Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

Weighbridge Road, Deeside Industrial Park, Flintshire, CH5 2LW

Prepared by:

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SLR Project No.: 410.065169.00001

23 August 2024

Revision: 01

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	23 August 2024	ML	PW	PW

Basis of Report

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Table of Contents

Appendices

1.0 Introduction

SLR Consulting Ltd (SLR) has been instructed by Shotton Mill Ltd (the Operator) to prepare a Site Condition Report (SCR) Addendum in support of the Environmental Permit (EP) for the facility at Shotton Paper Mill, Weighbridge Road, Deeside Industrial Park, Flintshire, CH5 2LW (the Installation).

The location and boundary of the installation is shown on Figure 1 and Figure 2 in Appendix A.

1.1 Background

The facility is operated by Shotton Mill Ltd (SML) under Environment Permit ref; EPR/BT4885IT. The permit was transferred from the previous operators, UPM-Kymmene (UK) Limited, on 04 February 2021 following acquisition of the facility by SML. The EP allowed the site to produce newsprint, operate combustion plant, operate a biomass power plant and operate an effluent treatment plant (ETP).

Following acquisition of the facility, SML are undertaking redevelopment of the paper mill for a containerboard manufacturing plant. This has required demolition of Paper Mill 1 (PM1) and associated groundworks and piling for the construction of the new facility identified as Paper Mill 3 (PM3). This has been undertaken in accordance with planning consent (ref; FUL/000011/22). The redevelopment of the site means the EP needs to be 'varied' to include new operations on site including, the production of containerboard and tissue, operation of a Combined Heat and Power (CHP) plant and operation of a new effluent treatment plant (ETP).

The EP is regulated by Natural Resources Wales (NRW), and in pre-application discussions with NRW it has been confirmed that the SCR can take the form of an Addendum to the existing permit application report(s) as there is no change to the installation boundary. NRW has recommended that the Addendum includes, but is not limited to, an overview of the work that has been completed as part of redevelopment with a commitment to fully update the SCR within a suitable time period.

1.2 SCR Addendum

The EP is regulated by NRW under the Environmental Permitting (England and Wales) Regulations 2016 (as amended).

This Addendum has been prepared in accordance with the NRW's H5 Guidance for applicants on the preparation of an SCR[1]. The objective of the SCR is to record and describe the condition of the land at the facility at the time of the permit application. The SCR will provide a point of reference and baseline environmental data so that when the permit is surrendered it can be demonstrated that there has been no deterioration in the condition of the land as a result of the proposed operations, and ensure that the condition of the land is in a 'satisfactory state' on surrender of the permit.

Sections 1 to 3 of NRW's SCR template have been provided within this document, which comprises the following:

- Site details;
- Condition of the land at permit issue;
    - Geology

[1] https://naturalresources.wales/permits-and-permissions/environmental-permits/horizontal-guidance/?lang=en

    - Hydrogeology
    - Hydrology
- Pollution history;
- Evidence of historical contamination; and
- Permitted activities.

Section 4 to 7 of the SCR template have been partially completed within this document and will be maintained for the remainder of the permit and Sections 8 to 10 will be completed and submitted in support of the application to surrender the permit.

2.0 Site Condition Report

The following sections 1 to 3 have been completed using NRW's SCR template.

1.0 Site Details	
Name of Applicant	Shotton Mill Ltd
Activity address	Weighbridge Road, Deeside Industrial Park, Flintshire, CH5 2LL
National grid reference	SJ 30405 71545

Document reference and dates for Site Condition Report at permit application and surrender	• Integrated Pollution Prevention & Control (IPPC) Phase 1A Desk Study Site Report for Shotton Paper Company. Prepared by Smith Grant Partnership, Ref: R445-R01, January 2001 • Integrated Pollution Prevention & Control (IPPC) Conceptual Model for Shotton Paper Company. Prepared by Smith Grant Partnership, Ref: R445-R02, May 2002.

Document references for site plans (including location and boundaries)	See Appendix A: Figure 1 – Site Location Figure 2 – Site Layout Figure 3 – Surface Water Features Figure 4 – Inferred Groundwater Flow Contours Figure 5 – Conceptual Site Model

2.0 Condition of the land at permit issue	
Environmental setting including: • Geology • Hydrogeology • Surface waters	**Made Ground** BGS 1:50:000 records indicate Made Ground deposits beneath the entirety of the site. The site formerly comprised an island/low lying land in the Dee Estuary and the land was reclaimed in the 1950s using dredged estuarine sand with a platform of fill for the former steelworks. Ground investigations indicated Made Ground deposits up to 6m in thickness across the site and generally comprise a sandy clay matrix with frequent anthropogenic materials including concrete, brick, glass, metal, slag, clinker, coal, ash and localised asbestos containing materials (ACM). **Superficial** The superficial deposits beneath most of the site are recorded as Tidal Flat Deposits – Clay, Silt and Sand. Blown Sand – Sand deposits are recorded in the southwest of the site in the area of the woodland. Available BGS and previous investigation borehole logs indicate superficial deposits underlying the Made Ground to comprise a thin layer of dark organic clay/silt (relict topsoil), underlain by orangish to greyish brown silty sand with occasional fine gravel and shell fragments, occasionally with an organic odour. The tidal flat deposits have been proven to a depth of at least 20.5m below the site BGS ref (SJ37SW401). The Tidal flat Deposits are underlain by Glacial Clay at a depth of some 25m bgl, with bedrock being encountered in the general area of the Site at some 45-50m bgl.

2.0 Condition of the land at permit issue	
	Bedrock The bedrock deposits on-site are complex. An inferred fault line runs through the centre of the site in a north-south direction. Bedrock deposits in the southeast of the site comprise the Pennine Lower Coal Measures Formation (mudstone, siltstone and sandstone), while deposits in the northeast of the site comprise the Kinnerton Sandstone Formation (sandstone). Deposits in the northwest and far west of the site are recorded as the Gwespyr Sandstone (sandstone and interbedded argillaceous rocks). Deposits in the central southwest are recorded as the Bowland Shale Formation (mudstone). The Kinnerton Sandstone is of Triassic age, with the other deposits being from the Carboniferous period. Two historical BGS borehole logs in the centre of the Main Site proved the depth to sandstone bedrock deposits of approximately 48 to 50m bgl, while a third failed to encounter bedrock at termination depth of around 46m (ref; SJ37SW34, SJ37SW35, SJ37SW36). **Hydrogeology** The superficial Tidal Flat Deposits are classed as a Secondary Undifferentiated aquifer, described as: *"Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type".* The Blown Sand is classed as a Secondary A aquifer, described as *"Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers".* The bedrock Kinnerton Sandstone Formation is classed as a Principal Aquifer, described as *"Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale".* The Pennine Lower Coal Measures and Gwespyr Sandstone are classed as Secondary A aquifers and the Bowland Shale Formation is classed as a Secondary Undifferentiated aquifer. The site does not lie within a groundwater source protection zone (SPZ). Groundwater is typically found at a depth of 4m to 5m bgl beneath the site and displays limited tidal variation of around 0.1m. Groundwater flow is generally to the north and west, however mounding of groundwater levels is understood to occur around the lagoons in the southwest, causing some localised groundwater flow to the south and east resulting in radial flow from the centre of the site. Previous hydrogeological assessments have indicated the relatively low hydraulic conductivities and gradients. **Hydrology** There are several artificial man-made lagoons present on site, numbered as Lagoons 1, 2A, 2B, 3A and 3B. Lagoon 1 has been decommissioned, infilled and become heavily vegetated. In addition to the lagoons, there is a drainage ditch along the northern edge of the Main Site adjacent Weighbridge Road.

2.0 Condition of the land at permit issue	
	There are several nearby off-site surface water courses. The most significant are Greenwood Burn, located c.20m south and approximately parallel with the southern site boundary and the engineered Broken Bank Drain which is located c. 150m northwest. Both surface water courses drain into the White Sands Gutter which is a tributary of the River Dee. The outflow from the on-site lagoons is pump discharged into the White Sands Gutter via a below ground pipe culvert from lagoon 3B. The confluence between the White Sands Gutter and River Dee is approximately 3.5km northwest. Broken Bank Drain, the White Sands Gutter and the River Dee are all tidally influenced. The level of Greenwood Burn is regulated by the Steelworks further to the south.
Pollution history including: • Pollution incidents that may have affected land • Historical land-uses and associated contaminants • Any visual/olfactory evidence of existing contamination • Evidence of damage to pollution prevention measures	**Pollution History** There are six recorded pollution incidents on the site dating between September 2002 and January 2016 for atmospheric pollutants, firefighting run-off into water and multiple or unspecified pollutants. The records indicate 5no. Category 4 incidents - no impact to land and air in all instances (3 in 2013, 2014, 2016), with the exception of one Category 3 - minor impact to water in one instance (2002). **Historical Land-Uses** There are 95 on-site records dating between 1960-1992 pertaining to various features including tanks, unspecified works, pits, commercial/industrial buildings, chimneys and railway sidings. It is understood these records generally refer to features of the former steelworks located on the site before its redevelopment into the paper mill in 1983. Two of the records refer to electricity substations between 1984-1991.

Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	Ground investigations have identified contamination in soils across the site that include total petroleum hydrocarbons (TPH), phenol, volatile and semi-volatile organic compounds (VOC, SVOC), metals (arsenic, lead, zinc, cadmium, chromium, copper, mercury, nickel), poly-aromatic hydrocarbons (PAH), cyanide, sulphate, polychlorinated biphenyls (PCBs) and asbestos containing material (ACM). A heavily contaminated area has been identified as the central northern boundary coincident with the location of the former steelworks by-products plant. Elevated concentrations of phenols, xylene, PAH, benzene and total aromatic hydrocarbons (TPH) were detected in groundwater at this location. Hydrocarbon contamination has also been identified in the southwest of the site. The western boundary and area around Lagoon 3 was identified in 1991 as “heavily contaminated” by a wide range of pollutants including phenol, mineral oil, cyanide and heavy metals. The infilled lagoon at the southern boundary was found to be contaminated by mineral oils and heavy metals. The current and former lagoons were identified as a source of contamination impact to the underlying groundwater at the site.

Baseline soil and groundwater reference data	• Appendix A of Integrated Pollution Prevention & Control (IPPC) Phase 1A Desk Study Site Report for Shotton Paper Company. Smith Grant Partnership, Ref: R445-R01, January 2001 The initial baseline was based upon data that had been collected on the site during a series of previous ground investigations. This is summarised in the IPPC Phase 1A Desk Study report (2001). Due to the various phases of investigation and the similar numbering of locations within the reports, a prefix 'A' to 'E' was placed in front of the location identifier to distinguish which report the location could be cross referenced to: The exploratory hole locations comprised ABH1, ABH2, ABH4, ABH13, ABH14, ABH22, ABH4, ABH25, ABH34, ABH35, ABH42, ABH44, ABH46a, ABH51, ABH52, ABH60, ABH61, ABH62, ABH112, ABH111, ABH108, ABH102; BTP1 to BTP21; BBH1 to BBH11; CTPA to CTPK; CBH1 to CBH4; ETP1 to ETP9; EBH1 to EBH3; FBH1 to FB8. A site plan showing the locations is provided in Appendix B. In 2002, a further seven boreholes were advanced and installed with monitoring wells to allow for future groundwater elevation measurement and groundwater sampling for permitting requirements. These locations are identified as JBH1 to JBH7. The logs are provided in Appendix A of the IPPC Conceptual Model report (2002). No groundwater quality monitoring was undertaken. A site plan showing the locations is provided in Appendix C.
Supporting Information	

3.0 Permitted activities	
Permitted activities	
Non-permitted activities undertaken	
Document references for: • Plan showing activity layout; and • Environmental risk assessment	

Sections 4 to 7 of the SCR template will be maintained for the remainder of the permit and have been partially completed below.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	No
Have there been any changes to the permitted activities	A change to the permitted activities will be implemented once the new containerboard and tissue facility, Combined Heat and Power (CHP) plant and effluent treatment plant (ETP) are constructed.
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	None identified
Checklist of supporting information	To be submitted with complete permit variation documentation.

5.0 Measures taken to protect land	
To be submitted with complete permit variation documentation.	
Checklist of supporting information	n/a

6.0 Pollution incidents that may have had an impact on land, and their remediation	
To be submitted with complete permit variation documentation.	
Checklist of supporting information	n/a

7.0 Soil gas and water quality monitoring (where undertaken)
A report summarising groundwater quality results obtained following initial commencement of the monitoring regime in April 2004 and status of the site up until August 2005 is provided below: Seven boreholes (JBH1-JBH7) were installed with monitoring wells in 2002. The monitoring wells were subject to quarterly groundwater monitoring since April 2004, providing five sets of analytical data up to August 2005. A chemical analytical suite comprising metals (arsenic, boron, cadmium, chromium, copper, zinc, lead, nickel, selenium, mercury) total cyanide, ammoniacal nitrogen, total phenols, TPH, PAH, pH and hardness was undertaken for groundwater samples collected from each of the monitoring wells. The groundwater analysis identified the presence of contamination within the shallow alluvial aquifer underlying the site and at the site boundaries. The nature and extent of the contamination was variable across the site, and variable within boreholes, that included elevated pH, metals (primarily copper, zinc, selenium, arsenic and chromium), ammonia, total cyanide, petroleum hydrocarbons and PAHs.

7.0 Soil gas and water quality monitoring (where undertaken)	
A number of contaminants were noted to be consistently elevated above the assessment criteria in certain locations, principally chromium in JBH5 and JBH7, ammonia in JBH2 and JBH4, hydrocarbons in JBH2 and JBH3 and zinc in JBH1, with all other contaminants being more variable.	
Checklist of supporting information	• Annual Review of IPPC Groundwater Monitoring. Shotton Paper Mill, Shotton. For UPM Kymmene (UK) Ltd. Prepared by Smith Grant Partnership, Ref: R445-R03, November 2005.

3.0 Addendum Information

The facility is currently undergoing redevelopment from a newsprint manufacturing facility to a containerboard manufacturing facility under planning permission ref; FUL/000011/22. As part of redevelopment Paper Mill 1 (PM1) has been demolished, and a new facility is being constructed to house the containerboard processing and manufacturing plant and machinery in Paper Mill 3 (PM3). To support the planning application and subsequent site enabling and piling works for the new structure, a number of technical reports have been prepared to inform existing baseline conditions.

The reports comprise the following:

1. Phase 2 Environmental Site Investigation and Risk Assessment. UPM Shotton Papermill (Main Site). UPM-Kymmene Oyj. Anthesis ref; 201121.02.R002 (March 2021)
2. Updated Ground Gas Risk Assessment – UPM Shotton Papermill (Main Site). Anthesis ref; 201121.02.GA.R.001 (April 2021)
3. Phase 1 Preliminary Land Quality Risk Assessment (PLQRA), Shotton Mill, Deeside. SLR (March 2022)
4. Geo-environmental Interpretive Report for Phase 1 Earthworks and Construction. Shotton Mill. Arup ref; SPM-ARUP-ZZ-XX-RP-CG-000003 (January 2022)
5. Geo-environmental Interpretive Report for Piling at PM3. Shotton Mill. Arup ref; SPM-ARUP-ZZ-XX-RP-CG-000002 (October 2022)
6. Excavated Materials Strategy. Shotton Mill. John F Hunt Regeneration ref; 22912_001_EMS (February 2023)
7. Phase 1 Demolition Remediation Works. Shotton Mill Redevelopment. Ground and Environmental Services Ltd (GESL) on behalf of J F Hunt Regeneration. Ref; 13045/Ph1RW (April 2024)
8. Shotton Paper Mill – Lagoon 1 Geoenvironmental Assessment. Arup ref; 285974-00 (December 2023).

3.1 Site Condition Findings

The section below provides a short summary of the site condition findings identified within the documents listed above.

Phase 2 Environmental Site Investigation and Risk Assessment. UPM Shotton Papermill (Main Site). UPM-Kymmene Oyj. Anthesis ref; 201121.02.R002 (March 2021).

Updated Ground Gas Risk Assessment – UPM Shotton Papermill (Main Site). Anthesis ref; 201121.02.GA.R.001 (April 2021)

A programme of ground investigation, groundwater and ground gas monitoring was undertaken to support the sale of the site. The main purpose of the works was to identify any significant potential liability concerns that could result in a material impact to the site sale. A total of 13no. replacement boreholes (JBH1A to JBH7A; BH101 to BH105; BH121) were drilled and installed with 10no. monitoring wells (JBH1A to JBH7A, BH101, BH102, BH104, BH105), with a contaminant suite of soil and groundwater analysis comprising metals, TPH, VOC, SVOC, phenols, PAH, PCB, cyanide, asbestos, pH, sulphate. Existing monitoring wells that remained on site and were serviceable comprised JBH3, JBH4, JBH7 and JBH7.

A site plan showing the locations is provided in Appendix D.

The sequence of geological strata beneath the site was found to be relatively consistent, comprising a platform of Made Ground, primarily estuarine sand with subordinate amounts of ash, slag, coal, concrete, brick and hardcore, underlain by estuarine alluvium, a medium sand with occasional lenses of finer material. The top of the alluvium is generally coincident with the water table, at 4-4.5m AOD (approximately 4 m bgl).

In general, the investigation undertaken did not identify extensive areas of soil and groundwater contamination that would be regarded as significant in relation to ongoing industrial use of the site. However, contaminants that were detected in soils included Total Petroleum Hydrocarbons (TPH), metals, sulphate and trace polychlorinated biphenyls (PCBs). The concentrations were generally below the generic industrial screening guidelines applied for human health. Low concentrations of mineral oil were detected in groundwater recovered from two boreholes to the east and north east of the MRF warehouse. Investigations to the west and north west of this area found similar results, with contaminant concentrations generally below generic industrial use screening guidelines.

The most heavily contaminated area has been identified as the central northern boundary of the site, in the vicinity of borehole BH104 (TPH 21,000mg/kg, acenaphthene 2,300mg/kg, naphthalene 1,500mg/kg, dibenzofuran 1,400mg/kg, fluorene 850mg/kg, 2-methylnaphthalene 650mgkg in soil). This is coincident with the location of the former steelworks by-products plant. Elevated concentrations of phenols, xylene, PAH, benzene and total aromatic hydrocarbons were detected in soil and groundwater at this location. Hydrocarbon contamination has also been identified in the southwest of the site in borehole JBH1A (5,200 mg/kg in soil). Other groundwater sample analysis revealed no significant impact in the wells. A plan showing the borehole and monitoring well locations with laboratory certificates are provided in Appendix D.

Six rounds of ground gas monitoring were undertaken in the newly installed monitoring wells and reported in an addendum ground gas risk assessment report. No significant evidence of ground gases were identified during six rounds of monitoring completed in 2020, other than methane in borehole JBH2A located on the southern site boundary with a peak measurement of 4.8%v/v. An overall CS2 classification was provided for the site, although this was acknowledged to be precautionary.

Phase 1 Preliminary Land Quality Risk Assessment (PLQRA), Shotton Mill, Deeside. SLR (March 2022)

The desk study report was prepared for the purpose of supporting the planning application(s) for the proposed redevelopment of the site. The report brought together and summarised existing historical reports and data to develop an updated conceptual model of potential risks to human and environmental receptors on the basis of the change of site layout and use for the proposed containerboard facility. The report did not obtain any new data and therefore the qualitative risk assessment was based on existing available information.

Geo-environmental Interpretive Report for Phase 1 Earthworks and Construction. Shotton Mill. Arup ref; SPM-ARUP-ZZ-XX-RP-CG-000003 (January 2022)

Arup prepared a geoenvironmental interpretative report with the objective of discharging a planning condition relating to the potential for ground contamination risks within Phase 1 of the site for the construction of the new containerboard facility, Paper Mill 3 (PM3). The objective of the report was to present geoenvironmental assessments to discharge condition 4 of permission FUL/000011/22.

Arup undertook assessment of ground contamination risks associated with an area of the site referred to as Phase 1, essentially comprising the footprint of Papermill 1 (PM1) and the product and despatch warehouse at the western end of the mill. The scope of work comprised the drilling of 24 cable percussive boreholes, 2 rotary core boreholes, 3 sonic boreholes and 22 machine excavated trial pits.

A total of 21 monitoring wells were installed and groundwater and ground gas monitoring was undertaken. Soil and groundwater samples were collected for a suite of contaminant analysis that comprised metals, TPH (including BTEX), PAH, VOC, SVOC, PCB, phenols, cyanide, asbestos.

Human health and controlled waters generic quantitative risk assessments (GQRA) were undertaken to assess the data. The soil results indicated elevated concentrations of total cyanide (614mg/kg), TPH (4,320mg/kg), total PAH (3.69mg/kg), dibenzofuran (4.04mg/kg), 2-methylphenol (2.8mg/kg), PCB (0.0152mg/kg), asbestos (chrysotile, amosite 0.155%w/w). Groundwater samples contained detected concentrations of TPH (1,440 µg/l), sulphate (335,000 µg/l), toluene (1.07 µg/l), total cyanide (60 µg/l), ammoniacal nitrogen (40,000 µg/l), phenol (29.7 µg/l). Both soil and groundwater contained detected concentrations of metals that comprised arsenic, cadmium, chromium, copper, lead, nickel selenium, vanadium, zinc. A plan showing the borehole and monitoring well locations with laboratory certificates are provided in Appendix E.

The ground gas risk assessment indicated low risk (CS1) conditions for the site, for which no special protective measures were identified.

Geo-environmental Interpretive Report for Piling at PM3. Shotton Mill. Arup ref; SPM-ARUP-ZZ-XX-RP-CG-000002 (October 2022)

Arup prepared a geoenvironmental interpretative report with the objective of discharging two specific planning conditions relating to groundworks and piling as part of the proposed new containerboard structure being constructed as part of the Phase 1 works for Paper Mill 3 (PM3).

The report used the information already presented in the Arup Phase 1 Earthworks and Construction report to undertake assessment of ground contamination risks associated with the discharge of these conditions. As such, the report did not obtain any new data and therefore the generic quantitative risk assessment (GQRA) was based on the available information.

A plan showing the boundary of the PM3 piling area is provided in Appendix F.

Excavated Materials Strategy. Shotton Mill. John F Hunt Regeneration ref; 22912_001_EMS (February 2023)

Phase 1 Demolition Remediation Works. Shotton Mill Redevelopment. Ground and Environmental Services Ltd (GESL) on behalf of J F Hunt Regeneration. Ref; 13045/Ph1RW (April 2024)

John F Hunt Regeneration Limited (JFHR) were instructed to implement a programme of remediation and site preparation works to ready the part of the Phase 1 Site for the construction of the new containerboard facility, Paper Mill (PM3).

Therefore an earthworks strategy was prepared for the excavation and movement of made ground and natural material as part of the site enabling works, and to implement a watching to deal with any contamination that was encountered. The strategy had identified the presence of locally elevated concentrations of metals, heavy end hydrocarbons and PAHs and asbestos in the form of both free fibres and asbestos containing material (ACM) from the previous investigations undertaken. A series of focused remediation zones were identified that requirement remediation/treatment. These comprised zone 1 (localised free phase hydrocarbons in a smear zone on the surface of groundwater), zone 2 (an area of naptha impacted soil) and areas of asbestos impacted soil. The contamination in these areas was considered to have been caused during the former steel works use of the site.

A subsequent report was prepared by GESL to describe the remedial works that were carried out on site to control issues arising from areas of contamination identified during the original site investigation works carried out for the Phase 1 redevelopment for PM3.

The potential presence of further such areas/hotspots of contamination had previously been considered likely and an appropriate contamination watching brief was maintained by JFHR during the works. Following the removal of buried infrastructure during enabling works to facilitate access it was discovered that previously identified contamination hotspots were more extensive than indicated in the original ground investigations. GESL reported that all of the necessary remediation works have been carried out and are described, along with the post-remediation residual soil validation testing results, in three separate Remediation Validation Reports which were appended to the report. A drawing showing the remediation zone locations are provided in Appendix G.

Shotton Paper Mill – Lagoon 1 Geoenvironmental Assessment. Arup ref; 285974-00 (December 2023)

Arup prepared a geoenvironmental assessment for the area surrounding Lagoon 1 at the site. The existing Lagoon 1 area was proposed to be developed as an effluent treatment plant to service the wider site.

The purpose of the note was to assess contamination-related constraints associated with the development of the Lagoon 1 site and identify mitigation required to address contamination-related risks. The lagoon was to be dewatered/de-silted and the void infilled with suitably engineered material for the ETP to be constructed on.

A cable percussive borehole (BH01) was sunk to 10m below ground level (base of the lagoon) in the centre of Lagoon 1, with soil and groundwater samples collected for a suite of chemical analysis that comprised metals, cyanide, phenols, PAH, SVOC, VOC, TPH (including BTEX), asbestos, pH and sulphate. In addition, existing borehole locations within the vicinity of Lagoon 1 (50m buffer) for the earlier phase of investigations reported in the previous Arup reports were used to baseline conditions. The previous investigations identified concentrations of arsenic, chromium, copper, lead, cyanide and zinc in groundwater in proximity to the lagoon. The soil samples at BH01 were found to contain low level concentrations of metals (arsenic, copper, chromium, lead, mercury, nickel, vanadium, zinc), Total PAH (3.31mg/kg), total TPH (57mg/kg). In groundwater, a similar signature of metals were detected, ammoniacal nitrogen (8,530 µg/l), total cyanide (81 µg/l), total PAH (0.73 µg/l), pentachlorophenol (2 µg/l), total TPH (57 µg/l).

A drawing showing the location of Lagoon 1 with boreholes and associated data is provided in Appendix H.

4.0 Site Condition Baseline

Due to the on-going construction phase works at the facility for the new containerboard facility (PM3), it has not been possible to obtain current baseline condition data due to access constraints.

Therefore a current baseline is not provided, other than the addendum information provided in this document.

It is intended that once construction phase works are complete that a site condition baseline assessment for the facility will be undertaken and submitted to NRW.

Appendix A Site Drawings

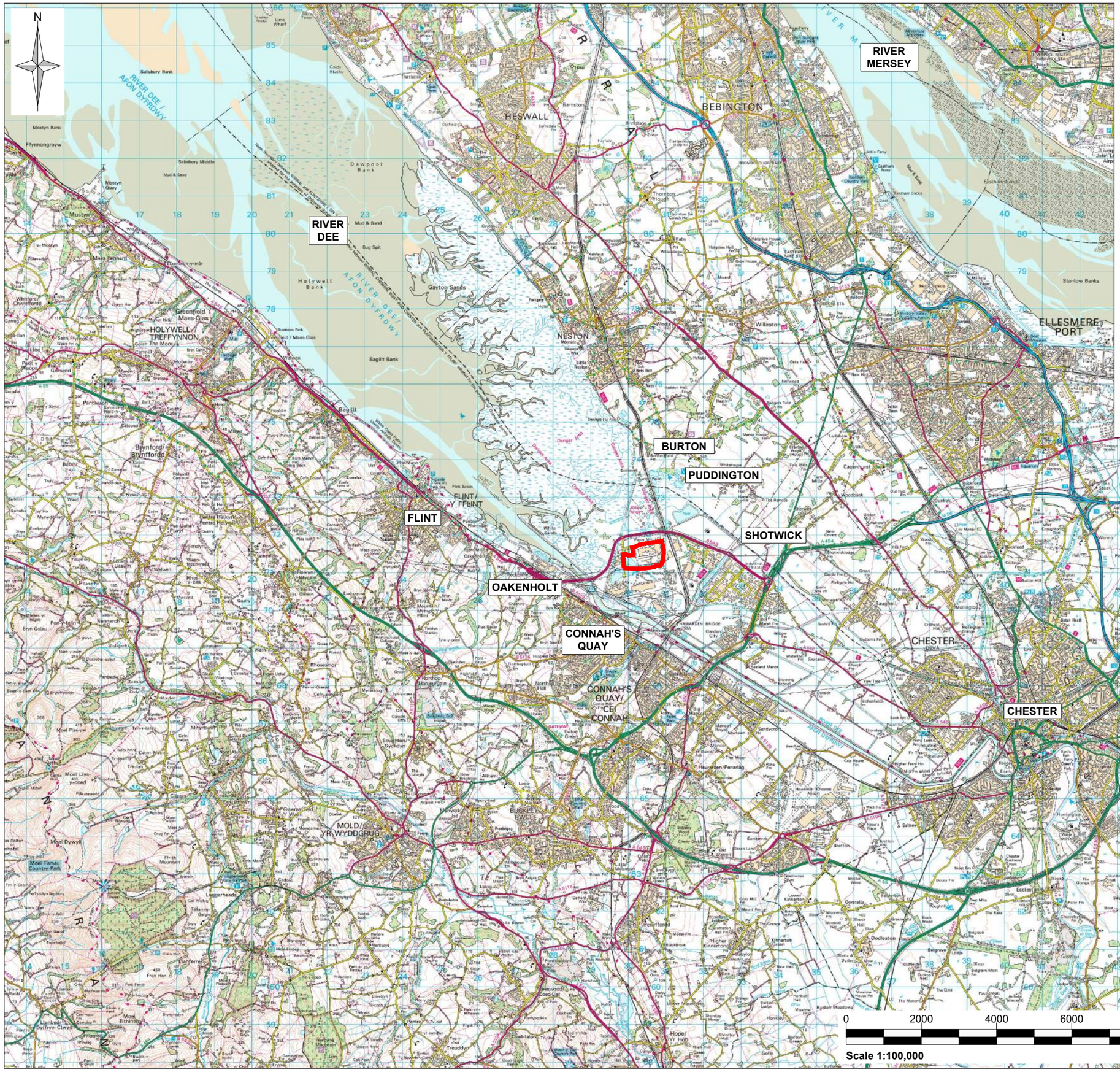
Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024



Legend:

Main Site Boundary

Rev	Amendments	Date	By	Chk	Auth

SLR

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Client
Shotton Mill Limited

Project
Site Condition Report Addendum

Figure Title
Site Location Plan

Scale		SLR Project No.
As Shown	@ A3	410.065169.00001

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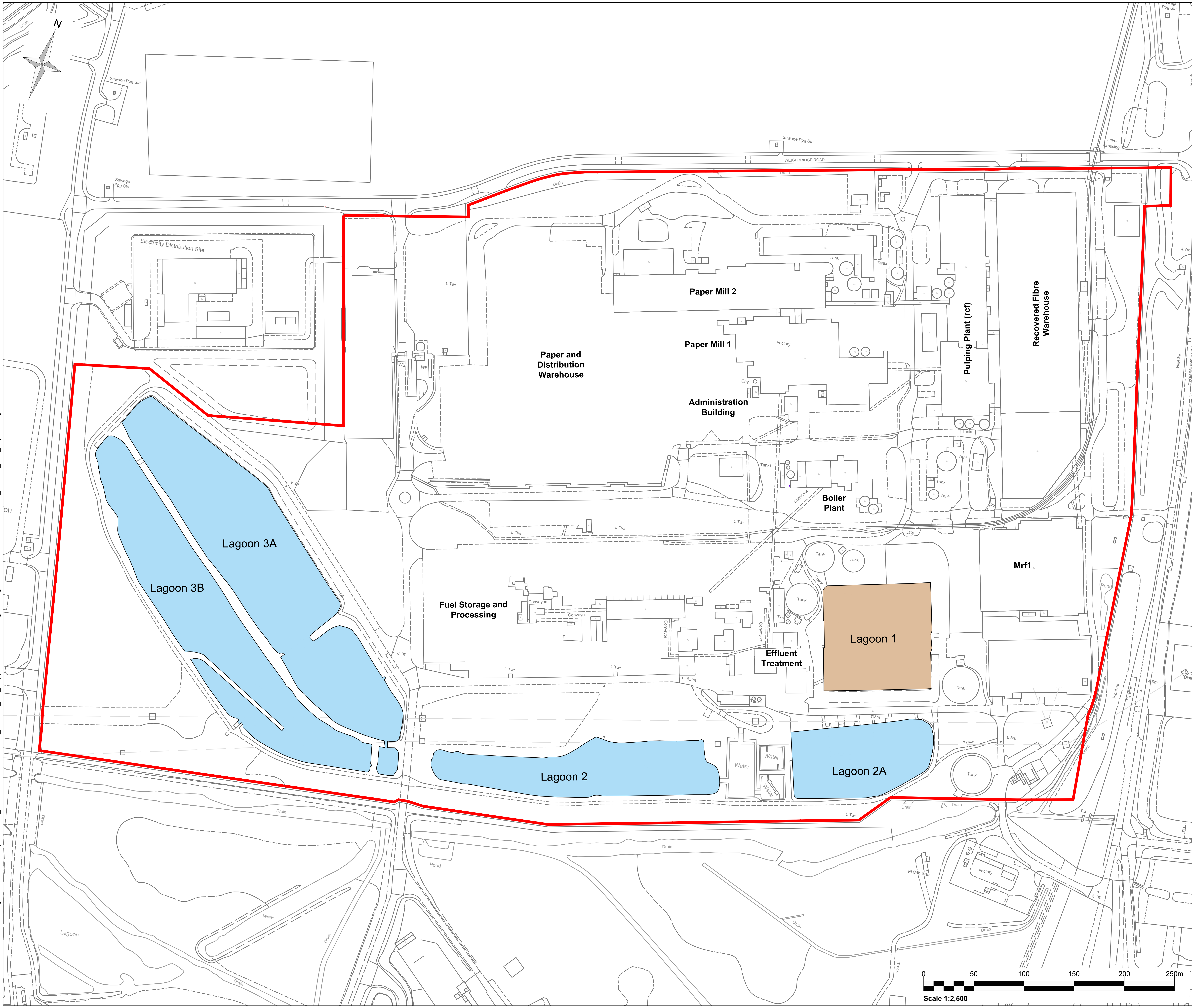

Notes:

1. Existing and proposed information shown base upon supplied drawing file: DJ3a Shotton Preliminary Layout Plan A R0.DWG and; Shotton Plan A Layout Detailed R3 (CHP + EFT).DWG.

Legend:

- Main Site Boundary (59.65ha)
- Surface Water Lagoon
- Infilled Lagoon

Rev	Amendments	Date	By	Chk	Auth

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Project: Site Condition Report Addendum

Figure Title: Current Site Layout

Scale		SLR Project No.	
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Dee Estuary SSSI, SPA, Ramsar and SAC

Broken Bank Drain

Drainage Ditch South of Weighbridge Road

Broken Bank Drain

White Sands Gutter

Lagoon 3A

Lagoon 3B

Lagoon 1

River Dee Estuary

Lagoon 2A

Lagoon 2B

Greenwood Burn

Shotton Lagoons and Reedbeds SSSI

Weighbridge Road

Weighbridge Ro

Tenth Avenue

0 200 400 600 800 1000m

Scale 1:10,000

Legend:

Main Site Boundary

Site Discharge Pipe Culvert

Rev	Amendments	Date	By	Chk	Auth

SLR

www.slrconsulting.com

Client: Shotton Mill Limited

Project: Site Condition Report Addendum

Figure Title: Off-Site Surface Water Features

Scale	SLR Project No.
As Shown @ A3	410.065169.00001

Designed	Drawn	Checked	Authorised
	TS	ML	PW
Date	Date	Date	Date
	Aug 2024	Aug 2024	Aug 2024

Figure Number: 003 Rev.: 0

14/08/2024

\\slr.local\eu\Offices\UK Cambridge\Admin\New Projects\0410_MAN\410.065169.00001_Shotton_Mill_Support\Tech\LQR\Dwgs\Weigh\410.065169.00001\019.003.0_Off-Site_SW_Features.dwg

Notes:

1. Existing and proposed information shown base upon supplied drawing file: DJ3a Shotton Preliminary Layout Plan A R0.DWG and; Shotton Plan A Layout Detailed R3 (CHP + EFT).DWG.

Legend:

- Main Site Boundary (59.65ha)
- Surface Water Lagoon
- Infilled Lagoon
- Groundwater Contour (4.25)
- Groundwater Flow Direction

Rev	Amendments	Date	By	Chk	Auth

SLR

www.slrconsulting.com

Client: Shotton Mill Limited

Project: Site Condition Report Addendum

Figure Title: Inferred Groundwater Flow Contours

Scale		SLR Project No.
1:2500	@ A2	410.065169.00001

Designed	Drawn	Checked	Authorised
	TS	ML	PW
Date	**Date**	**Date**	**Date**
	Aug 2024	Aug 2024	Aug 2024

Figure Number: **004** Rev.: **0**

Scale 1:2,500

0 50 100 150 200 250m

14/08/2024

\\slr.local\eu\Offices\UK\Cambridge\Admin\New Projects\0410_MAN\410.065169.00001_Shotton_Mill_Support\Tech\LQR\Dwgs\Wking\410.065169.00001.019.004.0_Inferred_GW_Flow_Contours.dwg

North West

South East

Dee Estuary 3.5km

Main Site

BOUNDARY

Former By-products Plant

Proposed Chp

Proposed Cardboard Mill Buildings

Infilled Effluent Pond

Weighbridge Road

BH113

JBH4

Greenwood Burn

White Sands Gutter

Broken Bank Drain

A458

Lagoon 3

Lagoon 2B

SITE GL 8m AOD

Tidal Flat Deposits / Alluvium

-17 TO -22m AOD

Glacial Till

-37 TO -47m AOD

Sandstone

Mudstone / Coal Measures

Legend:

- Made Ground
- Tidal Flat Deposits / Alluvium
- Glacial Till
- Sandstone
- Mudstone / Coal Measures
- Drainage Feature
- Inferred Groundwater Flow Pathways
- Potential Pathway for Leaching and Migration of Containments in Groundwater

Rev	Amendments	Date	By	Chk	Auth

SLR

www.slrconsulting.com

Client: Shotton Mill Limited

Project: Site Condition Report Addendum

Figure Title: Conceptual Site Model

Scale	SLR Project No.
NTS @ A3	410.065169.00001

Designed	Drawn	Checked	Authorised
	TS	ML	PW
Date	Date	Date	Date
	Aug 2024	Aug 2024	Aug 2024

Figure Number: **005**

Rev.: **0**

14/08/2024

\\slr.local\eu\Offices\UK\Cambridge\Admin\New Projects\0410_MAN\410.065169.00001_Shotton_Mill_Support\Tech\LQR\Dwgs\Wkings\410.065169.00001\919.005.0_Conceptual_Site_Model.dwg

Appendix B IPPC Phase 1A 2001

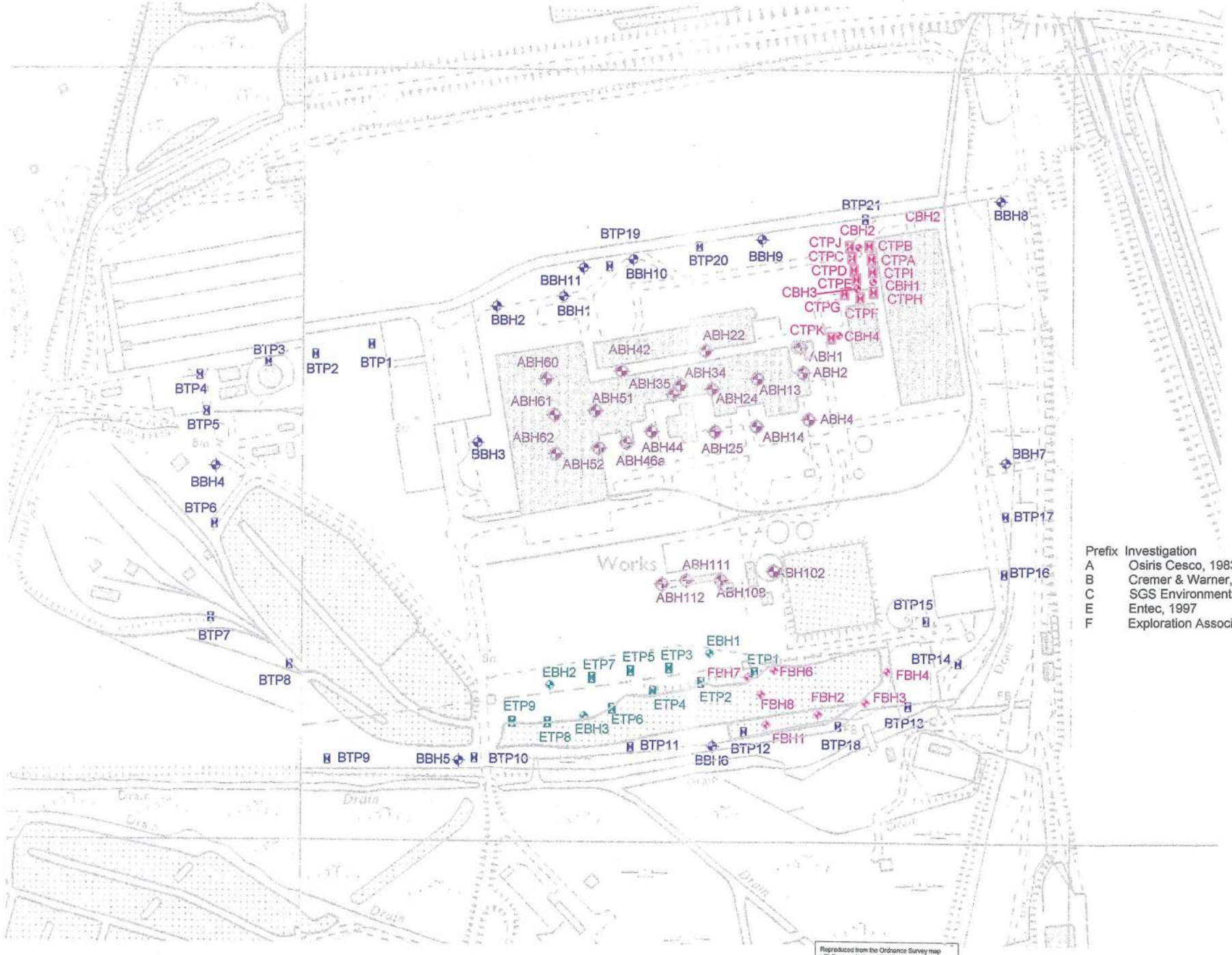
Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024



Prefix Investigation

A	Osiris Cesco, 1983 (geotechnical)
B	Cremer & Warner, 1991
C	SGS Environment, 1997
E	Entec, 1997
F	Exploration Associates, 1997

SMITH GRANT Environmental Consultancy PARTNERSHIP

Croesnewydd Hall
Wrexham Technology Park
Wrexham, LL13 7YP
Tel: 01978 290694
Fax: 01978 263452

www.smithgrant.co.uk
email: info@smithgrant.co.uk

Project:	**Shotton Paper Mill Phase 1A Site Repor**
Drawing:	**SI Borehole and Trial Pit Locatio**
Drawn: BJT	Checked: AF
Date: 14/12/00	Scale: **1:5,0**
Job No: R445	Drg No: **00**

Appendix C IPPC Additional 2002

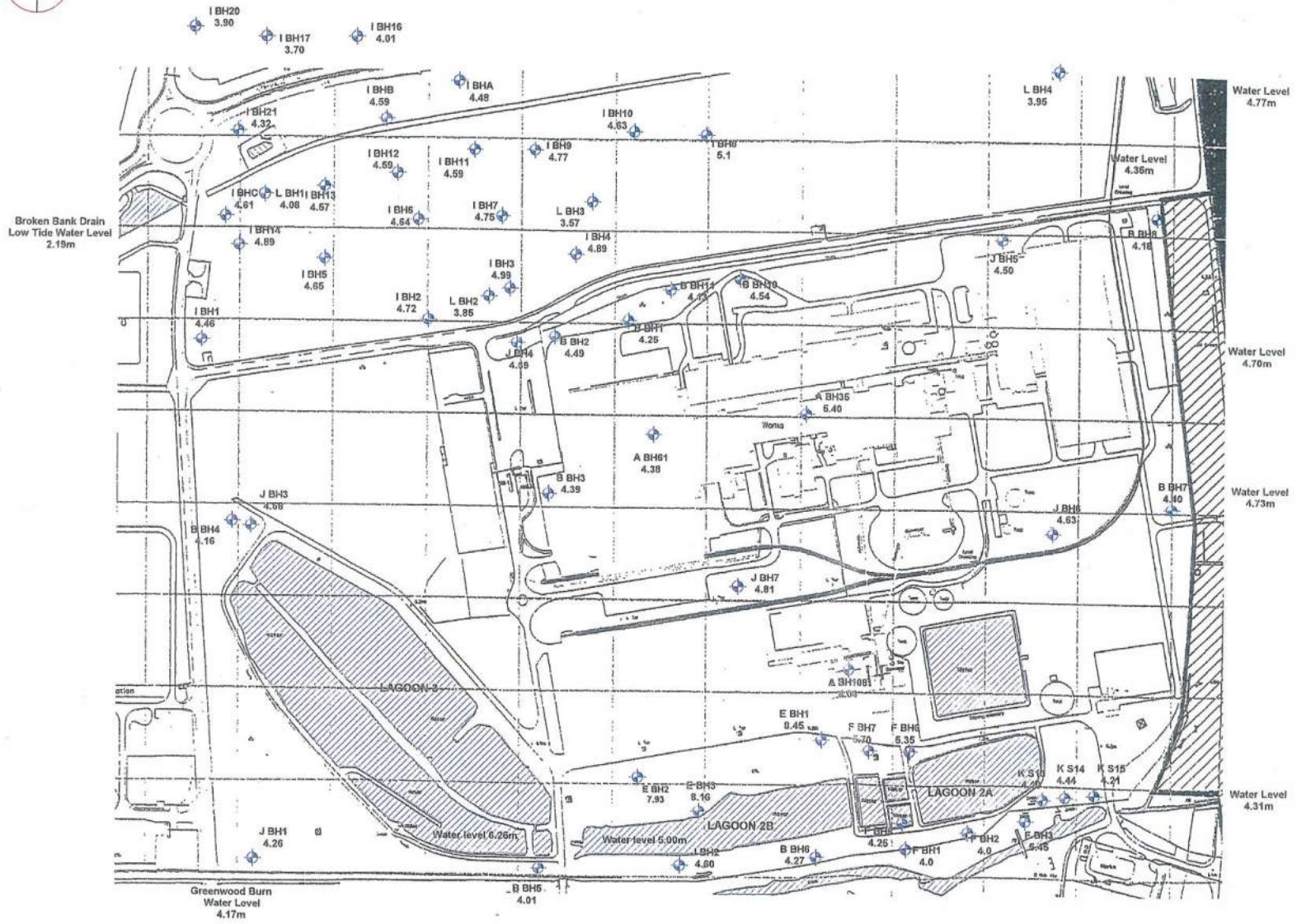
Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024



A Osiris Cesco, 1983
(Geotechnical)

B Cremer & Warner, 1991

E Entec, 1997

F Exploration Associates, 1997

G: Hulme Upright
Report 119/AJW/04-00
April 2000

I: Exploration Associates
Report No 129287
March 2000

J: Shotton Paper
March 2002

K: Shotton Paper
May 2000

L: Soil & Material Testing (April 1992)
Report No. LS 3552, in RML
Guidelines for Developers
Area A4 (kb/sep/eh/1433)

Levels in m AOD.

