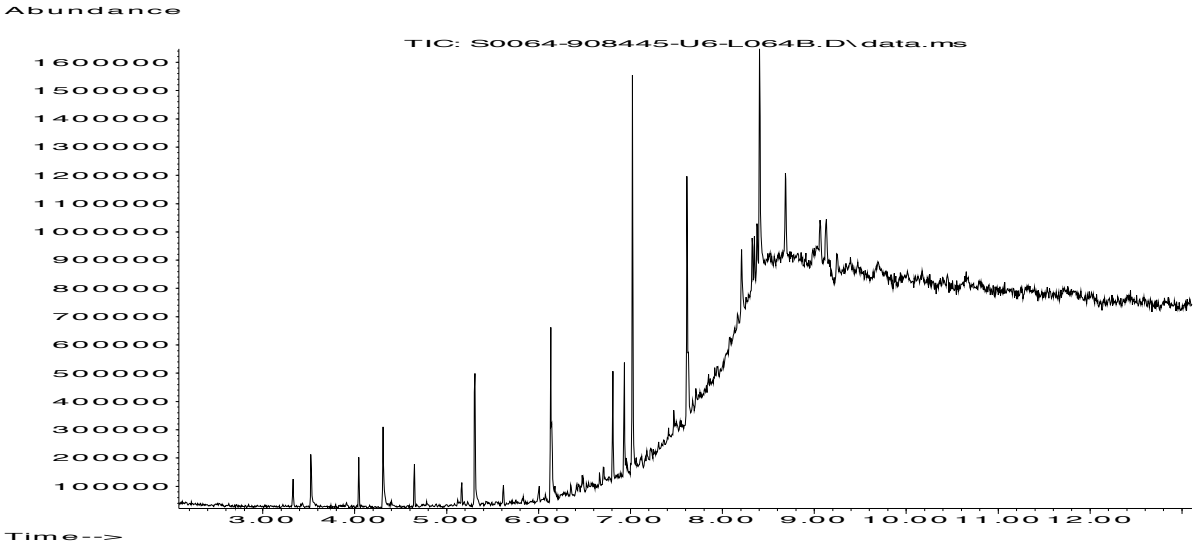
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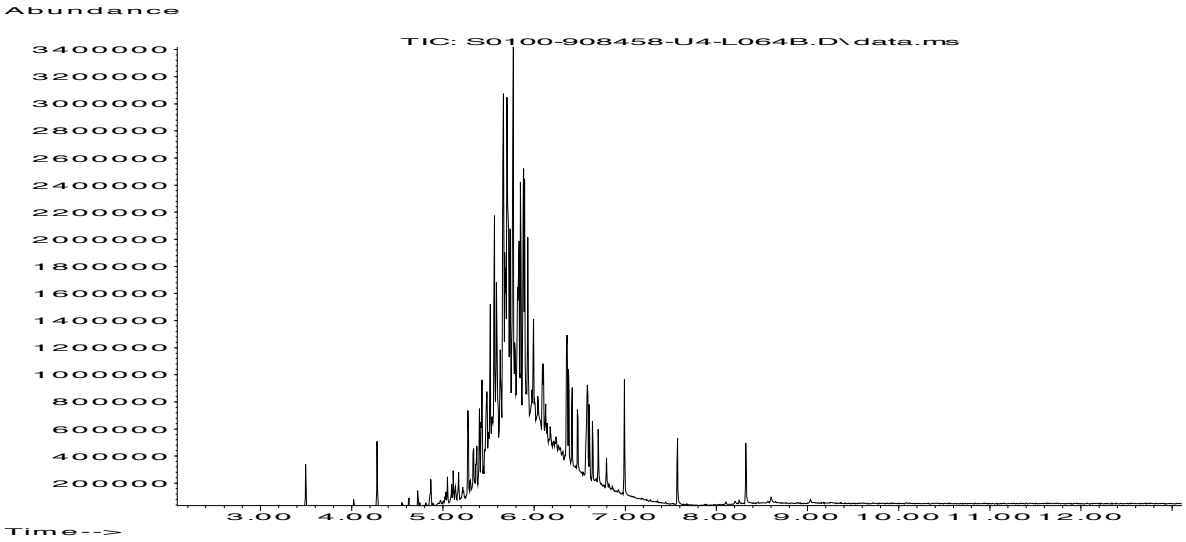
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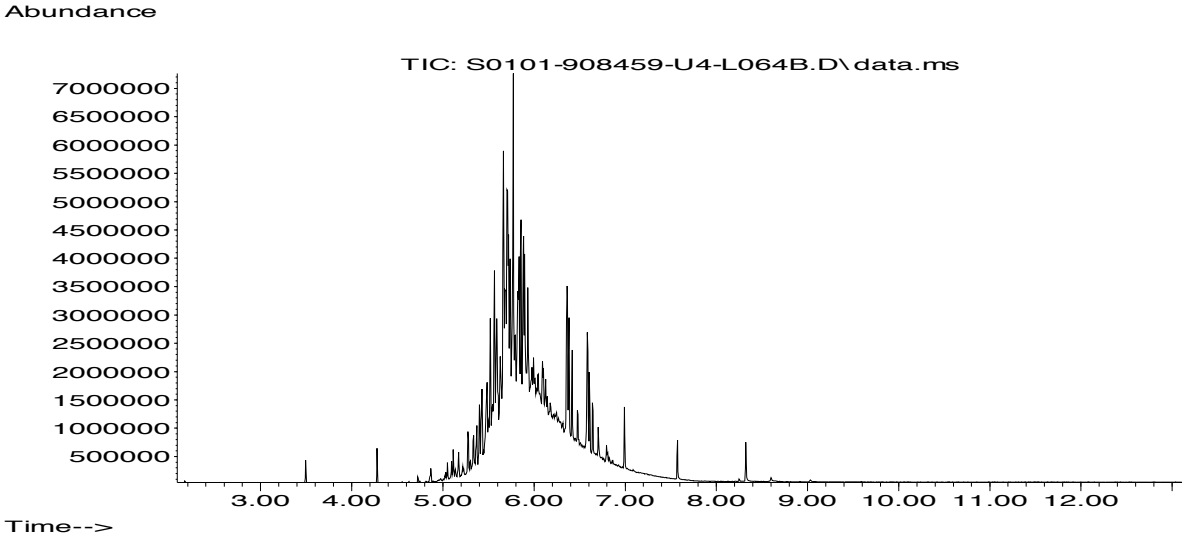
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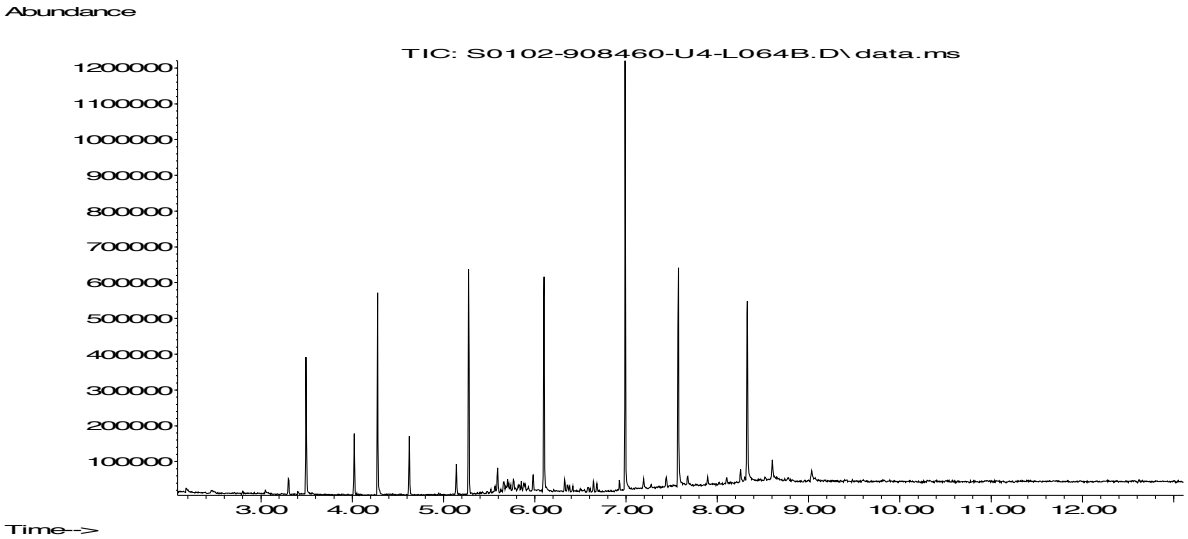
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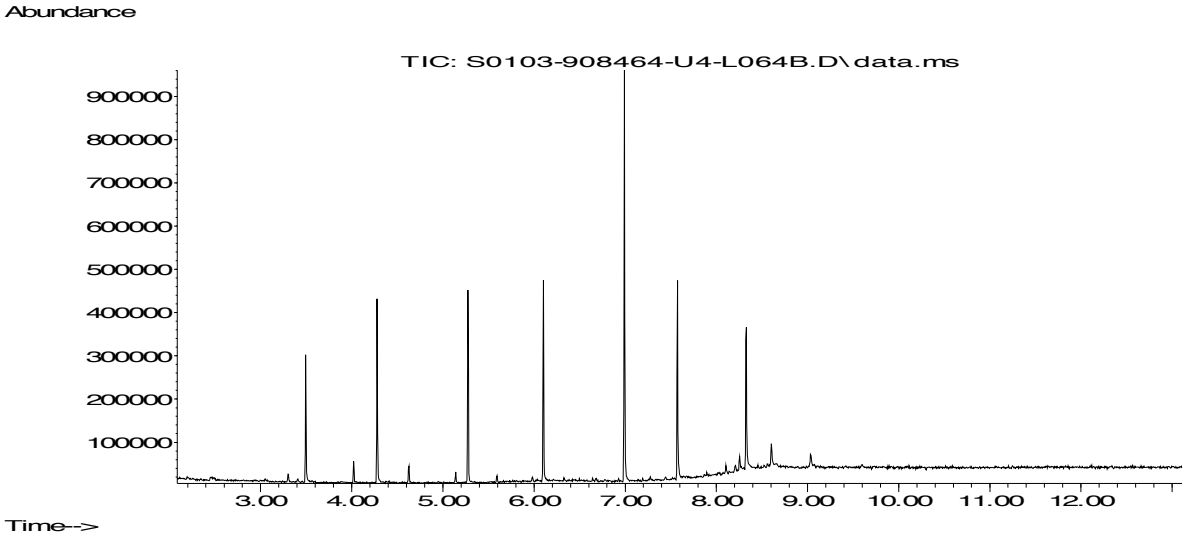
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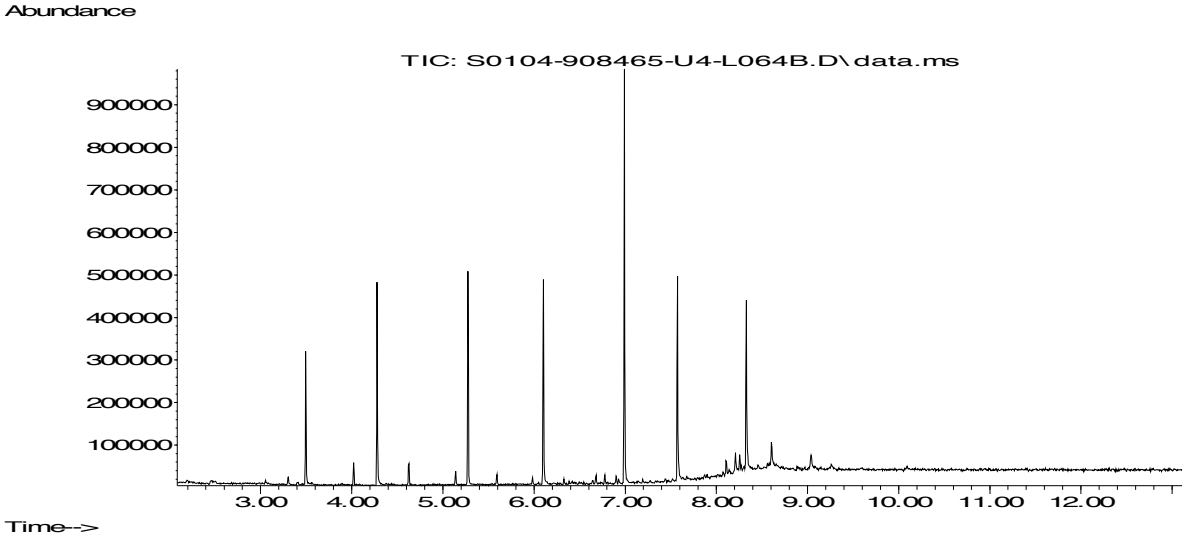
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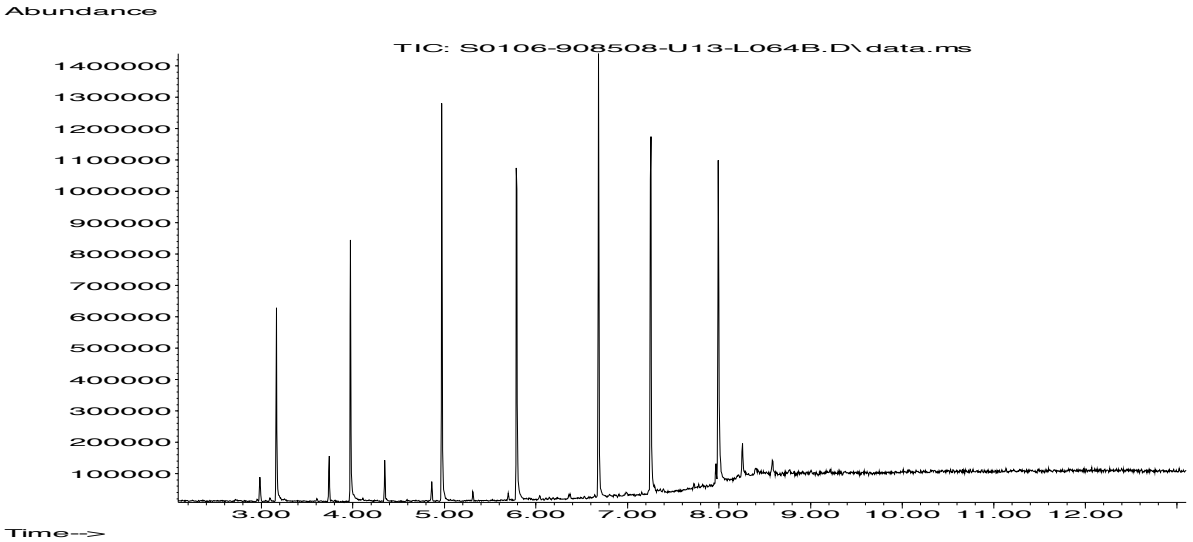
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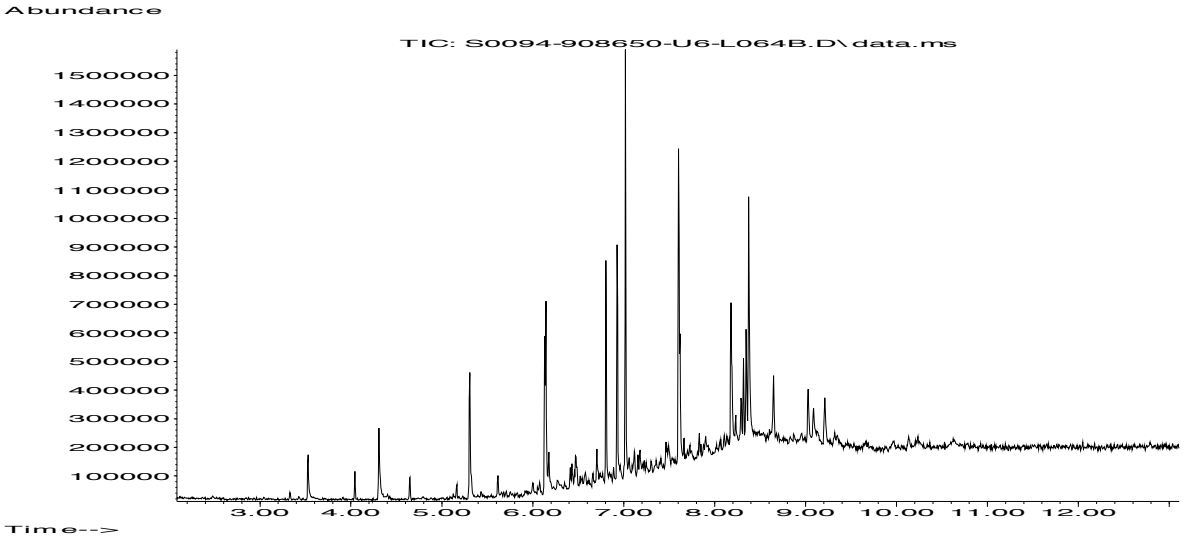
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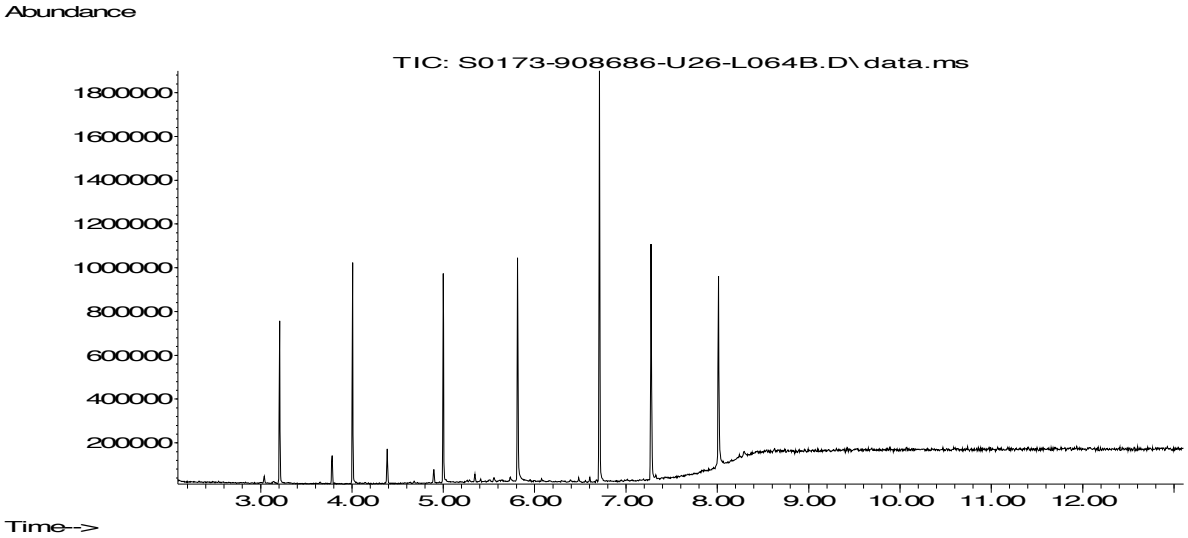
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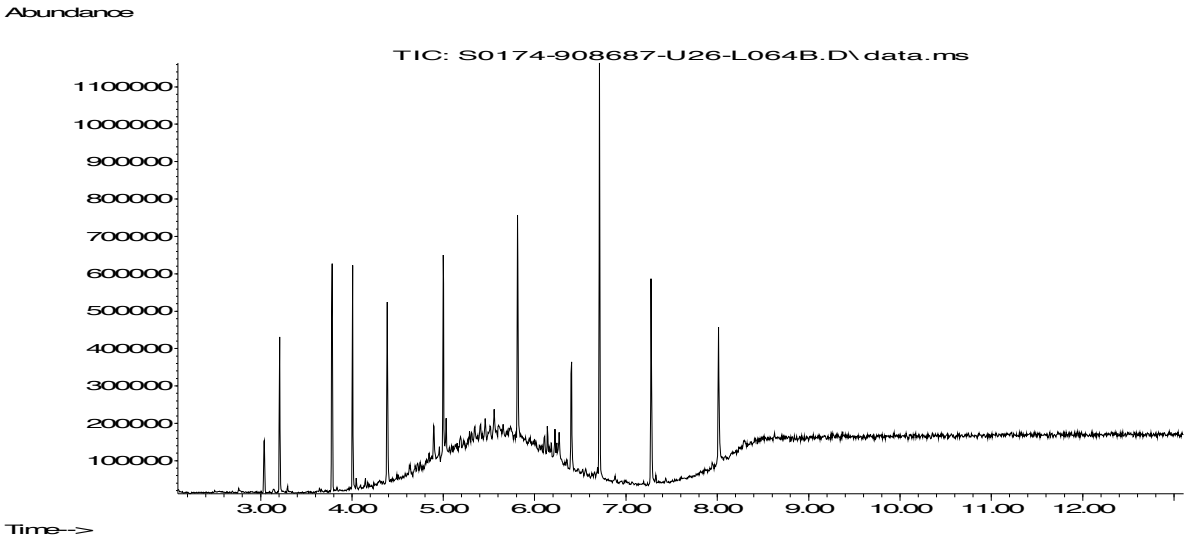
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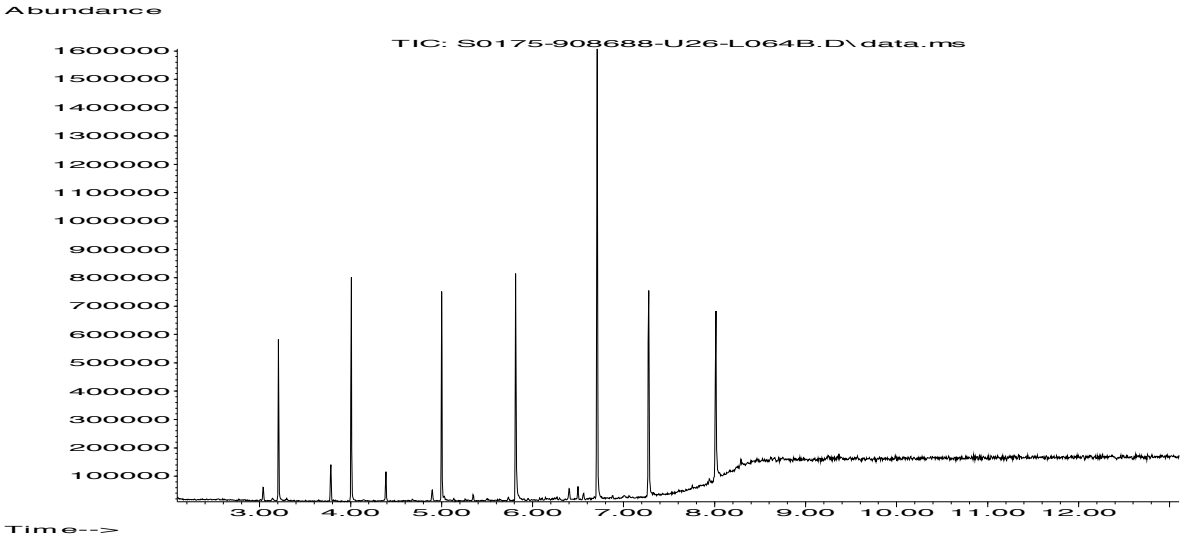
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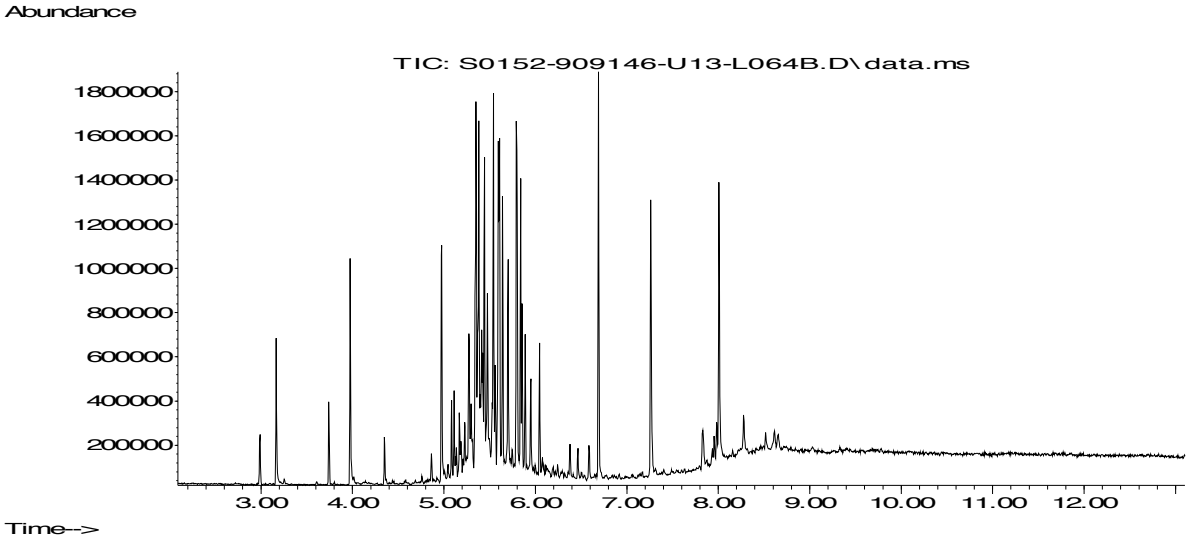
