



Industrial Property Investment Fund (IPIF)

UNIT 5, BARTON PARK INDUSTRIAL ESTATE, EASTLEIGH

Verification Report





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Verification Report

WSP

4th Floor

6 Devonshire Square

London

EC2M 4YE

Phone: +44 20 7337 1700

WSP.com

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Checked by	Suzanne Thorpe/ David Crellin		
Signature	 Digitally signed by Thorpe, Suzanne (UKSAT003) DN: cn=Thorpe, Suzanne (UKSAT003), ou=Active, email=Suzanne.Thorpe@wsp.com Reason: I have reviewed this document Date: 2023.11.14 11:40:07		
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1 INTRODUCTION

1.1 AUTHORISATION

WSP UK Limited (WSP) were commissioned by Industrial Property investment Fund (IPIF) (the 'Client') to provide a Verification Report for works undertaken at Unit 5, Barton Park Industrial Estate, Eastleigh, SO50 6RR ('the site').

This Verification Report has been prepared to support resurfacing and installation of surface water drainage at the site through approved planning permission ref. F/22/92888 by Eastleigh Borough Council. The work was undertaken by the Principal Contractor, INCO Construction Group Ltd (INCO). INCO sub-contracted the main works to Wodehouse Ltd (Wodehouse).

WSP attended site on 32 separate occasions between December 2022 and May 2023, comprising full days and half days to visually verify the works. This report has been produced using information and site records provided by INCO and Wodehouse in addition to the WSP site visits.

A Site Location Plan and Site Boundary Plan are shown as Figure 1 and Figure 2 included in **Appendix A**.

1.2 SITE CONTEXT AND PROPOSED DEVELOPMENT

The site is located on Barton Park Industrial Estate, Chickenhall Lane, Eastleigh, SO50 6RR (NGR 445869, 118936). The works undertaken at the site under planning permission F/22/92888 include the resurfacing of the site and installation of new surface water drainage systems. The resurfacing and drainage plans provided by the Client are as follows and presented in **Appendix A**.

- Hurst Pierce + Malcolm LLP, Site Layout and Drainage Plan, reference: 25097-01 T1, issued July 2021;
- Hurst Pierce + Malcolm LLP, Joint Layout, reference: 25097-02 T1, issued July 2021;
- Hurst Pierce + Malcolm LLP, Drainage Details, reference: 25097-10 T1, issued June 2021; and ,
- Hurst Pierce + Malcolm LLP, Joint Details, reference 25097-11 T1, issued July 2021.

It is understood that following the resurfacing works, the site will be used as a yard, associated with the adjoining warehouse on the eastern boundary. The future use will include the trafficking and parking of good vehicles.

A Remediation Strategy was produced by WSP in April 2022 (Ref: 70080743-RMS) (herein referred to as 'Remediation Strategy') to support the application of planning permission F/22/92888 and discharge of Condition 3.

This report details the remediation works that have been completed in line with the Remediation Strategy and Verification Plan contained therein. The submission to and approval of this Remediation Verification Report to Eastleigh Borough Council will allow discharge of Condition 4, from Planning Decision Notice F/22/92888 as follows:

Before any part of the development is occupied or used, unless otherwise first agreed in writing by the Local Planning Authority (LPA), a verification report demonstrating the effectiveness of the remediation works carried out and a remediation completion certificate confirming that the approved remediation scheme has been implemented in full shall both have been submitted to and approved in writing by the LPA.

The verification report and remediation completion certificate shall be submitted in accordance with the approved scheme and undertaken by a competent person in accordance with Defra and the Environment Agency's LCRM'.

Reason: To ensure that risks from land contamination to future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

1.3 OBJECTIVES

In line with the Remediation Strategy, the objectives of the remediation works included the following:

- Protection of human health and the environment;
- Provide a site suitable for the proposed end-use;
- Contribute to a sustainable development;
- Minimising adverse environmental impact offsite; and,
- Use of best practical remediation measures.

1.4 OUTLINE SCOPE OF WORKS

To achieve the remediation objectives, the remediation works completed by INCO included the following key activities, described in detail in Section 3 of this report:

- Removal of existing hardstanding surface;
- Excavation to proposed formation level;
- Export of surplus material;
- Import of subbase material;
- Installation of new surface drainage system; and
- Resurfacing of entire site.

1.5 KEY PARTIES

A summary of the key parties involved in these works is presented in Table 1-1.

Table 1-1 – Key Parties Involved

Key Party	Personnel	Responsibility
Client and landowner	c/o JLL	IPIF
Client representative	Josh Cole josh.cole@jll.com	Jones Lang LaSalle (JLL)
Client Environmental Consultant	Suzanne Thorpe Suzanne.thorpe@wsp.com	WSP UK Ltd (WSP)
Planning Authority	TBC	Eastleigh Borough Council (Planning)
Principal Designer	Danny Hannon dhannon@hurstm.co.uk	Hurst Pierce & Malcolm LLP

Key Party	Personnel	Responsibility
Principal Contractor	David Cotterill dave@incocontracts.co.uk	INCO
Earthworks Contractor	Richard Grater richardgrater@wodehouseLtd.co.uk	Wodehouse Ltd
H&S Advisor	Scott Murrin scott.murrin@acornhealthandsafety.co.uk	Acorn Safety Services

1.6 LIMITATIONS

This report is addressed to and may be relied upon by IPIF.