SMITH GRANT Environmental Consultancy LLP
Smith Grant LLP, Croesnewydd Hall
Wrexham Technology Park
Wrexham, LL13 7YP
Tel: 01978 290094
Fax: 01978 263452
www.smithgrant.co.uk
email: consult@smithgrant.co.uk

Project: Shotton Paper IPPC	
Drawing: Groundwater Levels	
Drawn: SD	Checked: AFS
Date: 19.03.02	Scale: 1:5,00
Job No: R445	Drg No: CM0

Appendix D Anthesis 2020

Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024

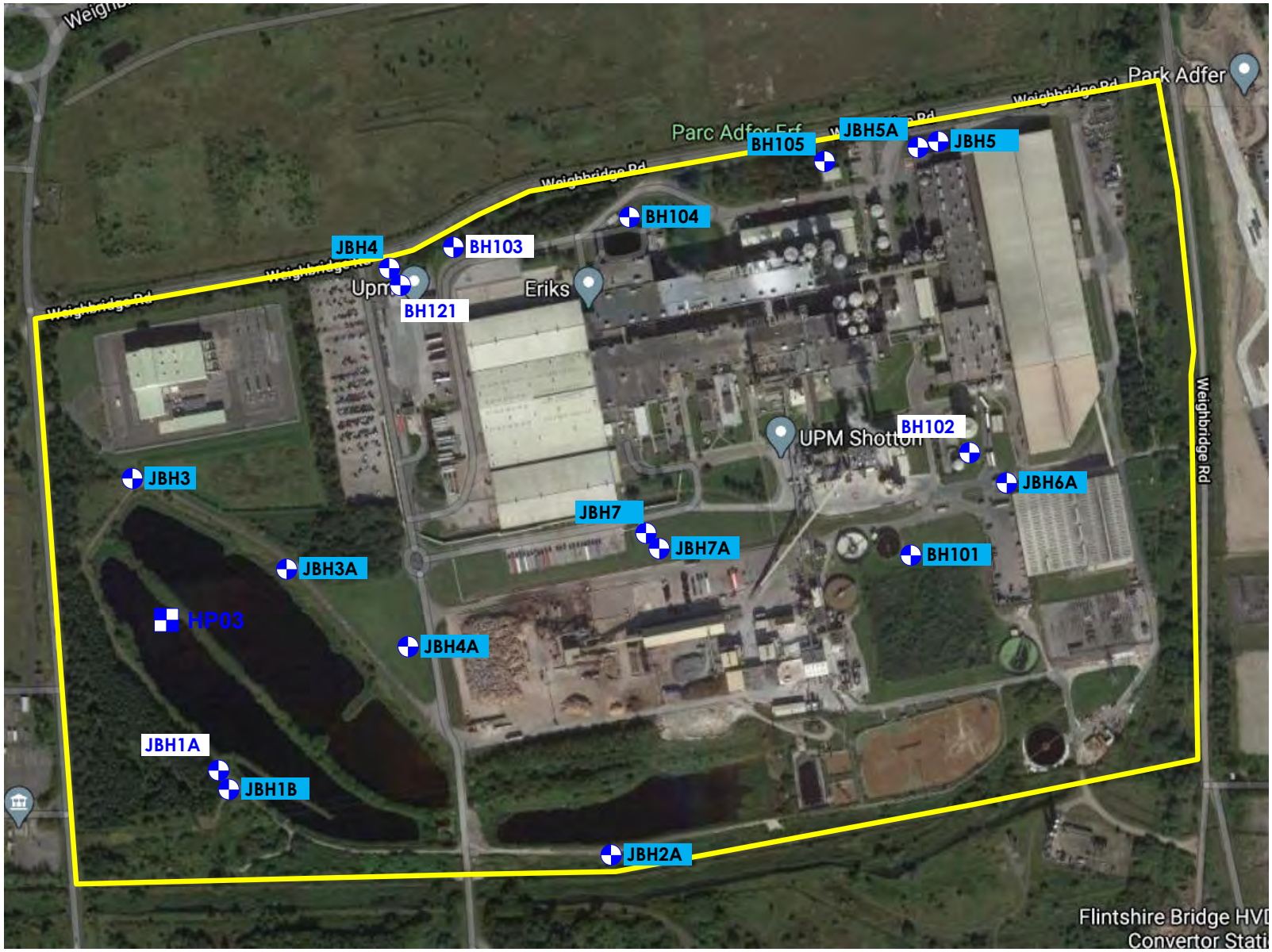


Image From Google Maps

confidential
Paul Wright
slrconsulting.com
Mar 26, 2021 05:25

DO NOT SCALE

Windowless Sampling Boreholes

Windowless Sampling Boreholes with Monitoring Installation

Notes:

Please refer to borehole logs for grid coordinates.
Approximate site boundary shown by yellow line.

CLIENT:
UPM-Kymmene Oyj

PROJECT:
Shotton (Main Site)

TITLE:
Indicative Borehole Location Plan

DESIGN / DRAWN:	DATE:
AWC	February 2020

PROJECT NO:	DRAWING NO:
201121.02	201121.02-1

ROBERTS
ENVIRONMENTAL LTD
1 Croft Stairs, Newcastle upon Tyne NE1 2HG
Tel: +44 (0) 191 2304521
http:// www.robertsenvironmental.co.uk

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

2183

Amended Report

Report No.:	21-01540-2		
Initial Date of Issue:	28-Jan-2021	**Date of Re-Issue:**	25-Feb-2021
Client	Roberts Environmental Limited		
Client Address:	1 Croft Stairs Newcastle Upon Tyne Tyne & Wear NE1 2HG		
Contact(s):	Andrew Cuthbert		
Project	201121-2 Shotton (main site)		
Quotation No.:		**Date Received:**	20-Jan-2021
Order No.:		**Date Instructed:**	20-Jan-2021
No. of Samples:	36		
Turnaround (Wkdays):	6	**Results Due:**	27-Jan-2021
Date Approved:	28-Jan-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

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slrconsulting.com
Mar 26, 2021 05:25

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited				Chemtest Job No.:	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:				Chemtest Sample ID.:	1127667	1127668	1127669	1127670	1127671	1127672	1127673	1127674
				Sample Location:	DUPLICATE 3	DUPLICATE 4	DUPLICATE 5	DUPLICATE 6	BH101	BH101	BH102	BH102
				Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Top Depth (m):					0.3	0.5	3.5	5.5
				Bottom Depth (m):					0.4	0.6	3.7	5.7
				Date Sampled:	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021
				Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Arsenic	U	2450	mg/kg	1.0	8.4	7.6	9.6	20	8.6	8.6	7.0	7.2
Cadmium	U	2450	mg/kg	0.10	< 0.10	< 0.10	3.4	0.76	0.22	< 0.10	< 0.10	< 0.10
Chromium	U	2450	mg/kg	1.0	9.8	7.0	77	65	20	23	7.9	6.7
Chromium (Trivalent)	N	2490	mg/kg	1.0	9.8	7.0	77	65	20	23	7.9	6.7
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Copper	U	2450	mg/kg	0.50	2.9	1.2	24	26	12	4.6	2.8	1.2
Lead	U	2450	mg/kg	0.50	11	6.1	500	100	120	20	6.6	5.7
Mercury	U	2450	mg/kg	0.10	< 0.10	< 0.10	1.6	0.75	0.18	< 0.10	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	6.0	5.0	20	20	10	6.8	5.4	4.7
Selenium	U	2450	mg/kg	0.20	< 0.20	< 0.20	0.47	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Zinc	U	2450	mg/kg	0.50	37	16	2300	270	75	54	22	15
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	1.0	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.56	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	3.0	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	8.7	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	6.7	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	3.9	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	8.0	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	2.6	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	18	1.3	< 0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.89	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	6.6	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.99	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	6.3	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	19	1.2	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	< 2.0	< 2.0	100	2.5	< 2.0	< 2.0	< 2.0
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	7.2	13	13	6.7	6.6	6.1	6.3	17
Chromatogram (TPH)	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached
pH	U	2010		4.0	9.2	9.5	8.9	10.6	9.2	8.9	9.1	9.4
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40	< 0.40	0.55	0.42	0.41	< 0.40	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	< 0.010	< 0.010	< 0.010	0.065	0.019	< 0.010	0.046	< 0.010
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50	< 0.50	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:					Chemtest Sample ID.:	1127667	1127668	1127669	1127670	1127671	1127672	1127673	1127674
					Sample Location:	DUPLICATE 3	DUPLICATE 4	DUPLICATE 5	DUPLICATE 6	BH101	BH101	BH102	BH102
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):					0.3	0.5	3.5	5.5
					Bottom Depth (m):					0.4	0.6	3.7	5.7
					Date Sampled:	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021
					Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Beryllium	U	2450	mg/kg	1.0		< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	U	2450	mg/kg	5.0		15	12	94	110	18	17	17	12
Organic Matter	U	2625	%	0.40		< 0.40	< 0.40	48	4.3	2.1	< 0.40	< 0.40	< 0.40
Total Organic Carbon	U	2625	%	0.20		< 0.20	< 0.20	28	2.5	1.2	< 0.20	< 0.20	< 0.20
Total TPH >C6-C40	U	2670	mg/kg	10		< 10	< 10	< 10	2500	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	52	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	52	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	35	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	390	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	430	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	< 10	< 10	480	< 10	< 10	< 10	< 10
Benzo[a]anthracene	U	2700	mg/kg	0.10		< 0.10	< 0.10	< 0.10	7.9	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorodifluoromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20		< 20	< 20	< 20	< 20			< 20	< 20
Chloroethane	U	2760	µg/kg	2.0		< 2.0	< 2.0	< 2.0	< 2.0			< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0		< 5.0	< 5.0	< 5.0	< 5.0			< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited			Chemtest Job No.:		21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:			Chemtest Sample ID.:		1127667	1127668	1127669	1127670	1127671	1127672	1127673	1127674
			Sample Location:		DUPLICATE 3	DUPLICATE 4	DUPLICATE 5	DUPLICATE 6	BH101	BH101	BH102	BH102
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):						0.3	0.5	3.5	5.5
			Bottom Depth (m):						0.4	0.6	3.7	5.7
			Date Sampled:		13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0			< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0			< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10			< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10			< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10			< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0			< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10			< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0			< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0			< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50			< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127667	1127668	1127669	1127670	1127671	1127672	1127673	1127674
		Sample Location:			DUPLICATE 3	DUPLICATE 4	DUPLICATE 5	DUPLICATE 6	BH101	BH101	BH102	BH102
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):							0.3	0.5	3.5	5.5
		Bottom Depth (m):							0.4	0.6	3.7	5.7
		Date Sampled:			13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50			< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0			< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0			< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127667	1127668	1127669	1127670	1127671	1127672	1127673	1127674
		Sample Location:			DUPLICATE 3	DUPLICATE 4	DUPLICATE 5	DUPLICATE 6	BH101	BH101	BH102	BH102
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):							0.3	0.5	3.5	5.5
		Bottom Depth (m):							0.4	0.6	3.7	5.7
		Date Sampled:			13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	2.4			< 0.50	< 0.50
Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	0.59			< 0.50	< 0.50
Carbazole	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	4.7			< 0.50	< 0.50
Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	4.1			< 0.50	< 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.9			< 0.50	< 0.50
Chrysene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.9			< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	2.8			< 0.50	< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.1			< 0.50	< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	2.4			< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.4			< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50			< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.4			< 0.50	< 0.50
PCB 81	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 77	U	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127667	1127668	1127669	1127670	1127671	1127672	1127673	1127674
			Sample Location:		DUPLICATE 3	DUPLICATE 4	DUPLICATE 5	DUPLICATE 6	BH101	BH101	BH102	BH102
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):						0.3	0.5	3.5	5.5
			Bottom Depth (m):						0.4	0.6	3.7	5.7
			Date Sampled:		13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
PCB 118	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	2815	mg/kg	0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127675	1127676	1127677	1127678	1127679	1127680	1127681	1127682
		Sample Location:			BH103	BH104	BH104	BH104	BH104	BH105	BH121	BH121
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			6.45	1.5	2.5	3.3	4.5	3.0	2.5	5.4
		Bottom Depth (m):				2.0	3.0	3.5	5.0	3.2	3.0	5.8
		Date Sampled:			13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Arsenic	U	2450	mg/kg	1.0	7.8	15	6.3	6.8		23	8.0	9.7
Cadmium	U	2450	mg/kg	0.10	< 0.10	0.34	< 0.10	< 0.10		0.59	< 0.10	< 0.10
Chromium	U	2450	mg/kg	1.0	8.3	39	8.0	7.3		67	7.3	10
Chromium (Trivalent)	N	2490	mg/kg	1.0	8.3	39	8.0	7.3		67	7.3	10
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50
Copper	U	2450	mg/kg	0.50	3.1	28	1.9	3.0		48	1.9	6.3
Lead	U	2450	mg/kg	0.50	18	120	8.2	8.5		75	5.5	23
Mercury	U	2450	mg/kg	0.10	< 0.10	0.57	< 0.10	< 0.10		0.16	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	7.5	17	4.6	5.3		89	6.3	7.2
Selenium	U	2450	mg/kg	0.20	< 0.20	0.40	< 0.20	< 0.20		0.23	< 0.20	0.55
Zinc	U	2450	mg/kg	0.50	33	250	19	26		190	19	60
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	12	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	0.78	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10	0.71	< 0.10	6.3		< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	2.1	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	2.4	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	0.96	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10	1.4	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10	2.8	< 0.10	1.8		< 0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	4.2	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Naphthalene	U	2700	mg/kg	0.10	< 0.10	3.2	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	2.4	< 0.10	20		< 0.10	< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10	2.7	< 0.10	1.2		< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	37	< 2.0	29		< 2.0	< 2.0	< 2.0
ACM Type	U	2192		N/A	-	-	-	-		-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-		-	-	-
Moisture	N	2030	%	0.020	18	7.6	16	13	17	7.0	5.7	18
Chromatogram (TPH)	N			N/A	See Attached	See Attached	See Attached	See Attached		See Attached	See Attached	See Attached
pH	U	2010		4.0	9.3	9.6	9.2	8.8		9.0	9.3	8.8
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	< 0.40	0.96	< 0.40	< 0.40		0.57	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	< 0.010	0.13	< 0.010	0.072		0.047	< 0.010	0.085
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50	0.50	< 0.50	< 0.50		0.50	< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:					Chemtest Sample ID.:	1127675	1127676	1127677	1127678	1127679	1127680	1127681	1127682
					Sample Location:	BH103	BH104	BH104	BH104	BH104	BH105	BH121	BH121
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	6.45	1.5	2.5	3.3	4.5	3.0	2.5	5.4
					Bottom Depth (m):		2.0	3.0	3.5	5.0	3.2	3.0	5.8
					Date Sampled:	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021
					Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Beryllium	U	2450	mg/kg	1.0		< 1.0	1.6	< 1.0	< 1.0		2.8	< 1.0	< 1.0
Vanadium	U	2450	mg/kg	5.0		13	36	12	12		56	13	14
Organic Matter	U	2625	%	0.40		< 0.40	6.6	< 0.40	0.43		1.7	< 0.40	< 0.40
Total Organic Carbon	U	2625	%	0.20		< 0.20	3.8	0.23	0.25		0.97	< 0.20	< 0.20
Total TPH >C6-C40	U	2670	mg/kg	10		< 10	45	< 10	18000		51	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	140		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	2500		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	4000		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	580		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	230		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	7500		< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	91		< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	2500		< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	9700		< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	870		< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	13000		< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	< 10	< 10	21000		< 10	< 10	< 10
Benzo[a]anthracene	U	2700	mg/kg	0.10		< 0.10	1.2	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10
Dichlorodifluoromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20		< 20	< 20	< 20	< 20	< 20		< 20	< 20
Chloroethane	U	2760	µg/kg	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127675	1127676	1127677	1127678	1127679	1127680	1127681	1127682
		Sample Location:			BH103	BH104	BH104	BH104	BH104	BH105	BH121	BH121
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			6.45	1.5	2.5	3.3	4.5	3.0	2.5	5.4
		Bottom Depth (m):				2.0	3.0	3.5	5.0	3.2	3.0	5.8
		Date Sampled:			13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	41	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10		< 10	< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	310	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10		< 10	< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10		< 10	< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10	< 10	< 10		< 10	< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	220	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	650	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	280	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	12	< 1.0		< 1.0	< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50		< 50	< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	280	< 1.0		< 1.0	< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	660	< 1.0		< 1.0	< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127675	1127676	1127677	1127678	1127679	1127680	1127681	1127682
		Sample Location:			BH103	BH104	BH104	BH104	BH104	BH105	BH121	BH121
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			6.45	1.5	2.5	3.3	4.5	3.0	2.5	5.4
		Bottom Depth (m):				2.0	3.0	3.5	5.0	3.2	3.0	5.8
		Date Sampled:			13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50	< 50	< 50		< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1500	910		< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	650	310		< 0.50	< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127675	1127676	1127677	1127678	1127679	1127680	1127681	1127682
		Sample Location:			BH103	BH104	BH104	BH104	BH104	BH105	BH121	BH121
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			6.45	1.5	2.5	3.3	4.5	3.0	2.5	5.4
		Bottom Depth (m):				2.0	3.0	3.5	5.0	3.2	3.0	5.8
		Date Sampled:			13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	31	10		< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	2300	560		< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1400	350		< 0.50	< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	850	210		< 0.50	< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	78	35		< 0.50	< 0.50
Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	11	3.4		< 0.50	< 0.50
Carbazole	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50		< 0.50	< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50	< 0.50	0.90	< 0.50	4.2	0.77		< 0.50	< 0.50
Pyrene	U	2790	mg/kg	0.50	< 0.50	0.65	< 0.50	2.9	< 0.50		< 0.50	< 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50		< 0.50	< 0.50
Chrysene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50		< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50		< 0.50	< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	0.66	< 0.50		< 0.50	< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50		< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	0.70	< 0.50		< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50	0.71	< 0.50		< 0.50	< 0.50
PCB 81	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 77	U	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 105	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 114	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127675	1127676	1127677	1127678	1127679	1127680	1127681	1127682
			Sample Location:		BH103	BH104	BH104	BH104	BH104	BH105	BH121	BH121
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		6.45	1.5	2.5	3.3	4.5	3.0	2.5	5.4
			Bottom Depth (m):			2.0	3.0	3.5	5.0	3.2	3.0	5.8
			Date Sampled:		13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021	14-Jan-2021
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY		COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
PCB 118	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 123	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 126	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 156	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 157	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 167	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 169	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
PCB 189	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	2815	mg/kg	0.12	< 0.12	< 0.12	< 0.12	< 0.12		< 0.12	< 0.12	< 0.12
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	0.66		1.8	< 0.30	< 0.30

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited			Chemtest Job No.:		21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:			Chemtest Sample ID.:		1127683	1127684	1127685	1127686	1127687	1127688	1127689	1127690
			Sample Location:		JBH1A	JBH1A	JBH1B	JBH2A	JBH2A	JBH2A	JBH3A	JBH3A
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.2	2.0	4.0	0.1	1.5	3.6	1.5	4.5
			Bottom Depth (m):		0.4	2.2	4.2	0.5	2.0	4.0	2.0	5.0
			Date Sampled:		14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	15-Jan-2021	15-Jan-2021
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Arsenic	U	2450	mg/kg	1.0	20	27	7.5	76	18	16	6.4	6.6
Cadmium	U	2450	mg/kg	0.10	1.4	0.11	< 0.10	3.6	0.90	0.97	< 0.10	< 0.10
Chromium	U	2450	mg/kg	1.0	120	11	8.3	120	50	60	5.6	8.2
Chromium (Trivalent)	N	2490	mg/kg	1.0	120	11	8.3	120	49	60	5.6	8.2
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.67	< 0.50	< 0.50	< 0.50
Copper	U	2450	mg/kg	0.50	26	6.1	2.4	840	66	150	3.0	2.8
Lead	U	2450	mg/kg	0.50	230	12	15	1100	200	810	9.8	16
Mercury	U	2450	mg/kg	0.10	1.5	0.10	< 0.10	0.75	0.39	1.7	< 0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	22	9.1	6.7	60	19	21	4.3	6.4
Selenium	U	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.25	0.27	< 0.20	< 0.20
Zinc	U	2450	mg/kg	0.50	530	32	28	2800	410	560	21	33
Acenaphthene	U	2700	mg/kg	0.10	2.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	0.72	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	3.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	8.6	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	6.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	3.8	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	7.8	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	1.6	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	20	2.2	< 0.10	< 0.10	1.1	< 0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	1.8	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	6.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalene	U	2700	mg/kg	0.10	0.64	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	20	1.8	< 0.10	< 0.10	1.0	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	110	4.0	< 2.0	< 2.0	2.1	< 2.0	< 2.0	< 2.0
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	7.1	3.1	17	15	12	22	9.0	19
Chromatogram (TPH)	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached
pH	U	2010		4.0	9.3	8.7	9.3	11.6	10.6	8.9	9.6	9.8
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	0.70	1.3	< 0.40	4.6	3.0	3.0	< 0.40	< 0.40
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.12	0.72	0.040	0.15	0.14	0.25	< 0.010	0.071
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:					Chemtest Sample ID.:	1127683	1127684	1127685	1127686	1127687	1127688	1127689	1127690
					Sample Location:	JBH1A	JBH1A	JBH1B	JBH2A	JBH2A	JBH2A	JBH3A	JBH3A
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.2	2.0	4.0	0.1	1.5	3.6	1.5	4.5
					Bottom Depth (m):	0.4	2.2	4.2	0.5	2.0	4.0	2.0	5.0
					Date Sampled:	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	15-Jan-2021	15-Jan-2021
					Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Beryllium	U	2450	mg/kg	1.0		1.6	1.7	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0
Vanadium	U	2450	mg/kg	5.0		130	23	12	42	52	49	10	12
Organic Matter	U	2625	%	0.40		4.3	9.7	< 0.40	0.55	3.5	5.7	< 0.40	< 0.40
Total Organic Carbon	U	2625	%	0.20		2.5	5.6	< 0.20	0.32	2.0	3.3	< 0.20	< 0.20
Total TPH >C6-C40	U	2670	mg/kg	10		180	8100	< 10	< 10	59	240	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	37	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	82	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	73	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	480	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	670	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	69	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0		24	270	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		280	530	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	3600	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		310	4500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		310	5200	< 10	< 10	< 10	< 10	< 10	< 10
Benzo[a]anthracene	U	2700	mg/kg	0.10		8.3	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorodifluoromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Chloromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Bromomethane	U	2760	µg/kg	20		< 20	< 20	< 20		< 20	< 20		< 20
Chloroethane	U	2760	µg/kg	2.0		< 2.0	< 2.0	< 2.0		< 2.0	< 2.0		< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Bromochloromethane	U	2760	µg/kg	5.0		< 5.0	< 5.0	< 5.0		< 5.0	< 5.0		< 5.0
Trichloromethane	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127683	1127684	1127685	1127686	1127687	1127688	1127689	1127690
		Sample Location:			JBH1A	JBH1A	JBH1B	JBH2A	JBH2A	JBH2A	JBH3A	JBH3A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.2	2.0	4.0	0.1	1.5	3.6	1.5	4.5
		Bottom Depth (m):			0.4	2.2	4.2	0.5	2.0	4.0	2.0	5.0
		Date Sampled:			14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	15-Jan-2021	15-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Tetrachloromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0		< 2.0
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,2-Dichloropropane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Dibromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Bromodichloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0		< 5.0
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10		< 10	< 10		< 10
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10		< 10	< 10		< 10
1,1,2-Trichloroethane	U	2760	µg/kg	10	< 10	< 10	< 10		< 10	< 10		< 10
Tetrachloroethene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0		< 2.0
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10		< 10	< 10		< 10
1,2-Dibromoethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0		< 5.0
Chlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0		< 2.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Isopropylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Bromobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50		< 50	< 50		< 50
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
2-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127683	1127684	1127685	1127686	1127687	1127688	1127689	1127690
		Sample Location:			JBH1A	JBH1A	JBH1B	JBH2A	JBH2A	JBH2A	JBH3A	JBH3A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.2	2.0	4.0	0.1	1.5	3.6	1.5	4.5
		Bottom Depth (m):			0.4	2.2	4.2	0.5	2.0	4.0	2.0	5.0
		Date Sampled:			14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	15-Jan-2021	15-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50		< 50	< 50		< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0		< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Phenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
4-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Nitrobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Isophorone	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Naphthalene	U	2790	mg/kg	0.50	1.6	0.73	< 0.50		< 0.50	< 0.50		< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50	0.98	0.55	< 0.50		< 0.50	< 0.50		< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127683	1127684	1127685	1127686	1127687	1127688	1127689	1127690
		Sample Location:			JBH1A	JBH1A	JBH1B	JBH2A	JBH2A	JBH2A	JBH3A	JBH3A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.2	2.0	4.0	0.1	1.5	3.6	1.5	4.5
		Bottom Depth (m):			0.4	2.2	4.2	0.5	2.0	4.0	2.0	5.0
		Date Sampled:			14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	15-Jan-2021	15-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Acenaphthylene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Acenaphthene	U	2790	mg/kg	0.50	2.3	0.78	< 0.50		< 0.50	< 0.50		< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Dibenzofuran	U	2790	mg/kg	0.50	1.2	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Fluorene	U	2790	mg/kg	0.50	0.83	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Azobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Phenanthrene	U	2790	mg/kg	0.50	3.7	3.0	< 0.50		< 0.50	< 0.50		< 0.50
Anthracene	U	2790	mg/kg	0.50	1.3	0.93	< 0.50		< 0.50	< 0.50		< 0.50
Carbazole	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Fluoranthene	U	2790	mg/kg	0.50	7.3	4.3	< 0.50		< 0.50	< 0.50		< 0.50
Pyrene	U	2790	mg/kg	0.50	6.4	3.4	< 0.50		< 0.50	< 0.50		< 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50	3.4	1.8	< 0.50		< 0.50	< 0.50		< 0.50
Chrysene	U	2790	mg/kg	0.50	3.4	1.7	< 0.50		< 0.50	< 0.50		< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	5.2	2.4	< 0.50		< 0.50	< 0.50		< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	2.0	0.88	< 0.50		< 0.50	< 0.50		< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50	4.5	2.0	< 0.50		< 0.50	< 0.50		< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	2.7	1.1	< 0.50		< 0.50	< 0.50		< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	0.71	< 0.50	< 0.50		< 0.50	< 0.50		< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	2.7	1.1	< 0.50		< 0.50	< 0.50		< 0.50
PCB 81	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 77	U	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127683	1127684	1127685	1127686	1127687	1127688	1127689	1127690
		Sample Location:			JBH1A	JBH1A	JBH1B	JBH2A	JBH2A	JBH2A	JBH3A	JBH3A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.2	2.0	4.0	0.1	1.5	3.6	1.5	4.5
		Bottom Depth (m):			0.4	2.2	4.2	0.5	2.0	4.0	2.0	5.0
		Date Sampled:			14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	15-Jan-2021	15-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
PCB 118	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	2815	mg/kg	0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Total Phenols	U	2920	mg/kg	0.30	< 0.30	1.4	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127691	1127692	1127693	1127694	1127695	1127696	1127697	1127698
		Sample Location:			JBH4A	JBH4A	JBH5A	JBH5A	JBH5A	JBH6A	JBH6A	JBH7A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.0	2.5	0.1	1.6	3.8	1.0	5.0	0.7
		Bottom Depth (m):			0.2	3.0	0.5	2.0	4.2	1.5	5.5	0.8
		Date Sampled:			15-Jan-2021	15-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Arsenic	U	2450	mg/kg	1.0	16	7.4	19	21	4.2	6.2	7.4	8.7
Cadmium	U	2450	mg/kg	0.10	2.8	< 0.10	0.53	1.1	< 0.10	< 0.10	< 0.10	2.9
Chromium	U	2450	mg/kg	1.0	26	6.5	30	840	12	5.2	8.4	78
Chromium (Trivalent)	N	2490	mg/kg	1.0	26	6.5	30	840	12	5.2	8.4	78
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Copper	U	2450	mg/kg	0.50	51	1.4	13	34	3.3	1.1	3.6	41
Lead	U	2450	mg/kg	0.50	610	7.3	98	120	7.5	3.7	17	470
Mercury	U	2450	mg/kg	0.10	1.3	< 0.10	0.22	0.78	< 0.10	< 0.10	< 0.10	1.4
Nickel	U	2450	mg/kg	0.50	14	5.0	8.0	39	3.2	4.3	6.4	19
Selenium	U	2450	mg/kg	0.20	0.77	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.35
Zinc	U	2450	mg/kg	0.50	1800	21	180	530	31	11	31	1900
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	4.7	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	5.5	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	4.1	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	2.0	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	2.8	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	1.0	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10	< 0.10	0.28	1.3	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	3.5	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10	< 0.10	0.39	1.9	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0	< 2.0	< 2.0	29	< 2.0	< 2.0	< 2.0	< 2.0
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-	-	-	-	-	-	-	-
Moisture	N	2030	%	0.020	20	15	6.2	5.9	3.8	5.4	21	14
Chromatogram (TPH)	N			N/A	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached	See Attached
pH	U	2010		4.0	8.6	9.3	9.3	10.3	9.7	9.4	9.3	9.1
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	1.0	< 0.40	0.44	3.9	1.5	< 0.40	< 0.40	0.87
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.023	< 0.010	0.023	0.34	0.20	< 0.010	< 0.010	< 0.010
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:					Chemtest Sample ID.:	1127691	1127692	1127693	1127694	1127695	1127696	1127697	1127698
					Sample Location:	JBH4A	JBH4A	JBH5A	JBH5A	JBH5A	JBH6A	JBH6A	JBH7A
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.0	2.5	0.1	1.6	3.8	1.0	5.0	0.7
					Bottom Depth (m):	0.2	3.0	0.5	2.0	4.2	1.5	5.5	0.8
					Date Sampled:	15-Jan-2021	15-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021
					Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Beryllium	U	2450	mg/kg	1.0		< 1.0	< 1.0	< 1.0	1.2	1.0	< 1.0	< 1.0	< 1.0
Vanadium	U	2450	mg/kg	5.0		32	12	32	540	14	14	12	91
Organic Matter	U	2625	%	0.40		3.8	< 0.40	1.4	2.6	2.8	< 0.40	< 0.40	45
Total Organic Carbon	U	2625	%	0.20		2.2	< 0.20	0.79	1.5	1.6	< 0.20	< 0.20	26
Total TPH >C6-C40	U	2670	mg/kg	10		59	< 10	< 10	52	< 10	< 10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo[a]anthracene	U	2700	mg/kg	0.10		< 0.10	< 0.10	< 0.10	2.4	< 0.10	< 0.10	< 0.10	< 0.10
Dichlorodifluoromethane	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
Chloromethane	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
Vinyl Chloride	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
Bromomethane	U	2760	µg/kg	20			< 20		< 20			< 20	< 20
Chloroethane	U	2760	µg/kg	2.0			< 2.0		< 2.0			< 2.0	< 2.0
Trichlorofluoromethane	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
1,1-Dichloroethene	U	2760	mg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
1,1-Dichloroethane	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0
Bromochloromethane	U	2760	µg/kg	5.0			< 5.0		< 5.0			< 5.0	< 5.0
Trichloromethane	U	2760	µg/kg	1.0			< 1.0		< 1.0			< 1.0	< 1.0

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:					Chemtest Sample ID.:	1127691	1127692	1127693	1127694	1127695	1127696	1127697	1127698
					Sample Location:	JBH4A	JBH4A	JBH5A	JBH5A	JBH5A	JBH6A	JBH6A	JBH7A
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	0.0	2.5	0.1	1.6	3.8	1.0	5.0	0.7
					Bottom Depth (m):	0.2	3.0	0.5	2.0	4.2	1.5	5.5	0.8
					Date Sampled:	15-Jan-2021	15-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021
					Asbestos Lab:	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
1,1,1-Trichloroethane	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Tetrachloromethane	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,1-Dichloropropene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Benzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
1,2-Dichloroethane	U	2760	µg/kg	2.0		< 2.0		< 2.0			< 2.0	< 2.0	
Trichloroethene	N	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,2-Dichloropropane	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Dibromomethane	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Bromodichloromethane	U	2760	µg/kg	5.0		< 5.0		< 5.0			< 5.0	< 5.0	
cis-1,3-Dichloropropene	N	2760	µg/kg	10		< 10		< 10			< 10	< 10	
Toluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.6	
Trans-1,3-Dichloropropene	N	2760	µg/kg	10		< 10		< 10			< 10	< 10	
1,1,2-Trichloroethane	U	2760	µg/kg	10		< 10		< 10			< 10	< 10	
Tetrachloroethene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,3-Dichloropropane	U	2760	µg/kg	2.0		< 2.0		< 2.0			< 2.0	< 2.0	
Dibromochloromethane	U	2760	µg/kg	10		< 10		< 10			< 10	< 10	
1,2-Dibromoethane	U	2760	µg/kg	5.0		< 5.0		< 5.0			< 5.0	< 5.0	
Chlorobenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0		< 2.0		< 2.0			< 2.0	< 2.0	
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	9.9	
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	35	
o-Xylene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	12	
Styrene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Tribromomethane	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Isopropylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Bromobenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,2,3-Trichloropropane	N	2760	µg/kg	50		< 50		< 50			< 50	< 50	
N-Propylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
2-Chlorotoluene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
4-Chlorotoluene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
Tert-Butylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	12	
Sec-Butylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,3-Dichlorobenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
4-Isopropyltoluene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	
1,4-Dichlorobenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0	

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127691	1127692	1127693	1127694	1127695	1127696	1127697	1127698
		Sample Location:			JBH4A	JBH4A	JBH5A	JBH5A	JBH5A	JBH6A	JBH6A	JBH7A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.0	2.5	0.1	1.6	3.8	1.0	5.0	0.7
		Bottom Depth (m):			0.2	3.0	0.5	2.0	4.2	1.5	5.5	0.8
		Date Sampled:			15-Jan-2021	15-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
N-Butylbenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0
1,2-Dichlorobenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50		< 50		< 50			< 50	< 50
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0
Hexachlorobutadiene	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0		< 2.0		< 2.0			< 2.0	< 2.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0		< 1.0		< 1.0			< 1.0	< 1.0
N-Nitrosodimethylamine	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Phenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Chlorophenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
1,3-Dichlorobenzene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
1,4-Dichlorobenzene	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
1,2-Dichlorobenzene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Methylphenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Hexachloroethane	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Methylphenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Nitrobenzene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Isophorone	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Nitrophenol	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2,4-Dimethylphenol	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2,4-Dichlorophenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Naphthalene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Chloroaniline	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Hexachlorobutadiene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Methylnaphthalene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Nitrophenol	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Chloronaphthalene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Nitroaniline	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127691	1127692	1127693	1127694	1127695	1127696	1127697	1127698
		Sample Location:			JBH4A	JBH4A	JBH5A	JBH5A	JBH5A	JBH6A	JBH6A	JBH7A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.0	2.5	0.1	1.6	3.8	1.0	5.0	0.7
		Bottom Depth (m):			0.2	3.0	0.5	2.0	4.2	1.5	5.5	0.8
		Date Sampled:			15-Jan-2021	15-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Acenaphthylene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Dimethylphthalate	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2,6-Dinitrotoluene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Acenaphthene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
3-Nitroaniline	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Dibenzofuran	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Chlorophenylphenylether	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2,4-Dinitrotoluene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Fluorene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Diethyl Phthalate	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Nitroaniline	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Azobenzene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Hexachlorobenzene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Pentachlorophenol	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Phenanthrene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Anthracene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Carbazole	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Fluoranthene	U	2790	mg/kg	0.50		< 0.50		0.74			< 0.50	< 0.50
Pyrene	U	2790	mg/kg	0.50		< 0.50		0.89			< 0.50	< 0.50
Butylbenzyl Phthalate	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Benzo[a]anthracene	U	2790	mg/kg	0.50		< 0.50		1.1			< 0.50	< 0.50
Chrysene	U	2790	mg/kg	0.50		< 0.50		1.3			< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Benzo[b]fluoranthene	U	2790	mg/kg	0.50		< 0.50		2.8			< 0.50	< 0.50
Benzo[k]fluoranthene	U	2790	mg/kg	0.50		< 0.50		0.85			< 0.50	< 0.50
Benzo[a]pyrene	U	2790	mg/kg	0.50		< 0.50		2.4			< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50		< 0.50		1.4			< 0.50	< 0.50
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50		< 0.50		< 0.50			< 0.50	< 0.50
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50		< 0.50		1.4			< 0.50	< 0.50
PCB 81	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 77	U	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540	21-01540
Quotation No.:		Chemtest Sample ID.:			1127691	1127692	1127693	1127694	1127695	1127696	1127697	1127698
		Sample Location:			JBH4A	JBH4A	JBH5A	JBH5A	JBH5A	JBH6A	JBH6A	JBH7A
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.0	2.5	0.1	1.6	3.8	1.0	5.0	0.7
		Bottom Depth (m):			0.2	3.0	0.5	2.0	4.2	1.5	5.5	0.8
		Date Sampled:			15-Jan-2021	15-Jan-2021	14-Jan-2021	14-Jan-2021	14-Jan-2021	13-Jan-2021	13-Jan-2021	14-Jan-2021
		Asbestos Lab:			COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
PCB 118	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	2815	mg/kg	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	2815	mg/kg	0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Total Phenols	U	2920	mg/kg	0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited			**Chemtest Job No.:**		21-01540
Quotation No.:			**Chemtest Sample ID.:**		1127700
			Sample Location:		JBH4A
			Sample Type:		SOIL
			Top Depth (m):		1.1
			Bottom Depth (m):		1.3
			Date Sampled:		15-Jan-2021
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Arsenic	U	2450	mg/kg	1.0	6.8
Cadmium	U	2450	mg/kg	0.10	0.12
Chromium	U	2450	mg/kg	1.0	17
Chromium (Trivalent)	N	2490	mg/kg	1.0	17
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Copper	U	2450	mg/kg	0.50	4.5
Lead	U	2450	mg/kg	0.50	11
Mercury	U	2450	mg/kg	0.10	< 0.10
Nickel	U	2450	mg/kg	0.50	6.1
Selenium	U	2450	mg/kg	0.20	< 0.20
Zinc	U	2450	mg/kg	0.50	44
Acenaphthene	U	2700	mg/kg	0.10	< 0.10
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10
Anthracene	U	2700	mg/kg	0.10	< 0.10
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10
Chrysene	U	2700	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10
Fluoranthene	U	2700	mg/kg	0.10	< 0.10
Fluorene	U	2700	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10
Naphthalene	U	2700	mg/kg	0.10	< 0.10
Phenanthrene	U	2700	mg/kg	0.10	< 0.10
Pyrene	U	2700	mg/kg	0.10	< 0.10
Total Of 16 PAH's	U	2700	mg/kg	2.0	< 2.0
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
ACM Detection Stage	U	2192		N/A	-
Moisture	N	2030	%	0.020	7.9
Chromatogram (TPH)	N			N/A	See Attached
pH	U	2010		4.0	9.0
Boron (Hot Water Soluble)	U	2120	mg/kg	0.40	
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	< 0.010
Cyanide (Free)	U	2300	mg/kg	0.50	< 0.50

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127700
		Sample Location:			JBH4A
		Sample Type:			SOIL
		Top Depth (m):			1.1
		Bottom Depth (m):			1.3
		Date Sampled:			15-Jan-2021
		Asbestos Lab:			COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Beryllium	U	2450	mg/kg	1.0	
Vanadium	U	2450	mg/kg	5.0	
Organic Matter	U	2625	%	0.40	< 0.40
Total Organic Carbon	U	2625	%	0.20	< 0.20
Total TPH >C6-C40	U	2670	mg/kg	10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10
Dichlorodifluoromethane	U	2760	µg/kg	1.0	
Chloromethane	U	2760	µg/kg	1.0	
Vinyl Chloride	U	2760	µg/kg	1.0	
Bromomethane	U	2760	µg/kg	20	
Chloroethane	U	2760	µg/kg	2.0	
Trichlorofluoromethane	U	2760	µg/kg	1.0	
1,1-Dichloroethene	U	2760	mg/kg	1.0	
Trans 1,2-Dichloroethene	U	2760	mg/kg	1.0	
1,1-Dichloroethane	U	2760	µg/kg	1.0	
cis 1,2-Dichloroethene	U	2760	µg/kg	1.0	
Bromochloromethane	U	2760	µg/kg	5.0	
Trichloromethane	U	2760	µg/kg	1.0	