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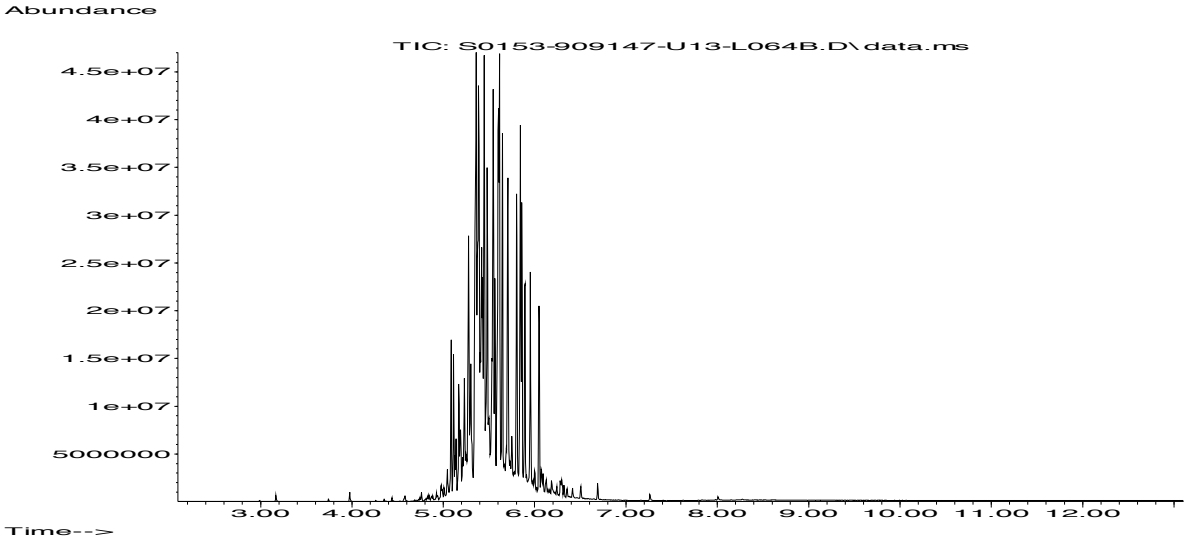
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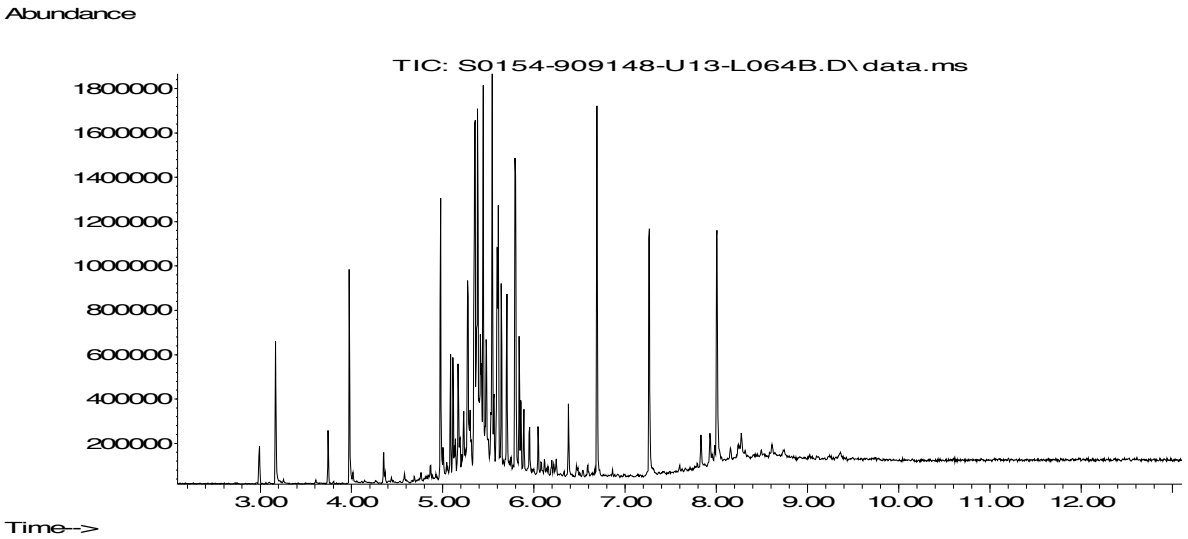
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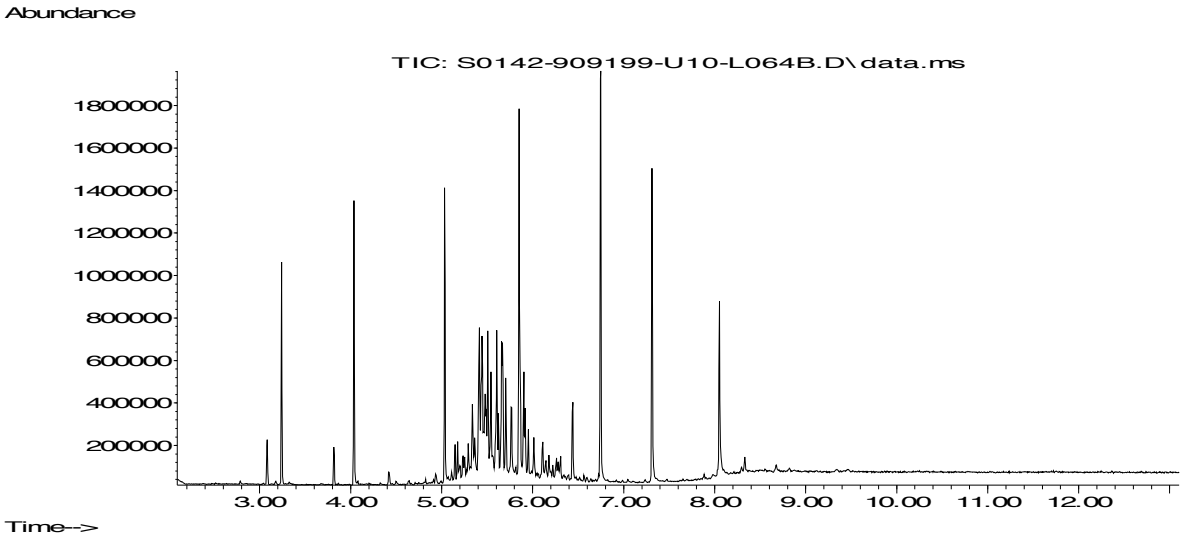
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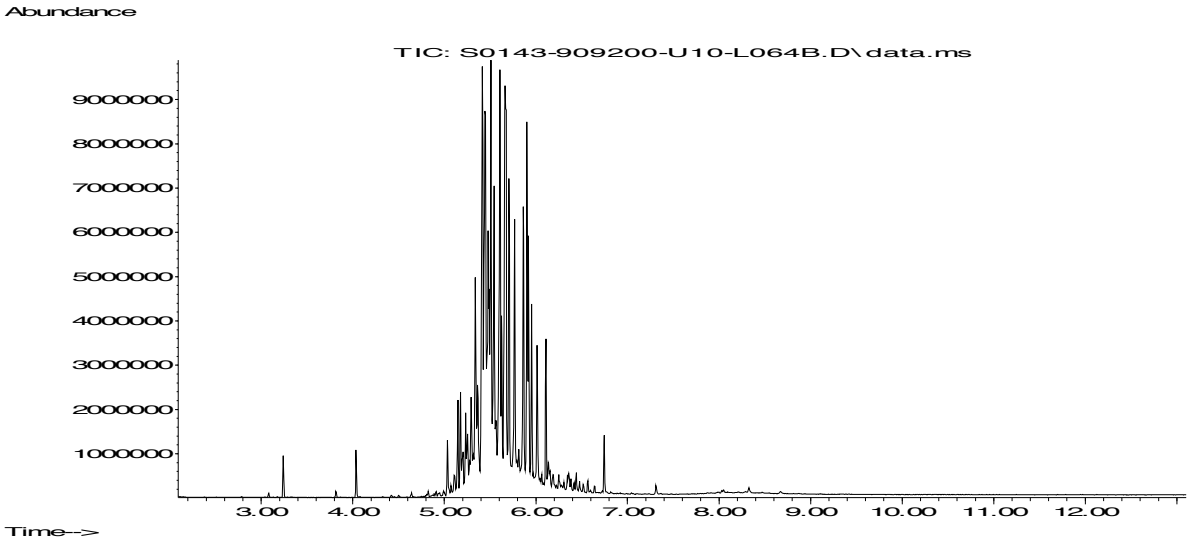
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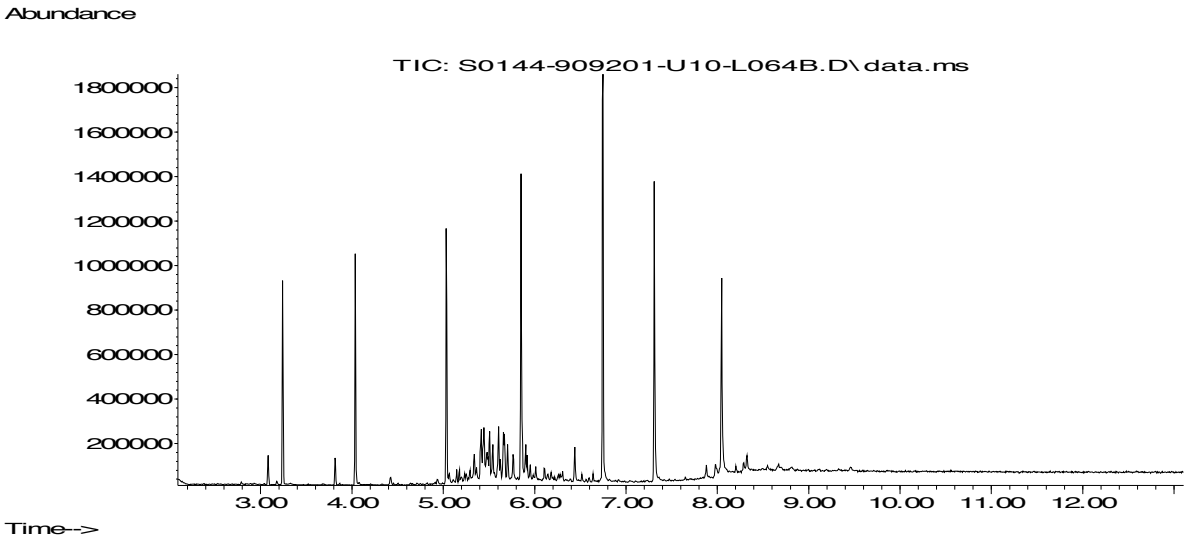
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Jon Ind
CC Ground Investigation Ltd
Unit A2
Innsworth Tech Park
Innsworth Lane
Gloucester
GL3 1DL

t: 01452 739 165
f: 01452 739 220
e: jon@ccground.co.uk

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Watford,
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WD18 8YS

t: 01923 225404
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e: reception@i2analytical.com

Combined Report : SSE Site, Vastern Road - WAC

Project / Site name:	SSE Site, Vastern Road, Reading	**Samples received on:**	05/02/2018
Your job number:	C5925	**Samples instructed on:**	14/02/2018
Your order number:	C5925	**Analysis completed by:**	23/02/2018
Report Issue Number:	1	**Report issued on:**	07/03/2018
Samples Analysed:	10 10:1 WAC samples		

Signed:

Rexona Rahman
Head of Customer Services
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

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email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**Combined Report SSE Site Vastern Road - WAC**						
					Client:	**CCGROUND**	
Location	**SSE Site, Vastern Road, Reading**						
Lab Reference (Sample Number)	908247 / 908248				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	05/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH1003C						
Depth (m)	0.45						
Solid Waste Analysis							
TOC (%)**	2.1				3%	5%	6%
Loss on Ignition (%) **	4.6				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	150				500	--	--
Total PAH (WAC-17) (mg/kg)	32				100	--	--
pH (units)**	8.8				--	>6	--
Acid Neutralisation Capacity (mol / kg)	20				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	0.0110			0.0769	0.5	2	25
Barium *	0.0179			0.125	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0085			0.059	0.5	10	70
Copper *	0.011			0.078	2	50	100
Mercury *	0.0054			0.0379	0.01	0.2	2
Molybdenum *	0.0022			0.0153	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.017			0.12	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0084			0.058	4	50	200
Chloride *	72			500	800	4000	25000
Fluoride	0.19			1.3	10	150	500
Sulphate *	9.0			63	1000	20000	50000
TDS	190			1300	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	3.52			24.6	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.5						
Dry Matter (%)	90						
Moisture (%)	10						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	**Combined Report SSE Site Vastern Road - WAC**						
					Client:	**CCGROUND**	
Location	**SSE Site, Vastern Road, Reading**						
Lab Reference (Sample Number)	908280 / 908281				**Landfill Waste Acceptance Criteria**		
					Limits		
Sampling Date	05/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	BH1004						
Depth (m)	2.00						
Solid Waste Analysis							