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127700
		Sample Location:			JBH4A
		Sample Type:			SOIL
		Top Depth (m):			1.1
		Bottom Depth (m):			1.3
		Date Sampled:			15-Jan-2021
		Asbestos Lab:			COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
1,1,1-Trichloroethane	U	2760	µg/kg	1.0	
Tetrachloromethane	U	2760	µg/kg	1.0	
1,1-Dichloropropene	U	2760	µg/kg	1.0	
Benzene	U	2760	µg/kg	1.0	
1,2-Dichloroethane	U	2760	µg/kg	2.0	
Trichloroethene	N	2760	µg/kg	1.0	
1,2-Dichloropropane	U	2760	µg/kg	1.0	
Dibromomethane	U	2760	µg/kg	1.0	
Bromodichloromethane	U	2760	µg/kg	5.0	
cis-1,3-Dichloropropene	N	2760	µg/kg	10	
Toluene	U	2760	µg/kg	1.0	
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	
1,1,2-Trichloroethane	U	2760	µg/kg	10	
Tetrachloroethene	U	2760	µg/kg	1.0	
1,3-Dichloropropane	U	2760	µg/kg	2.0	
Dibromochloromethane	U	2760	µg/kg	10	
1,2-Dibromoethane	U	2760	µg/kg	5.0	
Chlorobenzene	U	2760	µg/kg	1.0	
1,1,1,2-Tetrachloroethane	U	2760	µg/kg	2.0	
Ethylbenzene	U	2760	µg/kg	1.0	
m & p-Xylene	U	2760	µg/kg	1.0	
o-Xylene	U	2760	µg/kg	1.0	
Styrene	U	2760	µg/kg	1.0	
Tribromomethane	U	2760	µg/kg	1.0	
Isopropylbenzene	U	2760	µg/kg	1.0	
Bromobenzene	U	2760	µg/kg	1.0	
1,2,3-Trichloropropane	N	2760	µg/kg	50	
N-Propylbenzene	U	2760	µg/kg	1.0	
2-Chlorotoluene	U	2760	µg/kg	1.0	
1,3,5-Trimethylbenzene	U	2760	µg/kg	1.0	
4-Chlorotoluene	U	2760	µg/kg	1.0	
Tert-Butylbenzene	U	2760	µg/kg	1.0	
1,2,4-Trimethylbenzene	U	2760	µg/kg	1.0	
Sec-Butylbenzene	U	2760	µg/kg	1.0	
1,3-Dichlorobenzene	U	2760	µg/kg	1.0	
4-Isopropyltoluene	U	2760	µg/kg	1.0	
1,4-Dichlorobenzene	U	2760	µg/kg	1.0	

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127700
		Sample Location:			JBH4A
		Sample Type:			SOIL
		Top Depth (m):			1.1
		Bottom Depth (m):			1.3
		Date Sampled:			15-Jan-2021
		Asbestos Lab:			COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
N-Butylbenzene	U	2760	µg/kg	1.0	
1,2-Dichlorobenzene	U	2760	µg/kg	1.0	
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	
1,2,4-Trichlorobenzene	U	2760	µg/kg	1.0	
Hexachlorobutadiene	U	2760	µg/kg	1.0	
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	
N-Nitrosodimethylamine	U	2790	mg/kg	0.50	
Phenol	U	2790	mg/kg	0.50	
2-Chlorophenol	U	2790	mg/kg	0.50	
Bis-(2-Chloroethyl)Ether	U	2790	mg/kg	0.50	
1,3-Dichlorobenzene	U	2790	mg/kg	0.50	
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	
1,2-Dichlorobenzene	U	2790	mg/kg	0.50	
2-Methylphenol	U	2790	mg/kg	0.50	
Bis(2-Chloroisopropyl)Ether	U	2790	mg/kg	0.50	
Hexachloroethane	N	2790	mg/kg	0.50	
N-Nitrosodi-n-propylamine	U	2790	mg/kg	0.50	
4-Methylphenol	U	2790	mg/kg	0.50	
Nitrobenzene	U	2790	mg/kg	0.50	
Isophorone	U	2790	mg/kg	0.50	
2-Nitrophenol	N	2790	mg/kg	0.50	
2,4-Dimethylphenol	N	2790	mg/kg	0.50	
Bis(2-Chloroethoxy)Methane	U	2790	mg/kg	0.50	
2,4-Dichlorophenol	U	2790	mg/kg	0.50	
1,2,4-Trichlorobenzene	U	2790	mg/kg	0.50	
Naphthalene	U	2790	mg/kg	0.50	
4-Chloroaniline	N	2790	mg/kg	0.50	
Hexachlorobutadiene	U	2790	mg/kg	0.50	
4-Chloro-3-Methylphenol	U	2790	mg/kg	0.50	
2-Methylnaphthalene	U	2790	mg/kg	0.50	
4-Nitrophenol	N	2790	mg/kg	0.50	
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	
2,4,6-Trichlorophenol	U	2790	mg/kg	0.50	
2,4,5-Trichlorophenol	U	2790	mg/kg	0.50	
2-Chloronaphthalene	U	2790	mg/kg	0.50	
2-Nitroaniline	U	2790	mg/kg	0.50	

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited		**Chemtest Job No.:**			21-01540
Quotation No.:		**Chemtest Sample ID.:**			1127700
		Sample Location:			JBH4A
		Sample Type:			SOIL
		Top Depth (m):			1.1
		Bottom Depth (m):			1.3
		Date Sampled:			15-Jan-2021
		Asbestos Lab:			COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Acenaphthylene	U	2790	mg/kg	0.50	
Dimethylphthalate	U	2790	mg/kg	0.50	
2,6-Dinitrotoluene	U	2790	mg/kg	0.50	
Acenaphthene	U	2790	mg/kg	0.50	
3-Nitroaniline	N	2790	mg/kg	0.50	
Dibenzofuran	U	2790	mg/kg	0.50	
4-Chlorophenylphenylether	U	2790	mg/kg	0.50	
2,4-Dinitrotoluene	U	2790	mg/kg	0.50	
Fluorene	U	2790	mg/kg	0.50	
Diethyl Phthalate	U	2790	mg/kg	0.50	
4-Nitroaniline	U	2790	mg/kg	0.50	
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	
Azobenzene	U	2790	mg/kg	0.50	
4-Bromophenylphenyl Ether	U	2790	mg/kg	0.50	
Hexachlorobenzene	U	2790	mg/kg	0.50	
Pentachlorophenol	N	2790	mg/kg	0.50	
Phenanthrene	U	2790	mg/kg	0.50	
Anthracene	U	2790	mg/kg	0.50	
Carbazole	U	2790	mg/kg	0.50	
Di-N-Butyl Phthalate	U	2790	mg/kg	0.50	
Fluoranthene	U	2790	mg/kg	0.50	
Pyrene	U	2790	mg/kg	0.50	
Butylbenzyl Phthalate	U	2790	mg/kg	0.50	
Benzo[a]anthracene	U	2790	mg/kg	0.50	
Chrysene	U	2790	mg/kg	0.50	
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	
Di-N-Octyl Phthalate	U	2790	mg/kg	0.50	
Benzo[b]fluoranthene	U	2790	mg/kg	0.50	
Benzo[k]fluoranthene	U	2790	mg/kg	0.50	
Benzo[a]pyrene	U	2790	mg/kg	0.50	
Indeno(1,2,3-c,d)Pyrene	U	2790	mg/kg	0.50	
Dibenz(a,h)Anthracene	U	2790	mg/kg	0.50	
Benzo[g,h,i]perylene	U	2790	mg/kg	0.50	
PCB 81	N	2815	mg/kg	0.010	
PCB 77	U	2815	mg/kg	0.010	
PCB 105	N	2815	mg/kg	0.010	
PCB 114	N	2815	mg/kg	0.010	

Results - Soil

Project: 201121-2 Shotton (main site)

Client: Roberts Environmental Limited			**Chemtest Job No.:**		21-01540
Quotation No.:			**Chemtest Sample ID.:**		1127700
			Sample Location:		JBH4A
			Sample Type:		SOIL
			Top Depth (m):		1.1
			Bottom Depth (m):		1.3
			Date Sampled:		15-Jan-2021
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
PCB 118	N	2815	mg/kg	0.010	
PCB 123	N	2815	mg/kg	0.010	
PCB 126	N	2815	mg/kg	0.010	
PCB 156	N	2815	mg/kg	0.010	
PCB 157	N	2815	mg/kg	0.010	
PCB 167	N	2815	mg/kg	0.010	
PCB 169	N	2815	mg/kg	0.010	
PCB 189	N	2815	mg/kg	0.010	
Total PCBs (12 Congeners)	N	2815	mg/kg	0.12	
Total Phenols	U	2920	mg/kg	0.30	

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Allkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS
2810	Polychlorinated Biphenyls (PCB) as Aroclors in Soils by GC-ECD	Polychlorinated Biphenyls expressed as an Aroclor (normally reported as *Aroclor 1242)	Extraction of a soil sample, as received, into hexane/acetone (50:50) followed by gas chromatography (GC) using mass spectrometric (MS) detection for identification of polychlorinated biphenyls and electron capture detection (ECD) for quanitation if present.
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS

Test Methods

SOP	Title	Parameters included	Method summary
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	21-02747-2		
Initial Date of Issue:	05-Feb-2021	**Date of Re-Issue:**	15-Feb-2021
Client	Roberts Environmental Limited		
Client Address:	1 Croft Stairs Newcastle Upon Tyne Tyne & Wear NE1 2HG		
Contact(s):	Andrew Cuthbert		
Project	201121-2 Shotton (Main site)		
Quotation No.:	Q20-21803	**Date Received:**	01-Feb-2021
Order No.:		**Date Instructed:**	01-Feb-2021
No. of Samples:	8		
Turnaround (Wkdays):	10	**Results Due:**	12-Feb-2021
Date Approved:	15-Feb-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

confidential
Paul Wright
slrconsulting.com
Mar 26, 2021 05:25

Results - Water

Project: 201121-2 Shotton (Main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747
Quotation No.: Q20-21803					Chemtest Sample ID.:	1133274	1133275	1133276	1133277	1133278	1133279	1133280	1133281
					Sample Location:	JBH4	DUPLICATE 2	JBH5	JBH7	JBH1A	JBH2A	JBH3A	JBH3
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
pH	U	1010		N/A		7.6	7.8	8.1	7.8	7.9	11.6	8.2	7.9
Ammonia (Free)	U	1220	mg/l	0.050		< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	3.3	< 0.050	< 0.050
Ammoniacal Nitrogen	U	1220	mg/l	0.050		0.12	0.17	0.065	< 0.050	0.19	2.6	0.052	< 0.050
Sulphate	U	1220	mg/l	1.0		100	170	46	49	110	13	110	< 1.0
Cyanide (Free)	U	1300	mg/l	0.050		< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Hardness as Ca	U	1415	mg/l	6		180	96	85	200	110	110	57	97
Arsenic (Dissolved)	U	1450	µg/l	1.0		10	20	11	17	2.5	14	15	20
Boron (Dissolved)	U	1450	µg/l	20		130	290	150	260	150	190	460	290
Beryllium (Dissolved)	U	1450	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1450	µg/l	0.080		< 0.080	0.20	< 0.080	< 0.080	< 0.080	0.96	0.10	0.092
Chromium (Dissolved)	U	1450	µg/l	1.0		4.1	13	13	29	9.5	15	3.7	14
Copper (Dissolved)	U	1450	µg/l	1.0		5.7	9.3	2.9	3.7	5.8	95	9.1	7.3
Mercury (Dissolved)	U	1450	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel (Dissolved)	U	1450	µg/l	1.0		3.3	3.8	< 1.0	< 1.0	5.6	7.1	3.8	4.4
Lead (Dissolved)	U	1450	µg/l	1.0		< 1.0	2.1	< 1.0	< 1.0	< 1.0	360	18	1.4
Selenium (Dissolved)	U	1450	µg/l	1.0		9.1	14	2.6	7.7	13	5.6	7.8	14
Vanadium (Dissolved)	U	1450	µg/l	1.0		1.3	26	7.8	15	2.7	61	12	27
Zinc (Dissolved)	U	1450	µg/l	1.0		31	20	8.9	15	20	240	34	12
Dissolved Organic Carbon	U	1610	mg/l	2.0		8.4	18	3.2	5.9	8.4	27	18	19
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results - Water

Project: 201121-2 Shotton (Main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747
Quotation No.: Q20-21803					Chemtest Sample ID.:	1133274	1133275	1133276	1133277	1133278	1133279	1133280	1133281
					Sample Location:	JBH4	DUPLICATE 2	JBH5	JBH7	JBH1A	JBH2A	JBH3A	JBH3
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Acenaphthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	N	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.10		< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	1700	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dichlorodifluoromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Results - Water

Project: 201121-2 Shotton (Main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747
Quotation No.: Q20-21803					Chemtest Sample ID.:	1133274	1133275	1133276	1133277	1133278	1133279	1133280	1133281
					Sample Location:	JBH4	DUPLICATE 2	JBH5	JBH7	JBH1A	JBH2A	JBH3A	JBH3
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Tetrachloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis-(2-Chloroethyl)Ether	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,4-Dichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylphenol (o-Cresol)	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroisopropyl)Ether	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 201121-2 Shotton (Main site)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747
Quotation No.: Q20-21803					Chemtest Sample ID.:	1133274	1133275	1133276	1133277	1133278	1133279	1133280	1133281
					Sample Location:	JBH4	DUPLICATE 2	JBH5	JBH7	JBH1A	JBH2A	JBH3A	JBH3
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Hexachloroethane	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
N-Nitrosodi-n-propylamine	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methylphenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nitrobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Isophorone	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitrophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dimethylphenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Chloroethoxy)Methane	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dichlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,4-Trichlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloroaniline	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chloro-3-Methylphenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methylnaphthalene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorocyclopentadiene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,6-Trichlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4,5-Trichlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Chloronaphthalene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Nitroaniline	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthylene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dimethylphthalate	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,6-Dinitrotoluene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Acenaphthene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
3-Nitroaniline	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenzofuran	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Chlorophenylphenylether	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,4-Dinitrotoluene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Fluorene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Diethyl Phthalate	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitroaniline	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Methyl-4,6-Dinitrophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Azobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Bromophenylphenyl Ether	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobenzene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pentachlorophenol	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Phenanthrene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Anthracene	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbazole	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Butyl Phthalate	N	1790	µg/l	0.50		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

Results - Water

Project: 201121-2 Shotton (Main site)

Client: Roberts Environmental Limited			**Chemtest Job No.:**		21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747	21-02747
Quotation No.: Q20-21803			**Chemtest Sample ID.:**		1133274	1133275	1133276	1133277	1133278	1133279	1133280	1133281
			Sample Location:		JBH4	DUPLICATE 2	JBH5	JBH7	JBH1A	JBH2A	JBH3A	JBH3
			Sample Type:		WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			Date Sampled:		28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021	28-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Butylbenzyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chrysene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Di-N-Octyl Phthalate	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[b]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[k]fluoranthene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[a]pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibenz(a,h)Anthracene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Benzo[g,h,i]perylene	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Nitrophenol	N	1790	µg/l	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
PCB 81	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 77	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 105	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 114	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 118	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 123	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 126	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 156	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 157	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 167	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 169	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
PCB 189	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total PCBs (12 Congeners)	N	1815	µg/l	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Phenols	U	1920	mg/l	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.
1415	Cations in Waters by ICP-MS	Sodium; Potassium; Calcium; Magnesium	Direct determination by inductively coupled plasma - mass spectrometry (ICP-MS).
1450	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection
1815	Polychlorinated Biphenyls (PCB) ICES7 Congeners in Waters by GC-MS	ICES7 PCB congeners	Solvent extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.

Report Information

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SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operation procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

2183

Final Report

Report No.:	21-03449-1
Initial Date of Issue:	09-Feb-2021
Client	Roberts Environmental Limited
Client Address:	1 Croft Stairs Newcastle Upon Tyne Tyne & Wear NE1 2HG
Contact(s):	Andrew Cuthbert
Project	201121-1 - Shotton (A4 Area)

Quotation No.:		**Date Received:**	05-Feb-2021
Order No.:		**Date Instructed:**	05-Feb-2021
No. of Samples:	6		
Turnaround (Wkdays):	5	**Results Due:**	11-Feb-2021
Date Approved:	09-Feb-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

confidential
Paul Wright
slrconsulting.com
Mar 26, 2021 05:25

Results - Water

Project: 201121-1 - Shotton (A4 Area)

Client: Roberts Environmental Limited					Chemtest Job No.:	21-03449	21-03449	21-03449	21-03449	21-03449	21-03449
Quotation No.:					Chemtest Sample ID.:	1136941	1136942	1136943	1136944	1136945	1136946
					Client Sample ID.:	Trip Blank 1	Trip Blank 2	Trip Blank 3	Trip Blank 4	Trip Blank 5	Trip Blank 6
					Sample Type:	WATER	WATER	WATER	WATER	WATER	WATER
					Date Sampled:	27-Jan-2021	27-Jan-2021	27-Jan-2021	27-Jan-2021	27-Jan-2021	27-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**							
Dichlorodifluoromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichloroethene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10
Bromodichloromethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10
Toluene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,3-Dichloropropene	N	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10
1,1,2-Trichloroethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Dibromochloromethane	U	1760	µg/l	10		< 10	< 10	< 10	< 10	< 10	< 10
1,2-Dibromoethane	U	1760	µg/l	5.0		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	N	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	U	1760	µg/l	2.0		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tribromomethane	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichloropropane	N	1760	µg/l	50		< 50	< 50	< 50	< 50	< 50	< 50
N-Propylbenzene	U	1760	µg/l	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Results - Water

Project: 201121-1 - Shotton (A4 Area)

Client: Roberts Environmental Limited		Chemtest Job No.:			21-03449	21-03449	21-03449	21-03449	21-03449	21-03449
Quotation No.:		Chemtest Sample ID.:			1136941	1136942	1136943	1136944	1136945	1136946
		Client Sample ID.:			Trip Blank 1	Trip Blank 2	Trip Blank 3	Trip Blank 4	Trip Blank 5	Trip Blank 6
		Sample Type:			WATER	WATER	WATER	WATER	WATER	WATER
		Date Sampled:			27-Jan-2021	27-Jan-2021	27-Jan-2021	27-Jan-2021	27-Jan-2021	27-Jan-2021
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
2-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tert-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sec-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Isopropyltoluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Butylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-Chloropropane	U	1760	µg/l	50	< 50	< 50	< 50	< 50	< 50	< 50
1,2,4-Trichlorobenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	U	1760	µg/l	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Test Methods

SOP	Title	Parameters included	Method summary
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.

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Roberts Environmental Monitoring Form

Site: Shotton (Main Site)

Job No: 201121-2

Date: 27-Jan-21

Visit: 1 of 3

Equipment: GFM435 Gas Analyser

Meteorological Information					
Ground Conditions	Dry	Damp	Wet	Snow	Frost
Wind	Calm	Light	Moderate	High	
Cloud Cover	None	Slight	Cloudy	Overcast	
Precipitation	None	Slight	Moderate	Heavy	
Pressure trend (daily)	Falling	Steady	Rising		
Temperature	8°C				

ROBERTS ENVIRONMENTAL LTD

Borehole	Gas Flow (l/hr)	Borehole Pressure (pa)	Methane (% v/v)		Methane (% LEL)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Atm Pressure	Other Gases (PPM)			Depth to Water m bgl (Base BH)	Borehole Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	mb	PID	H_2S	CO		
BH101	0.7	3.0	0.0	0.0			0.3	0.3	17.1	17.1	1008.0	0.1	0.0	0.0	Dry (2.6)	
BH104	1.1	3.0	0.0	0.0			0.0	0.0	18.3	18.3	1008.0	16.4	0.0	0.0	Dry (2.5)	
BH105	1.3 – 1.5	5.0 - 6.0	0.0	0.0			0.5	0.5	19.3	19.3	1008.0	0.8	0.0	0.0	3.25 (3.45)	
JBH1A/B	0.7 – 1.1	3.0 - 5.0	0.0	0.0			0.4	0.4	19.5	19.5	1009.0	0.1	0.0	0.0	2.75 (4.0)	
JBH2A	0.9 – 1.1	0.0	2.3	2.3	53.7	53.7	0.0	0.0	4.0	4.0	1009.0	3.2	0.0	0.0	1.65 (3.6)	Slight Odour
JBH3	0.7	3.0	0.0	0.0			0.4	0.4	18.4	18.4	1009.0	0.3	0.0	0.0	3.25 (6.9)	
JBH3A	0.9 – 1.1	0.9 - 1.1	0.0	0.0			0.0	0.0	20.2	20.2	1009.0	0.1	0.0	0.0	2.7 (3.4)	
JBH4	0.9	3.0	0.0	0.0			0.8	0.8	18.6	18.6	1008.0	0.1	0.0	0.0	3.75 (7.2)	
JBH4A	0.9	4.0	0.0	0.0			0.6	0.6	19.7	19.7	1009.0	0.0	0.0	0.0	Dry (2.65)	
JBH5	0.7 – 0.9	4.0	0.0	0.0			0.0	0.0	18.8	18.8	1008.0	0.3	0.0	0.0	4.1 (7.8)	
JBH5A	0.9 – 1.2	4.0 - 5.0	0.0	0.0			0.0	0.0	18.3	18.3	1008.0	0.4	0.0	0.0	Dry (2.5)	
JBH6A	1.3 – 1.5	6.0 - 7.0	0.0	0.0			0.8	0.8	15.8	15.8	1008.0	0.3	0.0	0.0	3.4 (3.9)	
JBH7	1.1 – 1.3	4.0 - 5.0	0.0	0.0			0.0	0.0	19.8	19.8	1008.0	0.2	0.0	0.0	3.35 (6.7)	
JBH7A	0.9 – 1.1	5.0	0.0	0.0			0.4	0.4	18.5	18.5	1008.0	0.1	0.0	0.0	Dry (2.95)	

Notes:
Monitoring order is from **Left to Right** across table.
Minimum monitoring period 3 minutes extended where elevated concentrations of gases initially recorded.
* LEL = Lower Explosive Limit = 5 % v/v

Additional Notes:

Monitored by: Andrew Cuthbert

Signed: A. W. Cuthbert

Project lead Andrew Cuthbert

Signed: A. W. Cuthbert

confidential
Paul Wright
slrconsulting.com
Mar 26, 2021 05:25

Appendix E Arup Phase 1 2022

Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024

A3

Key

- Phase 1 Boundary
- Planning Site Boundary

Issue	Date	By	Chkd	Appd
P0	2022-12-15	TH	CR	DT

Metres
0 50 100 200

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www.arup.com

Client
Eren Holding

Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Plannning site boundary and Phase 1 boundary

Scale at A3
1:4,000

Arup Job No	Suitability	Rev
285974-00	**Preliminary**	**P0**

Name
SPM-ARUP-03-ZZ-DR-CG-0001

A3

5A
BH103a
BH03
SJ37SW36
6C
6B
5B'
CPT201
TP212
ARP-TP211
BH13
ARP-TP208
ARP-TP207
CPT202
ARP-TP206
5B
BH17
BH08C
BH08b
TP105
TP107
TP106
BH28
BH01
BH101
TP102
TP108
TP08
BH101a
BH19
BH21
ARP-TP204
ARP-TP202
CPT203
TP209
BH29
6C'
BH23
BH25
TP103
BH26
BH24a
TP101b
BH24
BH27
BH15
TP205
TP104
TP203
BH107
D1
TP201
6A'
TP111
S5B
S5aS5
TP109
SJ37SW34
SJ37SW35
BH117aBH117
BH105
5A'
S7

Key

BGS Boreholes

- BGS Boreholes

Osiris Cesco Investigation 1983

- Osiris Cesco Investigation 1983

Geocon 2022 Investigation

- Cable percussive
- Rotary open hole with cable percussive follow on
- Cone penetration testing
- Rotary open hole
- Sonic
- Trial pit
- Phase 1 Boundary
- Planning Site Boundary

For cross sections refer to drawings:
SPM-ARUP-02-ZZ-DR-CG-0005A
SPM-ARUP-02-ZZ-DR-CG-0005B
SPM-ARUP-02-ZZ-DR-CG-0006A
SPM-ARUP-02-ZZ-DR-CG-0006B
SPM-ARUP-02-ZZ-DR-CG-0006C

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 45 90 180

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Client
Eren Holding

Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Ground investigation exploratory hole location plan (GeoCon 2022, Osiris-Cesco 1983 and BGS 1959)

Scale at A3
1:3,500

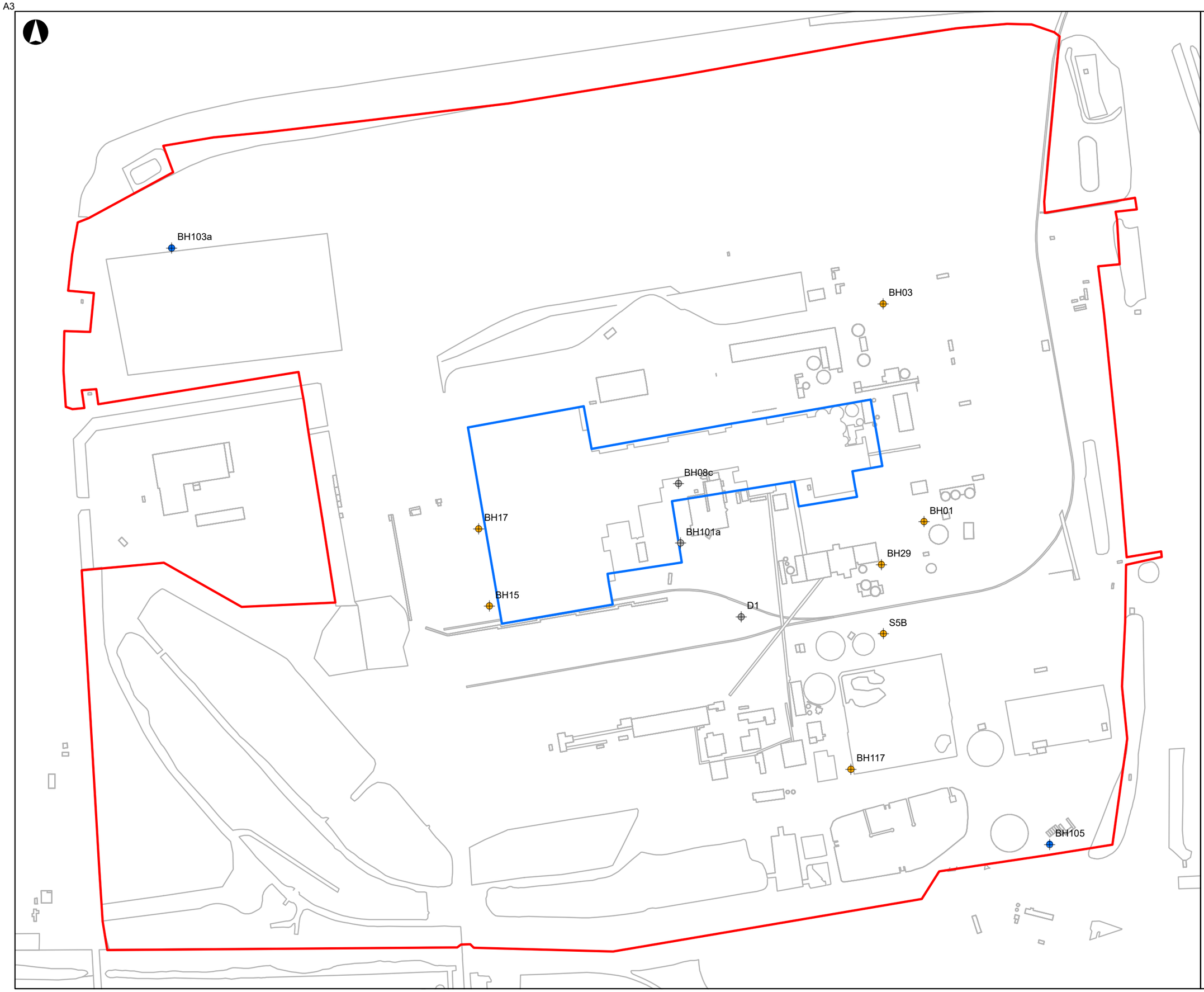
Arup Job No
285974-00

Suitability
Preliminary

Name
SPM-ARUP-03-ZZ-DR-CG-0002

Rev
P0

A3



Key

Monitoring Installations

- Gas and Groundwater
- Groundwater
- Inaccessible
- Phase 1 Boundary
- Planning Site Boundary

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres

0 45 90 180

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Client

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Project Title

Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title

Monitoring installations

Scale at A3

1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0004	**P0**

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A3

TP105 at 0.2m
Cyanide (total) - 614mg/kg

TP106 at 0.2m
Cyanide (total) - 482mg/kg

TP101 at 0.2m
Cyanide (total) - 407mg/kg

Key

- Phase 1 Boundary
- Planning Site Boundary
- GI samples in which commerical GAC is exceeded (units in mg/kg)
- GI samples in which commercial GAC is not exceeded

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 45 90 180

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Ground investigation soil samples exceeding commercial human health GAC

Scale at A3
1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0007	**P0**

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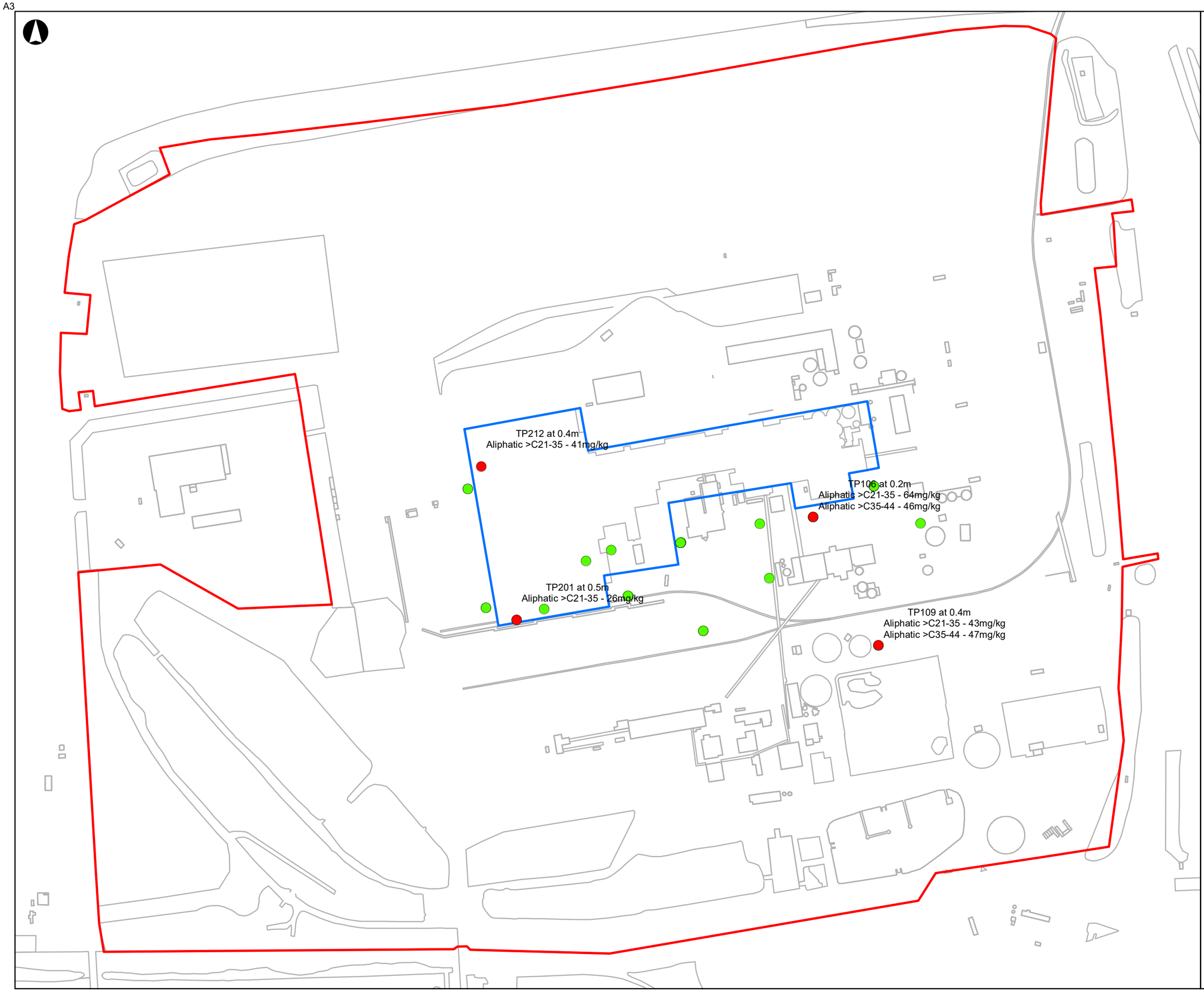
A3



Key

- GI samples in which saturation limit is exceeded (units in mg/kg)
- GI samples in which saturation limit is not exceeded
- Phase 1 Boundary
- Planning Site Boundary

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 45 90 180

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Ground investigation soil samples exceeding saturation limit

Scale at A3
1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0008	**P0**

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A3

Key

- Phase 1 Boundary
- Planning Site Boundary
- Demolition samples in which commercial GAC is exceeded (units in mg/kg)
- Demolition samples in which commercial GAC is not exceeded

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres

0 12.5 25 50

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Demolition soil samples exceeding commercial human health GAC

Scale at A3
1:1,000

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0009	**P0**

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A3

SP 18 at 0.1m
Aliphatics >C16-21 - 832.4mg/kg
Aliphatics >C21-35 - 887mg/kg
Aliphatics >C35-44 - 302mg/kg

SP6 at 0.1m
Aliphatics >C21-35 - 117mg/kg

ES 4 at 0m
Aliphatics >C16-21 - 27.3mg/kg
Aliphatics >C21-35 - 831mg/kg
Aliphatics >C35-44 - 3030mg/kg

ES 3 at 0m
Aliphatics >C16-21 - 28.6mg/kg
Aliphatics >C21-35 - 356mg/kg
Aliphatics >C35-44 - 227mg/kg

SP23 at 0.1m
Aliphatics >C21-35 - 23.5mg/kg

SP36 at 0.1m
Aliphatics >C21-35 - 202mg/kg
Aliphatics >C35-44 - 97.1mg/kg

SAMP01 at 0.1m
Aliphatics >C21-35 - 59mg/kg
Aliphatics >C35-44 - 29mg/kg

SAMP04 at 0.1m
Aliphatics >C21-35 - 24mg/kg

ES 5 at 0m
Aliphatics >C21-35 - 30.4mg/kg

SP17 at 0.1m
Aliphatics >C21-35 - 24.7mg/kg

HP2 at 0.3m
Aliphatics >C21-35 - 178mg/kg
Aliphatics >C35-44 - 106mg/kg

HP2 at 0.35
Aliphatics >C16-21 - 54mg/kg
Aliphatics >C21-35 - 844mg/kg
Aliphatics >C35-44 - 467mg/kg

HP1 at 2.25m
Aliphatics >C21-35 - 35mg/kg

SP19 at 0.1m
Aliphatics >C21-35 - 32.9mg/kg

SP20 at 0.1m
Aliphatics >C21-35 - 21.5mg/kg

SP21 at 0.1m
Aliphatics >C21-35 - 247mg/kg
Aliphatics >C35-44 - 71.1mg/kg

Key

- Demolition samples in which saturation limit is exceeded (units in mg/kg)
- Demolition samples in which saturation limit is not exceeded
- Phase 1 Boundary
- Planning Site Boundary

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 12.5 25 50

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Demolition soil samples exceeding saturation limit

Scale at A3
1:1,000

Arup Job No
285974-00

Suitability
Preliminary

Name
SPM-ARUP-03-ZZ-DR-CG-0010

Rev
P0

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A3

TP201 at 0.5m
Chrysotile - <0.01%

Key

- Phase 1 Boundary
- Planning Site Boundary
- GI samples in which asbestos is detected (units in %)
- GI samples in which asbestos is not detected

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 45 90 180

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Ground investigation soil samples containing asbestos

Scale at A3
1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0011	**P0**

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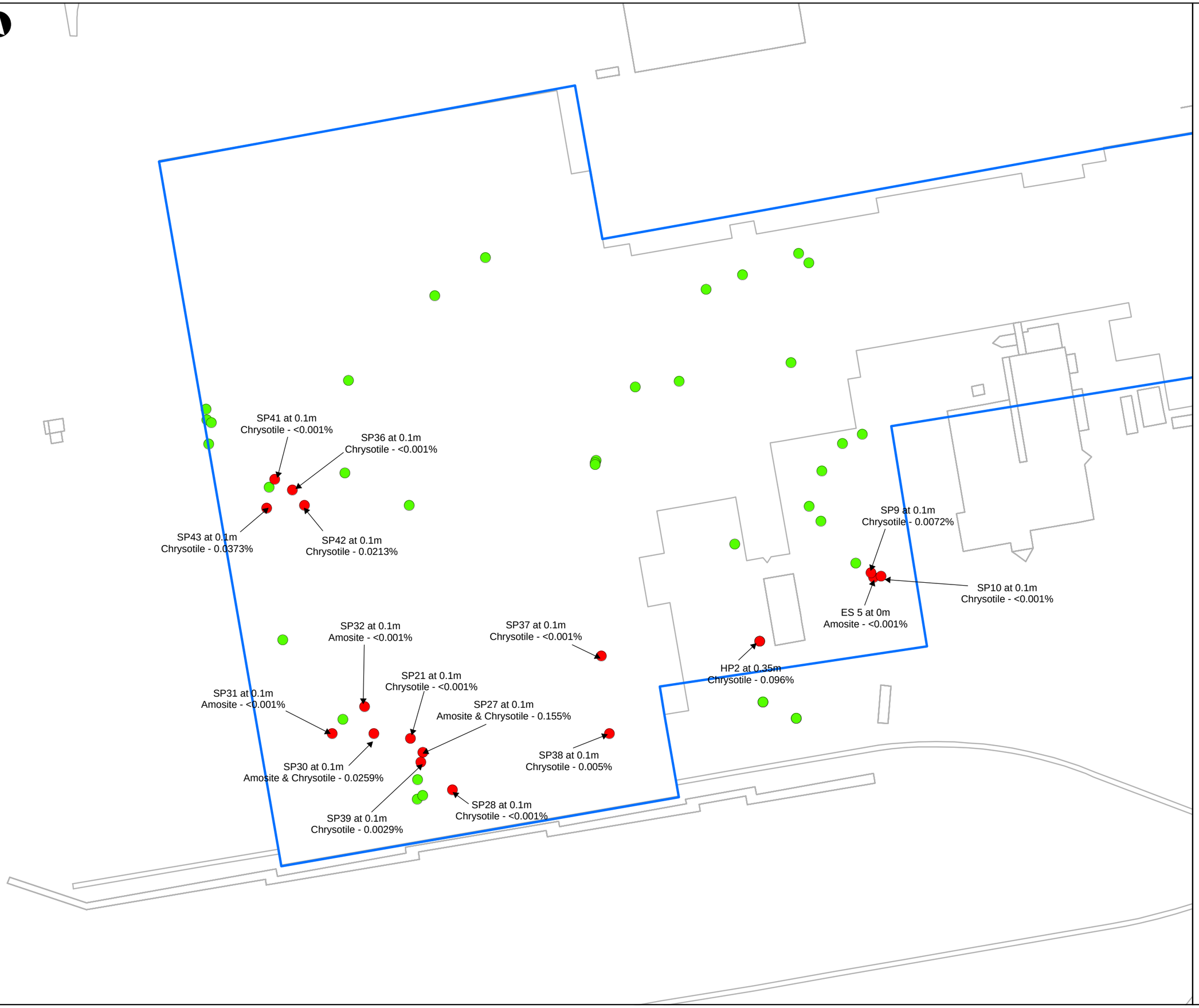

Key

- Phase 1 Boundary
- Planning Site Boundary
- Demolition samples in which asbestos is detected (units in %)
- Demolition samples in which asbestos is not detected

P0	2022-10-10	TH	CR	DT

Issue	Date	By	Chkd	Appd

Metres
0 12.5 25 50

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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Demolition soil samples containing asbestos

Scale at A3
1:1,000

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0012	**P0**

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A3

BH01

BH29

S5B

BH117

Key

- Phase 1 Boundary
- Planning Site Boundary
- GI groundwater samples exceedances

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres

0 45 90 180

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Client

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Project Title

Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title

Ground investigation groundwater samples exceeding assessment criteria

Scale at A3

1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0013	**P0**

\\Global\europe\Liverpool\Jobs\285000\285974-00\4 Internal Project Data\4-03 Drawings\3_GIS\Workspaces\SPM-ARP-GIS-005.mxd

A3

Key

- Proposed Piling Site
- Site Boundary
- Demolition groundwater samples exceedances (units in µg/l)

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 12.5 25 50

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Demolition groundwater samples exceeding assessment criteria

Scale at A3
1:1,000

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0014	**P0**

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A3

TP102
TP103
TP101
TP203
TP201TP201
TP111

Key

- Ground investigation soil leachate sample exceedances
- Phase 1 Boundary
- Planning Site Boundary

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 45 90 180

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Ground investigation soil leachate samples exceeding assessment criteria

Scale at A3
1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0015	**P0**

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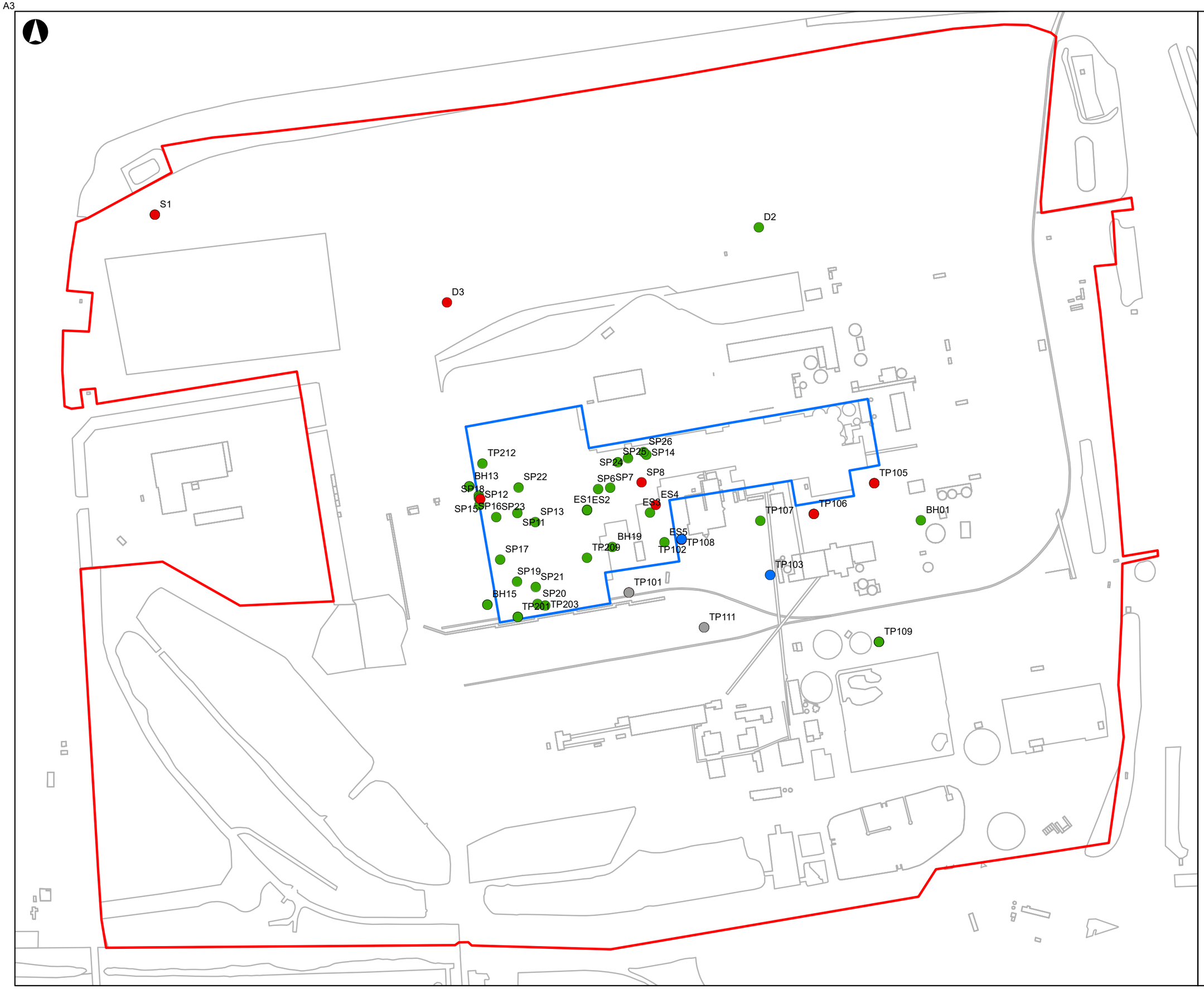
A3



Key

- Phase 1 Boundary
- Planning Site Boundary

Hazardous waste assessment

- Hazardous
- Non-hazardous

WAC assessment

- Inert
- Non-hazarous

Issue	Date	By	Chkd	Appd
P0	2022-12-19	TH	CR	DT

Metres
0 45 90 180

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Client
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Project Title
Shotton Paper Mill Redevelopment – Planning Permission Ref FUL/000011/22. Discharge of condition 4

Drawing Title
Waste Assessment

Scale at A3
1:3,500

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-03-ZZ-DR-CG-0016	**P0**

Appendix B

Human health screening assessments

B.1 Ground investigation samples - human health screening assessment

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC
Asbestos				
Asbestos Quantification (Total %)		%	No GAC	-
Asbestos Analysts Comments		No units	No GAC	-
Asbestos Gravimetric Quantification		%	No GAC	-
Asbestos PCOM Quantification		%	No GAC	-
Asbestos: Actinolite		No units	No GAC	-
Asbestos: Amosite		No units	No GAC	-
Asbestos: Anthophyllite		No units	No GAC	-
Asbestos: Chrysotile		No units	No GAC	-
Asbestos: Crocidolite		No units	No GAC	-
Asbestos: Tremolite		No units	No GAC	-
Non-Asbestos Fibre		No units	No GAC	-
Phenol and mineral oils				
Phenol	690	mg/kg	0 of 4	0
Phenol (Monohydric)	690	mg/kg	0 of 33	0
Cresols		mg/kg	No GAC	-
Xylenols		mg/kg	No GAC	-
TPH				
Ali >C10-C12	22900	mg/kg	1 of 25	0
Ali >C12-C16	81700	mg/kg	1 of 25	0
Ali >C16-C21	1.1E+07	mg/kg	8 of 25	0
Ali >C21-C35	1.1E+07	mg/kg	20 of 25	0
Ali >C35-C44	1.1E+07	mg/kg	16 of 25	0
Ali >C5-C6	5860	mg/kg	0 of 25	0
Ali >C6-C8	17400	mg/kg	0 of 25	0
Ali >C8-C10	4850	mg/kg	1 of 25	0
Total Aliphatics		mg/kg	No GAC	-
Aro >C10-C12	27900	mg/kg	2 of 25	0
Aro >C12-C16	37300	mg/kg	8 of 25	0
Aro >C16-C21	27700	mg/kg	13 of 25	0
Aro >C21-C35	28400	mg/kg	18 of 25	0
Aro >C35-C44	28400	mg/kg	10 of 25	0
Aro >C7-C8	106828	mg/kg	0 of 25	0
Aro >C8-C10	8110	mg/kg	2 of 25	0
Aromatics >C40-44		mg/kg	No GAC	-
GRO >C5-10		mg/kg	No GAC	-
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-
Mineral Oil (>C10-C40)		mg/kg	No GAC	-
PAH				
Acenaphthene	97100	mg/kg	1 of 15	0
Dibenz-a-h-anthracene	3.55	mg/kg	3 of 15	0
Fluoranthene	22700	mg/kg	7 of 15	0
Fluorene	68400	mg/kg	2 of 15	0
Indeno(1,2,3-cd)pyrene	506	mg/kg	10 of 15	0
Phenanthrene	22300	mg/kg	6 of 15	0
Pyrene	54400	mg/kg	7 of 15	0
Naphthalene	462	mg/kg	1 of 15	0
PAH (total 17)		mg/kg	No GAC	-
PAH, Total Detected USEPA 16		mg/kg	No GAC	-
Acenaphthylene	96800	mg/kg	3 of 15	0
Anthracene	536000	mg/kg	4 of 15	0
Benzo(a)anthracene	174	mg/kg	7 of 15	0
Benzo (g,h,i) perylene	3950	mg/kg	7 of 15	0
Benzo(a)pyrene	35.5	mg/kg	10 of 15	0
Benzo(b)fluoranthene	44.7	mg/kg	8 of 15	0
Benzo(k)fluoranthene	1180	mg/kg	3 of 15	0
Chrysene	352	mg/kg	7 of 15	0
BTEX				
BTEX - Benzene	47.4622	mg/kg	0 of 25	0
BTEX - Toluene	106828	mg/kg	0 of 25	0
BTEX - Ethyl Benzene	12834	mg/kg	0 of 25	0
BTEX - m & p Xylene	13552	mg/kg	0 of 25	0
BTEX - o Xylene	15034	mg/kg	0 of 25	0
Xylene	13552	mg/kg	0 of 0	0
BTEX (total)		mg/kg	No GAC	-
PCBs				
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0
PCB BZ 114	4E-06	mg/kg	0 of 6	0
PCB BZ 118	0.00017	mg/kg	0 of 6	0
PCB BZ 123	6E-06	mg/kg	0 of 6	0
PCB BZ 126	5E-06	mg/kg	0 of 6	0
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0
PCB BZ 157	8E-06	mg/kg	0 of 6	0
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0
PCB BZ 169	1E-06	mg/kg	0 of 6	0
PCB BZ 189	5E-06	mg/kg	0 of 6	0
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0
PCB BZ 81	1E-06	mg/kg	0 of 6	0
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-

Hole Ref	BH01	BH13	BH13	BH15	BH15	BH19	TP101	TP101	TP101	TP101	TP102	TP102	TP103	TP105	TP105	TP105
Sample Ref																
Easting	330715.85	330253.55	330253.55	330272	330272	330400	330416.95	330416.95	330416.95	330416.95	330471	330471	330561.51	330668.1	330668.1	330668.1
Northing	371528.12	371562.99	371562.99	371442	371442	371501	371453.98	371453.98	371453.98	371453.98	371509	371509	371472.27	371566.04	371566.04	371566.04
Hole Elevation (mOD)	9.15	8.79	8.79	8.84	8.84	8.6	7.6	7.6	7.6	7.6	8.78	8.78	9.03	8.86	8.86	8.86
Sample Depth (mbgl)	0.7	0.25	1	0.3	1.6	0.5	0.6	1.3	1.9	0.2	0.5	0.2	0.4	0.7	1.4	0.2
Sample Date	27/01/22	19/01/22	19/01/22	19/01/22	19/01/22	27/01/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/01/22	24/01/22	24/01/22
Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-TFD	MG-GR	MG-GR	MG-GR	MG-TFD	MG-TS	MG-GR	MG-TS	MG-GR	MG-GR	MG-TFD	MG-TS
Asbestos																
Asbestos: Actinolite	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected
Asbestos: Amosite	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected
Asbestos: Anthophyllite	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected
Asbestos: Chrysotile	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected
Asbestos: Crocidolite	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected
Asbestos: Tremolite	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected
Phenol and mineral oils																
Phenol		<0.1		<0.1							<0.1					
Phenol (Monohydric)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TPH																
Ali >C10-C12	<1	<10	<1	<1	<1	<1	<1	<1	<1		<1		<1	<1	<1	
Ali >C12-C16	<1	<10	<1	<1	<1	<1	<1	<1	<1		<1		<1	<1	<1	
Ali >C16-C21	<1	<10	2	<1	<1	7	<1	<1	<1		<1		<1	2	<1	
Ali >C21-C35	10	155	33	7	1	121	2	<1	2		<1		2	24	<1	
Ali >C35-C44	2	166	8	2	<1	112	<1	<1	<1		<1		<1	28	<1	
Ali >C5-C6	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
Ali >C6-C8	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
Ali >C8-C10	<1	<10	<1	<1	<1	<1	<1	<1	<1		<1		<1	<1	<1	
Total Aliphatics	12	321	43	9	1	241	2	<1	3		<1		2	54	<1	
Aro >C10-C12	<1	<10	<1	<1	<1	<1	<1	<1	<1		<1		<1	<1	<1	
Aro >C12-C16	<1	<10	1	2	<1	<1	<1	<1	<1		<1		<1	2	<1	
Aro >C16-C21	<1	12	7	2	<1	7	<1	<1	<1		<1		2	4	<1	
Aro >C21-C35	2	76	16	4	<1	8	8	<1	<1		5		15	14	<1	
Aro >C35-C44	<1	139	7	<1	<1	36	<1	<1	<1		<1		<1	10	<1	
Aro >C7-C8	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
Aro >C8-C10	<1	<10	<1	<1	<1	<1	<1	<1	<1		<1		<1	<1	<1	
Aliphatics & Aromatics >C5-44	14	548	73	16	1	292	11	<1	3		6		19	84	<1	
Mineral Oil (>C10-C40)								<10			<10		<10			
PAH																
Acenaphthene	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01				<0.01			<0.01		
Dibenz-a-h-anthracene	<0.04	0.1	0.05	<0.04	<0.04	<0.04	0.05				<0.04			<0.04		
Fluoranthene	<0.08	0.98	0.91	0.11	<0.08	<0.08	0.27				0.12			0.15		
Fluorene	<0.01	<0.01	0.03	<0.01	<0.01	0.01	<0.01				<0.01			<0.01		
Indeno(1,2,3-cd)pyrene	<0.03	0.46	0.27	0.05	<0.03	<0.03	0.27				0.07			0.07		
Phenanthrene	<0.03	0.13	0.38	0.05	<0.03	0.05	<0.03				<0.03			0.12		
Pyrene	<0.07	0.86	0.69	0.1	<0.07	<0.07	0.31				0.14			0.16		
Naphthalene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03				<0.03			0.04		
PAH (total 17)								<0.08			0.78		2.56			
PAH, Total Detected USEPA 16	<0.08	5.66	4.72	0.57	<0.08	<0.08	2.58				0.73			1.13		
Acenaphthylene	<0.01	0.07	0.04	<0.01	<0.01	<0.01	0.02				<0.01			<0.01		
Anthracene	<0.02	0.06	0.14	<0.02	<0.02	<0.02	0.05				<0.02			0.03		
Benzo(a)anthracene	<0.04	0.49	0.43	0.05	<0.04	<0.04	0.25				0.06			0.09		
Benzo (g,h,i) perylene	<0.05	0.38	0.21	<0.05	<0.05	<0.05	0.23				0.06			0.06		
Benzo(a)pyrene	<0.04	0.62	0.4	0.06	<0.04	<0.04	0.37				0.1			0.11		
Benzo(b)fluoranthene	<0.05	0.71	0.48	0.08	<0.05	<0.05	0.35				0.1			0.16		
Benzo(k)fluoranthene	<0.07	0.26	0.22	<0.07	<0.07	<0.07	0.14				<0.07			<0.07		
Chrysene	<0.06	0.54	0.46	0.07	<0.06	<0.06	0.27				0.08			0.14		
BTEX																
BTEX - Benzene	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
BTEX - Toluene	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
BTEX - Ethyl Benzene	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
BTEX - m & p Xylene	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
BTEX - o Xylene	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01	
Xylene																
BTEX (total)								<0.01			<0.01		<0.01			
PCBs																
PCB BZ 105		<0.005		<0.005				<0.005			<0.005					
PCB BZ 114		<0.005		<0.005				<0.005			<0.005					
PCB BZ 118		<0.007		<0.007				<0.007			<0.007					
PCB BZ 123		<0.005		<0.005				<0.005			<0.005					
PCB BZ 126		<0.005		<0.005				<0.005			<0.005					
PCB BZ 156		<0.005		<0.005				<0.005			<0.005					
PCB BZ 157		<0.005		<0.005				<0.005			<0.005					
PCB BZ 167		<0.005		<0.005				<0.005			<0.005					
PCB BZ 169		<0.005		<0.005				<0.005			<0.005					
PCB BZ 189		<0.005		<0.005				<0.005			<0.005					
PCB BZ 77		<0.005		<0.005				<0.005			<0.005					
PCB BZ 81		<0.005		<0.005				<0.005			<0.005					

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref					BH01	BH13	BH13	BH15	BH15	BH19	TP101	TP101	TP101	TP101	TP102	TP102	TP103	TP105	TP105	TP105
Sample Ref																				
Easting					330715.85	330253.55	330253.55	330272	330272	330400	330416.95	330416.95	330416.95	330416.95	330471	330471	330561.51	330668.1	330668.1	330668.1
Northing					371528.12	371562.99	371562.99	371442	371442	371501	371453.98	371453.98	371453.98	371453.98	371509	371509	371472.27	371566.04	371566.04	371566.04
Hole Elevation (mOD)					9.15	8.79	8.79	8.84	8.84	8.6	7.6	7.6	7.6	7.6	8.78	8.78	9.03	8.86	8.86	8.86
Sample Depth (mbgl)					0.7	0.25	1	0.3	1.6	0.5	0.6	1.3	1.9	0.2	0.5	0.2	0.4	0.7	1.4	0.2
Sample Date					27/01/22	19/01/22	19/01/22	19/01/22	19/01/22	27/01/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/01/22	24/01/22	24/01/22
Investigation					GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology					MG-GR	MG-GR	MG-GR	MG-GR	MG-TFD	MG-GR	MG-GR	MG-GR	MG-TFD	MG-TS	MG-GR	MG-TS	MG-GR	MG-GR	MG-TFD	MG-TS
Contaminant Name	**GAC**	**Units**	**Total > LOD**	**Total > GAC**																
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-																
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-																
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-																
Total Speciated PCB-WHO12		mg/kg	No GAC	-		<0.007		<0.007			<0.007				<0.007					
VOCs/SVOCs																				
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,1,1-Trichloroethane	1350	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,1,2-Trichloroethane	180	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,1-Dichloroethane	425	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,1-Dichloroethene	43	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,1-Dichloropropene		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
1,2,3-Trichlorobenzene	250	mg/kg	0 of 4	0		<0.003		<0.003							<0.003					
1,2,3-Trichloropropane		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
1,2,4-Trichlorobenzene	530	mg/kg	0 of 4	0		<0.003		<0.003							<0.003					
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-		<0.002		<0.002							<0.002					
1,2-Dibromoethane		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
1,2-Dichlorobenzene	4830	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,2-Dichloroethane	0.967	mg/kg	0 of 4	0		<0.002		<0.002							<0.002					
1,2-Dichloropropane	5.54	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,3,5-Trimethylbenzene		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
1,3,5-Trichlorobenzene	12	mg/kg	0 of 0	0																
1,3-Dichlorobenzene	70.6	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
1,3-Dichloropropane		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
1,4-Dichlorobenzene	9700	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
2,2-Dichloropropane		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
2,4,5-Trichlorophenol	4000	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2,4,6-Trichlorophenol	4160	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2,4-Dichlorophenol	3890	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2,4-Dimethylphenol	23400	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2,4-Dinitrotoluene	3750	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2,6-Dinitrotoluene	1870	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2-Chloronaphthalene	902	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2-Chlorophenol	3980	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2-Chlorotoluene		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
2-Methylnaphthalene		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
2-Methylphenol	175000	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
2-Nitroaniline		mg/kg	No GAC	-																
2-Nitrophenol		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
3-Nitroaniline		mg/kg	No GAC	-																
4-Bromofluorobenzene Surrogate		%	No GAC	-																
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
4-Chloro-3-methylphenol		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
4-Chloroaniline		mg/kg	No GAC	-																
4-Chlorophenylphenylether		mg/kg	No GAC	-																
4-Chlorotoluene		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
4-Isopropyltoluene		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
4-Methylphenol	175000	mg/kg	0 of 0	0																
4-Nitroaniline		mg/kg	No GAC	-																
4-Nitrophenol		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Azobenzene		mg/kg	No GAC	-																
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Bis(2-chloroethyl)ether		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Bis(2-ethylhexyl)phthalate	85800	mg/kg	0 of 4	0		<0.5		<0.5							<0.5					
Bromobenzene	211	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Bromochloromethane		mg/kg	No GAC	-		<0.005		<0.005							<0.005					
Bromodichloromethane	3.52	mg/kg	0 of 4	0		<0.01		<0.01							<0.01					
Bromoform	1430	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Bromomethane		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
Butylbenzyl phthalate	944000	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
Carbazole		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Carbon Disulphide	21.8	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Carbon Tetrachloride	6.28	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Chlorobenzene	125	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Chlorodibromomethane		mg/kg	No GAC	-		<0.003		<0.003							<0.003					
Chloroethane	1230	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Chloroform	174	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Chloromethane	1.12	mg/kg	0 of 4	0		<0.01		<0.01							<0.01					
Di-n-butyl phthalate	15400	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
Di-n-octyl phthalate	89100	mg/kg	0 of 4	0		<0.5		<0.5							<0.5					
Dibenzofuran		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Dibromomethane		mg/kg	No GAC	-		<0.001		<0.001							<0.001					
Dichloromethane	339	mg/kg	0 of 4	0		<0.005		<0.005							<0.005					
Diethyl phthalate	214000	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
Dimethyl phthalate		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Hexachlorobenzene	117	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
Hexachlorobutadiene	66.2	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					
Hexachlorocyclopentadiene		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Hexachloroethane	49.8	mg/kg	0 of 4	0		<0.1		<0.1							<0.1					
Isophorone		mg/kg	No GAC	-		<0.1		<0.1							<0.1					
Isopropylbenzene	3130	mg/kg	0 of 4	0		<0.001		<0.001							<0.001					

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref																
Sample Ref	BH01	BH13	BH13	BH15	BH15	BH19	TP101	TP101	TP101	TP101	TP102	TP102	TP103	TP105	TP105	TP105
Easting	330715.85	330253.55	330253.55	330272	330272	330400	330416.95	330416.95	330416.95	330416.95	330471	330471	330561.51	330668.1	330668.1	330668.1
Northing	371528.12	371562.99	371562.99	371442	371442	371501	371453.98	371453.98	371453.98	371453.98	371509	371509	371472.27	371566.04	371566.04	371566.04
Hole Elevation (mOD)	9.15	8.79	8.79	8.84	8.84	8.6	7.6	7.6	7.6	7.6	8.78	8.78	9.03	8.86	8.86	8.86
Sample Depth (mbgl)	0.7	0.25	1	0.3	1.6	0.5	0.6	1.3	1.9	0.2	0.5	0.2	0.4	0.7	1.4	0.2
Sample Date	27/01/22	19/01/22	19/01/22	19/01/22	19/01/22	27/01/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/01/22	24/01/22	24/01/22
Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-TFD	MG-GR	MG-GR	MG-GR	MG-TFD	MG-TS	MG-GR	MG-TS	MG-GR	MG-GR	MG-TFD	MG-TS

Contaminant Name	GAC	Units	Total > LOD	Total > GAC													
MTBE	12100	mg/kg	0 of 25	0	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
N-nitrosodi-n-propylamine		mg/kg	No GAC	-		<0.1		<0.1						<0.1			
Nitrobenzene		mg/kg	No GAC	-		<0.1		<0.1						<0.1			
Pentachlorophenol	403	mg/kg	0 of 4	0		<0.1		<0.1						<0.1			
Sec-Butylbenzene		mg/kg	No GAC	-		<0.001		<0.001						<0.001			
Styrene	6180	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-													
Tetrachloroethene	41.6	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
Trichloroethene	2.57	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
Trichlorofluoromethane		mg/kg	No GAC	-		<0.001		<0.001						<0.001			
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
cis 1,3-Dichloropropene		mg/kg	No GAC	-		<0.001		<0.001						<0.001			
n-Butylbenzene		mg/kg	No GAC	-		<0.001		<0.001						<0.001			
n-Propylbenzene	9150	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
tert-Butylbenzene		mg/kg	No GAC	-		<0.002		<0.002						<0.002			
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 4	0		<0.001		<0.001						<0.001			
trans 1,3-Dichloropropene		mg/kg	No GAC	-		<0.001		<0.001						<0.001			

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC
Hole Ref				
Sample Ref				
Easting				
Northing				
Hole Elevation (mOD)				
Sample Depth (mbgl)				
Sample Date				
Investigation				
Geology				
Asbestos				
Asbestos Quantification (Total %)		%	No GAC	-
Asbestos Analysts Comments		No units	No GAC	-
Asbestos Gravimetric Quantification		%	No GAC	-
Asbestos PCOM Quantification		%	No GAC	-
Asbestos: Actinolite		No units	No GAC	-
Asbestos: Amosite		No units	No GAC	-
Asbestos: Anthophyllite		No units	No GAC	-
Asbestos: Chrysotile		No units	No GAC	-
Asbestos: Crocidolite		No units	No GAC	-
Asbestos: Tremolite		No units	No GAC	-
Non-Asbestos Fibre		No units	No GAC	-
Phenol and mineral oils				
Phenol	690	mg/kg	0 of 4	0
Phenol (Monohydric)	690	mg/kg	0 of 33	0
Cresols		mg/kg	No GAC	-
Xylenols		mg/kg	No GAC	-
TPH				
Ali >C10-C12	22900	mg/kg	1 of 25	0
Ali >C12-C16	81700	mg/kg	1 of 25	0
Ali >C16-C21	1.1E+07	mg/kg	8 of 25	0
Ali >C21-C35	1.1E+07	mg/kg	20 of 25	0
Ali >C35-C44	1.1E+07	mg/kg	16 of 25	0
Ali >C5-C6	5860	mg/kg	0 of 25	0
Ali >C6-C8	17400	mg/kg	0 of 25	0
Ali >C8-C10	4850	mg/kg	1 of 25	0
Total Aliphatics		mg/kg	No GAC	-
Aro >C10-C12	27900	mg/kg	2 of 25	0
Aro >C12-C16	37300	mg/kg	8 of 25	0
Aro >C16-C21	27700	mg/kg	13 of 25	0
Aro >C21-C35	28400	mg/kg	18 of 25	0
Aro >C35-C44	28400	mg/kg	10 of 25	0
Aro >C7-C8	106828	mg/kg	0 of 25	0
Aro >C8-C10	8110	mg/kg	2 of 25	0
Aromatics >C40-44		mg/kg	No GAC	-
GRO >C5-10		mg/kg	No GAC	-
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-
Mineral Oil (>C10-C40)		mg/kg	No GAC	-
PAH				
Acenaphthene	97100	mg/kg	1 of 15	0
Dibenz-a-h-anthracene	3.55	mg/kg	3 of 15	0
Fluoranthene	22700	mg/kg	7 of 15	0
Fluorene	68400	mg/kg	2 of 15	0
Indeno(1,2,3-cd)pyrene	506	mg/kg	10 of 15	0
Phenanthrene	22300	mg/kg	6 of 15	0
Pyrene	54400	mg/kg	7 of 15	0
Naphthalene	462	mg/kg	1 of 15	0
PAH (total 17)		mg/kg	No GAC	-
PAH, Total Detected USEPA 16		mg/kg	No GAC	-
Acenaphthylene	96800	mg/kg	3 of 15	0
Anthracene	536000	mg/kg	4 of 15	0
Benzo(a)anthracene	174	mg/kg	7 of 15	0
Benzo (g,h,i) perylene	3950	mg/kg	7 of 15	0
Benzo(a)pyrene	35.5	mg/kg	10 of 15	0
Benzo(b)fluoranthene	44.7	mg/kg	8 of 15	0
Benzo(k)fluoranthene	1180	mg/kg	3 of 15	0
Chrysene	352	mg/kg	7 of 15	0
BTEX				
BTEX - Benzene	47.4622	mg/kg	0 of 25	0
BTEX - Toluene	106828	mg/kg	0 of 25	0
BTEX - Ethyl Benzene	12834	mg/kg	0 of 25	0
BTEX - m & p Xylene	13552	mg/kg	0 of 25	0
BTEX - o Xylene	15034	mg/kg	0 of 25	0
Xylene	13552	mg/kg	0 of 0	0
BTEX (total)		mg/kg	No GAC	-
PCBs				
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0
PCB BZ 114	4E-06	mg/kg	0 of 6	0
PCB BZ 118	0.00017	mg/kg	0 of 6	0
PCB BZ 123	6E-06	mg/kg	0 of 6	0
PCB BZ 126	5E-06	mg/kg	0 of 6	0
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0
PCB BZ 157	8E-06	mg/kg	0 of 6	0
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0
PCB BZ 169	1E-06	mg/kg	0 of 6	0
PCB BZ 189	5E-06	mg/kg	0 of 6	0
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0
PCB BZ 81	1E-06	mg/kg	0 of 6	0
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-

Hole Ref	TP106	TP106	TP106	TP107	TP108	TP108	TP108	TP109	TP109	TP109	TP111	TP111	TP201	TP201	TP203	TP209
Sample Ref																
Easting	330606.3	330606.3	330606.3	330551.58	330470.69	330470.69	330470.69	330672.88	330672.88	330672.88	330493.95	330493.95	330303.34	330303.34	330331.33	330373.98
Northing	371534.75	371534.75	371534.75	371527.84	371508.24	371508.24	371508.24	371403.8	371403.8	371403.8	371418.51	371418.51	371429.34	371429.34	371440.81	371489.87
Hole Elevation (mOD)	8.78	8.78	8.78	8.76	8.75	8.75	8.75	8.88	8.88	8.88	8.65	8.65	7.91	7.91	8.73	8.22
Sample Depth (mbgl)	0.5	0.7	0.2	0.3	0.4	1.1	0.1	0.2	0.4	1.1	0.5	1.2	0.5	0.9	0.5	0.3
Sample Date	24/01/22	24/01/22	24/01/22	25/01/22	25/01/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	12/05/22	12/05/22	12/05/22	12/05/22
Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology	MG-GR	MG-TFD	MG-TS	MG-TS	MG-GR	MG-TFD	MG-TS	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-TFD	MG-GR	MG-GR
Asbestos																
Asbestos Quantification (Total %)													<0.01			
Asbestos Analysts Comments																
Asbestos Gravimetric Quantification																
Asbestos PCOM Quantification																
Asbestos: Actinolite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Amosite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Anthophyllite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Chrysotile	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected
Asbestos: Crocidolite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Tremolite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Non-Asbestos Fibre																
Phenol and mineral oils																
Phenol						<0.1										
Phenol (Monohydric)	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cresols																
Xylenols																
TPH																
Ali >C10-C12	<1		<1	<1	<1	<1	<1		<1		<1	<1	<1		<1	
Ali >C12-C16	<1		<1	<1	<1	<1	<1		<1		<1	<1	<1		<1	
Ali >C16-C21	4		2	<1	<1	<1	1		<1		<1	<1	1		<1	
Ali >C21-C35	12		64	4	15	<1	20		43		1	<1	26		8	
Ali >C35-C44	17		46	2	15	<1	8		47		2	<1	5		2	
Ali >C5-C6	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01		<0.01	
Ali >C6-C8	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01		<0.01	
Ali >C8-C10	<1		<1	<1	<1	<1	<1		<1		<1	<1	<1		<1	
Total Aliphatics	34		113	6	31	<1	29		90		3	<1	33		11	
Aro >C10-C12	<1		<1	<1	<1	<1	<1		<1		<1	<1	2		<1	
Aro >C12-C16	5		2	<1	<1	<1	<1		<1		<1	<1	2		2	
Aro >C16-C21	60		6	<1	<1	<1	2		2		<1	<1	5		3	
Aro >C21-C35	267		37	5	2	<1	8		26		<1	<1	6		3	
Aro >C35-C44	12		15	<1	7	<1	2		19		<1	<1	<1		<1	
Aro >C7-C8	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		<0.01	<0.01	<0.01		<0.01	
Aro >C8-C10	<1		<1	<1	<1	<1	<1		<1		<1	<1	3		<1	
Aromatics >C40-44																
GRO >C5-10																
Aliphatics & Aromatics >C5-44	379		174	11	41	<1	41		137		3	<1	52		19	
Mineral Oil (>C10-C40)												<10	44	12	26	
PAH																
Acenaphthene				<0.01	<0.01	<0.01			<0.01		<0.01	<0.01				
Dibenz-a-h-anthracene				<0.04	<0.04	<0.04			<0.04		<0.04	<0.04				
Fluoranthene				0.1	<0.08	<0.08			<0.08		<0.08	<0.08				
Fluorene				<0.01	<0.01	<0.01			<0.01		<0.01	<0.01				
Indeno(1,2,3-cd)pyrene				0.08	0.06	<0.03			0.04		0.03	<0.03				
Phenanthrene				<0.03	0.05	<0.03			<0.03		<0.03	<0.03				
Pyrene				0.11	<0.07	<0.07			<0.07		<0.07	<0.07				
Naphthalene				<0.03	<0.03	<0.03			<0.03		<0.03	<0.03				
PAH (total 17)												<0.08	0.32	0.23	0.41	
PAH, Total Detected USEPA 16				0.71	0.22	<0.08			0.16		<0.08	<0.08				
Acenaphthylene				<0.01	<0.01	<0.01			<0.01		<0.01	<0.01				
Anthracene				<0.02	<0.02	<0.02			<0.02		<0.02	<0.02				
Benzo(a)anthracene				0.06	<0.04	<0.04			<0.04		<0.04	<0.04				
Benzo (g,h,i) perylene				0.07	0.06	<0.05			<0.05		<0.05	<0.05				
Benzo(a)pyrene				0.1	0.05	<0.04			0.06		0.04	<0.04				
Benzo(b)fluoranthene				0.1	<0.05	<0.05			0.06		<0.05	<0.05				
Benzo(k)fluoranthene				<0.07	<0.07	<0.07			<0.07		<0.07	<0.07				
Chrysene				0.09	<0.06	<0.06			<0.06		<0.06	<0.06				
BTEX																
BTEX - Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
BTEX - Toluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
BTEX - Ethyl Benzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
BTEX - m & p Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
BTEX - o Xylene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
Xylene																
BTEX (total)												<0.01	<0.01	<0.01	<0.01	
PCBs																
PCB BZ 105						<0.005			<0.005							
PCB BZ 114						<0.005			<0.005							
PCB BZ 118						<0.007			<0.007							
PCB BZ 123						<0.005			<0.005							
PCB BZ 126						<0.005			<0.005							
PCB BZ 156						<0.005			<0.005							
PCB BZ 157						<0.005			<0.005							
PCB BZ 167						<0.005			<0.005							
PCB BZ 169						<0.005			<0.005							
PCB BZ 189						<0.005			<0.005							
PCB BZ 77						<0.005			<0.005							
PCB BZ 81						<0.005			<0.005							
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl																
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl																
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl																

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	TP106	TP106	TP106	TP107	TP108	TP108	TP108	TP109	TP109	TP109	TP111	TP111	TP201	TP201	TP203	TP209
					Sample Ref																
					Easting	330606.3	330606.3	330606.3	330551.58	330470.69	330470.69	330470.69	330672.88	330672.88	330672.88	330493.95	330493.95	330303.34	330303.34	330331.33	330373.98
					Northing	371534.75	371534.75	371534.75	371527.84	371508.24	371508.24	371508.24	371403.8	371403.8	371403.8	371418.51	371418.51	371429.34	371429.34	371440.81	371489.87
					Hole Elevation (mOD)	8.78	8.78	8.78	8.76	8.75	8.75	8.75	8.88	8.88	8.88	8.65	8.65	7.91	7.91	8.73	8.22
					Sample Depth (mbgl)	0.5	0.7	0.2	0.3	0.4	1.1	0.1	0.2	0.4	1.1	0.5	1.2	0.5	0.9	0.5	0.3
					Sample Date	24/01/22	24/01/22	24/01/22	25/01/22	25/01/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	12/05/22	12/05/22	12/05/22	12/05/22
					Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
					Geology	MG-GR	MG-TFD	MG-TS	MG-TS	MG-GR	MG-TFD	MG-TS	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-TFD	MG-GR	MG-GR
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-																	
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-																	
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-																	
Total Speciated PCB-WHO12		mg/kg	No GAC	-							<0.007			<0.007							
VOCs/SVOCs																					
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 4	0							<0.001										
1,1,1-Trichloroethane	1350	mg/kg	0 of 4	0							<0.001										
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 4	0							<0.001										
1,1,2-Trichloroethane	180	mg/kg	0 of 4	0							<0.001										
1,1-Dichloroethane	425	mg/kg	0 of 4	0							<0.001										
1,1-Dichloroethene	43	mg/kg	0 of 4	0							<0.001										
1,1-Dichloropropene		mg/kg	No GAC	-							<0.001										
1,2,3-Trichlorobenzene	250	mg/kg	0 of 4	0							<0.003										
1,2,3-Trichloropropane		mg/kg	No GAC	-							<0.001										
1,2,4-Trichlorobenzene	530	mg/kg	0 of 4	0							<0.003										
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 4	0							<0.001										
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-							<0.002										
1,2-Dibromoethane		mg/kg	No GAC	-							<0.001										
1,2-Dichlorobenzene	4830	mg/kg	0 of 4	0							<0.001										
1,2-Dichloroethane	0.967	mg/kg	0 of 4	0							<0.002										
1,2-Dichloropropane	5.54	mg/kg	0 of 4	0							<0.001										
1,3,5-Trimethylbenzene		mg/kg	No GAC	-							<0.001										
1,3,5-Trichlorobenzene	12	mg/kg	0 of 0	0																	
1,3-Dichlorobenzene	70.6	mg/kg	0 of 4	0							<0.001										
1,3-Dichloropropane		mg/kg	No GAC	-							<0.001										
1,4-Dichlorobenzene	9700	mg/kg	0 of 4	0							<0.001										
2,2-Dichloropropane		mg/kg	No GAC	-							<0.001										
2,4,5-Trichlorophenol	4000	mg/kg	0 of 4	0							<0.1										
2,4,6-Trichlorophenol	4160	mg/kg	0 of 4	0							<0.1										
2,4-Dichlorophenol	3890	mg/kg	0 of 4	0							<0.1										
2,4-Dimethylphenol	23400	mg/kg	0 of 4	0							<0.1										
2,4-Dinitrotoluene	3750	mg/kg	0 of 4	0							<0.1										
2,6-Dinitrotoluene	1870	mg/kg	0 of 4	0							<0.1										
2-Chloronaphthalene	902	mg/kg	0 of 4	0							<0.1										
2-Chlorophenol	3980	mg/kg	0 of 4	0							<0.1										
2-Chlorotoluene		mg/kg	No GAC	-							<0.001										
2-Methylnaphthalene		mg/kg	No GAC	-							<0.1										
2-Methylphenol	175000	mg/kg	0 of 4	0							<0.1										
2-Nitroaniline		mg/kg	No GAC	-																	
2-Nitrophenol		mg/kg	No GAC	-							<0.1										
3-Nitroaniline		mg/kg	No GAC	-																	
4-Bromofluorobenzene Surrogate		%	No GAC	-																	
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-							<0.1										
4-Chloro-3-methylphenol		mg/kg	No GAC	-							<0.1										
4-Chloroaniline		mg/kg	No GAC	-																	
4-Chlorophenylphenylether		mg/kg	No GAC	-																	
4-Chlorotoluene		mg/kg	No GAC	-							<0.001										
4-Isopropyltoluene		mg/kg	No GAC	-							<0.001										
4-Methylphenol	175000	mg/kg	0 of 0	0																	
4-Nitroaniline		mg/kg	No GAC	-																	
4-Nitrophenol		mg/kg	No GAC	-							<0.1										
Azobenzene		mg/kg	No GAC	-																	
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-							<0.1										
Bis(2-chloroethyl)ether		mg/kg	No GAC	-							<0.1										
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-							<0.1										
Bis(2-ethylhexyl)phthalate	85800	mg/kg	0 of 4	0							<0.5										
Bromobenzene	211	mg/kg	0 of 4	0							<0.001										
Bromochloromethane		mg/kg	No GAC	-							<0.005										
Bromodichloromethane	3.52	mg/kg	0 of 4	0							<0.01										
Bromoform	1430	mg/kg	0 of 4	0							<0.001										
Bromomethane		mg/kg	No GAC	-							<0.001										
Butylbenzyl phthalate	944000	mg/kg	0 of 4	0							<0.1										
Carbazole		mg/kg	No GAC	-							<0.1										
Carbon Disulphide	21.8	mg/kg	0 of 4	0							<0.001										
Carbon Tetrachloride	6.28	mg/kg	0 of 4	0							<0.001										
Chlorobenzene	125	mg/kg	0 of 4	0							<0.001										
Chlorodibromomethane		mg/kg	No GAC	-							<0.003										
Chloroethane	1230	mg/kg	0 of 4	0							<0.001										
Chloroform	174	mg/kg	0 of 4	0							<0.001										
Chloromethane	1.12	mg/kg	0 of 4	0							<0.01										
Di-n-butyl phthalate	15400	mg/kg	0 of 4	0							<0.1										
Di-n-octyl phthalate	89100	mg/kg	0 of 4	0							<0.5										
Dibenzofuran		mg/kg	No GAC	-							<0.1										
Dibromomethane		mg/kg	No GAC	-							<0.001										
Dichloromethane	339	mg/kg	0 of 4	0							<0.005										
Diethyl phthalate	214000	mg/kg	0 of 4	0							<0.1										
Dimethyl phthalate		mg/kg	No GAC	-							<0.1										
Hexachlorobenzene	117	mg/kg	0 of 4	0							<0.1										
Hexachlorobutadiene	66.2	mg/kg	0 of 4	0							<0.001										
Hexachlorocyclopentadiene		mg/kg	No GAC	-							<0.1										
Hexachloroethane	49.8	mg/kg	0 of 4	0							<0.1										
Isophorone		mg/kg	No GAC	-							<0.1										
Isopropylbenzene	3130	mg/kg	0 of 4	0							<0.001										

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref																
Sample Ref	TP106	TP106	TP106	TP107	TP108	TP108	TP108	TP109	TP109	TP109	TP111	TP111	TP201	TP201	TP203	TP209
Easting	330606.3	330606.3	330606.3	330551.58	330470.69	330470.69	330470.69	330672.88	330672.88	330672.88	330493.95	330493.95	330303.34	330303.34	330331.33	330373.98
Northing	371534.75	371534.75	371534.75	371527.84	371508.24	371508.24	371508.24	371403.8	371403.8	371403.8	371418.51	371418.51	371429.34	371429.34	371440.81	371489.87
Hole Elevation (mOD)	8.78	8.78	8.78	8.76	8.75	8.75	8.75	8.88	8.88	8.88	8.65	8.65	7.91	7.91	8.73	8.22
Sample Depth (mbgl)	0.5	0.7	0.2	0.3	0.4	1.1	0.1	0.2	0.4	1.1	0.5	1.2	0.5	0.9	0.5	0.3
Sample Date	24/01/22	24/01/22	24/01/22	25/01/22	25/01/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	24/02/22	12/05/22	12/05/22	12/05/22	12/05/22
Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology	MG-GR	MG-TFD	MG-TS	MG-TS	MG-GR	MG-TFD	MG-TS	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-TFD	MG-GR	MG-GR
Contaminant Name	**GAC**	**Units**	**Total > LOD**	**Total > GAC**												
MTBE	12100	mg/kg	0 of 25	0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
N-nitrosodi-n-propylamine		mg/kg	No GAC	-				<0.1								
Nitrobenzene		mg/kg	No GAC	-				<0.1								
Pentachlorophenol	403	mg/kg	0 of 4	0				<0.1								
Sec-Butylbenzene		mg/kg	No GAC	-				<0.001								
Styrene	6180	mg/kg	0 of 4	0				<0.001								
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-												
Tetrachloroethene	41.6	mg/kg	0 of 4	0				<0.001								
Trichloroethene	2.57	mg/kg	0 of 4	0				<0.001								
Trichlorofluoromethane		mg/kg	No GAC	-				<0.001								
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 4	0				<0.001								
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 4	0				<0.001								
cis 1,3-Dichloropropene		mg/kg	No GAC	-				<0.001								
n-Butylbenzene		mg/kg	No GAC	-				<0.001								
n-Propylbenzene	9150	mg/kg	0 of 4	0				<0.001								
tert-Butylbenzene		mg/kg	No GAC	-				<0.002								
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 4	0				<0.001								
trans 1,3-Dichloropropene		mg/kg	No GAC	-				<0.001								

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref	TP212
Sample Ref	
Easting	330267.01
Northing	371586.33
Hole Elevation (mOD)	8.43
Sample Depth (mbgl)	0.4
Sample Date	12/05/22
Investigation	GeoCon 2022
Geology	MG-GR

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	
Asbestos					
Asbestos Quantification (Total %)		%	No GAC	-	
Asbestos Analysts Comments		No units	No GAC	-	
Asbestos Gravimetric Quantification		%	No GAC	-	
Asbestos PCOM Quantification		%	No GAC	-	
Asbestos: Actinolite		No units	No GAC	-	Not Detected
Asbestos: Amosite		No units	No GAC	-	Not Detected
Asbestos: Anthophyllite		No units	No GAC	-	Not Detected
Asbestos: Chrysotile		No units	No GAC	-	Not Detected
Asbestos: Crocidolite		No units	No GAC	-	Not Detected
Asbestos: Tremolite		No units	No GAC	-	Not Detected
Non-Asbestos Fibre		No units	No GAC	-	
Phenol and mineral oils					
Phenol	690	mg/kg	0 of 4	0	
Phenol (Monohydric)	690	mg/kg	0 of 33	0	<0.2
Cresols		mg/kg	No GAC	-	
Xylenols		mg/kg	No GAC	-	
TPH					
Ali >C10-C12	22900	mg/kg	1 of 25	0	3
Ali >C12-C16	81700	mg/kg	1 of 25	0	4
Ali >C16-C21	1.1E+07	mg/kg	8 of 25	0	4
Ali >C21-C35	1.1E+07	mg/kg	20 of 25	0	41
Ali >C35-C44	1.1E+07	mg/kg	16 of 25	0	7
Ali >C5-C6	5860	mg/kg	0 of 25	0	<0.01
Ali >C6-C8	17400	mg/kg	0 of 25	0	<0.01
Ali >C8-C10	4850	mg/kg	1 of 25	0	4
Total Aliphatics		mg/kg	No GAC	-	64
Aro >C10-C12	27900	mg/kg	2 of 25	0	4
Aro >C12-C16	37300	mg/kg	8 of 25	0	13
Aro >C16-C21	27700	mg/kg	13 of 25	0	15
Aro >C21-C35	28400	mg/kg	18 of 25	0	28
Aro >C35-C44	28400	mg/kg	10 of 25	0	4
Aro >C7-C8	106828	mg/kg	0 of 25	0	<0.01
Aro >C8-C10	8110	mg/kg	2 of 25	0	4
Aromatics >C40-44		mg/kg	No GAC	-	
GRO >C5-10		mg/kg	No GAC	-	
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-	132
Mineral Oil (>C10-C40)		mg/kg	No GAC	-	
PAH					
Acenaphthene	97100	mg/kg	1 of 15	0	
Dibenz-a-h-anthracene	3.55	mg/kg	3 of 15	0	
Fluoranthene	22700	mg/kg	7 of 15	0	
Fluorene	68400	mg/kg	2 of 15	0	
Indeno(1,2,3-cd)pyrene	506	mg/kg	10 of 15	0	
Phenanthrene	22300	mg/kg	6 of 15	0	
Pyrene	54400	mg/kg	7 of 15	0	
Naphthalene	462	mg/kg	1 of 15	0	
PAH (total 17)		mg/kg	No GAC	-	
PAH, Total Detected USEPA 16		mg/kg	No GAC	-	
Acenaphthylene	96800	mg/kg	3 of 15	0	
Anthracene	536000	mg/kg	4 of 15	0	
Benzo(a)anthracene	174	mg/kg	7 of 15	0	
Benzo (g,h,i) perylene	3950	mg/kg	7 of 15	0	
Benzo(a)pyrene	35.5	mg/kg	10 of 15	0	
Benzo(b)fluoranthene	44.7	mg/kg	8 of 15	0	
Benzo(k)fluoranthene	1180	mg/kg	3 of 15	0	
Chrysene	352	mg/kg	7 of 15	0	
BTEX					
BTEX - Benzene	47.4622	mg/kg	0 of 25	0	<0.01
BTEX - Toluene	106828	mg/kg	0 of 25	0	<0.01
BTEX - Ethyl Benzene	12834	mg/kg	0 of 25	0	<0.01
BTEX - m & p Xylene	13552	mg/kg	0 of 25	0	<0.01
BTEX - o Xylene	15034	mg/kg	0 of 25	0	<0.01
Xylene	13552	mg/kg	0 of 0	0	
BTEX (total)		mg/kg	No GAC	-	
PCBs					
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0	
PCB BZ 114	4E-06	mg/kg	0 of 6	0	
PCB BZ 118	0.00017	mg/kg	0 of 6	0	
PCB BZ 123	6E-06	mg/kg	0 of 6	0	
PCB BZ 126	5E-06	mg/kg	0 of 6	0	
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0	
PCB BZ 157	8E-06	mg/kg	0 of 6	0	
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0	
PCB BZ 169	1E-06	mg/kg	0 of 6	0	
PCB BZ 189	5E-06	mg/kg	0 of 6	0	
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0	
PCB BZ 81	1E-06	mg/kg	0 of 6	0	
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-	
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-	
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-	