TOC (%)**	2.5				3%	5%	6%
Loss on Ignition (%) **	6.7				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	16				100	--	--
pH (units)**	7.7				--	>6	--
Acid Neutralisation Capacity (mol / kg)	4.1				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0074			0.0472	0.5	2	25
Barium *	0.0656			0.416	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0007			0.0046	0.5	10	70
Copper *	0.0054			0.034	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0071			0.0452	0.5	10	30
Nickel *	0.0037			0.023	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0022			0.014	4	50	200
Chloride *	36			230	800	4000	25000
Fluoride	0.53			3.3	10	150	500
Sulphate *	9.7			62	1000	20000	50000
TDS	240			1500	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	12.7			80.6	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	2.0						
Dry Matter (%)	62						
Moisture (%)	38						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accrediited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**Combined Report SSE Site Vastern Road - WAC**						
					Client:	**CCGROUND**	
Location	**SSE Site, Vastern Road, Reading**						
Lab Reference (Sample Number)	908329 / 908330				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	08/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS013						
Depth (m)	0.60						
Solid Waste Analysis							
TOC (%)**	0.9				3%	5%	6%
Loss on Ignition (%) **	2.8				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	200				500	--	--
Total PAH (WAC-17) (mg/kg)	99				100	--	--
pH (units)**	10.6				--	>6	--
Acid Neutralisation Capacity (mol / kg)	40				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1			10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
	mg/l			mg/kg			
Arsenic *	< 0.0011			< 0.0110	0.5	2	25
Barium *	0.0939			0.784	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0043			0.036	0.5	10	70
Copper *	0.0052			0.043	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0028			0.0235	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0080			0.067	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.012			0.10	4	50	200
Chloride *	26			220	800	4000	25000