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref	TP212
Sample Ref	
Easting	330267.01
Northing	371586.33
Hole Elevation (mOD)	8.43
Sample Depth (mbgl)	0.4
Sample Date	12/05/22
Investigation	GeoCon 2022
Geology	MG-GR

Contaminant Name	GAC	Units	Total > LOD	Total > GAC
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-
Total Speciated PCB-WHO12		mg/kg	No GAC	-
VOCs/SVOCs				
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 4	0
1,1,1-Trichloroethane	1350	mg/kg	0 of 4	0
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 4	0
1,1,2-Trichloroethane	180	mg/kg	0 of 4	0
1,1-Dichloroethane	425	mg/kg	0 of 4	0
1,1-Dichloroethene	43	mg/kg	0 of 4	0
1,1-Dichloropropene		mg/kg	No GAC	-
1,2,3-Trichlorobenzene	250	mg/kg	0 of 4	0
1,2,3-Trichloropropane		mg/kg	No GAC	-
1,2,4-Trichlorobenzene	530	mg/kg	0 of 4	0
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 4	0
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-
1,2-Dibromoethane		mg/kg	No GAC	-
1,2-Dichlorobenzene	4830	mg/kg	0 of 4	0
1,2-Dichloroethane	0.967	mg/kg	0 of 4	0
1,2-Dichloropropane	5.54	mg/kg	0 of 4	0
1,3,5-Trimethylbenzene		mg/kg	No GAC	-
1,3,5-Trichlorobenzene	12	mg/kg	0 of 0	0
1,3-Dichlorobenzene	70.6	mg/kg	0 of 4	0
1,3-Dichloropropane		mg/kg	No GAC	-
1,4-Dichlorobenzene	9700	mg/kg	0 of 4	0
2,2-Dichloropropane		mg/kg	No GAC	-
2,4,5-Trichlorophenol	4000	mg/kg	0 of 4	0
2,4,6-Trichlorophenol	4160	mg/kg	0 of 4	0
2,4-Dichlorophenol	3890	mg/kg	0 of 4	0
2,4-Dimethylphenol	23400	mg/kg	0 of 4	0
2,4-Dinitrotoluene	3750	mg/kg	0 of 4	0
2,6-Dinitrotoluene	1870	mg/kg	0 of 4	0
2-Chloronaphthalene	902	mg/kg	0 of 4	0
2-Chlorophenol	3980	mg/kg	0 of 4	0
2-Chlorotoluene		mg/kg	No GAC	-
2-Methylnaphthalene		mg/kg	No GAC	-
2-Methylphenol	175000	mg/kg	0 of 4	0
2-Nitroaniline		mg/kg	No GAC	-
2-Nitrophenol		mg/kg	No GAC	-
3-Nitroaniline		mg/kg	No GAC	-
4-Bromofluorobenzene Surrogate		%	No GAC	-
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-
4-Chloro-3-methylphenol		mg/kg	No GAC	-
4-Chloroaniline		mg/kg	No GAC	-
4-Chlorophenylphenylether		mg/kg	No GAC	-
4-Chlorotoluene		mg/kg	No GAC	-
4-Isopropyltoluene		mg/kg	No GAC	-
4-Methylphenol	175000	mg/kg	0 of 0	0
4-Nitroaniline		mg/kg	No GAC	-
4-Nitrophenol		mg/kg	No GAC	-
Azobenzene		mg/kg	No GAC	-
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-
Bis(2-chloroethyl)ether		mg/kg	No GAC	-
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-
Bis(2-ethylhexyl)phthalate	85800	mg/kg	0 of 4	0
Bromobenzene	211	mg/kg	0 of 4	0
Bromochloromethane		mg/kg	No GAC	-
Bromodichloromethane	3.52	mg/kg	0 of 4	0
Bromoform	1430	mg/kg	0 of 4	0
Bromomethane		mg/kg	No GAC	-
Butylbenzyl phthalate	944000	mg/kg	0 of 4	0
Carbazole		mg/kg	No GAC	-
Carbon Disulphide	21.8	mg/kg	0 of 4	0
Carbon Tetrachloride	6.28	mg/kg	0 of 4	0
Chlorobenzene	125	mg/kg	0 of 4	0
Chlorodibromomethane		mg/kg	No GAC	-
Chloroethane	1230	mg/kg	0 of 4	0
Chloroform	174	mg/kg	0 of 4	0
Chloromethane	1.12	mg/kg	0 of 4	0
Di-n-butyl phthalate	15400	mg/kg	0 of 4	0
Di-n-octyl phthalate	89100	mg/kg	0 of 4	0
Dibenzofuran		mg/kg	No GAC	-
Dibromomethane		mg/kg	No GAC	-
Dichloromethane	339	mg/kg	0 of 4	0
Diethyl phthalate	214000	mg/kg	0 of 4	0
Dimethyl phthalate		mg/kg	No GAC	-
Hexachlorobenzene	117	mg/kg	0 of 4	0
Hexachlorobutadiene	66.2	mg/kg	0 of 4	0
Hexachlorocyclopentadiene		mg/kg	No GAC	-
Hexachloroethane	49.8	mg/kg	0 of 4	0
Isophorone		mg/kg	No GAC	-
Isopropylbenzene	3130	mg/kg	0 of 4	0

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref	TP212
Sample Ref	
Easting	330267.01
Northing	371586.33
Hole Elevation (mOD)	8.43
Sample Depth (mbgl)	0.4
Sample Date	12/05/22
Investigation	GeoCon 2022
Geology	MG-GR

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	
MTBE	12100	mg/kg	0 of 25	0	<0.01
N-nitrosodi-n-propylamine		mg/kg	No GAC	-	
Nitrobenzene		mg/kg	No GAC	-	
Pentachlorophenol	403	mg/kg	0 of 4	0	
Sec-Butylbenzene		mg/kg	No GAC	-	
Styrene	6180	mg/kg	0 of 4	0	
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-	
Tetrachloroethene	41.6	mg/kg	0 of 4	0	
Trichloroethene	2.57	mg/kg	0 of 4	0	
Trichlorofluoromethane		mg/kg	No GAC	-	
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 4	0	
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 4	0	
cis 1,3-Dichloropropene		mg/kg	No GAC	-	
n-Butylbenzene		mg/kg	No GAC	-	
n-Propylbenzene	9150	mg/kg	0 of 4	0	
tert-Butylbenzene		mg/kg	No GAC	-	
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 4	0	
trans 1,3-Dichloropropene		mg/kg	No GAC	-	

B.2 Demolition samples - human health screening criteria

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC
Asbestos				
Asbestos Quantification (Total %)		%	No GAC	-
Asbestos Analysts Comments		No units	No GAC	-
Asbestos Gravimetric Quantification		%	No GAC	-
Asbestos PCOM Quantification		%	No GAC	-
Asbestos: Actinolite		No units	No GAC	-
Asbestos: Amosite		No units	No GAC	-
Asbestos: Anthophyllite		No units	No GAC	-
Asbestos: Chrysotile		No units	No GAC	-
Asbestos: Crocidolite		No units	No GAC	-
Asbestos: Tremolite		No units	No GAC	-
Non-Asbestos Fibre		No units	No GAC	-
Phenol and mineral oils				
Phenol	690	mg/kg	1 of 39	0
Phenol (Monohydric)	690	mg/kg	0 of 40	0
Cresols		mg/kg	No GAC	-
Xylenols		mg/kg	No GAC	-
TPH				
Ali >C10-C12	22900	mg/kg	4 of 40	0
Ali >C12-C16	81700	mg/kg	7 of 40	0
Ali >C16-C21	1.1E+07	mg/kg	18 of 40	0
Ali >C21-C35	1.1E+07	mg/kg	34 of 40	0
Ali >C35-C44	1.1E+07	mg/kg	30 of 40	0
Ali >C5-C6	5860	mg/kg	3 of 40	0
Ali >C6-C8	17400	mg/kg	3 of 40	0
Ali >C8-C10	4850	mg/kg	3 of 40	0
Total Aliphatics		mg/kg	No GAC	-
Aro >C10-C12	27900	mg/kg	4 of 40	0
Aro >C12-C16	37300	mg/kg	12 of 40	0
Aro >C16-C21	27700	mg/kg	18 of 40	0
Aro >C21-C35	28400	mg/kg	34 of 40	0
Aro >C35-C44	28400	mg/kg	15 of 40	0
Aro >C7-C8	106828	mg/kg	0 of 40	0
Aro >C8-C10	8110	mg/kg	4 of 40	0
Aromatics >C40-44		mg/kg	No GAC	-
GRO >C5-10		mg/kg	No GAC	-
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-
Mineral Oil (>C10-C40)		mg/kg	No GAC	-
PAH				
Acenaphthene	97100	mg/kg	13 of 40	0
Dibenz-a-h-anthracene	3.55	mg/kg	6 of 40	0
Fluoranthene	22700	mg/kg	27 of 40	0
Fluorene	68400	mg/kg	13 of 40	0
Indeno(1,2,3-cd)pyrene	506	mg/kg	25 of 40	0
Phenanthrene	22300	mg/kg	26 of 40	0
Pyrene	54400	mg/kg	28 of 40	0
Naphthalene	462	mg/kg	27 of 40	0
PAH (total 17)		mg/kg	No GAC	-
PAH, Total Detected USEPA 16		mg/kg	No GAC	-
Acenaphthylene	96800	mg/kg	10 of 40	0
Anthracene	536000	mg/kg	12 of 40	0
Benzo(a)anthracene	174	mg/kg	26 of 40	0
Benzo (g,h,i) perylene	3950	mg/kg	22 of 40	0
Benzo(a)pyrene	35.5	mg/kg	26 of 40	0
Benzo(b)fluoranthene	44.7	mg/kg	27 of 40	0
Benzo(k)fluoranthene	1180	mg/kg	20 of 40	0
Chrysene	352	mg/kg	27 of 40	0
BTEX				
BTEX - Benzene	47.4622	mg/kg	0 of 40	0
BTEX - Toluene	106828	mg/kg	0 of 40	0
BTEX - Ethyl Benzene	12834	mg/kg	0 of 40	0
BTEX - m & p Xylene	13552	mg/kg	0 of 40	0
BTEX - o Xylene	15034	mg/kg	0 of 40	0
Xylene	13552	mg/kg	0 of 28	0
BTEX (total)		mg/kg	No GAC	-
PCBs				
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0
PCB BZ 114	4E-06	mg/kg	0 of 6	0
PCB BZ 118	0.00017	mg/kg	1 of 30	1
PCB BZ 123	6E-06	mg/kg	0 of 6	0
PCB BZ 126	5E-06	mg/kg	0 of 6	0
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0
PCB BZ 157	8E-06	mg/kg	0 of 6	0
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0
PCB BZ 169	1E-06	mg/kg	0 of 6	0
PCB BZ 189	5E-06	mg/kg	0 of 6	0
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0
PCB BZ 81	1E-06	mg/kg	0 of 6	0
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-

Hole Ref	ES 1	ES 2	ES 3	ES 4	ES 5	HP1	HP1	HP2	HP2	HP3	HP3	SAMP01	SAMP02	SAMP03	SAMP04	SAMP05
Sample Ref																
Easting	330374.3	330374	330438.6	330444.4	330453.3	330421.76	330421.76	330420.861	330420.861	330431.278	330431.278	330413.762	330448.214	330438.309	330434.928	330374.067
Northing	371539.1	371538.4	371536.1	371543.9	371505.8	371470.314	371470.314	371487.538	371487.538	371465.759	371465.759	371515.296	371509.813	371521.791	371526.05	371537.857
Hole Elevation (mOD)	5.126	4.819	5.733	5.157	10.431							7.805	5.225	5.067	5.41	4.842
Sample Depth (mbgl)	0	0	0	0	0	2.25	2.3	0.3	0.35	2	2.2	0.1	0.1	0.1	0.1	0.1
Sample Date	07/07/22	07/07/22	07/07/22	07/07/22	07/07/22	30/05/22	30/05/22	30/05/22	30/05/22	30/05/22	30/05/22	21/06/22	21/06/22	21/06/22	21/06/22	21/06/22
Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
Asbestos																
Asbestos Quantification (Total %)					<0.001				0.096							
Asbestos Analysts Comments					-											
Asbestos Gravimetric Quantification					<0.001											
Asbestos PCOM Quantification					<0.001											
Asbestos: Actinolite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Amosite	Not Detected	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Anthophyllite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Chrysotile	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Crocidolite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Tremolite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Non-Asbestos Fibre	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Phenol and mineral oils																
Phenol	<0.01	<0.01	<0.01	0.0268	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.2	<0.2	<0.2	<0.2
Phenol (Monohydric)	<0.035	<0.035	<0.035	<0.035	<0.035	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cresols	<0.01	<0.01	<0.01	<0.01	<0.01											
Xylenols	<0.015	<0.015	<0.015	<0.015	<0.015								<0.2	<0.2	<0.2	<0.2
TPH																
Ali >C10-C12	<1	<1	<1	3.01	<1	<1	<1	<1	5	<1	<1	<1	<1	<1	2	4
Ali >C12-C16	<1	1.59	2.63	10.6	<1	2	<1	3	34	<1	<1	<1	<1	<1	<1	2
Ali >C16-C21	<1	4.52	28.6	37.3	2.52	5	2	11	54	<1	<1	<1	<1	<1	1	2
Ali >C21-C35	<1	12.4	356	831	30.4	35	13	178	844	<1	3	59	8	5	24	13
Ali >C35-C44	<1	5.26	227	3030	9.31	13	5	106	467	<1	<1	29	2	2	11	4
Ali >C5-C6	<0.01	<0.01	<0.01	0.0268	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ali >C6-C8	<0.01	<0.01	<0.01	0.0469	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ali >C8-C10	<0.01	<0.01	<0.01	0.063	<0.01	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1
Total Aliphatics						55	20	298	1400	<1	3	88	10	7	38	25
Aro >C10-C12	<1	<1	<1	6.03	<1	12	4	<1	<5	<1	<1	<1	<1	<1	<1	1
Aro >C12-C16	<1	<1	<1	43.2	<1	70	10	3	24	<1	1	<1	<1	<1	1	2
Aro >C16-C21	<1	2.29	<1	30.6	<1	9	12	9	41	<1	<1	2	<1	<1	1	1
Aro >C21-C35	<1	2.3	86.5	228	14.7	4	5	10	32	<1	3	2	1	2	4	2
Aro >C35-C44	<1	<1	54.5	95	1.65	<1	<1	14	33	<1	<1	7	<1	<1	1	<1
Aro >C7-C8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aro >C8-C10	<0.01	<0.01	<0.01	0.0429	<0.01	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	1
Aromatics >C40-44	<1	<1	46.4	<1	<1											
GRO >C5-10	<0.02	<0.02	<0.02	0.137	<0.02											
Aliphatics & Aromatics >C5-44	<10	30.5	756	4320	59	150	50	334	1530	<1	7	101	11	9	45	33
Mineral Oil (>C10-C40)							24		1570		<10	93	27	19	37	21
PAH																
Acenaphthene	<0.008	<0.008	0.0171	<0.008	<0.008	8.72	1.73	0.08	0.26	0.03	0.03	<0.01	<0.01	<0.01	<0.01	<0.1
Dibenz-a-h-anthracene	<0.023	<0.023	<0.023	<0.023	0.0378	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.4
Fluoranthene	<0.017	0.246	0.212	0.138	0.207	0.18	0.09	0.23	0.23	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.8
Fluorene	<0.01	<0.01	<0.01	<0.01	<0.01	2.89	0.64	0.05	0.27	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.1
Indeno(1,2,3-cd)pyrene	<0.018	0.0479	0.109	0.0873	0.201	0.05	<0.03	0.11	0.12	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.3
Phenanthrene	<0.015	0.239	0.0906	0.0821	0.0794	0.5	0.17	0.15	0.15	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.3
Pyrene	<0.015	0.213	0.192	0.122	0.216	0.14	0.07	0.25	0.24	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.7
Naphthalene	<0.009	0.114	0.0868	0.0278	0.0208	68.1	1.92	0.26	0.18	0.15	0.26	<0.03	<0.03	<0.03	0.03	<0.3
PAH (total 17)	<10	<10	<10	<10	<10		4.72		2.19		0.3	<0.08	<0.08	<0.08	<0.08	<0.8
PAH, Total Detected USEPA 16	<0.118	1.37	1.36	0.973	1.86	81.1	4.72	1.8	2.19	0.2	0.3	<0.08	<0.08	<0.08	<0.08	<0.8
Acenaphthylene	<0.012	<0.012	<0.012	<0.012	<0.012	0.1	0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
Anthracene	<0.016	0.0472	<0.016	<0.016	<0.016	0.2	0.05	0.03	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.2
Benzo(a)anthracene	<0.014	0.108	0.104	0.0885	0.169	0.06	<0.04	0.11	0.11	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.4
Benzo (g,h,i) perylene	<0.024	0.0477	0.0957	0.0775	0.171	<0.05	<0.05	0.11	0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Benzo(a)pyrene	<0.015	0.0648	0.1	0.091	0.211	0.05	<0.04	0.11	0.1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.4
Benzo(b)fluoranthene	<0.015	0.106	0.155	0.127	0.259	0.08	<0.05	0.17	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Benzo(k)fluoranthene	<0.014	0.0376	0.0554	0.0328	0.104	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.7
Chrysene	<0.01	0.102	0.143	0.0988	0.18	0.07	<0.06	0.14	0.13	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.6
BTEX																
BTEX - Benzene	<0.009	<0.18	<0.009	<1.8	<0.009	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BTEX - Toluene	<0.007	<0.14	<0.007	<1.4	<0.007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BTEX - Ethyl Benzene	<0.004	<0.08	<0.004	<0.8	<0.004	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BTEX - m & p Xylene	<0.01	<0.2	<0.01	<2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
BTEX - o Xylene	<0.01	<0.2	<0.01	<2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Xylene	<0.02	<0.4	<0.02	<4	<0.02											
BTEX (total)	<0.04	<0.8	<0.04	<8	<0.04		<0.01		<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PCBs																
PCB BZ 105												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 114												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 118	<0.003	<0.003	<0.003	<0.015	<0.003							<0.007	<0.007	<0.007	<0.007	<0.007
PCB BZ 123												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 126												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 156												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 157												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 167												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 169												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 189												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 77												<0.005	<0.005	<0.005	<0.005	<0.005
PCB BZ 81												<0.005	<0.005	<0.005	<0.005	<0.005
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl	<0.003	<0.003	<0.003	<0.015	<0.003											
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl	<0.003	<0.003	<0.003	<0.015	<0.003											
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl	<0.003	<0.003	<0.003	<0.015	<0.003											

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	ES 1	ES 2	ES 3	ES 4	ES 5	HP1	HP1	HP2	HP2	HP3	HP3	SAMP01	SAMP02	SAMP03	SAMP04	SAMP05
					Sample Ref																
					Easting	330374.3	330374	330438.6	330444.4	330453.3	330421.76	330421.76	330420.861	330420.861	330431.278	330431.278	330413.762	330448.214	330438.309	330434.928	330374.067
					Northing	371539.1	371538.4	371536.1	371543.9	371505.8	371470.314	371470.314	371487.538	371487.538	371465.759	371465.759	371515.296	371509.813	371521.791	371526.05	371537.857
					Hole Elevation (mOD)	5.126	4.819	5.733	5.157	10.431							7.805	5.225	5.067	5.41	4.842
					Sample Depth (mbgl)	0	0	0	0	0	2.25	2.3	0.3	0.35	2	2.2	0.1	0.1	0.1	0.1	0.1
					Sample Date	07/07/22	07/07/22	07/07/22	07/07/22	07/07/22	30/05/22	30/05/22	30/05/22	30/05/22	30/05/22	30/05/22	21/06/22	21/06/22	21/06/22	21/06/22	21/06/22
					Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
					Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-		<0.003	<0.003	<0.003	<0.015	<0.003											
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-		<0.003	<0.003	<0.003	<0.015	<0.003											
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-		<0.003	<0.003	<0.003	<0.015	<0.003											
Total Speciated PCB-WHO12		mg/kg	No GAC	-													<0.007	<0.007	<0.007	<0.007	<0.007
VOCs/SVOCs																					
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,1,1-Trichloroethane	1350	mg/kg	0 of 31	0		<0.007	<0.14	<0.007	<1.4	<0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,1,2-Trichloroethane	180	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,1-Dichloroethane	425	mg/kg	0 of 31	0		<0.008	<0.16	<0.008	<1.6	<0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,1-Dichloroethene	43	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,1-Dichloropropene		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,2,3-Trichlorobenzene	250	mg/kg	0 of 31	0		<0.02	<0.4	<0.02	<4	<0.02	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003					
1,2,3-Trichloropropane		mg/kg	No GAC	-		<0.016	<0.32	<0.016	<3.2	<0.016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,2,4-Trichlorobenzene	530	mg/kg	0 of 31	0		<0.02	<0.1	<0.02	<0.2	<0.02	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003					
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 31	0		<0.009	<0.18	<0.009	<1.8	<0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-		<0.014	<0.28	<0.014	<2.8	<0.014	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002					
1,2-Dibromoethane		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,2-Dichlorobenzene	4830	mg/kg	0 of 31	0		<0.01	<0.1	<0.01	<0.2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,2-Dichloroethane	0.967	mg/kg	0 of 31	0		<0.005	<0.1	<0.005	<1	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002					
1,2-Dichloropropane	5.54	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,3,5-Trimethylbenzene		mg/kg	No GAC	-		<0.008	<0.16	<0.008	<1.6	<0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,3,5-Trichlorobenzene	12	mg/kg	0 of 25	0		<0.02	<0.4	<0.02	<4	<0.02											
1,3-Dichlorobenzene	70.6	mg/kg	0 of 31	0		<0.008	<0.1	<0.008	<0.2	<0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,3-Dichloropropane		mg/kg	No GAC	-		<0.007	<0.14	<0.007	<1.4	<0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
1,4-Dichlorobenzene	9700	mg/kg	0 of 31	0		<0.005	<0.1	<0.005	<0.2	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
2,2-Dichloropropane		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
2,4,5-Trichlorophenol	4000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2,4,6-Trichlorophenol	4160	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2,4-Dichlorophenol	3890	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2,4-Dimethylphenol	23400	mg/kg	1 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2,4-Dinitrotoluene	3750	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2,6-Dinitrotoluene	1870	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2-Chloronaphthalene	902	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2-Chlorophenol	3980	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2-Chlorotoluene		mg/kg	No GAC	-		<0.009	<0.18	<0.009	<1.8	<0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
2-Methylnaphthalene		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	2.8	1.11	<0.1	<0.1	<0.1	<0.1					
2-Methylphenol	175000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
2-Nitroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1											
2-Nitrophenol		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
3-Nitroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1											
4-Bromofluorobenzene Surrogate		%	No GAC	-		102	78.6	71	95.1	88.9											
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
4-Chloro-3-methylphenol		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
4-Chloroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1											
4-Chlorophenylphenylether		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1											
4-Chlorotoluene		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
4-Isopropyltoluene		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
4-Methylphenol	175000	mg/kg	1 of 25	0		<0.1	<0.1	<0.1	<0.2	<0.1											
4-Nitroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1											
4-Nitrophenol		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Azobenzene		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1											
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Bis(2-chloroethyl)ether		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Bis(2-ethylhexyl)phthalate	85800	mg/kg	1 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Bromobenzene	211	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Bromochloromethane		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					
Bromodichloromethane	3.52	mg/kg	0 of 31	0		<0.007	<0.14	<0.007	<1.4	<0.007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Bromoform	1430	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Bromomethane		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Butylbenzyl phthalate	944000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Carbazole		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Carbon Disulphide	21.8	mg/kg	0 of 31	0		<0.007	<0.14	<0.007	<1.4	<0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Carbon Tetrachloride	6.28	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Chlorobenzene	125	mg/kg	0 of 31	0		<0.005	<0.1	<0.005	<1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Chlorodibromomethane		mg/kg	No GAC	-		<0.01	<0.2	<0.01	<2	<0.01	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003					
Chloroethane	1230	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Chloroform	174	mg/kg	0 of 31	0		<0.008	<0.16	<0.008	<1.6	<0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Chloromethane	1.12	mg/kg	0 of 31	0		<0.007	<0.14	<0.007	<1.4	<0.007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
Di-n-butyl phthalate	15400	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Di-n-octyl phthalate	89100	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
Dibenzofuran		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	4.04	2.61	<0.1	0.126	<0.1	<0.1					
Dibromomethane		mg/kg	No GAC	-		<0.009	<0.18	<0.009	<1.8	<0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Dichloromethane	339	mg/kg	0 of 31	0		<0.01	<0.2	<0.01	<2	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005					
Diethyl phthalate	214000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Dimethyl phthalate		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Hexachlorobenzene	117	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Hexachlorobutadiene	66.2	mg/kg	0 of 31	0		<0.02	<0.1	<0.02	<0.2	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					
Hexachlorocyclopentadiene		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Hexachloroethane	49.8	mg/kg	0 of 31	0		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Isophorone		mg/kg	No GAC	-		<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Isopropylbenzene	3130	mg/kg	0 of 31	0		<0.005	<0.1	<0.005	<1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001					

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref																
Sample Ref	ES 1	ES 2	ES 3	ES 4	ES 5	HP1	HP1	HP2	HP2	HP3	HP3	SAMP01	SAMP02	SAMP03	SAMP04	SAMP05
Easting	330374.3	330374	330438.6	330444.4	330453.3	330421.76	330421.76	330420.861	330420.861	330431.278	330431.278	330413.762	330448.214	330438.309	330434.928	330374.067
Northing	371539.1	371538.4	371536.1	371543.9	371505.8	371470.314	371470.314	371487.538	371487.538	371465.759	371465.759	371515.296	371509.813	371521.791	371526.05	371537.857
Hole Elevation (mOD)	5.126	4.819	5.733	5.157	10.431							7.805	5.225	5.067	5.41	4.842
Sample Depth (mbgl)	0	0	0	0	0	2.25	2.3	0.3	0.35	2	2.2	0.1	0.1	0.1	0.1	0.1
Sample Date	07/07/22	07/07/22	07/07/22	07/07/22	07/07/22	30/05/22	30/05/22	30/05/22	30/05/22	30/05/22	30/05/22	21/06/22	21/06/22	21/06/22	21/06/22	21/06/22
Investigation	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022	GeoCon 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR

Contaminant Name	GAC	Units	Total > LOD	Total > GAC													
MTBE	12100	mg/kg	0 of 40	0	<0.01	<0.2	<0.01	<2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
N-nitrosodi-n-propylamine		mg/kg	No GAC	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				
Nitrobenzene		mg/kg	No GAC	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				
Pentachlorophenol	403	mg/kg	0 of 31	0	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1				
Sec-Butylbenzene		mg/kg	No GAC	-	<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
Styrene	6180	mg/kg	0 of 31	0	<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-	<0.01	<0.2	<0.01	<2	<0.01										
Tetrachloroethene	41.6	mg/kg	0 of 31	0	<0.005	<0.1	<0.005	<1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
Trichloroethene	2.57	mg/kg	0 of 31	0	<0.009	<0.18	<0.009	<1.8	<0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
Trichlorofluoromethane		mg/kg	No GAC	-	<0.006	<0.12	<0.006	<1.2	<0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 31	0	<0.006	<0.12	<0.006	<1.2	<0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 31	0	<0.006	<0.12	<0.006	<1.2	<0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
cis 1,3-Dichloropropene		mg/kg	No GAC	-	<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
n-Butylbenzene		mg/kg	No GAC	-	<0.011	<0.22	<0.011	<2.2	<0.011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
n-Propylbenzene	9150	mg/kg	0 of 31	0	<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
tert-Butylbenzene		mg/kg	No GAC	-	<0.014	<0.28	<0.014	<2.8	<0.014	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002				
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 31	0	<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
trans 1,3-Dichloropropene		mg/kg	No GAC	-	<0.01	<0.2	<0.01	<2	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	
Hole Ref					
Sample Ref					
Easting					
Northing					
Hole Elevation (mOD)					
Sample Depth (mbgl)					
Sample Date					
Investigation					
Geology					
Asbestos					
Asbestos Quantification (Total %)		%	No GAC	-	
Asbestos Analysts Comments		No units	No GAC	-	
Asbestos Gravimetric Quantification		%	No GAC	-	
Asbestos PCOM Quantification		%	No GAC	-	
Asbestos: Actinolite		No units	No GAC	-	
Asbestos: Amosite		No units	No GAC	-	
Asbestos: Anthophyllite		No units	No GAC	-	
Asbestos: Chrysotile		No units	No GAC	-	
Asbestos: Crocidolite		No units	No GAC	-	
Asbestos: Tremolite		No units	No GAC	-	
Non-Asbestos Fibre		No units	No GAC	-	
Phenol and mineral oils					
Phenol	690	mg/kg	1 of 39	0	
Phenol (Monohydric)	690	mg/kg	0 of 40	0	
Cresols		mg/kg	No GAC	-	
Xylenols		mg/kg	No GAC	-	
TPH					
Ali >C10-C12	22900	mg/kg	4 of 40	0	
Ali >C12-C16	81700	mg/kg	7 of 40	0	
Ali >C16-C21	1.1E+07	mg/kg	18 of 40	0	
Ali >C21-C35	1.1E+07	mg/kg	34 of 40	0	
Ali >C35-C44	1.1E+07	mg/kg	30 of 40	0	
Ali >C5-C6	5860	mg/kg	3 of 40	0	
Ali >C6-C8	17400	mg/kg	3 of 40	0	
Ali >C8-C10	4850	mg/kg	3 of 40	0	
Total Aliphatics		mg/kg	No GAC	-	
Aro >C10-C12	27900	mg/kg	4 of 40	0	
Aro >C12-C16	37300	mg/kg	12 of 40	0	
Aro >C16-C21	27700	mg/kg	18 of 40	0	
Aro >C21-C35	28400	mg/kg	34 of 40	0	
Aro >C35-C44	28400	mg/kg	15 of 40	0	
Aro >C7-C8	106828	mg/kg	0 of 40	0	
Aro >C8-C10	8110	mg/kg	4 of 40	0	
Aromatics >C40-44		mg/kg	No GAC	-	
GRO >C5-10		mg/kg	No GAC	-	
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-	
Mineral Oil (>C10-C40)		mg/kg	No GAC	-	
PAH					
Acenaphthene	97100	mg/kg	13 of 40	0	
Dibenz-a-h-anthracene	3.55	mg/kg	6 of 40	0	
Fluoranthene	22700	mg/kg	27 of 40	0	
Fluorene	68400	mg/kg	13 of 40	0	
Indeno(1,2,3-cd)pyrene	506	mg/kg	25 of 40	0	
Phenanthrene	22300	mg/kg	26 of 40	0	
Pyrene	54400	mg/kg	28 of 40	0	
Naphthalene	462	mg/kg	27 of 40	0	
PAH (total 17)		mg/kg	No GAC	-	
PAH, Total Detected USEPA 16		mg/kg	No GAC	-	
Acenaphthylene	96800	mg/kg	10 of 40	0	
Anthracene	536000	mg/kg	12 of 40	0	
Benzo(a)anthracene	174	mg/kg	26 of 40	0	
Benzo (g,h,i) perylene	3950	mg/kg	22 of 40	0	
Benzo(a)pyrene	35.5	mg/kg	26 of 40	0	
Benzo(b)fluoranthene	44.7	mg/kg	27 of 40	0	
Benzo(k)fluoranthene	1180	mg/kg	20 of 40	0	
Chrysene	352	mg/kg	27 of 40	0	
BTEX					
BTEX - Benzene	47.4622	mg/kg	0 of 40	0	
BTEX - Toluene	106828	mg/kg	0 of 40	0	
BTEX - Ethyl Benzene	12834	mg/kg	0 of 40	0	
BTEX - m & p Xylene	13552	mg/kg	0 of 40	0	
BTEX - o Xylene	15034	mg/kg	0 of 40	0	
Xylene	13552	mg/kg	0 of 28	0	
BTEX (total)		mg/kg	No GAC	-	
PCBs					
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0	
PCB BZ 114	4E-06	mg/kg	0 of 6	0	
PCB BZ 118	0.00017	mg/kg	1 of 30	1	
PCB BZ 123	6E-06	mg/kg	0 of 6	0	
PCB BZ 126	5E-06	mg/kg	0 of 6	0	
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0	
PCB BZ 157	8E-06	mg/kg	0 of 6	0	
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0	
PCB BZ 169	1E-06	mg/kg	0 of 6	0	
PCB BZ 189	5E-06	mg/kg	0 of 6	0	
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0	
PCB BZ 81	1E-06	mg/kg	0 of 6	0	
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-	
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-	
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-	

Hole Ref	SAMP06	SAMPCRUSH	SP 14	SP 15	SP 16	SP 17	SP 18	SP10	SP11	SP12	SP13	SP19	SP20	SP21	SP22	SP23
Sample Ref																
Easting	330450.065		330434.8	330263.5	330263.3	330285.1	330264.8	330455.4	330302.8	330264	330321.1	330302.263	330323.391	330321.485	330303.85	330281.268
Northing	371546.544		371595.3	371550.7	371553.7	371488	371549.8	371506.1	371535.5	371543.8	371526.3	371465.358	371442.678	371459.981	371561.831	371531.416
Hole Elevation (mOD)	8.194		8.636	5.919	6.017	9.02	5.564	11.511	6.578	9.579	9.363	14.363	14.131	12.884	7.868	9.386
Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Date	21/06/22	21/06/22	03/08/22	03/08/22	03/08/22	03/08/22	03/08/22	20/07/22	20/07/22	20/07/22	28/07/22	10/08/22	10/08/22	10/08/22	10/08/22	10/08/22
Investigation	GeoCon 2022	GeoCon 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
Asbestos																
Asbestos Quantification (Total %)								<0.001						<0.001		
Asbestos Analysts Comments								N/A						-		
Asbestos Gravimetric Quantification								<0.001						<0.001		
Asbestos PCOM Quantification								<0.001						<0.001		
Asbestos: Actinolite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Amosite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Anthophyllite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Chrysotile	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected
Asbestos: Crocidolite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Tremolite	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Non-Asbestos Fibre	Not Detected		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Phenol and mineral oils																
Phenol	<0.2		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol (Monohydric)	<0.2		<0.035	<0.035	<0.035	<0.035	<0.035		<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Cresols			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Xylenols	<0.2		<0.015	<0.015	<0.015	<0.015	<0.015		<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
TPH																
Ali >C10-C12	<1		<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Ali >C12-C16	<1		<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Ali >C16-C21	<1		<1	4.68	<1	1.82	32.4		<1	<1	<1	<1	<1	8.26	<1	3.71
Ali >C21-C35	20		<1	13.9	<1	24.7	887		<1	19	10.8	32.9	21.5	247	<1	23.5
Ali >C35-C44	8		<1	1.18	<1	17.1	302		<1	4.58	1.02	14.6	10.4	71.1	<1	10.3
Ali >C5-C6	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	0.0432	<0.01	<0.01
Ali >C6-C8	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	0.0341	<0.01	<0.01
Ali >C8-C10	<1		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	0.108	<0.01	<0.01
Total Aliphatics	28															
Aro >C10-C12	<1		<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1
Aro >C12-C16	11		<1	<1	<1	3.98	1.3		<1	<1	<1	<1	<1	<1	<1	<1
Aro >C16-C21	5		<1	2.86	<1	20.1	3.83		<1	<1	<1	<1	<1	1.66	<1	1.69
Aro >C21-C35	12		<1	55.3	<1	32.9	43		5.94	23	5.88	19.7	15.9	44.6	<1	19.4
Aro >C35-C44	<1		<1	14.6	<1	10.9	<1		<1	6.72	<1	<1	8.7	1.31	<1	<1
Aro >C7-C8	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aro >C8-C10	<1		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01	0.0723	<0.01	<0.01
Aromatics >C40-44			<1	2.06	<1	5.42	<1		<1	<1	<1	<1	2.57	<1	<1	<1
GRO >C5-10			<0.02	<0.02	<0.02	<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	<0.02	0.258	<0.02	<0.02
Aliphatics & Aromatics >C5-44	57		<10	93.3	<10	112	1270		<10	54.3	19.3	68.8	56.8	375	<10	60.1
Mineral Oil (>C10-C40)	44	431														
PAH																
Acenaphthene	<0.01		<0.008	0.0402	<0.008	0.0477	0.064		<0.008	<0.1	<0.008	<0.008	<0.008	<0.008	<0.008	0.015
Dibenz-a-h-anthracene	<0.04		<0.023	0.0654	0.0483	0.039	<0.023		<0.023	<0.1	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
Fluoranthene	0.11		0.0335	1.1	0.879	0.576	0.421		<0.017	<0.1	0.0928	0.0553	0.123	0.0763	<0.017	0.285
Fluorene	<0.01		<0.01	0.0518	0.0157	0.118	0.0852		<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	0.0169
Indeno(1,2,3-cd)pyrene	0.09		0.0246	0.356	0.299	0.134	0.127		<0.018	<0.1	0.0469	0.0312	0.0673	0.0489	<0.018	0.045
Phenanthrene	0.04		0.0227	0.508	0.108	0.886	0.379		<0.015	<0.1	0.0636	0.0269	0.0553	0.0414	<0.015	0.298
Pyrene	0.11		0.032	1.42	0.634	0.506	0.343		<0.015	<0.1	0.0877	0.0538	0.121	0.0718	<0.015	0.229
Naphthalene	<0.03		0.0126	0.157	0.0269	0.157	0.148		<0.009	<0.1	0.0196	0.00926	0.0206	0.0108	<0.009	0.123
PAH (total 17)	0.96	<0.08	<10	<10	<10	<10	<10		<10	<10	<10	0.382	<10	0.552	<0.318	<10
PAH, Total Detected USEPA 16	0.91		0.243	7.08	4.2	4.25	2.69		<0.118		0.606	0.382	0.882	0.552	<0.118	1.7
Acenaphthylene	<0.01		<0.012	0.0605	0.0916	0.0306	0.044		<0.012	<0.1	<0.012	<0.012	<0.012	<0.012	<0.012	0.0179
Anthracene	<0.02		<0.016	0.146	0.0602	0.186	0.101		<0.016	<0.1	<0.016	<0.016	<0.016	<0.016	<0.016	0.0536
Benzo(a)anthracene	0.09		0.0239	0.595	0.394	0.326	0.183		<0.014	<0.1	0.0476	0.0326	0.0765	0.045	<0.014	0.132
Benzo (g,h,i) perylene	0.09		<0.024	0.317	0.221	0.135	0.113		<0.024	<0.1	0.0438	0.0308	0.071	0.0463	<0.024	0.0361
Benzo(a)pyrene	0.12		0.0257	0.487	0.346	0.214	0.161		<0.015	<0.1	0.0467	0.0349	0.0881	0.0515	<0.015	0.0711
Benzo(b)fluoranthene	0.16		0.0431	0.906	0.564	0.4	0.255		<0.015	<0.1	0.0777	0.0518	0.122	0.0754	<0.015	0.172
Benzo(k)fluoranthene	<0.07		<0.014	0.307	0.186	0.127	0.0827		<0.014	<0.1	0.0273	0.0202	0.0501	0.0285	<0.014	0.0481
Chrysene	0.1		0.0252	0.574	0.327	0.365	0.19		<0.01	<0.1	0.0523	0.0354	0.0873	0.0557	<0.01	0.159
BTEX																
BTEX - Benzene	<0.01		<0.18	<0.18	<0.18	<1.8	<0.18		<0.009	<0.09	<0.18	<0.009	<0.009	<0.18	<0.009	<0.18
BTEX - Toluene	<0.01		<0.14	<0.14	<0.14	<1.4	<0.14		<0.007	<0.07	<0.14	<0.007	<0.007	<0.14	<0.007	<0.14
BTEX - Ethyl Benzene	<0.01		<0.08	<0.08	<0.08	<0.8	<0.08		<0.004	<0.04	<0.08	<0.004	<0.004	<0.08	<0.004	<0.08
BTEX - m & p Xylene	<0.01		<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
BTEX - o Xylene	<0.01		<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Xylene			<0.4	<0.4	<0.4	<4	<0.4		<0.02	<0.2	<0.4	<0.02	<0.02	<0.4	<0.02	<0.4
BTEX (total)	<0.01	0.28	<0.8	<0.8	<0.8	<8	<0.8		<0.04	<0.4	<0.8	<0.04	<0.04	<0.8	<0.04	<0.8
PCBs																
PCB BZ 105	<0.005															
PCB BZ 114	<0.005															
PCB BZ 118	<0.007		<0.003	0.0152	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
PCB BZ 123	<0.005															
PCB BZ 126	<0.005															
PCB BZ 156	<0.005															
PCB BZ 157	<0.005															
PCB BZ 167	<0.005															
PCB BZ 169	<0.005															
PCB BZ 189	<0.005															
PCB BZ 77	<0.005															
PCB BZ 81	<0.005															
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl			<0.003	0.0363	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl			<0.003	0.0857	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl			<0.003	0.0999	<0.003	0.00833	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	SAMP06	SAMPCRUSH	SP 14	SP 15	SP 16	SP 17	SP 18	SP10	SP11	SP12	SP13	SP19	SP20	SP21	SP22	SP23
					Sample Ref																
					Easting	330450.065		330434.8	330263.5	330263.3	330285.1	330264.8	330455.4	330302.8	330264	330321.1	330302.263	330323.391	330321.485	330303.85	330281.268
					Northing	371546.544		371595.3	371550.7	371553.7	371488	371549.8	371506.1	371535.5	371543.8	371526.3	371465.358	371442.678	371459.981	371561.831	371531.416
					Hole Elevation (mOD)	8.194		8.636	5.919	6.017	9.02	5.564	11.511	6.578	9.579	9.363	14.363	14.131	12.884	7.868	9.386
					Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
					Sample Date	21/06/22	21/06/22	03/08/22	03/08/22	03/08/22	03/08/22	03/08/22	20/07/22	20/07/22	20/07/22	28/07/22	10/08/22	10/08/22	10/08/22	10/08/22	10/08/22
					Investigation	GeoCon 2022	GeoCon 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
					Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-				<0.003	0.0728	<0.003	0.11	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-				<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-				<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Total Speciated PCB-WHO12		mg/kg	No GAC	-		<0.007															
VOCs/SVOCs																					
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,1,1-Trichloroethane	1350	mg/kg	0 of 31	0				<0.14	<0.14	<0.14	<1.4	<0.14		<0.007	<0.07	<0.14	<0.007	<0.007	<0.14	<0.007	<0.14
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,1,2-Trichloroethane	180	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,1-Dichloroethane	425	mg/kg	0 of 31	0				<0.16	<0.16	<0.16	<1.6	<0.16		<0.008	<0.08	<0.16	<0.008	<0.008	<0.16	<0.008	<0.16
1,1-Dichloroethene	43	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,1-Dichloropropene		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,2,3-Trichlorobenzene	250	mg/kg	0 of 31	0				<0.4	<0.4	<0.4	<4	<0.4		<0.02	<0.2	<0.4	<0.02	<0.02	<0.4	<0.02	<0.4
1,2,3-Trichloropropane		mg/kg	No GAC	-				<0.32	<0.32	<0.32	<3.2	<0.32		<0.016	<0.16	<0.32	<0.016	<0.016	<0.32	<0.016	<0.32
1,2,4-Trichlorobenzene	530	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.02	<0.1	<0.4	<0.02	<0.02	<0.2	<0.02	<0.1
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 31	0				<0.18	<0.18	<0.18	<1.8	<0.18		<0.009	<0.09	<0.18	<0.009	<0.009	<0.18	<0.009	<0.18
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-				<0.28	<0.28	<0.28	<2.8	<0.28		<0.014	<0.14	<0.28	<0.014	<0.014	<0.28	<0.014	<0.28
1,2-Dibromoethane		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,2-Dichlorobenzene	4830	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.1
1,2-Dichloroethane	0.967	mg/kg	0 of 31	0				<0.1	<0.1	<0.1	<1	<0.1		<0.005	<0.05	<0.1	<0.005	<0.005	<0.1	<0.005	<0.1
1,2-Dichloropropane	5.54	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
1,3,5-Trimethylbenzene		mg/kg	No GAC	-				<0.16	<0.16	<0.16	<1.6	<0.16		<0.008	<0.08	<0.16	<0.008	<0.008	<0.16	<0.008	<0.16
1,3,5-Trichlorobenzene	12	mg/kg	0 of 25	0				<0.4	<0.4	<0.4	<4	<0.4		<0.02	<0.2	<0.4	<0.02	<0.02	<0.4	<0.02	<0.4
1,3-Dichlorobenzene	70.6	mg/kg	0 of 31	0				<0.1	<0.16	<0.1	<0.1	<0.16		<0.008	<0.08	<0.16	<0.008	<0.008	<0.16	<0.008	<0.1
1,3-Dichloropropane		mg/kg	No GAC	-				<0.14	<0.14	<0.14	<1.4	<0.14		<0.007	<0.07	<0.14	<0.007	<0.007	<0.14	<0.007	<0.14
1,4-Dichlorobenzene	9700	mg/kg	0 of 31	0				<0.1	<0.1	<0.1	<0.1	<0.1		<0.005	<0.05	<0.1	<0.005	<0.005	<0.1	<0.005	<0.1
2,2-Dichloropropane		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
2,4,5-Trichlorophenol	4000	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2,4,6-Trichlorophenol	4160	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2,4-Dichlorophenol	3890	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2,4-Dimethylphenol	23400	mg/kg	1 of 31	0				<0.1	<0.2	<0.1	0.129	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2,4-Dinitrotoluene	3750	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2,6-Dinitrotoluene	1870	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2-Chloronaphthalene	902	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2-Chlorophenol	3980	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2-Chlorotoluene		mg/kg	No GAC	-				<0.18	<0.18	<0.18	<1.8	<0.18		<0.009	<0.09	<0.18	<0.009	<0.009	<0.18	<0.009	<0.18
2-Methylnaphthalene		mg/kg	No GAC	-				<0.1	0.299	<0.1	0.679	0.805		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	0.138
2-Methylphenol	175000	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2-Nitroaniline		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
2-Nitrophenol		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
3-Nitroaniline		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Bromofluorobenzene Surrogate		%	No GAC	-				97	92.2	96.6	102	96		93.8	90.3	90.6	83	79	93	84.7	90.1
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Chloro-3-methylphenol		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Chloroaniline		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Chlorophenylphenylether		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Chlorotoluene		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
4-Isopropyltoluene		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
4-Methylphenol	175000	mg/kg	1 of 25	0				<0.1	<0.2	<0.1	0.224	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Nitroaniline		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
4-Nitrophenol		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Azobenzene		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Bis(2-chloroethyl)ether		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Bis(2-ethylhexyl)phthalate	85800	mg/kg	1 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	0.815	<0.1	<0.1
Bromobenzene	211	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Bromochloromethane		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Bromodichloromethane	3.52	mg/kg	0 of 31	0				<0.14	<0.14	<0.14	<1.4	<0.14		<0.007	<0.07	<0.14	<0.007	<0.007	<0.14	<0.007	<0.14
Bromoform	1430	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Bromomethane		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Butylbenzyl phthalate	944000	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Carbazole		mg/kg	No GAC	-				<0.1	<0.2	<0.1	0.132	0.242		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Carbon Disulphide	21.8	mg/kg	0 of 31	0				<0.14	<0.14	<0.14	<1.4	<0.14		<0.007	<0.07	<0.14	<0.007	<0.007	<0.14	<0.007	<0.14
Carbon Tetrachloride	6.28	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Chlorobenzene	125	mg/kg	0 of 31	0				<0.1	<0.1	<0.1	<1	<0.1		<0.005	<0.05	<0.1	<0.005	<0.005	<0.1	<0.005	<0.1
Chlorodibromomethane		mg/kg	No GAC	-				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Chloroethane	1230	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Chloroform	174	mg/kg	0 of 31	0				<0.16	<0.16	<0.16	<1.6	<0.16		<0.008	<0.08	<0.16	<0.008	<0.008	<0.16	<0.008	<0.16
Chloromethane	1.12	mg/kg	0 of 31	0				<0.14	<0.14	<0.14	<1.4	<0.14		<0.007	<0.07	<0.14	<0.007	<0.007	<0.14	<0.007	<0.14
Di-n-butyl phthalate	15400	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Di-n-octyl phthalate	89100	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Dibenzofuran		mg/kg	No GAC	-				<0.1	<0.2	<0.1	0.291	0.516		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Dibromomethane		mg/kg	No GAC	-				<0.18	<0.18	<0.18	<1.8	<0.18		<0.009	<0.09	<0.18	<0.009	<0.009	<0.18	<0.009	<0.18
Dichloromethane	339	mg/kg	0 of 31	0				<0.2	<0.2	<0.2	<2	<0.2		<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Diethyl phthalate	214000	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Dimethyl phthalate		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Hexachlorobenzene	117	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Hexachlorobutadiene	66.2	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.02	<0.1	<0.4	<0.02	<0.02	<0.2	<0.02	<0.1
Hexachlorocyclopentadiene		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Hexachloroethane	49.8	mg/kg	0 of 31	0				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Isophorone		mg/kg	No GAC	-				<0.1	<0.2	<0.1	<0.1	<0.2		<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Isopropylbenzene	3130	mg/kg	0 of 31	0				<0.1	<0.1	<0.1	<1	<0.1		<0.005	<0.05	<0.1	<0.005	<0.005	<0.1	<0.005	<0.1

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref																
Sample Ref	SAMP06	SAMPCRUSH	SP 14	SP 15	SP 16	SP 17	SP 18	SP10	SP11	SP12	SP13	SP19	SP20	SP21	SP22	SP23
Easting	330450.065		330434.8	330263.5	330263.3	330285.1	330264.8	330455.4	330302.8	330264	330321.1	330302.263	330323.391	330321.485	330303.85	330281.268
Northing	371546.544		371595.3	371550.7	371553.7	371488	371549.8	371506.1	371535.5	371543.8	371526.3	371465.358	371442.678	371459.981	371561.831	371531.416
Hole Elevation (mOD)	8.194		8.636	5.919	6.017	9.02	5.564	11.511	6.578	9.579	9.363	14.363	14.131	12.884	7.868	9.386
Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Date	21/06/22	21/06/22	03/08/22	03/08/22	03/08/22	03/08/22	03/08/22	20/07/22	20/07/22	20/07/22	28/07/22	10/08/22	10/08/22	10/08/22	10/08/22	10/08/22
Investigation	GeoCon 2022	GeoCon 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
Contaminant Name	GAC	Units	Total > LOD	Total > GAC												
MTBE	12100	mg/kg	0 of 40	0	<0.01		<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
N-nitrosodi-n-propylamine		mg/kg	No GAC	-			<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Nitrobenzene		mg/kg	No GAC	-			<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Pentachlorophenol	403	mg/kg	0 of 31	0			<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.5	<0.1	<0.1	<0.2	<0.1	<0.1
Sec-Butylbenzene		mg/kg	No GAC	-			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Styrene	6180	mg/kg	0 of 31	0			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
Tetrachloroethene	41.6	mg/kg	0 of 31	0			<0.1	<0.1	<0.1	<1	<0.1	<0.005	<0.05	<0.1	<0.005	<0.005	<0.1	<0.005	<0.1
Trichloroethene	2.57	mg/kg	0 of 31	0			<0.18	<0.18	<0.18	<1.8	<0.18	<0.009	<0.09	<0.18	<0.009	<0.009	<0.18	<0.009	<0.18
Trichlorofluoromethane		mg/kg	No GAC	-			<0.12	<0.12	<0.12	<1.2	<0.12	<0.006	<0.06	<0.12	<0.006	<0.006	<0.12	<0.006	<0.12
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 31	0			<0.12	<0.12	<0.12	<1.2	<0.12	<0.006	<0.06	<0.12	<0.006	<0.006	<0.12	<0.006	<0.12
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 31	0			<0.12	<0.12	<0.12	<1.2	<0.12	<0.006	<0.06	<0.12	<0.006	<0.006	<0.12	<0.006	<0.12
cis 1,3-Dichloropropene		mg/kg	No GAC	-			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
n-Butylbenzene		mg/kg	No GAC	-			<0.22	<0.22	<0.22	<2.2	<0.22	<0.011	<0.11	<0.22	<0.011	<0.011	<0.22	<0.011	<0.22
n-Propylbenzene	9150	mg/kg	0 of 31	0			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
tert-Butylbenzene		mg/kg	No GAC	-			<0.28	<0.28	<0.28	<2.8	<0.28	<0.014	<0.14	<0.28	<0.014	<0.014	<0.28	<0.014	<0.28
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 31	0			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2
trans 1,3-Dichloropropene		mg/kg	No GAC	-			<0.2	<0.2	<0.2	<2	<0.2	<0.01	<0.1	<0.2	<0.01	<0.01	<0.2	<0.01	<0.2

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC
Hole Ref				
Sample Ref				
Easting				
Northing				
Hole Elevation (mOD)				
Sample Depth (mbgl)				
Sample Date				
Investigation				
Geology				
Asbestos				
Asbestos Quantification (Total %)		%	No GAC	-
Asbestos Analysts Comments		No units	No GAC	-
Asbestos Gravimetric Quantification		%	No GAC	-
Asbestos PCOM Quantification		%	No GAC	-
Asbestos: Actinolite		No units	No GAC	-
Asbestos: Amosite		No units	No GAC	-
Asbestos: Anthophyllite		No units	No GAC	-
Asbestos: Chrysotile		No units	No GAC	-
Asbestos: Crocidolite		No units	No GAC	-
Asbestos: Tremolite		No units	No GAC	-
Non-Asbestos Fibre		No units	No GAC	-
Phenol and mineral oils				
Phenol	690	mg/kg	1 of 39	0
Phenol (Monohydric)	690	mg/kg	0 of 40	0
Cresols		mg/kg	No GAC	-
Xylenols		mg/kg	No GAC	-
TPH				
Ali >C10-C12	22900	mg/kg	4 of 40	0
Ali >C12-C16	81700	mg/kg	7 of 40	0
Ali >C16-C21	1.1E+07	mg/kg	18 of 40	0
Ali >C21-C35	1.1E+07	mg/kg	34 of 40	0
Ali >C35-C44	1.1E+07	mg/kg	30 of 40	0
Ali >C5-C6	5860	mg/kg	3 of 40	0
Ali >C6-C8	17400	mg/kg	3 of 40	0
Ali >C8-C10	4850	mg/kg	3 of 40	0
Total Aliphatics		mg/kg	No GAC	-
Aro >C10-C12	27900	mg/kg	4 of 40	0
Aro >C12-C16	37300	mg/kg	12 of 40	0
Aro >C16-C21	27700	mg/kg	18 of 40	0
Aro >C21-C35	28400	mg/kg	34 of 40	0
Aro >C35-C44	28400	mg/kg	15 of 40	0
Aro >C7-C8	106828	mg/kg	0 of 40	0
Aro >C8-C10	8110	mg/kg	4 of 40	0
Aromatics >C40-44		mg/kg	No GAC	-
GRO >C5-10		mg/kg	No GAC	-
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-
Mineral Oil (>C10-C40)		mg/kg	No GAC	-
PAH				
Acenaphthene	97100	mg/kg	13 of 40	0
Dibenz-a-h-anthracene	3.55	mg/kg	6 of 40	0
Fluoranthene	22700	mg/kg	27 of 40	0
Fluorene	68400	mg/kg	13 of 40	0
Indeno(1,2,3-cd)pyrene	506	mg/kg	25 of 40	0
Phenanthrene	22300	mg/kg	26 of 40	0
Pyrene	54400	mg/kg	28 of 40	0
Naphthalene	462	mg/kg	27 of 40	0
PAH (total 17)		mg/kg	No GAC	-
PAH, Total Detected USEPA 16		mg/kg	No GAC	-
Acenaphthylene	96800	mg/kg	10 of 40	0
Anthracene	536000	mg/kg	12 of 40	0
Benzo(a)anthracene	174	mg/kg	26 of 40	0
Benzo (g,h,i) perylene	3950	mg/kg	22 of 40	0
Benzo(a)pyrene	35.5	mg/kg	26 of 40	0
Benzo(b)fluoranthene	44.7	mg/kg	27 of 40	0
Benzo(k)fluoranthene	1180	mg/kg	20 of 40	0
Chrysene	352	mg/kg	27 of 40	0
BTEX				
BTEX - Benzene	47.4622	mg/kg	0 of 40	0
BTEX - Toluene	106828	mg/kg	0 of 40	0
BTEX - Ethyl Benzene	12834	mg/kg	0 of 40	0
BTEX - m & p Xylene	13552	mg/kg	0 of 40	0
BTEX - o Xylene	15034	mg/kg	0 of 40	0
Xylene	13552	mg/kg	0 of 28	0
BTEX (total)		mg/kg	No GAC	-
PCBs				
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0
PCB BZ 114	4E-06	mg/kg	0 of 6	0
PCB BZ 118	0.00017	mg/kg	1 of 30	1
PCB BZ 123	6E-06	mg/kg	0 of 6	0
PCB BZ 126	5E-06	mg/kg	0 of 6	0
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0
PCB BZ 157	8E-06	mg/kg	0 of 6	0
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0
PCB BZ 169	1E-06	mg/kg	0 of 6	0
PCB BZ 189	5E-06	mg/kg	0 of 6	0
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0
PCB BZ 81	1E-06	mg/kg	0 of 6	0
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-

Hole Ref	SP24	SP25	SP26	SP27	SP28	SP29	SP30	SP31	SP32	SP33	SP34	SP35	SP36	SP37	SP38	SP39
Sample Ref																
Easting	330415.996	330405.592	330431.974	330325	330333.4	330324.9	330311	330299.2	330308.4	330328.4	330342.8		330287.793	330375.836	330378.065	330324.455
Northing	371591.872	371587.777	371597.964	371456	371445.3	371443.7	371461.3	371461.3	371469	371586	371596.8		371530.703	371483.396	371461.326	371453.162
Hole Elevation (mOD)	10.461	7.989	8.523	12.957	13.273	13.843	13.674	14.211	13.59	7.867	8.713		10.965	10.293	11.628	8.578
Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Date	17/08/22	17/08/22	17/08/22	19/08/22	19/08/22	19/08/22	19/08/22	19/08/22	19/08/22	24/08/22	24/08/22	01/09/22	07/09/22	07/09/22	07/09/22	07/09/22
Investigation	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
Asbestos																
Asbestos Quantification (Total %)				0.155	<0.001	-	0.0259	<0.001	<0.001				<0.001	<0.001	0.005	0.0029
Asbestos Analysts Comments				ACM debris in soil	-	-	ebris found in soil	-	-				-	-	-	N/A
Asbestos Gravimetric Quantification				0.152	<0.001	-	0.0252	<0.001	<0.001				<0.001	<0.001	0.005	0.0017
Asbestos PCOM Quantification				0.0023	<0.001	-	<0.001	<0.001	<0.001				<0.001	<0.001	<0.001	0.0012
Asbestos: Actinolite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Amosite	Not Detected	Not Detected	Not Detected	Detected	Not Detected	Not Detected	Detected	Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Anthophyllite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Chrysotile	Not Detected	Not Detected	Not Detected	Detected	Detected	Not Detected	Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Detected	Detected	Detected	Detected
Asbestos: Crocidolite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Tremolite	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Non-Asbestos Fibre	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Detected
Phenol and mineral oils																
Phenol	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	<0.01			
Phenol (Monohydric)	<0.035	<0.035	<0.035							<0.035	<0.035	<0.035	<0.035			
Cresols	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	<0.01			
Xylenols	<0.015	<0.015	<0.015							<0.015	<0.015	<0.015	<0.015			
TPH																
Ali >C10-C12	<1	<1	<1							<1	<1	<1	<1			
Ali >C12-C16	<1	<1	<1							<1	<1	<1	<1			
Ali >C16-C21	<1	<1	<1							<1	<1	9.82	9.91			
Ali >C21-C35	13.3	1.99	2.28							10.2	18.1	49.4	202			
Ali >C35-C44	2.14	2.44	2.99							<1	<1	39	97.1			
Ali >C5-C6	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	0.0116			
Ali >C6-C8	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	0.0476			
Ali >C8-C10	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	0.0766			
Total Aliphatics																
Aro >C10-C12	<1	<1	<1							<1	<1	<1	<1			
Aro >C12-C16	<1	<1	<1							<1	<1	<1	1.09			
Aro >C16-C21	<1	<1	<1							1.26	<1	3.01	7.19			
Aro >C21-C35	11.6	2.28	<1							25.2	12.3	159	37			
Aro >C35-C44	<1	<1	<1							6.45	<1	66	3.36			
Aro >C7-C8	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	<0.01			
Aro >C8-C10	<0.01	<0.01	<0.01							<0.01	<0.01	<0.01	0.051			
Aromatics >C40-44	<1	<1	<1							<1	<1	26.8	2.89			
GRO >C5-10	<0.02	<0.02	<0.02									<0.02	0.187			
Aliphatics & Aromatics >C5-44	29.4	<10	<10									326	359			
Mineral Oil (>C10-C40)																
PAH																
Acenaphthene	<0.008	<0.008	<0.008							0.0103	<0.008	<0.016	0.0516			
Dibenz-a-h-anthracene	<0.023	<0.023	<0.023							0.0334	<0.023	<0.046	0.0414			
Fluoranthene	0.166	<0.017	<0.017							0.37	0.0725	0.0586	0.651			
Fluorene	<0.01	<0.01	<0.01							0.0172	<0.01	<0.02	0.113			
Indeno(1,2,3-cd)pyrene	0.0758	<0.018	<0.018							0.167	0.0377	<0.036	0.175			
Phenanthrene	0.107	<0.015	<0.015							0.245	0.0415	<0.03	0.761			
Pyrene	0.15	0.0177	<0.015							0.305	0.0677	0.0627	0.524			
Naphthalene	0.0386	<0.009	<0.009							0.0795	0.0141	<0.013	0.164			
PAH (total 17)	<10	<0.318	<10									<10	<10			
PAH, Total Detected USEPA 16	1.11	<0.118	<0.118							2.46	0.468	0.29	3.69			
Acenaphthylene	<0.012	<0.012	<0.012							0.0246	<0.012	<0.024	0.0243			
Anthracene	0.0257	<0.016	<0.016							0.0553	<0.016	<0.032	<0.016			
Benzo(a)anthracene	0.0896	<0.014	<0.014							0.201	0.0418	0.0357	0.21			
Benzo (g,h,i) perylene	0.0749	<0.024	<0.024							0.144	0.0335	<0.048	0.143			
Benzo(a)pyrene	0.0849	<0.015	<0.015							0.184	0.0401	0.0387	0.21			
Benzo(b)fluoranthene	0.143	0.0195	<0.015							0.313	0.0585	0.0646	0.247			
Benzo(k)fluoranthene	0.0514	<0.014	<0.014							0.0998	0.021	<0.028	0.0958			
Chrysene	0.101	0.0134	<0.01							0.21	0.0397	0.0299	0.28			
BTEX																
BTEX - Benzene	<0.009	<0.009	<0.009							<0.18	<0.009	<0.009	<0.18			
BTEX - Toluene	<0.007	<0.007	<0.007							<0.14	<0.007	<0.007	<0.14			
BTEX - Ethyl Benzene	<0.004	<0.004	<0.004							<0.08	<0.004	<0.004	<0.08			
BTEX - m & p Xylene	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
BTEX - o Xylene	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Xylene	<0.02	<0.02	<0.02							<0.4	<0.02	<0.02	<0.4			
BTEX (total)	<0.04	<0.04	<0.04							<0.8	<0.04	<0.04	<0.8			
PCBs																
PCB BZ 105																
PCB BZ 114																
PCB BZ 118	<0.003	<0.003	<0.003									<0.015	<0.003			
PCB BZ 123																
PCB BZ 126																
PCB BZ 156																
PCB BZ 157																
PCB BZ 167																
PCB BZ 169																
PCB BZ 189																
PCB BZ 77																
PCB BZ 81																
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl	<0.003	<0.003	<0.003							<0.003	<0.003	<0.015	<0.003			
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl	<0.003	<0.003	<0.003							<0.003	<0.003	<0.015	<0.003			
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl	<0.003	<0.003	<0.003							<0.003	<0.003	<0.015	<0.003			

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	SP24	SP25	SP26	SP27	SP28	SP29	SP30	SP31	SP32	SP33	SP34	SP35	SP36	SP37	SP38	SP39
					Sample Ref																
					Easting	330415.996	330405.592	330431.974	330325	330333.4	330324.9	330311	330299.2	330308.4	330328.4	330342.8		330287.793	330375.836	330378.065	330324.455
					Northing	371591.872	371587.777	371597.964	371456	371445.3	371443.7	371461.3	371461.3	371469	371586	371596.8		371530.703	371483.396	371461.326	371453.162
					Hole Elevation (mOD)	10.461	7.989	8.523	12.957	13.273	13.843	13.674	14.211	13.59	7.867	8.713		10.965	10.293	11.628	8.578
					Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
					Sample Date	17/08/22	17/08/22	17/08/22	19/08/22	19/08/22	19/08/22	19/08/22	19/08/22	19/08/22	24/08/22	24/08/22	01/09/22	07/09/22	07/09/22	07/09/22	07/09/22
					Investigation	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
					Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-		<0.003	<0.003	<0.003							<0.003	<0.003	<0.015	<0.003			
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-		<0.003	<0.003	<0.003							<0.003	<0.003	<0.015	<0.003			
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-		<0.003	<0.003	<0.003							<0.003	<0.003	<0.015	<0.003			
Total Speciated PCB-WHO12		mg/kg	No GAC	-																	
VOCs/SVOCs																					
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,1,1-Trichloroethane	1350	mg/kg	0 of 31	0		<0.007	<0.007	<0.007							<0.14	<0.007	<0.007	<0.14			
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,1,2-Trichloroethane	180	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,1-Dichloroethane	425	mg/kg	0 of 31	0		<0.008	<0.008	<0.008							<0.16	<0.008	<0.008	<0.16			
1,1-Dichloroethene	43	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,1-Dichloropropene		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,2,3-Trichlorobenzene	250	mg/kg	0 of 31	0		<0.02	<0.02	<0.02							<0.4	<0.02	<0.02	<0.4			
1,2,3-Trichloropropane		mg/kg	No GAC	-		<0.016	<0.016	<0.016							<0.32	<0.016	<0.016	<0.32			
1,2,4-Trichlorobenzene	530	mg/kg	0 of 31	0		<0.02	<0.02	<0.02							<0.2	<0.02	<0.02	<0.2			
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 31	0		<0.009	<0.009	<0.009							<0.18	<0.009	<0.009	<0.18			
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-		<0.014	<0.014	<0.014							<0.28	<0.014	<0.014	<0.28			
1,2-Dibromoethane		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,2-Dichlorobenzene	4830	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,2-Dichloroethane	0.967	mg/kg	0 of 31	0		<0.005	<0.005	<0.005							<0.1	<0.005	<0.005	<0.1			
1,2-Dichloropropane	5.54	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
1,3,5-Trimethylbenzene		mg/kg	No GAC	-		<0.008	<0.008	<0.008							<0.16	<0.008	<0.008	<0.16			
1,3,5-Trichlorobenzene	12	mg/kg	0 of 25	0		<0.02	<0.02	<0.02							<0.4	<0.02	<0.02	<0.4			
1,3-Dichlorobenzene	70.6	mg/kg	0 of 31	0		<0.008	<0.008	<0.008							<0.16	<0.008	<0.008	<0.16			
1,3-Dichloropropane		mg/kg	No GAC	-		<0.007	<0.007	<0.007							<0.14	<0.007	<0.007	<0.14			
1,4-Dichlorobenzene	9700	mg/kg	0 of 31	0		<0.005	<0.005	<0.005							<0.1	<0.005	<0.005	<0.1			
2,2-Dichloropropane		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
2,4,5-Trichlorophenol	4000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2,4,6-Trichlorophenol	4160	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2,4-Dichlorophenol	3890	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2,4-Dimethylphenol	23400	mg/kg	1 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2,4-Dinitrotoluene	3750	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2,6-Dinitrotoluene	1870	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2-Chloronaphthalene	902	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2-Chlorophenol	3980	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
2-Chlorotoluene		mg/kg	No GAC	-		<0.009	<0.009	<0.009							<0.18	<0.009	<0.009	<0.18			
2-Methylnaphthalene		mg/kg	No GAC	-		<0.1	<0.1	<0.1							0.196	<0.1	<0.5	<0.2			
2-Methylphenol	175000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.5	<0.2	<0.5	<0.2			
2-Nitroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.5	<0.2	<0.5	<0.2			
2-Nitrophenol		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.5	<0.2	<0.5	<0.2			
3-Nitroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.5	<0.2	<0.5	<0.2			
4-Bromofluorobenzene Surrogate		%	No GAC	-		73.1	92.1	91.1							93.1	80.7	79.5	93.9			
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
4-Chloro-3-methylphenol		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
4-Chloroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
4-Chlorophenylphenylether		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
4-Chlorotoluene		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
4-Isopropyltoluene		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
4-Methylphenol	175000	mg/kg	1 of 25	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
4-Nitroaniline		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
4-Nitrophenol		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Azobenzene		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Bis(2-chloroethyl)ether		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Bis(2-ethylhexyl)phthalate	85800	mg/kg	1 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Bromobenzene	211	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Bromochloromethane		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Bromodichloromethane	3.52	mg/kg	0 of 31	0		<0.007	<0.007	<0.007							<0.14	<0.007	<0.007	<0.14			
Bromoform	1430	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Bromomethane		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Butylbenzyl phthalate	944000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Carbazole		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Carbon Disulphide	21.8	mg/kg	0 of 31	0		<0.007	<0.007	<0.007							<0.14	<0.007	<0.007	<0.14			
Carbon Tetrachloride	6.28	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Chlorobenzene	125	mg/kg	0 of 31	0		<0.005	<0.005	<0.005							<0.1	<0.005	<0.005	<0.1			
Chlorodibromomethane		mg/kg	No GAC	-		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Chloroethane	1230	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Chloroform	174	mg/kg	0 of 31	0		<0.008	<0.008	<0.008							<0.16	<0.008	<0.008	<0.16			
Chloromethane	1.12	mg/kg	0 of 31	0		<0.007	<0.007	<0.007							<0.14	<0.007	<0.007	<0.14			
Di-n-butyl phthalate	15400	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Di-n-octyl phthalate	89100	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Dibenzofuran		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Dibromomethane		mg/kg	No GAC	-		<0.009	<0.009	<0.009							<0.18	<0.009	<0.009	<0.18			
Dichloromethane	339	mg/kg	0 of 31	0		<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Diethyl phthalate	214000	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Dimethyl phthalate		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Hexachlorobenzene	117	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Hexachlorobutadiene	66.2	mg/kg	0 of 31	0		<0.02	<0.02	<0.02							<0.2	<0.02	<0.02	<0.2			
Hexachlorocyclopentadiene		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Hexachloroethane	49.8	mg/kg	0 of 31	0		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Isophorone		mg/kg	No GAC	-		<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Isopropylbenzene	3130	mg/kg	0 of 31	0		<0.005	<0.005	<0.005							<0.1	<0.005	<0.005	<0.1			

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref																	
Sample Ref																	
Easting																	
Northing																	
Hole Elevation (mOD)																	
Sample Depth (mbgl)																	
Sample Date																	
Investigation																	
Geology																	
Contaminant Name	**GAC**	**Units**	**Total > LOD**	**Total > GAC**	SP24	SP25	SP26	SP27	SP28	SP29	SP30	SP31	SP32	SP33	SP34	SP35	SP36	SP37	SP38	SP39
					330415.996	330405.592	330431.974	330325	330333.4	330324.9	330311	330299.2	330308.4	330328.4	330342.8		330287.793	330375.836	330378.065	330324.455
					371591.872	371587.777	371597.964	371456	371445.3	371443.7	371461.3	371461.3	371469	371586	371596.8		371530.703	371483.396	371461.326	371453.162
					10.461	7.989	8.523	12.957	13.273	13.843	13.674	14.211	13.59	7.867	8.713		10.965	10.293	11.628	8.578
					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
					17/08/22	17/08/22	17/08/22	19/08/22	19/08/22	19/08/22	19/08/22	19/08/22	19/08/22	24/08/22	24/08/22	01/09/22	07/09/22	07/09/22	07/09/22	07/09/22
					Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
					MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
MTBE	12100	mg/kg	0 of 40	0	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
N-nitrosodi-n-propylamine		mg/kg	No GAC	-	<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Nitrobenzene		mg/kg	No GAC	-	<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Pentachlorophenol	403	mg/kg	0 of 31	0	<0.1	<0.1	<0.1							<0.2	<0.5	<0.5	<0.2			
Sec-Butylbenzene		mg/kg	No GAC	-	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Styrene	6180	mg/kg	0 of 31	0	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
Tetrachloroethene	41.6	mg/kg	0 of 31	0	<0.005	<0.005	<0.005							<0.1	<0.005	<0.005	<0.1			
Trichloroethene	2.57	mg/kg	0 of 31	0	<0.009	<0.009	<0.009							<0.18	<0.009	<0.009	<0.18			
Trichlorofluoromethane		mg/kg	No GAC	-	<0.006	<0.006	<0.006							<0.12	<0.006	<0.006	<0.12			
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 31	0	<0.006	<0.006	<0.006							<0.12	<0.006	<0.006	<0.12			
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 31	0	<0.006	<0.006	<0.006							<0.12	<0.006	<0.006	<0.12			
cis 1,3-Dichloropropene		mg/kg	No GAC	-	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
n-Butylbenzene		mg/kg	No GAC	-	<0.011	<0.011	<0.011							<0.22	<0.011	<0.011	<0.22			
n-Propylbenzene	9150	mg/kg	0 of 31	0	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
tert-Butylbenzene		mg/kg	No GAC	-	<0.014	<0.014	<0.014							<0.28	<0.014	<0.014	<0.28			
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 31	0	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			
trans 1,3-Dichloropropene		mg/kg	No GAC	-	<0.01	<0.01	<0.01							<0.2	<0.01	<0.01	<0.2			

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	SP40	SP41	SP42	SP43	SP6	SP7	SP8	SP9
					Sample Ref								
					Easting	330323.512	330282.877	330291.325	330280.548	330385.5	330397.9	330429.8	330452.5
					Northing	371448.158	371533.691	371526.286	371525.511	371560	371561.6	371566.9	371507.1
					Hole Elevation (mOD)	9.879	9.488	10.897	11.878	6.017	6.702	5.223	10.838
					Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
					Sample Date	07/09/22	15/09/22	15/09/22	15/09/22	13/07/22	13/07/22	13/07/22	20/07/22
					Investigation	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
					Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
Asbestos													
Asbestos Quantification (Total %)		%	No GAC	-			<0.001	0.0213	0.0373				0.0072
Asbestos Analysts Comments		No units	No GAC	-			N/A	PCM fibre count	N/A				N/A
Asbestos Gravimetric Quantification		%	No GAC	-			<0.001	0.021	0.0373				0.0072
Asbestos PCOM Quantification		%	No GAC	-			<0.001	<0.001	<0.001				<0.001
Asbestos: Actinolite		No units	No GAC	-		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Amosite		No units	No GAC	-		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Anthophyllite		No units	No GAC	-		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Chrysotile		No units	No GAC	-		Not Detected	Detected	Detected	Detected	Not Detected	Not Detected	Not Detected	Detected
Asbestos: Crocidolite		No units	No GAC	-		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos: Tremolite		No units	No GAC	-		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Non-Asbestos Fibre		No units	No GAC	-		Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Phenol and mineral oils													
Phenol	690	mg/kg	1 of 39	0						<0.01	<0.01	<0.01	
Phenol (Monohydric)	690	mg/kg	0 of 40	0						<0.035	<0.035	<0.035	
Cresols		mg/kg	No GAC	-						<0.01	<0.01	<0.01	
Xylenols		mg/kg	No GAC	-						<0.015	<0.015	<0.015	
TPH													
Ali >C10-C12	22900	mg/kg	4 of 40	0						<1	<1	<1	
Ali >C12-C16	81700	mg/kg	7 of 40	0						<1	<1	<1	
Ali >C16-C21	1.1E+07	mg/kg	18 of 40	0						2.13	<1	<1	
Ali >C21-C35	1.1E+07	mg/kg	34 of 40	0						117	8.42	15.4	
Ali >C35-C44	1.1E+07	mg/kg	30 of 40	0						18.6	<1	5.96	
Ali >C5-C6	5860	mg/kg	3 of 40	0						<0.01	<0.01	<0.01	
Ali >C6-C8	17400	mg/kg	3 of 40	0						<0.01	<0.01	<0.01	
Ali >C8-C10	4850	mg/kg	3 of 40	0						<0.01	<0.01	<0.01	
Total Aliphatics		mg/kg	No GAC	-									
Aro >C10-C12	27900	mg/kg	4 of 40	0						<1	<1	<1	
Aro >C12-C16	37300	mg/kg	12 of 40	0						<1	<1	<1	
Aro >C16-C21	27700	mg/kg	18 of 40	0						<1	<1	<1	
Aro >C21-C35	28400	mg/kg	34 of 40	0						29.3	1.76	3.6	
Aro >C35-C44	28400	mg/kg	15 of 40	0						<1	<1	<1	
Aro >C7-C8	106828	mg/kg	0 of 40	0						<0.01	<0.01	<0.01	
Aro >C8-C10	8110	mg/kg	4 of 40	0						<0.01	<0.01	<0.01	
Aromatics >C40-44		mg/kg	No GAC	-						<1	<1	<1	
GRO >C5-10		mg/kg	No GAC	-						<0.02	<0.02	<0.02	
Aliphatics & Aromatics >C5-44		mg/kg	No GAC	-						168	<10	21.6	
Mineral Oil (>C10-C40)		mg/kg	No GAC	-									
PAH													
Acenaphthene	97100	mg/kg	13 of 40	0						<0.008	<0.008	<0.008	
Dibenz-a-h-anthracene	3.55	mg/kg	6 of 40	0						<0.023	<0.023	<0.023	
Fluoranthene	22700	mg/kg	27 of 40	0						0.0588	0.065	0.0745	
Fluorene	68400	mg/kg	13 of 40	0						<0.01	<0.01	<0.01	
Indeno(1,2,3-cd)pyrene	506	mg/kg	25 of 40	0						0.0277	0.0407	0.0634	
Phenanthrene	22300	mg/kg	26 of 40	0						0.0307	0.0263	0.0311	
Pyrene	54400	mg/kg	28 of 40	0						0.0577	0.0638	0.086	
Naphthalene	462	mg/kg	27 of 40	0						0.0148	0.0104	<0.009	
PAH (total 17)		mg/kg	No GAC	-						0.342	<10	0.599	
PAH, Total Detected USEPA 16		mg/kg	No GAC	-						0.342	0.439	0.599	
Acenaphthylene	96800	mg/kg	10 of 40	0						<0.012	<0.012	<0.012	
Anthracene	536000	mg/kg	12 of 40	0						<0.016	<0.016	<0.016	
Benzo(a)anthracene	174	mg/kg	26 of 40	0						0.0301	0.0375	0.0485	
Benzo (g,h,i) perylene	3950	mg/kg	22 of 40	0						<0.024	0.0347	0.056	
Benzo(a)pyrene	35.5	mg/kg	26 of 40	0						0.0294	0.0391	0.0656	
Benzo(b)fluoranthene	44.7	mg/kg	27 of 40	0						0.0423	0.0623	0.0868	
Benzo(k)fluoranthene	1180	mg/kg	20 of 40	0						0.0159	0.0185	0.0367	
Chrysene	352	mg/kg	27 of 40	0						0.0344	0.041	0.0504	
BTEX													
BTEX - Benzene	47.4622	mg/kg	0 of 40	0						<0.009	<0.009	<0.009	
BTEX - Toluene	106828	mg/kg	0 of 40	0						<0.007	<0.007	<0.007	
BTEX - Ethyl Benzene	12834	mg/kg	0 of 40	0						<0.004	<0.004	<0.004	
BTEX - m & p Xylene	13552	mg/kg	0 of 40	0						<0.01	<0.01	<0.01	
BTEX - o Xylene	15034	mg/kg	0 of 40	0						<0.01	<0.01	<0.01	
Xylene	13552	mg/kg	0 of 28	0						<0.02	<0.02	<0.02	
BTEX (total)		mg/kg	No GAC	-						<0.04	<0.04	<0.04	
PCBs													
PCB BZ 105	7.4E-05	mg/kg	0 of 6	0									
PCB BZ 114	4E-06	mg/kg	0 of 6	0									
PCB BZ 118	0.00017	mg/kg	1 of 30	1							<0.003		
PCB BZ 123	6E-06	mg/kg	0 of 6	0									
PCB BZ 126	5E-06	mg/kg	0 of 6	0									
PCB BZ 156	3.2E-05	mg/kg	0 of 6	0									
PCB BZ 157	8E-06	mg/kg	0 of 6	0									
PCB BZ 167	1.3E-05	mg/kg	0 of 6	0									
PCB BZ 169	1E-06	mg/kg	0 of 6	0									
PCB BZ 189	5E-06	mg/kg	0 of 6	0									
PCB BZ 77	1.6E-05	mg/kg	0 of 6	0									
PCB BZ 81	1E-06	mg/kg	0 of 6	0									
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/kg	No GAC	-							<0.003		
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/kg	No GAC	-							<0.003		
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/kg	No GAC	-							<0.003		

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref					SP40	SP41	SP42	SP43	SP6	SP7	SP8	SP9
Sample Ref												
Easting					330323.512	330282.877	330291.325	330280.548	330385.5	330397.9	330429.8	330452.5
Northing					371448.158	371533.691	371526.286	371525.511	371560	371561.6	371566.9	371507.1
Hole Elevation (mOD)					9.879	9.488	10.897	11.878	6.017	6.702	5.223	10.838
Sample Depth (mbgl)					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Date					07/09/22	15/09/22	15/09/22	15/09/22	13/07/22	13/07/22	13/07/22	20/07/22
Investigation					Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
Geology					MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
Contaminant Name	**GAC**	**Units**	**Total > LOD**	**Total > GAC**								
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/kg	No GAC	-						<0.003		
PCB-28 2,4,4' - Trichlororbiphenyl		mg/kg	No GAC	-						<0.003		
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/kg	No GAC	-						<0.003		
Total Speciated PCB-WHO12		mg/kg	No GAC	-								
VOCs/SVOCs												
1,1,1,2-Tetrachloroethane	247	mg/kg	0 of 31	0								
1,1,1-Trichloroethane	1350	mg/kg	0 of 31	0								
1,1,2,2-Tetrachloroethane	546	mg/kg	0 of 31	0								
1,1,2-Trichloroethane	180	mg/kg	0 of 31	0								
1,1-Dichloroethane	425	mg/kg	0 of 31	0								
1,1-Dichloroethene	43	mg/kg	0 of 31	0								
1,1-Dichloropropene		mg/kg	No GAC	-								
1,2,3-Trichlorobenzene	250	mg/kg	0 of 31	0								
1,2,3-Trichloropropane		mg/kg	No GAC	-								
1,2,4-Trichlorobenzene	530	mg/kg	0 of 31	0								
1,2,4-Trimethylbenzene	93.5	mg/kg	0 of 31	0								
1,2-Dibromo-3-chloropropane		mg/kg	No GAC	-								
1,2-Dibromoethane		mg/kg	No GAC	-								
1,2-Dichlorobenzene	4830	mg/kg	0 of 31	0								
1,2-Dichloroethane	0.967	mg/kg	0 of 31	0								
1,2-Dichloropropane	5.54	mg/kg	0 of 31	0								
1,3,5-Trimethylbenzene		mg/kg	No GAC	-								
1,3,5-Trichlorobenzene	12	mg/kg	0 of 25	0								
1,3-Dichlorobenzene	70.6	mg/kg	0 of 31	0								
1,3-Dichloropropane		mg/kg	No GAC	-								
1,4-Dichlorobenzene	9700	mg/kg	0 of 31	0								
2,2-Dichloropropane		mg/kg	No GAC	-								
2,4,5-Trichlorophenol	4000	mg/kg	0 of 31	0								
2,4,6-Trichlorophenol	4160	mg/kg	0 of 31	0								
2,4-Dichlorophenol	3890	mg/kg	0 of 31	0								
2,4-Dimethylphenol	23400	mg/kg	1 of 31	0								
2,4-Dinitrotoluene	3750	mg/kg	0 of 31	0								
2,6-Dinitrotoluene	1870	mg/kg	0 of 31	0								
2-Chloronaphthalene	902	mg/kg	0 of 31	0								
2-Chlorophenol	3980	mg/kg	0 of 31	0								
2-Chlorotoluene		mg/kg	No GAC	-								
2-Methylnaphthalene		mg/kg	No GAC	-								
2-Methylphenol	175000	mg/kg	0 of 31	0								
2-Nitroaniline		mg/kg	No GAC	-								
2-Nitrophenol		mg/kg	No GAC	-								
3-Nitroaniline		mg/kg	No GAC	-								
4-Bromofluorobenzene Surrogate		%	No GAC	-					93	98	99.7	
4-Bromophenyl Phenyl Ether		mg/kg	No GAC	-								
4-Chloro-3-methylphenol		mg/kg	No GAC	-								
4-Chloroaniline		mg/kg	No GAC	-								
4-Chlorophenylphenylether		mg/kg	No GAC	-								
4-Chlorotoluene		mg/kg	No GAC	-								
4-Isopropyltoluene		mg/kg	No GAC	-								
4-Methylphenol	175000	mg/kg	1 of 25	0								
4-Nitroaniline		mg/kg	No GAC	-								
4-Nitrophenol		mg/kg	No GAC	-								
Azobenzene		mg/kg	No GAC	-								
Bis(2-chloroethoxy)methane		mg/kg	No GAC	-								
Bis(2-chloroethyl)ether		mg/kg	No GAC	-								
Bis(2-chloroisopropyl)ether		mg/kg	No GAC	-								
Bis(2-ethylhexyl)phthalate	85800	mg/kg	1 of 31	0								
Bromobenzene	211	mg/kg	0 of 31	0								
Bromochloromethane		mg/kg	No GAC	-								
Bromodichloromethane	3.52	mg/kg	0 of 31	0								
Bromoform	1430	mg/kg	0 of 31	0								
Bromomethane		mg/kg	No GAC	-								
Butylbenzyl phthalate	944000	mg/kg	0 of 31	0								
Carbazole		mg/kg	No GAC	-								
Carbon Disulphide	21.8	mg/kg	0 of 31	0								
Carbon Tetrachloride	6.28	mg/kg	0 of 31	0								
Chlorobenzene	125	mg/kg	0 of 31	0								
Chlorodibromomethane		mg/kg	No GAC	-								
Chloroethane	1230	mg/kg	0 of 31	0								
Chloroform	174	mg/kg	0 of 31	0								
Chloromethane	1.12	mg/kg	0 of 31	0								
Di-n-butyl phthalate	15400	mg/kg	0 of 31	0								
Di-n-octyl phthalate	89100	mg/kg	0 of 31	0								
Dibenzofuran		mg/kg	No GAC	-								
Dibromomethane		mg/kg	No GAC	-								
Dichloromethane	339	mg/kg	0 of 31	0								
Diethyl phthalate	214000	mg/kg	0 of 31	0								
Dimethyl phthalate		mg/kg	No GAC	-								
Hexachlorobenzene	117	mg/kg	0 of 31	0								
Hexachlorobutadiene	66.2	mg/kg	0 of 31	0								
Hexachlorocyclopentadiene		mg/kg	No GAC	-								
Hexachloroethane	49.8	mg/kg	0 of 31	0								
Isophorone		mg/kg	No GAC	-								
Isopropylbenzene	3130	mg/kg	0 of 31	0								