Fluoride	0.14			1.2	10	150	500
Sulphate *	20			170	1000	20000	50000
TDS	170			1400	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.61			38.5	500	800	1000
Leach Test Information							
Stone Content (%)	63						
Sample Mass (kg)	1.7						
Dry Matter (%)	96						
Moisture (%)	4.3						

Results are expressed on a dry weight basis, after correction for moisture content where applicable. *= UKAS accredited (liquid eluate analysis only)

Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation ** = MCERTS accrediited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	**Combined Report SSE Site Vastern Road - WAC**						
					Client:	**CCGROUND**	
Location	**SSE Vastern Road, Reading**						
Lab Reference (Sample Number)	908417 / 908418				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	07/02/2018				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS1002						
Depth (m)	1.70						
Solid Waste Analysis							
TOC (%)**	7.3				3%	5%	6%
Loss on Ignition (%) **	13.9				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	12000				500	--	--
Total PAH (WAC-17) (mg/kg)	940				100	--	--
pH (units)**	8.1				--	>6	--
Acid Neutralisation Capacity (mol / kg)	11				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0092			0.0658	0.5	2	25
Barium *	0.0334			0.240	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	< 0.0004			< 0.0040	0.5	10	70
Copper *	0.0078			0.056	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.134			0.961	0.5	10	30
Nickel *	0.0040			0.029	0.4	10	40
Lead *	0.0021			0.015	0.5	10	50
Antimony *	0.034			0.24	0.06	0.7	5
Selenium *	0.0069			0.050	0.1	0.5	7
Zinc *	0.0024			0.017	4	50	200
Chloride *	8.1			58	800	4000	25000
Fluoride	0.36			2.6	10	150	500
Sulphate *	49			350	1000	20000	50000
TDS	150			1100	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	9.19			66.0	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.97						
Dry Matter (%)	78						
Moisture (%)	22						

Results are expressed on a dry weight basis, after correction for moisture content where applicable. *= UKAS accredited (liquid eluate analysis only)

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