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1
Concentration exceeds saturation value but no	50

ARUP

Hole Ref	SP40	SP41	SP42	SP43	SP6	SP7	SP8	SP9
Sample Ref								
Easting	330323.512	330282.877	330291.325	330280.548	330385.5	330397.9	330429.8	330452.5
Northing	371448.158	371533.691	371526.286	371525.511	371560	371561.6	371566.9	371507.1
Hole Elevation (mOD)	9.879	9.488	10.897	11.878	6.017	6.702	5.223	10.838
Sample Depth (mbgl)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Date	07/09/22	15/09/22	15/09/22	15/09/22	13/07/22	13/07/22	13/07/22	20/07/22
Investigation	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022	Socotec 2022
Geology	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR	MG-GR
MTBE					<0.01	<0.01	<0.01	

Contaminant Name	GAC	Units	Total > LOD	Total > GAC
MTBE	12100	mg/kg	0 of 40	0
N-nitrosodi-n-propylamine		mg/kg	No GAC	-
Nitrobenzene		mg/kg	No GAC	-
Pentachlorophenol	403	mg/kg	0 of 31	0
Sec-Butylbenzene		mg/kg	No GAC	-
Styrene	6180	mg/kg	0 of 31	0
Tertiary Amyl Methyl Ether		mg/kg	No GAC	-
Tetrachloroethene	41.6	mg/kg	0 of 31	0
Trichloroethene	2.57	mg/kg	0 of 31	0
Trichlorofluoromethane		mg/kg	No GAC	-
Vinyl Chloride (Chloroethene)	0.0767	mg/kg	0 of 31	0
cis 1,2-Dichloroethene	22.9	mg/kg	0 of 31	0
cis 1,3-Dichloropropene		mg/kg	No GAC	-
n-Butylbenzene		mg/kg	No GAC	-
n-Propylbenzene	9150	mg/kg	0 of 31	0
tert-Butylbenzene		mg/kg	No GAC	-
trans 1,2-Dichloroethene	37.4	mg/kg	0 of 31	0
trans 1,3-Dichloropropene		mg/kg	No GAC	-

Appendix C

Controlled waters screening assessments

C.1 Ground investigation samples - controlled waters screening assessment

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC		Hole Ref	BH01	BH117	BH29	S5B
						Sample Ref				
						Easting	330715.85	330641.15	330672.34	330674.24
						Northing	371528.12	371275.4	371484.35	371413.66
						Hole Elevation (mOD)	9.15	9.59	9.2	8.7
						Sample Depth (mbgl)	4.8	7.5	7	6
						Piezometer top (mbgl)	0.5	5	3	
						Piezometer base (mbgl)	5	10	12	
						Sample Date	28/07/22	27/07/22	27/07/22	27/07/22
						Investigation	GSI 1613	GSI 1613	GSI 1613	GSI 1613
						Aquifer				
Ferric Iron		mg/l	No GAC	-			52	<0.05	0.079	<0.05
Ferrous Iron		mg/l	No GAC	-			0.114	<0.1	<0.1	<0.1
Manganese		mg/l	No GAC	-			5.34	0.0521	0.245	0.0388
Manganese (II)		mg/l	No GAC	-			1.61	<0.2	0.3	<0.2
Thiocyanate		mg/l	No GAC	-			<0.05	<0.05	<0.05	<0.05
Metal										
Arsenic	0.01	mg/l	4 of 4	1			**0.0267**	0.00119	0.00476	0.00377
Cadmium	0.00008	mg/l	2 of 4	2			**0.00135**	<0.00008	**0.000084**	<0.00008
Chromium	0.0047	mg/l	2 of 4	2			**0.041**	<0.001	<0.001	**0.0345**
Chromium - Hexavalent	0.0034	mg/l	1 of 4	1			<0.03	<0.03	<0.03	**0.0387**
Copper	0.001	mg/l	4 of 4	2			**0.0795**	0.000909	0.000976	**0.00129**
Iron	0.2	mg/l	2 of 4	1			**52.1**	<0.019	0.079	<0.019
Lead	0.0012	mg/l	4 of 4	2			**0.253**	**0.00122**	0.000379	0.00031
Mercury	0.001	mg/l	0 of 4	0			<0.00001	<0.00001	<0.00001	<0.00001
Nickel	0.004	mg/l	4 of 4	1			**0.0421**	0.00072	0.00167	0.00109
Selenium	0.01	mg/l	0 of 0	0						
Trivalent Chromium	0.0047	mg/l	1 of 4	1			**0.041**	<0.03	<0.03	<0.03
Vanadium	0.02	mg/l	0 of 0	0						
Zinc	0.0123	mg/l	4 of 4	2			**1.11**	0.00482	**0.0144**	0.00862
Cyanide	0.001	mg/l	2 of 4	2			**0.19**	<0.05	**0.06**	<0.05
Cyanide Free	0.001	mg/l	0 of 4	0			<0.05	<0.05	<0.05	<0.05
Chloride	250	mg/l	0 of 0	0						
Ammoniacal Nitrogen as N	0.3	mg/l	1 of 4	1			<0.2	<0.2	**0.46**	<0.2
BOD + ATU (5 day)		mg/l	No GAC	-						
Chemical oxygen demand		mg/l	No GAC	-						
Nitrate as N	50	mg/l	3 of 4	0			<0.07	3.83	6.6	2.52
Nitrate as NO3	50	mg/l	0 of 0	0						
Nitrite as N	0.5	mg/l	2 of 4	0			<0.0152	0.0253	0.084	<0.0152
Sulphate as SO4	250	mg/l	3 of 4	1			<2	59	**335**	37.9
Sulphide		mg/l	No GAC	-			<0.05	<0.01	<0.01	<0.01
Phenol and mineral oils										
Phenol	0.0077	mg/l	0 of 4	0			<0.02	<0.001	<0.001	<0.001
TPH										
Aliphatics >C10-12	0.3	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aliphatics >C12-16	0.3	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aliphatics >C12-35		mg/l	No GAC	-			0.422	<0.01	<0.01	<0.01
Aliphatics >C16-21		mg/l	No GAC	-			0.102	<0.01	<0.01	<0.01
Aliphatics >C16-C35		mg/l	No GAC	-			0.422	<0.01	<0.01	<0.01
Aliphatics >C21-35		mg/l	No GAC	-			0.32	<0.01	<0.01	<0.01
Aliphatics >C5-6	15	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aliphatics >C6-8	15	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aliphatics >C8-10	0.3	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aromatics >C10-12	0.09	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aromatics >C12-16	0.09	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aromatics >C12-35		mg/l	No GAC	-			1.02	<0.01	<0.01	<0.01
Aromatics >C16-21	0.09	mg/l	1 of 4	1			**0.593**	<0.01	<0.01	<0.01
Aromatics >C21-35	0.09	mg/l	1 of 4	1			**0.423**	<0.01	<0.01	<0.01
Aromatics >C5-7	0.01	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aromatics >C7-8	0.7	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aromatics >C8-10	0.3	mg/l	0 of 4	0			<0.01	<0.01	<0.01	<0.01
Aliphatics & Aromatics >C5-35		mg/l	No GAC	-			1.44	<0.01	<0.01	<0.01
PAH										
Acenaphthene	2	mg/l	0 of 4	0			<0.02	<0.001	<0.001	<0.001
Dibenz-a-h-anthracene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Fluoranthene	0.000006	mg/l	0 of 4	0			<0.02	<0.001	<0.001	<0.001
Fluorene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Indeno(1,2,3-cd)pyrene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Phenanthrene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Pyrene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Napthalene	0.002	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001
PAH, Total Detected USEPA 16		mg/l	No GAC	-						
Acenaphthylene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Anthracene	0.0001	mg/l	0 of 4	0			<0.02	<0.001	<0.001	<0.001
Benzo(a)anthracene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Benzo (g,h,i) perylene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Benzo(a)pyrene	0	mg/l	0 of 4	0			<0.02	<0.001	<0.001	<0.001
Benzo(b)fluoranthene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Benzo(k)fluoranthene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
Chrysene		mg/l	No GAC	-			<0.02	<0.001	<0.001	<0.001
BTEX										
Benzene	0.001	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001
Toluene	0.074	mg/l	1 of 4	0			0.00107	<0.001	<0.001	<0.001
Ethylbenzene	0.02	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001
Xylene	0.03	mg/l	0 of 4	0			<0.002	<0.002	<0.002	<0.002
m,p xylenes	0.03	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001
o-Xylene	0.03	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001
Total BTEX		mg/l	No GAC	-			<0.005	<0.005	<0.005	<0.005
PCBs										
PCB-118 2,3',4,4',5 - Pentachlorobiphenyl	0.025	mg/l	0 of 0	0						
VOC										
1,1,1,2-Tetrachloroethane		mg/l	No GAC	-			<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	0.1	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	0.14	mg/l	0 of 4	0			<0.001	<0.001	<0.001	<0.001

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Hole Ref	BH01	BH117	BH29	S5B
Sample Ref				
Easting	330715.85	330641.15	330672.34	330674.24
Northing	371528.12	371275.4	371484.35	371413.66
Hole Elevation (mOD)	9.15	9.59	9.2	8.7
Sample Depth (mbgl)	4.8	7.5	7	6
Piezometer top (mbgl)	0.5	5	3	
Piezometer base (mbgl)	5	10	12	
Sample Date	28/07/22	27/07/22	27/07/22	27/07/22
Investigation	GSI 1613	GSI 1613	GSI 1613	GSI 1613
Aquifer				

Contaminant Name	GAC	Units	Total > LOD	Total > GAC				
1,1,2-Trichloroethane	0.4	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.05	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	0.0004	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichloropropane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	0.0004	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane	0.001	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,2-Dibromoethane	0.0004	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	0.02	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	0.003	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	0.04	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,3,5-Trichlorobenzene	0.0004	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	0.02	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	0.02	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
2-Chlorotoluene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
4-Chlorotoluene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Bromobenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Bromochloromethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	0.06	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Bromoform	0.1	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Bromomethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Carbon disulfide		mg/l	No GAC	-	0.0017	<0.001	<0.001	<0.001
Carbon tetrachloride	0.003	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Chlorobenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Chlorodibromomethane	0.1	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Chloroethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Chloroform	0.0025	mg/l	1 of 4	0	<0.001	0.00138	<0.001	<0.001
Chloromethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Dibromomethane	0.02	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Dichloromethane	0.02	mg/l	0 of 4	0	<0.003	<0.003	<0.003	<0.003
Hexachlorobutadiene	0.0006	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Isopropylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Methyl tert-butyl ether (MTBE)	0.015	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Sec-Butylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Styrene	0.05	mg/l	1 of 4	0	0.0181	<0.001	<0.001	<0.001
Tetrachloroethene	0.01	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.01	mg/l	1 of 4	0	0.00115	<0.001	<0.001	<0.001
Trichlorofluoromethane		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	0.0005	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	0.05	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	0.02	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
n-propylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
p-isopropyltoluene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
tert-Butylbenzene		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	0.05	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	0.02	mg/l	0 of 4	0	<0.001	<0.001	<0.001	<0.001
SVOC								
2,4,5-Trichlorophenol		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
2,4,6-Trichlorophenol	0.2	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
2,4-Dichlorophenol	0.0042	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
2,4-Dimethylphenol	0.1	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
2,4-Dinitrotoluene	0.1	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
2,6-Dinitrotoluene		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
2-Chloronaphthalene		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
2-Chlorophenol	0.05	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
2-Methylnaphthalene		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
2-Methylphenol	0.1	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
2-Nitrophenol		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-Bromophenyl Phenyl Ether		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-Methylphenol	0.1	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
4-Nitrophenol		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-chloro-3-methylphenol	0.04	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Bis(2-chloroethoxy)methane		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Bis(2-chloroethyl)ether		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Bis(2-ethylhexyl)phthalate	0.0013	mg/l	0 of 4	0	<0.04	<0.002	<0.002	<0.002
Butylbenzylphthalate	0.0075	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Carbazole		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Di-n-butyl phthalate	0.008	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Di-n-octyl phthalate	0.02	mg/l	0 of 4	0	<0.1	<0.005	<0.005	<0.005
Dibenzofuran		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Diethylphthalate	0.2	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Dimethylphthalate	0.8	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Hexachlorobenzene	0.001	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Hexachlorocyclopentadiene	0.05	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Hexachloroethane	0.04	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Isophorone	7	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Hole Ref				BH01	BH117	BH29	S5B
Sample Ref							
Easting				330715.85	330641.15	330672.34	330674.24
Northing				371528.12	371275.4	371484.35	371413.66
Hole Elevation (mOD)				9.15	9.59	9.2	8.7
Sample Depth (mbgl)				4.8	7.5	7	6
Piezometer top (mbgl)				0.5	5	3	
Piezometer base (mbgl)				5	10	12	
Sample Date				28/07/22	27/07/22	27/07/22	27/07/22
Investigation				GSI 1613	GSI 1613	GSI 1613	GSI 1613
Aquifer							
Contaminant Name	GAC	Units	Total > LOD	Total > GAC			
N-nitrosodi-n-propylamine		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Nitrobenzene		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Pentachlorophenol (PCP)	0.0004	mg/l	0 of 4	0	<0.02	<0.001	<0.001	<0.001
Other								
2-Nitroaniline		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
3-Nitroaniline		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-Chloroaniline		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-Chlorophenylphenylether		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-Nitroaniline		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
4-bromofluorobenzene		%	No GAC	-	79.1	96.2	96.7	96
Aluminium	15	mg/l	0 of 0	0				
Azobenzene		mg/l	No GAC	-	<0.02	<0.001	<0.001	<0.001
Boron	1	mg/l	4 of 4	0	0.164	0.0591	0.232	0.21
Dibromofluoromethane		%	No GAC	-	103	108	116	112
GRO >C5-12		mg/l	No GAC	-	<0.05	<0.05	<0.05	<0.05
GRO Surrogate % recovery		%	No GAC	-	92	93	86	84
Methane		mg/l	No GAC	-	0.625	0.00105	0.0136	0.00109
Molybdenum		mg/l	No GAC	-				
Nitrogen		mg/l	No GAC	-				
Ortho Phosphate as PO4		mg/l	No GAC	-				
PCB, Total Of 7 Congeners		mg/l	No GAC	-				
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/l	No GAC	-				
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/l	No GAC	-				
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/l	No GAC	-				
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/l	No GAC	-				
PCB-28 2,4,4' - Trichlororbiphenyl		mg/l	No GAC	-				
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/l	No GAC	-				
Phosphorus		mg/l	No GAC	-				
Tertiary Amyl Methyl Ether		mg/l	No GAC	-	<0.001	<0.001	<0.001	<0.001
Tin	25	mg/l	0 of 0	0				
Toluene-D8		%	No GAC	-	95.7	99.9	99.4	98.8
Total Suspended Solids		mg/l	No GAC	-				
Total inorganic carbon		mg/l	No GAC	-	105	61.8	104	125

C.2 Demolition samples - controlled waters screening assessment

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	GW 1	GW 2	GW 3	GW 4	GW 5	GW 6
					Sample Ref						
					Easting	330393.3	330413.4	330386.3	330314.1	330413.3	330448.1
					Northing	371523.1	371527.2	371529.4	371494.3	371527.5	371556.9
					Hole Elevation (mOD)	4.535	4.731	4.61	5.884	4.751	6.971
					Sample Depth (mbgl)	0	0	0	0	0	0
					Piezometer top (mbgl)						
					Piezometer base (mbgl)						
					Sample Date	07/07/22	07/07/22	07/07/22	28/07/22	28/07/22	03/08/22
					Investigation						
					Aquifer						
Ferric Iron		mg/l	No GAC	-					<0.05	<0.05	
Ferrous Iron		mg/l	No GAC	-					0.174	<0.1	
Manganese		mg/l	No GAC	-		0.13	0.398	0.11	0.00308	<0.003	0.299
Manganese (II)		mg/l	No GAC	-					<0.2	<0.2	
Thiocyanate		mg/l	No GAC	-					<0.05	0.09	
Metal											
Arsenic	0.01	mg/l	6 of 6	0		0.00806	0.00429	0.00259	0.00691	0.00436	0.0028
Cadmium	0.00008	mg/l	1 of 6	1		**0.000114**	<0.00008	<0.00008	<0.00008	<0.00008	<0.0005
Chromium	0.0047	mg/l	5 of 6	3		**0.0189**	0.00348	**0.0179**	0.00232	**0.00487**	<0.003
Chromium - Hexavalent	0.0034	mg/l	0 of 6	0		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Copper	0.001	mg/l	6 of 6	6		**0.00644**	**0.00389**	**0.0028**	**0.00559**	**0.00374**	**0.0144**
Iron	0.2	mg/l	5 of 6	4		**1.75**	**5.89**	**2.35**	0.161	<0.019	**2.09**
Lead	0.0012	mg/l	6 of 6	3		**0.0102**	0.000354	0.000295	**0.00147**	0.000214	**0.0176**
Mercury	0.001	mg/l	5 of 6	0		0.000058	0.000202	0.000029	0.000016	0.000016	<0.0002
Nickel	0.004	mg/l	6 of 6	2		0.00231	**0.00629**	0.000683	0.00208	0.00365	**0.00508**
Selenium	0.01	mg/l	3 of 4	2		**0.0136**	0.00717	**0.0284**			<0.001
Trivalent Chromium	0.0047	mg/l	0 of 2	0					<0.03	<0.03	
Vanadium	0.02	mg/l	3 of 4	1		**0.0349**	0.0124	0.00345			<0.005
Zinc	0.0123	mg/l	6 of 6	3		**0.0273**	**0.0662**	0.00158	0.00365	0.00168	**0.112**
Cyanide	0.001	mg/l	1 of 2	1					**0.06**	<0.05	
Cyanide Free	0.001	mg/l	0 of 6	0		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloride	250	mg/l	4 of 4	1		111	107	**347**			47
Ammoniacal Nitrogen as N	0.3	mg/l	4 of 6	3		<0.2	**1.36**	**0.43**	<0.2	0.226	**40**
BOD + ATU (5 day)		mg/l	No GAC	-		3.26	5.56	<1			114
Chemical oxygen demand		mg/l	No GAC	-		28.6	107	36.4			178
Nitrate as N	50	mg/l	2 of 2	0					3.59	3.76	
Nitrate as NO3	50	mg/l	3 of 4	0		31	16.9	10.5			<0.3
Nitrite as N	0.5	mg/l	2 of 2	1					0.0155	**2.21**	
Sulphate as SO4	250	mg/l	2 of 2	0					120	232	
Sulphide		mg/l	No GAC	-					<0.01	<0.01	
Phenol and mineral oils											
Phenol	0.0077	mg/l	1 of 6	1		<0.001	<0.001	<0.001	<0.001	<0.001	**0.0297**
TPH											
Aliphatics >C10-12	0.3	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C12-16	0.3	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C12-35		mg/l	No GAC	-		0.258	<0.01	<0.01	0.107	<0.01	0.144
Aliphatics >C16-21		mg/l	No GAC	-		<0.01	<0.01	<0.01	<0.01	<0.01	0.016
Aliphatics >C16-C35		mg/l	No GAC	-		0.258	<0.01	<0.01	0.107	<0.01	0.144
Aliphatics >C21-35		mg/l	No GAC	-		0.258	<0.01	<0.01	0.107	<0.01	0.128
Aliphatics >C5-6	15	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C6-8	15	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics >C8-10	0.3	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C10-12	0.09	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C12-16	0.09	mg/l	1 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Aromatics >C12-35		mg/l	No GAC	-		<0.01	<0.01	<0.01	<0.01	<0.01	0.439
Aromatics >C16-21	0.09	mg/l	1 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	0.029
Aromatics >C21-35	0.09	mg/l	1 of 6	1		<0.01	<0.01	<0.01	<0.01	<0.01	**0.39**
Aromatics >C5-7	0.01	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C7-8	0.7	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aromatics >C8-10	0.3	mg/l	0 of 6	0		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Aliphatics & Aromatics >C5-35		mg/l	No GAC	-		0.26	0.018	<0.01	0.107	<0.01	0.588
PAH											

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	GW 1	GW 2	GW 3	GW 4	GW 5	GW 6
					Sample Ref						
					Easting	330393.3	330413.4	330386.3	330314.1	330413.3	330448.1
					Northing	371523.1	371527.2	371529.4	371494.3	371527.5	371556.9
					Hole Elevation (mOD)	4.535	4.731	4.61	5.884	4.751	6.971
					Sample Depth (mbgl)	0	0	0	0	0	0
					Piezometer top (mbgl)						
					Piezometer base (mbgl)						
					Sample Date	07/07/22	07/07/22	07/07/22	28/07/22	28/07/22	03/08/22
					Investigation						
					Aquifer						
Acenaphthene	2	mg/l	3 of 6	0		0.000017	0.000094	0.000006	<0.001	<0.001	<0.0001
Dibenz-a-h-anthracene		mg/l	No GAC	-		<0.000005	<0.000005	<0.000005	<0.001	<0.001	<0.0001
Fluoranthene	0.000006	mg/l	2 of 6	2		0.000034	<0.000005	<0.000005	<0.001	<0.001	0.000393
Fluorene		mg/l	No GAC	-		<0.000005	0.000135	<0.000005	<0.001	<0.001	<0.0001
Indeno(1,2,3-cd)pyrene		mg/l	No GAC	-		<0.000005	<0.000005	<0.000005	<0.001	<0.001	<0.0001
Phenanthrene		mg/l	No GAC	-		0.000031	0.000148	0.000024	<0.001	<0.001	0.000393
Pyrene		mg/l	No GAC	-		<0.000005	<0.000005	<0.000005	<0.001	<0.001	0.000396
Napthalene	0.002	mg/l	3 of 6	0		0.000028	0.000125	0.00001	<0.001	<0.001	<0.0002
PAH, Total Detected USEPA 16		mg/l	No GAC	-		0.000144	0.000549	0.000089			<0.00164
Acenaphthylene		mg/l	No GAC	-		<0.000005	<0.000005	<0.000005	<0.001	<0.001	<0.0001
Anthracene	0.0001	mg/l	0 of 6	0		<0.000005	<0.000005	<0.000005	<0.001	<0.001	<0.0001
Benzo(a)anthracene		mg/l	No GAC	-		<0.000005	0.00001	0.000008	<0.001	<0.001	<0.0001
Benzo (g,h,i) perylene		mg/l	No GAC	-		<0.000005	<0.000005	<0.000005	<0.001	<0.001	<0.0001
Benzo(a)pyrene	0	mg/l	0 of 6	0		<0.000002	<0.000002	<0.000002	<0.001	<0.001	<0.00004
Benzo(b)fluoranthene		mg/l	No GAC	-		0.000015	0.000018	0.000018	<0.001	<0.001	<0.0001
Benzo(k)fluoranthene		mg/l	No GAC	-		0.000006	0.000006	0.000007	<0.001	<0.001	<0.0001
Chrysene		mg/l	No GAC	-		0.000012	0.000015	0.000016	<0.001	<0.001	<0.0001
BTEX											
Benzene	0.001	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Toluene	0.074	mg/l	1 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	0.00157
Ethylbenzene	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Xylene	0.03	mg/l	0 of 6	0		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
m,p xylenes	0.03	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
o-Xylene	0.03	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total BTEX		mg/l	No GAC	-		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
PCBs											
PCB-118 2,3',4,4',5 - Pentachlorobiphenyl	0.025	mg/l	0 of 4	0		<0.000015	<0.000015	<0.000015			<0.000015
VOC											
1,1,1,2-Tetrachloroethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane	0.14	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane	0.4	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethene	0.05	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	0.0004	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,3-Trichloropropane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene	0.0004	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trimethylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane	0.001	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dibromoethane	0.0004	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichlorobenzene	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	0.003	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane	0.04	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3,5-Trichlorobenzene	0.0004	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3,5-Trimethylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichlorobenzene	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,3-Dichloropropane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,4-Dichlorobenzene	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2-Chlorotoluene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4-Chlorotoluene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	GW 1	GW 2	GW 3	GW 4	GW 5	GW 6
					Sample Ref						
					Easting	330393.3	330413.4	330386.3	330314.1	330413.3	330448.1
					Northing	371523.1	371527.2	371529.4	371494.3	371527.5	371556.9
					Hole Elevation (mOD)	4.535	4.731	4.61	5.884	4.751	6.971
					Sample Depth (mbgl)	0	0	0	0	0	0
					Piezometer top (mbgl)						
					Piezometer base (mbgl)						
					Sample Date	07/07/22	07/07/22	07/07/22	28/07/22	28/07/22	03/08/22
					Investigation						
					Aquifer						
Bromobenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromochloromethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane	0.06	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromomethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Carbon disulfide		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	0.00341
Carbon tetrachloride	0.003	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorodibromomethane	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	0.0025	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloromethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichloromethane	0.02	mg/l	0 of 6	0		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Hexachlorobutadiene	0.0006	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Isopropylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Methyl tert-butyl ether (MTBE)	0.015	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sec-Butylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Styrene	0.05	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethene	0.01	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichloroethene	0.01	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl chloride	0.0005	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	0.05	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-propylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
p-isopropyltoluene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butylbenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,2-Dichloroethene	0.05	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene	0.02	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SVOC											
2,4,5-Trichlorophenol		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2,4,6-Trichlorophenol	0.2	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2,4-Dichlorophenol	0.0042	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2,4-Dimethylphenol	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2,4-Dinitrotoluene	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2,6-Dinitrotoluene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2-Chloronaphthalene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2-Chlorophenol	0.05	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2-Methylnaphthalene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2-Methylphenol	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
2-Nitrophenol		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-Bromophenyl Phenyl Ether		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-Methylphenol	0.1	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-Nitrophenol		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-chloro-3-methylphenol	0.04	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Bis(2-chloroethoxy)methane		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Bis(2-chloroethyl)ether		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Bis(2-ethylhexyl)phthalate	0.0013	mg/l	0 of 6	0		<0.002	<0.002	<0.002	<0.002	<0.002	<0.02
Butylbenzylphthalate	0.0075	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

ARUP

Contaminant Name	GAC	Units	Total > LOD	Total > GAC	Hole Ref	GW 1	GW 2	GW 3	GW 4	GW 5	GW 6
					Sample Ref						
					Easting	330393.3	330413.4	330386.3	330314.1	330413.3	330448.1
					Northing	371523.1	371527.2	371529.4	371494.3	371527.5	371556.9
					Hole Elevation (mOD)	4.535	4.731	4.61	5.884	4.751	6.971
					Sample Depth (mbgl)	0	0	0	0	0	0
					Piezometer top (mbgl)						
					Piezometer base (mbgl)						
					Sample Date	07/07/22	07/07/22	07/07/22	28/07/22	28/07/22	03/08/22
					Investigation						
					Aquifer						
Carbazole		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Di-n-butyl phthalate	0.008	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Di-n-octyl phthalate	0.02	mg/l	0 of 6	0		<0.005	<0.005	<0.005	<0.005	<0.005	<0.05
Dibenzofuran		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Diethylphthalate	0.2	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Dimethylphthalate	0.8	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Hexachlorobenzene	0.001	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Hexachlorocyclopentadiene	0.05	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Hexachloroethane	0.04	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Isophorone	7	mg/l	0 of 6	0		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
N-nitrosodi-n-propylamine		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Nitrobenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Pentachlorophenol (PCP)	0.0004	mg/l	1 of 6	1		<0.001	<0.001	<0.001	**0.00161**	<0.001	<0.01
Other											
2-Nitroaniline		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
3-Nitroaniline		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-Chloroaniline		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-Chlorophenylphenylether		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-Nitroaniline		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
4-bromofluorobenzene		%	No GAC	-		99.8	97.4	97.5	94.5	95.2	102
Aluminium	15	mg/l	4 of 4	0		0.517	2.11	0.497			0.356
Azobenzene		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
Boron	1	mg/l	6 of 6	0		0.103	0.0357	0.028	0.0846	0.0436	0.0284
Dibromofluoromethane		%	No GAC	-		107	2.42	0.33	89.8	79.2	110
GRO >C5-12		mg/l	No GAC	-		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GRO Surrogate % recovery		%	No GAC	-		89	95	93	90	87	104
Methane		mg/l	No GAC	-					0.00102	0.00107	
Molybdenum		mg/l	No GAC	-		0.119	0.0385	0.0624			<0.009
Nitrogen		mg/l	No GAC	-		8.15	6.77	5.53			45.2
Ortho Phosphate as PO4		mg/l	No GAC	-							12.4
PCB, Total Of 7 Congeners		mg/l	No GAC	-		<0.000105	<0.000105	<0.000105			<0.000105
PCB-101 2,2',4,5,5' - Pentachlorobiphenyl		mg/l	No GAC	-		<0.000015	<0.000015	<0.000015			<0.000015
PCB-138 2,2',3,4,4',5' - Hexachlorobiphenyl		mg/l	No GAC	-		<0.000015	<0.000015	<0.000015			<0.000015
PCB-153 2,2',4,4',5,5' - Hexachlorobiphenyl		mg/l	No GAC	-		<0.000015	<0.000015	<0.000015			<0.000015
PCB-180 2,2',3,4,4',5,5' - Heptachlorobiphenyl		mg/l	No GAC	-		<0.000015	<0.000015	<0.000015			<0.000015
PCB-28 2,4,4' - Trichlororbiphenyl		mg/l	No GAC	-		<0.000015	0.00002	<0.000015			<0.000015
PCB-52 2,2',5,5' - Tetrachlorobiphenyl		mg/l	No GAC	-		<0.000015	<0.000015	<0.000015			<0.000015
Phosphorus		mg/l	No GAC	-		0.0685	0.0961	0.0454			4.75
Tertiary Amyl Methyl Ether		mg/l	No GAC	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tin	25	mg/l	1 of 4	0		<0.001	0.00119	<0.001			<0.003
Toluene-D8		%	No GAC	-		95.2	95.7	100	98.8	99.9	89.9
Total Suspended Solids		mg/l	No GAC	-		60.6	102	402			54.3
Total inorganic carbon		mg/l	No GAC	-					21.6	6.18	

C.3 Leachate samples - controlled waters screening assessment

Concentration exceeds GAC	100.00
Limit of Detection value exceeds GAC	<0.1

Contaminant Name	GAC	GAC Source	Units	Total > LOD	Total > GAC	Min	Max	95th %ile	TP101	TP102	TP103	TP111	TP201	TP201	TP203
Hole Ref									TP101	TP102	TP103	TP111	TP201	TP201	TP203
Sample Ref															
Easting									330416.95	330471	330561.51	330493.95	330303.34	330303.34	330331.33
Northing									371453.98	371509	371472.27	371418.51	371429.34	371429.34	371440.81
Hole Elevation (mOD)									7.6	8.78	9.03	8.65	7.91	7.91	8.73
Sample Depth (mbgl)									1.3	0.5	0.4	1.2	0.5	0.9	0.5
Piezometer top (mbgl)															
Piezometer base (mbgl)															
Sample Date									24/02/22	24/02/22	24/02/22	24/02/22	12/05/22	12/05/22	12/05/22
Investigation															
Aquifer															
Metal															
Antimony (10:1 leachable)	0.005	DWS	mg/l	1 of 7	0	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Arsenic (10:1 leachable)	0.01	DWS	mg/l	7 of 7	0	0.001	0.01	0.0094	0.006	0.005	0.01	0.008	0.002	0.001	0.008
Cadmium (10:1 leachable)	0.00008	EQS	mg/l	0 of 7	0	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloride (10:1 leachable)	250	EQS*/DWS	mg/l	6 of 7	0	<1	3.83	3.635	<1	3.18	2.11	1.87	2.7	3.83	2.63
Chromium (10:1 leachable)	0.0047	EQS	mg/l	6 of 7	0	<0.001	0.004	0.0037	<0.001	0.002	0.002	0.002	0.002	0.004	0.003
Copper (10:1 leachable)	0.001	EQS	mg/l	6 of 7	6	<0.001	0.01	0.0094	<0.001	**0.01**	**0.005**	**0.004**	**0.003**	**0.008**	**0.005**
Lead (10:1 leachable)	0.0012	EQS	mg/l	5 of 7	5	<0.001	0.076	0.0664	**0.005**	**0.076**	**0.044**	**0.018**	<0.001	<0.001	**0.005**
Mercury (10:1 leachable)	0.001	DWS	mg/l	2 of 7	1	<0.0005	0.0049	0.00364	<0.0005	0.0007	**0.0049**	<0.0005	<0.0005	<0.0005	<0.0005
Nickel (10:1 leachable)	0.004	EQS	mg/l	4 of 7	0	<0.001	0.003	0.003	<0.001	0.003	0.003	0.001	<0.001	0.001	<0.001
Phenols (10:1 leachable)	0.0077	EQS	mg/l	7 of 7	7	0.01	0.02	0.02	**0.02**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.02**
Selenium (10:1 leachable)	0.01	DWS	mg/l	3 of 7	0	<0.001	0.002	0.002	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.002
Zinc (10:1 leachable)	0.0123	EQS	mg/l	7 of 7	4	0.004	0.174	0.1506	0.008	**0.096**	**0.174**	**0.034**	0.004	0.005	**0.015**
Inorganic															
pH (10:1 leachable)	<6 - >9	EQS*	pH	No GAC	-	8.72	11.29	11.077	8.98	8.87	8.72	8.97	**10.58**	**11.29**	**9.48**
Sulphate (10:1 leachable)	250	DWS	mg/l	7 of 7	0	1.1	25.18	22.768	15.27	1.1	3.98	9.27	16.22	25.18	17.14
Other															
Barium (10:1 leachable)	0.7	WHO	mg/l	7 of 7	0	0.002	0.048	0.0459	0.002	0.041	0.015	0.005	0.028	0.048	0.007
DOC (10:1 leachable)			mg/l	No GAC	-	<2	<2	2.0	<2	<2	<2	<2	<2	<2	<2
Electrical conductivity (10:1 leachable)	2500	DWS	uS/cm	7 of 7	0	57	684	549.30	85	62	57	72	235	684	132
Fluoride (10:1 leachable)	1	EQS*	mg/l	4 of 7	0	<0.1	0.43	0.4	<0.1	0.43	0.33	0.16	<0.1	0.16	<0.1
Molybdenum (10:1 leachable)			mg/l	No GAC	-	<0.001	0.006	0.0057	<0.001	<0.001	<0.001	<0.001	0.005	0.006	0.003
Total Dissolved Solids (10:1 leachable)			mg/l	No GAC	-	29	342	274.50	42	31	29	36	117	342	66

Appendix D

Ground gas screening assessment

ARUP

Shotton Mill
Ground gas monitoring

Round	BH	Date	Atm pressure	Depth to GW (m)	Flow rate	Methane	Carbon dioxide	Hydrogen Sulfide	Carbon Monoxide	Oxygen	GSV Methane	GSV Carbon dioxide	CS
1	BH01	13/05/2022	1015	4.25	0	0	0.3	0	0	19.8	0	0	CS1
2	BH01	24/05/2022	1004	4.26	0	0	0.3	0	0	19.4	0	0	CS1
3	BH01	06/06/2022	1014	4.26	0	0	0.4	0	0	19.8	0	0	CS1
4	BH01	01/09/2022	1021	4.4	0	0	0.7	0	0	19.1	0	0	CS1
5	BH01	09/09/2022	1006	4.09	0	0	0.7	0	0	18.8	0	0	CS1
6	BH01	26/09/2022	1000	4.45	2.2	0	0.6	0	0	18.9	0	0.0132	CS1
1	BH03 (s)	13/05/2022	1015	Dry	0	0	2.3	0	0	13.7	0	0	CS1
2	BH03 (s)	24/05/2022	1003	Dry	0	0	2.4	0	0	14	0	0	CS1
3	BH03 (s)	06/06/2022	1013	Dry	0	0	2.7	0	0	12.1	0	0	CS1
4	BH03 (s)	01/09/2022	1020	Dry	0	0	3.7	0	0	9.6	0	0	CS1
5	BH03 (s)	09/09/2022	1006	Dry	0	0	3.9	0	0	9.7	0	0	CS1
6	BH03 (s)	26/09/2022	1000	Dry	0.7	0	2.3	0	0	13.6	0	0.0161	CS1
1	BH03 (d)	13/05/2022		4.04							0	0	NO DATA
2	BH03 (d)	24/05/2022		4.11							0	0	NO DATA
3	BH03 (d)	06/06/2022		4.11							0	0	NO DATA
4	BH03 (d)	01/09/2022		Dry							0	0	NO DATA
5	BH03 (d)	09/09/2022		Dry							0	0	NO DATA
6	BH03 (d)	26/09/2022		Dry							0	0	NO DATA
1	BH15 (d)										0	0	NO DATA
2	BH15 (d)										0	0	NO DATA
3	BH15 (d)										0	0	NO DATA
4	BH15 (d)	01/09/2022	1019	Dry	0	0	3.6	0	0	14.6	0	0	CS1
5	BH15 (d)	09/09/2022	1006	Dry	0	0	3.1	0	0	14.3	0	0	CS1
6	BH15 (d)	26/09/2022	1001	1.35	0	0	3.7	0	0	13.8	0	0	CS1
1	BH17	13/05/2022		3.64							0	0	NO DATA
2	BH17	24/05/2022	1003	3.67	0	0	1.4	0	0	18.7	0	0	CS1
3	BH17	06/06/2022	1015	3.7	0	0	1.5	0	0	18.3	0	0	CS1
4	BH17	01/09/2022	1020	3.72	1.1	0	2.2	0	0	16.8	0	0.0242	CS1
5	BH17	09/09/2022	1006	3.72	0	0	2.3	0	0	16.6	0	0	CS1
6	BH17	26/09/2022	1002	3.89	0.1	0	2.2	0	0	16.1	0	0.0022	CS1
1	BH29	13/05/2022		4.2							0	0	NO DATA
2	BH29	24/05/2022	1004	4.2	0	0	0.7	0	0	19.4	0	0	CS1
3	BH29	06/06/2022	1013	4.28	0	0	0.1	0	0	20.6	0	0	CS1
4	BH29	01/09/2022		4.36							0	0	NO DATA
5	BH29	09/09/2022	1006	4.32	0	0	0.9	0	0	19	0	0	CS1
6	BH29	26/09/2022	1000	4.44	0	0	0.9	0	0	18.8	0	0	CS1
1	BH103a	13/05/2022		4.5							0	0	NO DATA
2	BH103a	24/05/2022		4.13							0	0	NO DATA
3	BH103a	06/06/2022		4.12							0	0	NO DATA
4	BH103a										0	0	NO DATA
5	BH103a										0	0	NO DATA
6	BH103a										0	0	NO DATA
1	BH105	13/05/2022		1.83							0	0	NO DATA
2	BH105	24/05/2022		1.87							0	0	NO DATA
3	BH105	06/06/2022		1.9							0	0	NO DATA
4	BH105										0	0	NO DATA
5	BH105										0	0	NO DATA
6	BH105										0	0	NO DATA
1	S5b	13/05/2022	1015	3.84	1	0	0.7	0	0	20	0	0.007	CS1
2	S5b	24/05/2022	1003	3.84	0	0	0.7	0	0	20	0	0	CS1
3	S5b	06/06/2022	1015	3.85	0	0	0.8	0	0	19.9	0	0	CS1
4	S5b	01/09/2022	1022	3.98	0	0	0.7	0	0	19.7	0	0	CS1
5	S5b	09/09/2022	1006	3.97	0	0	0.7	0	0	19.8	0	0	CS1
6	S5b	26/09/2022	1000	4.07	0	0	0.7	0	0	19.7	0	0	CS1
1	BH117a										0	0	NO DATA
2	BH117a										0	0	NO DATA
3	BH117a	06/06/2022	1015	4.74	0	0	1.4	0	0	19.2	0	0	CS1
4	BH117a	01/09/2022	1023	4.88	0	0	1.4	0	0	17.6	0	0	CS1
5	BH117a	09/09/2022	1006	4.95	0	0	2.3	0	0	17.8	0	0	CS1
6	BH117a	26/09/2022	1000	5.01	1.9	0	2.2	0	0	17.6	0	0.0418	CS1

Appendix F Arup Piling 2022

Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024

A3

See drawings:
SPM-ARUP-02-ZZ-DR-CG-0003
SPM-ARUP-02-ZZ-DR-CG-0009
SPM-ARUP-02-ZZ-DR-CG-0010
SPM-ARUP-02-ZZ-DR-CG-0012
SPM-ARUP-02-ZZ-DR-CG-0014

Key

- Proposed Piling Site
- Site Boundary

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 40 80 160

ARUP

6th Floor, 3 Piccadilly Place
Manchester M1 3BN
Tel+44(0161) 228 2331 Fax+44(0161)228 6879
www.arup.com

Client
Eren Holding

Project Title
Shotton Paper Mill Redevelopment - Planning Permission Ref FUL/000010/22. Discharge of conditions 3 and 6

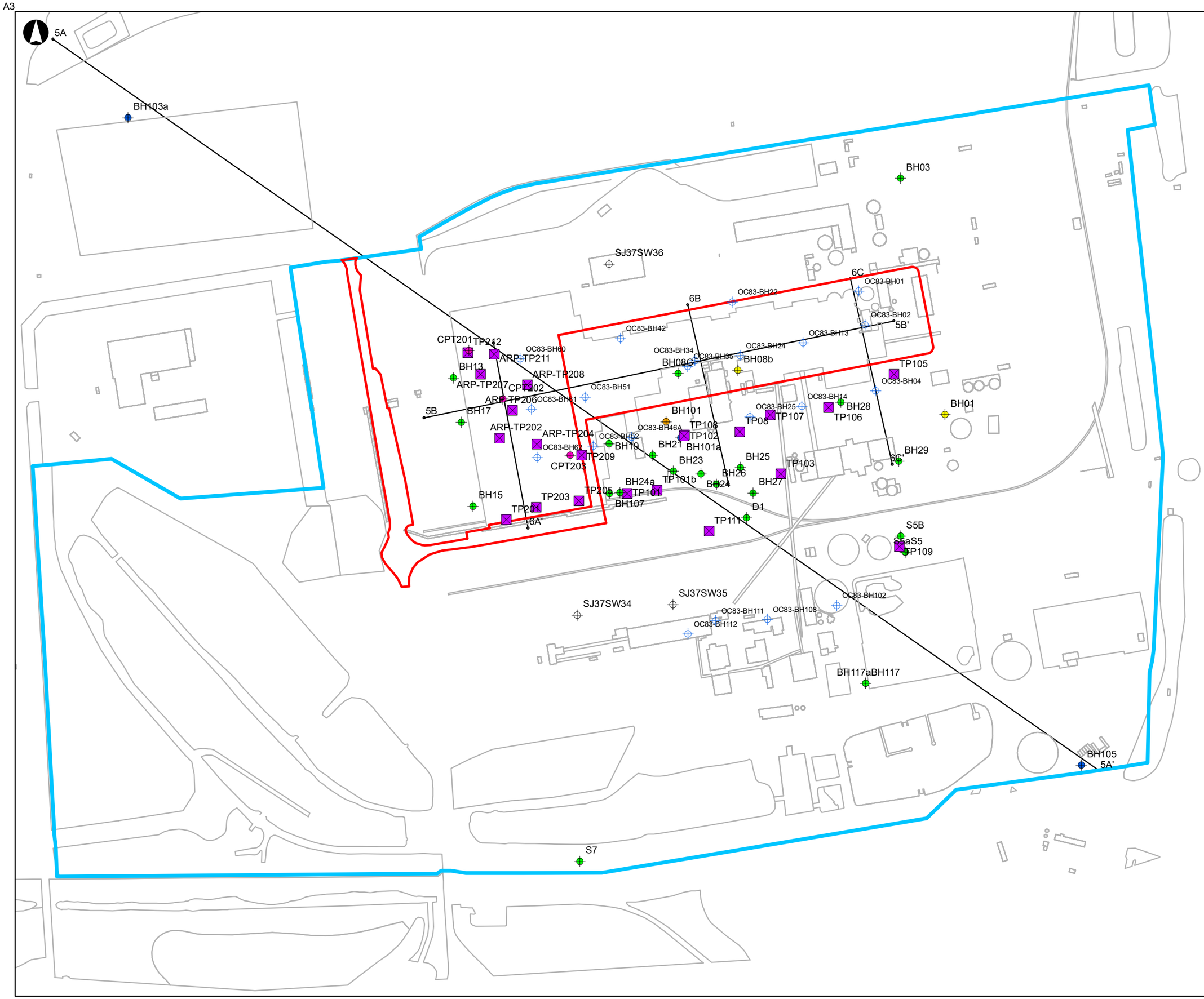
Drawing Title
Site boundary and proposed piling boundary

Scale at A3
1:3,250

Arup Job No	Suitability	
285974-00	**Preliminary**	
Name		Rev
SPM-ARUP-02-ZZ-DR-CG-0001		**P0**

\\Global\europe\Liverpool\Jobs\285000\285974-00\4 Internal Project Data\4-03 Drawings\3_GIS\Workspaces\SPM-ARP-GIS-003.mxd

A3



Key

BGS Boreholes

- BGS Boreholes

Osiris Cesco Investigation 1983

- Osiris Cesco Investigation 1983

Geocon 2022 Investigation

- Cable percussive
- Rotary open hole with cable percussive follow on
- Cone penetration testing
- Rotary open hole
- Sonic
- Trial pit
- Proposed Piling Site
- Site Boundary

For cross sections refer to drawings:
SPM-ARUP-02-ZZ-DR-CG-0005A
SPM-ARUP-02-ZZ-DR-CG-0005B
SPM-ARUP-02-ZZ-DR-CG-0006A
SPM-ARUP-02-ZZ-DR-CG-0006B
SPM-ARUP-02-ZZ-DR-CG-0006C

Issue	Date	By	Chkd	Appd
P0	2022-10-10	TH	CR	DT

Metres
0 40 80 160

ARUP

6th Floor, 3 Piccadilly Place
Manchester M1 3BN
Tel+44(0161) 228 2331 Fax+44(0161)228 6879
www.arup.com

Client
Eren Holding

Project Title
Shotton Paper Mill Redevelopment - Planning Permission Ref FUL/000010/22. Discharge of conditions 3 and 6

Drawing Title
Ground investigation exploratory hole location plan (GeoCon 2022, Osiris-Cesco 1983 and BGS 1959)

Scale at A3
1:3,250

Arup Job No	Suitability
285974-00	**Preliminary**

Name	Rev
SPM-ARUP-02-ZZ-DR-CG-0002	**P0**

Appendix G JFHR Remediation Zones 2023

Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024

330000
330500
331000
372000
371500

A548
Weighbridge Rd
Weighbridge Rd
Weighbridge Rd

N

0
100
200
Metres

NOTES

1. Basemap provided by Client.
   Figure Reference: SHOTTON-ST-001 R.13

LEGEND

Site Boundary
Additional Land Owned by Applicant

Contamination Phasing

Phase 1
Phase 2
Phase 3

REV	DATE	REMARKS	Drawn	Reviewed	Approved
1	06/04/2023	First Issue	JO	SH	DD
2	24/04/2023	Second Issue	DB	SH	DD

eren

SLR
8th FLOOR, QUAY WEST
MEDIACITY UK
TRAFFORD WHARF ROAD
MANCHESTER
M17 1HH
T: 01618 727564
www.slrconsulting.com

SHOTTON MILL LTD

PLANNING APPLICATION

CONTAMINATION PHASING PLAN

SHOTTON-CON-001

Scale 1:4,000 @ A3

Date APRIL 2023

12593.00002.0064.1 Contamination Phasing Plan

Figure 3 | Materials Flow Schematic

Shotton Mill Phase 1 Refurbishment – Materials Management Schematic For Remediation & Site Preparation Works

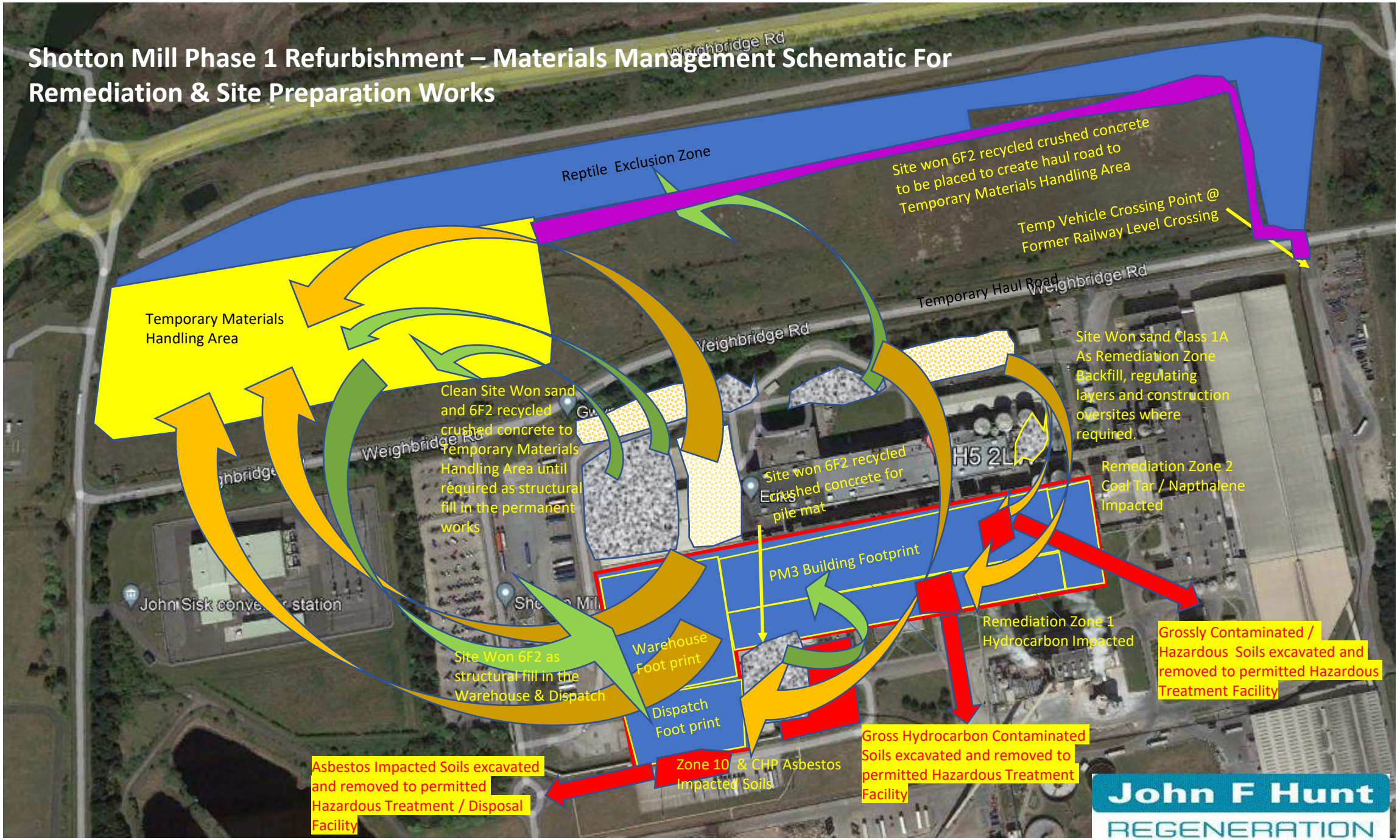
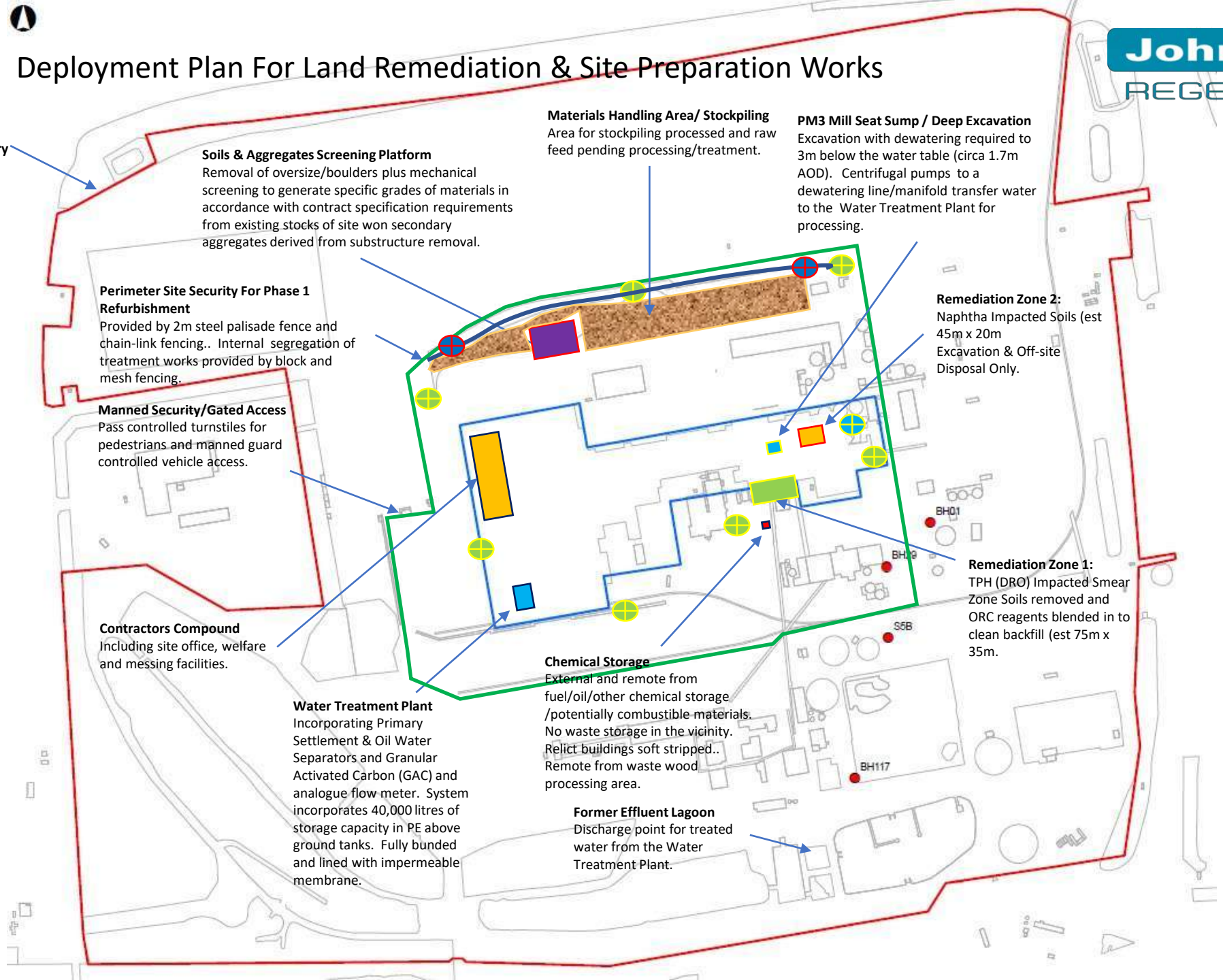


Figure 4 | Deployment Layout Plan

SHOTTON MILL: Deployment Plan For Land Remediation & Site Preparation Works

John F Hunt REGENERATION



KEY:

- Ditch course/ surface water monitoring observation point.
- Down gradient groundwater water monitoring borehole.
- Air Monitoring Point.

Figure 5 | Validation Grid Drawing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

G F E D C B A ZA ZB ZC ZD

ZONE 1

ZONE 2

ZONE 3

ZONE 4

ZONE 5

ZONE 6

ZONE 7

ZONE 8

ZONE 9

Remediation Zone 2
Naptha Impacted Area

Remediation Zone 1
TPH / Diesel Impacted Area

CHP

CHP - South

Asbestos Impacted Area

Asbestos Impacted Area

LPCT- South

Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q3
Q3 Q4 Q3 Q4 Q3 Q4 Q2 Q4
Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q3
Q3 Q4 Q3 Q4 Q3 Q4 Q2 Q4

Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q2
Q3 Q4 Q3 Q4 Q3 Q4 Q3 Q4
Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q2
Q3 Q4 Q3 Q4 Q3 Q4 Q3 Q4

N

Rev	Date	Details Of Issue	Dwn	Chk

Issues And Revisions

Project :

Shotton Papermill,
Weighbridge Road

Client :ENKA

Title :

Remediation & Earthworks
Validation Grid

Scale :	NTS-TO FIT	Drawn :	J Gray-Betteridge
Size :	A3	Checked :	
Sheet No. :	1	Date :	24.05.2023

Dwg No. : 22912-REM-015

Revision : A

Status:

John F Hunt Regeneration Limited
London Road, Grays
Essex, RM20 4DB
T: 01375 366700 F: 01375 366800
E: remediation@johnfhunt.co.uk

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

G F E D C B A ZA ZB ZC ZD

ZONE 1

ZONE 2

ZONE 3

ZONE 4

ZONE 5

ZONE 6

ZONE 7

ZONE 8

ZONE 9

Remediation Zone 2
Naptha Impacted Area

Remediation Zone 1
TPH / Diesel Impacted Area

CHP

CHP - South

Asbestos Impacted Area

Asbestos Impacted Area

LPCT- South

Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q3
Q3 Q4 Q3 Q4 Q3 Q4 Q2 Q4
Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q3
Q3 Q4 Q3 Q4 Q3 Q4 Q2 Q4

Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q2
Q3 Q4 Q3 Q4 Q3 Q4 Q3 Q4
Q1 Q2 Q1 Q2 Q1 Q2 Q1 Q2
Q3 Q4 Q3 Q4 Q3 Q4 Q3 Q4

N

Rev	Date	Details Of Issue	Dwn	Chk

Issues And Revisions

Project :

Shotton Papermill,
Weighbridge Road

Client :ENKA

Title :

Remediation & Earthworks
Validation Grid

Scale :	NTS-TO FIT	Drawn :	J Gray-Betteridge
Size :	A3	Checked :	
Sheet No. :	1	Date :	24.05.2023

Dwg No. : 22912-REM-015

Revision : A

Status:

John F Hunt Regeneration Limited
London Road, Grays
Essex, RM20 4DB
T: 01375 366700 F: 01375 366800
E: remediation@johnfhunt.co.uk

Appendix H Lagoon 1 data

Site Condition Report Addendum

Shotton Mill

Shotton Mill Ltd

SLR Project No.: 410.065169.00001

23 August 2024

Location of Lagoon 1

Figure 1: Site locations plan showing Lagoon 1 (blue line) within the wider SPM site (red line)

Figure 4: Exploratory hole locations within a 50m buffer of Lagoon 1

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/11163
Issue Number: 1 **Date:** 17 November, 2023

Client: Ian Farmer Associates (Warrington)
14/15 Rufford Court
Hardwick Grange
Warrington
WA1 4RF

Project Manager: Michelle Hirst-Watson
Project Name: Shotton Paper Mill ETP Area
Project Ref: 2231160
Order No: P7538467
Date Samples Received: 09/11/23
Date Instructions Received: 10/11/23
Date Analysis Completed: 17/11/23

Approved by:

Sophie France
Client Manager

Envirolab Job Number: 23/11163

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
% Stones >10mm$_A$	15.9	<0.1	<0.1					% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	8.55	8.77	8.84					pH	0.01	A-T-031s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1					mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2					mg/kg	0.2	A-T-050s
Total Organic Carbon$_D$$^{M\#}$	0.66	0.91	0.12					% w/w	0.03	A-T-032s
Antimony$_D$	<5	<5	<5					mg/kg	5	A-T-024s
Arsenic$_D$$^{M\#}$	3	2	3					mg/kg	1	A-T-024s
Beryllium$_D$	<0.5	<0.5	<0.5					mg/kg	0.5	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	<1.0	<1.0					mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	<0.5	<0.5	<0.5					mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	6	2	1					mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	7	6	7					mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1					mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	8	9	14					mg/kg	1	A-T-024s
Mercury$_D$	0.34	0.54	0.55					mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	7	4	5					mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1					mg/kg	1	A-T-024s
Vanadium$_D$$^{M\#}$	8	8	10					mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	60	21	18					mg/kg	5	A-T-024s

Envirolab Job Number: 23/11163

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD							A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-							A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-							A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A							A-T-045

Envirolab Job Number: 23/11163

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
PAH-16MS										
Acenaphthene$_A^{M\#}$	0.02	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	0.17	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	0.34	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	0.24	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	0.31	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	0.11	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	0.13	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	0.31	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	0.69	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	0.15	<0.03	<0.03					mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	0.25	<0.03	<0.03					mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	0.59	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS$_A$	3.31	<0.08	<0.08					mg/kg	0.01	A-T-019s

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
SVOC excluding PAH-16										
4-Bromophenyl phenyl ether$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Hexachlorobenzene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Diethyl phthalate$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Dimethyl phthalate$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Dibenzofuran$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Carbazole$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Butylbenzyl phthalate$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Bis(2-ethylhexyl)phthalate$_A$	<500	<500	<500					µg/kg	500	A-T-052s
Bis(2-chloroethoxy)methane$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Bis(2-chloroethyl)ether$_A$	<100	<100	<100					µg/kg	100	A-T-052s
4-Nitrophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
3+4-Methylphenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
4-Chloro-3-methylphenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2-Nitrophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2-Methylphenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
1,2,4-Trichlorobenzene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2-Chlorophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2,6-Dinitrotoluene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2,4-Dinitrotoluene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2,4-Dimethylphenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2,4-Dichlorophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2,4,6-Trichlorophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2,4,5-Trichlorophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
1,4-Dichlorobenzene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
1,3-Dichlorobenzene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
1,2-Dichlorobenzene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2-Chloronaphthalene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
2-Methylnaphthalene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Bis(2-chloroisopropyl)ether$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Phenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Pentachlorophenol$_A$	<100	<100	<100					µg/kg	100	A-T-052s
n-Nitroso-n-dipropylamine$_A$	<100	<100	<100					µg/kg	100	A-T-052s

Envirolab Job Number: 23/11163 **Client Project Name: Shotton Paper Mill ETP Area**

Client Project Ref: 2231160

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
n-Dioctylphthalate$_A$	<500	<500	<500					µg/kg	500	A-T-052s
n-Dibutylphthalate$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Nitrobenzene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Isophorone$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Hexachloroethane$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Hexachlorobutadiene$_A$	<100	<100	<100					µg/kg	100	A-T-052s
Perylene$_A$	<100	<100	<100					µg/kg	100	A-T-052s

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
VOC										
Dichlorodifluoromethane$_{A}$	<1	<1	<1					µg/kg	1	A-T-006s
Chloromethane$_{A}$	<10	<10	<10					µg/kg	10	A-T-006s
Vinyl Chloride (Chloroethene)$_{A}^{\#}$	<1^{U}	<1^{U}	<1^{U}					µg/kg	1	A-T-006s
Bromomethane$_{A}^{\#}$	<1^{U}	<1^{U}	<1^{U}					µg/kg	1	A-T-006s
Chloroethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Trichlorofluoromethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1-Dichloroethene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Carbon Disulphide$_{A}^{\#}$	<1	1	<1					µg/kg	1	A-T-006s
Dichloromethane$_{A}$	<5	<5	<5					µg/kg	5	A-T-006s
trans 1,2-Dichloroethene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1-Dichloroethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
cis 1,2-Dichloroethene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
2,2-Dichloropropane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Bromochloromethane$_{A}^{\#}$	<5	<5	<5					µg/kg	5	A-T-006s
Chloroform$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1,1-Trichloroethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1-Dichloropropene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Carbon Tetrachloride$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,2-Dichloroethane$_{A}^{\#}$	<2	<2	<2					µg/kg	2	A-T-006s
Benzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Trichloroethene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,2-Dichloropropane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Dibromomethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Bromodichloromethane$_{A}^{\#}$	<10	<10	<10					µg/kg	10	A-T-006s
cis 1,3-Dichloropropene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Toluene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
trans 1,3-Dichloropropene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1,2-Trichloroethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,3-Dichloropropane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Tetrachloroethene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Dibromochloromethane$_{A}^{\#}$	<3	<3	<3					µg/kg	3	A-T-006s
1,2-Dibromoethane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
Chlorobenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1,1,2-Tetrachloroethane$_{A}$	<1	<1	<1					µg/kg	1	A-T-006s
Ethylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
m & p Xylene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
o-Xylene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Styrene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Bromoform$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Isopropylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,1,2,2-Tetrachloroethane$_{A}$	<1	<1	<1					µg/kg	1	A-T-006s
1,2,3-Trichloropropane$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
Bromobenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
n-Propylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
2-Chlorotoluene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,3,5-Trimethylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
4-Chlorotoluene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
tert-Butylbenzene$_{A}^{\#}$	<2	<2	<2					µg/kg	2	A-T-006s
1,2,4-Trimethylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
sec-Butylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
4-Isopropyltoluene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,3-Dichlorobenzene$_{A}$	<1	<1	<1					µg/kg	1	A-T-006s
1,4-Dichlorobenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
n-Butylbenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,2-Dichlorobenzene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,2-Dibromo-3-chloropropane (DCBP)$_{A}$	<2	<2	<2					µg/kg	2	A-T-006s
1,2,4-Trichlorobenzene$_{A}$	<3	<3	<3					µg/kg	3	A-T-006s
Hexachlorobutadiene$_{A}^{\#}$	<1	<1	<1					µg/kg	1	A-T-006s
1,2,3-Trichlorobenzene$_{A}$	<3	<3	<3					µg/kg	3	A-T-006s

Envirolab Job Number: 23/11163

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5					Units	Limit of Detection	Method ref
Client Sample No	3	7	13							
Client Sample ID	BH01	BH01	BH01							
Depth to Top	1.20	2.00	4.00							
Depth To Bottom										
Date Sampled	07-Nov-23	07-Nov-23	07-Nov-23							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5A	1A	1A							
TPH UKCWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	3	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	2	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	2	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	8	18	4					mg/kg	1	A-T-055s
Ali >C35-C44$_A$	<1	9	<1					mg/kg	1	A-T-055s
Total Aliphatics$_A$	17	27	4					mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	2	<1	<1					mg/kg	1	A-T-055s
Aro >C10-C12$_A$	2	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16$_A$	13	1	<1					mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	9	1	<1					mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	14	4	1					mg/kg	1	A-T-055s
Aro >C35-C44$_A$	<1	1	<1					mg/kg	1	A-T-055s
Total Aromatics$_A$	40	8	1					mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C44)$_A$	57	35	5					mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s

Report Notes

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **six weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and Interpretations expressed are outside our scope of accreditation.
The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^{o}C / 11550µS/cm @ 20^{o}C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Ian Farmer Associates (Warrington), 14/15 Rufford Court, Hardwick Grange, Warrington, WA1 4RF

Project: Shotton Paper Mill ETP Area

Clients Project No: 2231160

Project No: 23/11163

Date Received: 10/11/2023 (am)

Cool Box Temperatures (°C): 12.2 - 12.6

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/11163/1	23/11163/3	23/11163/5
Client Sample No	3	7	13
Client Sample ID/Depth	BH01 1.20m	BH01 2.00m	BH01 4.00m
Date Sampled	07/11/23	07/11/23	07/11/23
A-T-006s	17/11/2023	17/11/2023	17/11/2023
A-T-019s	16/11/2023	16/11/2023	16/11/2023
A-T-022s	17/11/2023	17/11/2023	17/11/2023
A-T-024s	17/11/2023	17/11/2023	17/11/2023
A-T-027s	17/11/2023	17/11/2023	17/11/2023
A-T-031s	17/11/2023	17/11/2023	17/11/2023
A-T-032s	16/11/2023	16/11/2023	17/11/2023
A-T-040s	17/11/2023	17/11/2023	17/11/2023
A-T-042sTCN	17/11/2023	17/11/2023	17/11/2023
A-T-044	16/11/2023	16/11/2023	16/11/2023
A-T-045	15/11/2023	15/11/2023	15/11/2023
A-T-050s	17/11/2023	17/11/2023	17/11/2023
A-T-052s	17/11/2023	17/11/2023	17/11/2023
A-T-055s	17/11/2023	17/11/2023	17/11/2023
Calc-As Recd	17/11/2023	17/11/2023	17/11/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 23/11417
Issue Number: 1 **Date:** 28 November, 2023

Client: Ian Farmer Associates (Warrington)
14/15 Rufford Court
Hardwick Grange
Warrington
WA1 4RF

Project Manager: Michelle Hirst-Watson
Project Name: Shotton Paper Mill ETP Area
Project Ref: 2231160
Order No: P7538575
Date Samples Received: 17/11/23
Date Instructions Received: 20/11/23
Date Analysis Completed: 28/11/23

Approved by:

Richard Wong
Client Manager

UKAS TESTING 1247

Envirolab Job Number: 23/11417

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
pH (w)$_A^\#$	7.91							pH	0.01	A-T-031w
Hardness Total$_A^\#$	478							mg/l Ca CO3	4	A-T-049w
Ammoniacal nitrogen as N (w)$_A^\#$	8.53							mg/l	0.05	A-T-033w
Chloride (w)$_A^\#$	74							mg/l	1	A-T-026w
Cyanide (free) (w)$_A^\#$	<0.005							mg/l	0.005	A-T-042wFCN
Cyanide (total) (w)$_A^\#$	0.081							mg/l	0.005	A-T-042wTCN
Cyanide (complex)$^\#$	0.081							mg/l	0.005	Calc
Thiocyanate (w)$_A$	0.4							mg/l	0.1	A-T-041w
Phenols - Total by HPLC (w)$_A$	<0.01							mg/l	0.01	A-T-050w
DOC - Dissolved Organic Carbon (w)$_A^\#$	6.4							mg/l	2	A-T-032w
Antimony (dissolved)$_A$	2							µg/l	1	A-T-025w
Arsenic (dissolved)$_A^\#$	36							µg/l	1	A-T-025w
Beryllium (dissolved)$_A^\#$	<1							µg/l	1	A-T-025w
Cadmium (dissolved)$_A^\#$	<0.2							µg/l	0.2	A-T-025w
Calcium (dissolved)$_A^\#$	159							mg/l	1	A-T-049w
Copper (dissolved)$_A$	<4							µg/l	4	A-T-025w
Chromium (dissolved)$_A^\#$	<1							µg/l	1	A-T-025w
Chromium (hexavalent) (w)$_A^\#$	<0.01							mg/l	0.01	A-T-040w
Lead (dissolved)$_A^\#$	<1							µg/l	1	A-T-025w
Manganese (dissolved)$_A^\#$	1230							µg/l	1	A-T-025w
Mercury (dissolved)$_A^\#$	<0.1							µg/l	0.1	A-T-025w
Nickel (dissolved)$_A^\#$	5							µg/l	2	A-T-025w
Selenium (dissolved)$_A^\#$	1							µg/l	1	A-T-025w
Vanadium (dissolved)$_A^\#$	2							µg/l	1	A-T-025w
Zinc (dissolved)$_A^\#$	7							µg/l	2	A-T-025w

Envirolab Job Number: 23/11417

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
PAH 16MS (w)										
Acenaphthene (w)$_A^\#$	0.03							µg/l	0.01	A-T-019w
Acenaphthylene (w)$_A^\#$	<0.01							µg/l	0.01	A-T-019w
Anthracene (w)$_A^\#$	0.01							µg/l	0.01	A-T-019w
Benzo(a)anthracene (w)$_A^\#$	0.06							µg/l	0.01	A-T-019w
Benzo(a)pyrene (w)$_A^\#$	0.06							µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w)$_A^\#$	0.08							µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w)$_A^\#$	0.05							µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w)$_A^\#$	0.04							µg/l	0.01	A-T-019w
Chrysene (w)$_A^\#$	0.06							µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w)$_A^\#$	<0.01							µg/l	0.01	A-T-019w
Fluoranthene (w)$_A^\#$	0.12							µg/l	0.01	A-T-019w
Fluorene (w)$_A^\#$	0.01							µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w)$_A^\#$	0.04							µg/l	0.01	A-T-019w
Naphthalene (w)$_A^\#$	0.01							µg/l	0.01	A-T-019w
Phenanthrene (w)$_A^\#$	0.05							µg/l	0.01	A-T-019w
Pyrene (w)$_A^\#$	0.11							µg/l	0.01	A-T-019w
Total PAH 16MS (w)$_A^\#$	0.73							µg/l	0.01	A-T-019w
Phenols (speciated HPLC) (w)										
Phenol (w)$_A$	<0.01							mg/l	0.01	A-T-050w
Cresols (w)$_A$	<0.01							mg/l	0.01	A-T-050w
Xylenols (w)$_A$	<0.01							mg/l	0.01	A-T-050w
Resorcinol (w) $_A$	<0.01							mg/l	0.01	A-T-050w

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
SVOC (excluding PAH-16) (w)										
1,2,4-Trichlorobenzene$_A$	<1							µg/l	1	A-T-052w
1,2-Dichlorobenzene$_A$	<1							µg/l	1	A-T-052w
1,3-Dichlorobenzene$_A$	<1							µg/l	1	A-T-052w
1,4-Dichlorobenzene$_A$	<1							µg/l	1	A-T-052w
2,4,5-Trichlorophenol$_A$	<1							µg/l	1	A-T-052w
2,4,6-Trichlorophenol$_A$	<1							µg/l	1	A-T-052w
2,4-Dichlorophenol$_A$	<1							µg/l	1	A-T-052w
2,4-Dimethylphenol$_A$	<1							µg/l	1	A-T-052w
2,4-Dinitrotoluene$_A$	<1							µg/l	1	A-T-052w
2,6-Dinitrotoluene$_A$	<1							µg/l	1	A-T-052w
2-Chloronaphthalene$_A$	<1							µg/l	1	A-T-052w
2-Chlorophenol$_A$	<1							µg/l	1	A-T-052w
2-Methylnaphthalene$_A$	<1							µg/l	1	A-T-052w
2-Methylphenol$_A$	<1							µg/l	1	A-T-052w
2-Nitrophenol$_A$	<1							µg/l	1	A-T-052w
4-Bromophenyl phenyl ether$_A$	<1							µg/l	1	A-T-052w
4-Chloro-3-methylphenol$_A$	<1							µg/l	1	A-T-052w
Bis(2-chloroisopropyl)ether$_A$	<1							µg/l	1	A-T-052w
3+4-Methylphenol$_A$	<1							µg/l	1	A-T-052w
4-Nitrophenol$_A$	<1							µg/l	1	A-T-052w
Bis(2-chloroethyl)ether$_A$	<1							µg/l	1	A-T-052w
Bis(2-chloroethoxy)methane$_A$	<1							µg/l	1	A-T-052w
Bis(2-ethylhexyl)phthalate$_A$	<10							µg/l	10	A-T-052w
Butylbenzyl phthalate$_A$	<1							µg/l	1	A-T-052w
Carbazole$_A$	<1							µg/l	1	A-T-052w
Dibenzofuran$_A$	<1							µg/l	1	A-T-052w
n-Dibutylphthalate$_A$	<1							µg/l	1	A-T-052w
n-Dioctylphthalate$_A$	<10							µg/l	10	A-T-052w
n-Nitroso-n-dipropylamine$_A$	<1							µg/l	1	A-T-052w
Diethyl phthalate$_A$	<1							µg/l	1	A-T-052w
Dimethyl phthalate$_A$	<1							µg/l	1	A-T-052w
Hexachlorobutadiene$_A$	<1							µg/l	1	A-T-052w

Envirolab Job Number: 23/11417

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
Hexachlorobenzene SVOC$_A$	<1							µg/l	1	A-T-052w
Pentachlorophenol SVOC$_A$	2							µg/l	1	A-T-052w
Phenol$_A$	<1							µg/l	1	A-T-052w
Hexachloroethane$_A$	<1							µg/l	1	A-T-052w
Nitrobenzene$_A$	<1							µg/l	1	A-T-052w
Isophorone$_A$	<1							µg/l	1	A-T-052w
Perylene$_A$	<1							µg/l	1	A-T-052w

Envirolab Job Number: 23/11417

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
VOC (w)										
Dichlorodifluoromethane$_A$	<1							µg/l	1	A-T-006w
Chloromethane$_A$	<10							µg/l	10	A-T-006w
Vinyl Chloride$_A^\#$	<1							µg/l	1	A-T-006w
Bromomethane$_A^\#$	<1							µg/l	1	A-T-006w
Chloroethane$_A^\#$	<1							µg/l	1	A-T-006w
Trichlorofluoromethane$_A^\#$	<1							µg/l	1	A-T-006w
trans 1,2-Dichloroethene$_A^\#$	<1							µg/l	1	A-T-006w
Dichloromethane$_A$	<5							µg/l	5	A-T-006w
Carbon Disulphide$_A^\#$	<1							µg/l	1	A-T-006w
1,1-Dichloroethene$_A^\#$	<1							µg/l	1	A-T-006w
1,1-Dichloroethane$_A^\#$	<1							µg/l	1	A-T-006w
cis 1,2-Dichloroethene$_A^\#$	<1							µg/l	1	A-T-006w
Bromochloromethane$_A^\#$	<5							µg/l	5	A-T-006w
Chloroform$_A^\#$	<1							µg/l	1	A-T-006w
2,2-Dichloropropane$_A^\#$	<1							µg/l	1	A-T-006w
1,2-Dichloroethane$_A^\#$	<2							µg/l	2	A-T-006w
1,1,1-Trichloroethane$_A^\#$	<1							µg/l	1	A-T-006w
1,1-Dichloropropene$_A^\#$	<1							µg/l	1	A-T-006w
Benzene$_A^\#$	<1							µg/l	1	A-T-006w
Carbon Tetrachloride$_A^\#$	<1							µg/l	1	A-T-006w
Dibromomethane$_A^\#$	<1							µg/l	1	A-T-006w
1,2-Dichloropropane$_A^\#$	<1							µg/l	1	A-T-006w
Bromodichloromethane$_A^\#$	<10							µg/l	10	A-T-006w
Trichloroethene$_A^\#$	<1							µg/l	1	A-T-006w
cis 1,3-Dichloropropene$_A^\#$	<1							µg/l	1	A-T-006w
trans 1,3-Dichloropropene$_A^\#$	<1							µg/l	1	A-T-006w
1,1,2-Trichloroethane$_A^\#$	<1							µg/l	1	A-T-006w
Toluene$_A^\#$	<1							µg/l	1	A-T-006w
1,3-Dichloropropane$_A^\#$	<1							µg/l	1	A-T-006w
Dibromochloromethane$_A^\#$	<3							µg/l	3	A-T-006w
1,2-Dibromoethane$_A^\#$	<1							µg/l	1	A-T-006w
Tetrachloroethene$_A$	<1							µg/l	1	A-T-006w

Envirolab Job Number: 23/11417

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
1,1,1,2-Tetrachloroethane$_A$	<1							µg/l	1	A-T-006w
Chlorobenzene$_A^\#$	<1							µg/l	1	A-T-006w
Ethylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
m & p Xylene$_A^\#$	<1							µg/l	1	A-T-006w
Bromoform$_A^\#$	<1							µg/l	1	A-T-006w
Styrene$_A^\#$	<1							µg/l	1	A-T-006w
1,1,2,2-Tetrachloroethane$_A$	<1							µg/l	1	A-T-006w
o-Xylene$_A^\#$	<1							µg/l	1	A-T-006w
1,2,3-Trichloropropane$_A^\#$	<1							µg/l	1	A-T-006w
Isopropylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
Bromobenzene$_A^\#$	<1							µg/l	1	A-T-006w
2-Chlorotoluene$_A^\#$	<1							µg/l	1	A-T-006w
n-propylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
4-Chlorotoluene$_A^\#$	<1							µg/l	1	A-T-006w
1,2,4-Trimethylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
4-Isopropyltoluene$_A^\#$	<1							µg/l	1	A-T-006w
1,3,5-Trimethylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
1,2-Dichlorobenzene$_A^\#$	<1							µg/l	1	A-T-006w
1,4-Dichlorobenzene$_A^\#$	<1							µg/l	1	A-T-006w
sec-Butylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
tert-Butylbenzene$_A^\#$	<2							µg/l	2	A-T-006w
1,3-Dichlorobenzene$_A^\#$	<1							µg/l	1	A-T-006w
n-butylbenzene$_A^\#$	<1							µg/l	1	A-T-006w
1,2-Dibromo-3-chloropropane$_A^\#$	<2							µg/l	2	A-T-006w
1,2,4-Trichlorobenzene$_A^\#$	<3							µg/l	3	A-T-006w
1,2,3-Trichlorobenzene$_A^\#$	<3							µg/l	3	A-T-006w
Hexachlorobutadiene$_A^\#$	<1							µg/l	1	A-T-006w

Envirolab Job Number: 23/11417

Client Project Name: Shotton Paper Mill ETP Area

Client Project Ref: 2231160

Lab Sample ID	23/11417/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	BH01									
Depth to Top										
Depth To Bottom										
Date Sampled	16-Nov-23									
Sample Type	WATER - EW									
Sample Matrix Code	N/A									
TPH UKCWG (w) with Clean Up										
Ali >C5-C6 $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
Ali >C6-C8 $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
Ali >C8-C10 $(w)_A^{\#}$	<5							µg/l	5	A-T-055w
Ali >C10-C12 $(w)_A^{\#}$	<5							µg/l	5	A-T-055w
Ali >C12-C16 $(w)_A^{\#}$	<5							µg/l	5	A-T-055w
Ali >C16-C21 $(w)_A^{\#}$	<5							µg/l	5	A-T-055w
Ali >C21-C35 $(w)_A^{\#}$	<5							µg/l	5	A-T-055w
Ali >C35-C44 $(w)_A$	<5							µg/l	5	A-T-055w
Total Aliphatics $(w)_A$	<5							µg/l	5	Calc-As Recd
Aro >C5-C7 $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
Aro >C7-C8 $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
Aro >C8-C10 $(w)_A$	6							µg/l	5	A-T-055w
Aro >C10-C12 $(w)_A^{\#}$	<5							µg/l	5	A-T-055w
Aro >C12-C16 $(w)_A^{\#}$	15							µg/l	5	A-T-055w
Aro >C16-C21 $(w)_A^{\#}$	19							µg/l	5	A-T-055w
Aro >C21-C35 $(w)_A$	17							µg/l	10	A-T-055w
Aro >C35-C44 $(w)_A$	<5							µg/l	5	A-T-055w
Total Aromatics $(w)_A$	57							µg/l	10	Calc-As Recd
TPH (Ali & Aro >C5-C44) $(w)_A$	57							µg/l	10	Calc-As Recd
BTEX - Benzene $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
BTEX - Toluene $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
BTEX - Ethyl Benzene $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
BTEX - m & p Xylene $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
BTEX - o Xylene $(w)_A^{\#}$	<1							µg/l	1	A-T-022w
MTBE $(w)_A^{\#}$	<1							µg/l	1	A-T-022w

Report Notes

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **six weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and Interpretations expressed are outside our scope of accreditation.
The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Key

Superscript "#"	Accredited to ISO 17025
Superscript "M"	Accredited to MCertS
Superscript "U"	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript "A"	Analysis performed on as-received Sample
Subscript "D"	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript "^"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos
Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^{o}C / 11550µS/cm @ 20^{o}C fall outside the accreditation range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: Ian Farmer Associates (Warrington), 14/15 Rufford Court, Hardwick Grange, Warrington, WA1 4RF

Project: Shotton Paper Mill ETP Area

Clients Project No: 2231160

Project No: 23/11417

Date Received: 20/11/2023 (am)

Cool Box Temperatures (°C): 13.1

NO DEVIATIONS IDENTIFIED

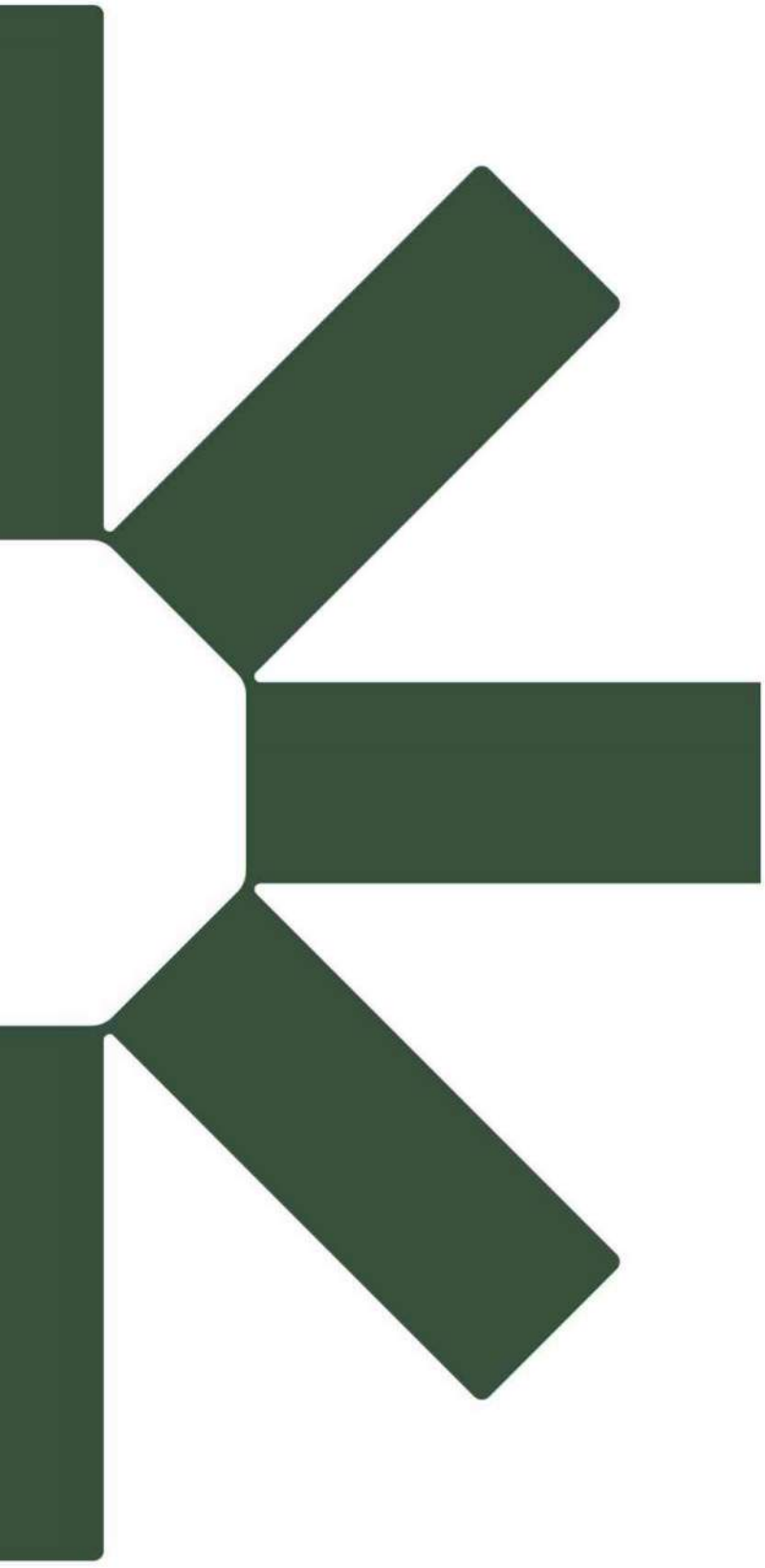
If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/11417/1
Client Sample No	
Client Sample ID/Depth	BH01
Date Sampled	16/11/23
A-T-006w	24/11/2023
A-T-019w	27/11/2023
A-T-022w	24/11/2023
A-T-025w	28/11/2023
A-T-026w	24/11/2023
A-T-031w	22/11/2023
A-T-032w	23/11/2023
A-T-033w	24/11/2023
A-T-040w	24/11/2023
A-T-041w	22/11/2023
A-T-042wFCN	22/11/2023
A-T-042wTCN	22/11/2023
A-T-049w	28/11/2023
A-T-050w	22/11/2023
A-T-052w	24/11/2023
A-T-055w	27/11/2023
Calc	22/11/2023
Calc-As Recd	27/11/2023

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report



Making Sustainability Happen