The report has been prepared for the sole use and reliance of the above-named party. This report has been prepared in line with the WSP proposal and associated notes. This report shall not be relied upon or transferred to any other parties without the express written authorisation of WSP. No responsibility will be accepted where this report is used, either in its entirety or in part, by any other party. WSP has used third party information in good faith and assumed to be accurate. WSP accepts no responsibility or liability where third party information is inaccurate or incomplete.

WSP were instructed to attend site on 24 occasions during the works by the Client. The information provided by INCO has been taken as a true representation. WSP cannot confirm the accuracy of the information provided by INCO outside of the attended site visits.

This report needs to be read and used in full. General limitations of the assessment are included in **Appendix B**.

2 BACKGROUND

This section presents a high-level overview of background information pertaining to the site. Information has been taken from the previous Ground Contamination Liabilities Technical Summary Report prepared by WSP in April 2021 (Ref No.: 70080743) (herein referred to as 'TSR, 2021'), which presented the finding from a ground investigation completed in March 2021. Additional information has been abstracted from the Remediation Strategy.

2.1 SITE SETTING

2.1.1 SITE LOCATION AND DESCRIPTION

The site is approximately 0.50 hectares (ha) in area and is located within Barton Park Industrial Estate in Eastleigh, approximately 65 metres (m) east of Eastleigh train station. The surrounding area comprises railway sidings and the mainline railway to the west and Barton Park Industrial Estate to the north, south and east. A single storey warehouse associated with the yard is located directly adjacent to the eastern boundary. The site is accessible either via access gates in the northeastern corner or through gates in the southeastern corner, both leading directly onto the industrial estate access road.

During a walkover carried out as part of the TSR, 2021, it was noted there was an electrical substation, propane tanks and drums of lubricant and possible fuel, present on site.

Publicly available aerial photos accessed in 2022 show the site to be vacant, and no longer storing the shipping containers and telehandler observed in 2021.

2.1.2 SITE HISTORY

Historically, the site comprised a locomotive, carriage and wagon works from the 1890s until the it was redeveloped as part of the wider Barton Park Industrial Estate in the late 20th Century. Publicly available information appears to show that the former locomotive, carriage and wagon works buildings remain on the eastern boundary, but the railway infrastructure has been removed. In recent years, the site has been used for container and wagon storage and is understood to be currently vacant.

2.2 ENVIRONMENTAL SETTING

2.2.1 GEOLOGY

Geological Map Sheet 315, Southampton, scale 1:50,000 Drift edition (2010) and online British Geological Survey (BGS) published geological data (www.bgs.ac.uk) indicates that the site is underlain by River Terrace Deposits (silt and clay over sand and gravel), overlying bedrock of Wittering Formation.

A single phase of intrusive ground investigation was completed at the site by WSP in March 2021. The geological sequence reported at the site is described in the TSR, 2021. As a summary, the ground conditions encountered comprised:

- Made Ground: recorded to a maximum depth of 2.3 meters below ground level (m bgl). Made Ground generally comprised sand and gravel or a sandy gravelly clay. Visual or olfactory evidence of contaminated material within the Made Ground was recorded in WS06 with a hydrocarbon odour.
- River Terrace Deposits: encountered in all exploratory holes below the Made Ground, to a maximum depth of 2.65 m bgl. Deposits generally comprised clayey sand and gravel or gravelly

clay. Visual or olfactory evidence of contaminated material within the River Terrace Deposits was recorded in WS05 and WS06 in the form of oily residue and a hydrocarbon odour.

- Bedrock of the Wittering Formation was found in WS06 and WS07 and comprised stiff or very stiff sandy, silty CLAY. Visual or olfactory evidence of contaminated material within the Wittering Formation was recorded in WS06 in the form of solvent or possible creosote odour.

2.2.2 HYDROGEOLOGY

The superficial deposits are classified as Secondary (Undifferentiated) aquifer. The bedrock is classified as a Secondary A aquifer.

Groundwater was identified as being present within the River Terrace Deposits during monitoring of the installed monitoring wells as part of the ground investigation. Groundwater was also recorded within Made Ground at WS06, however the installation was within an area of particularly deep Made Ground, where River Terrace Deposits are thinner than the rest of the site, suggesting the superficial deposits have been removed previously and replaced with Made Ground. This indicates continuity between the Made Ground and River Terrace Deposits.

2.2.3 HYDROLOGY

The River Itchen flows northwest to southeast and is located approximately 300 m east of the site at its closest point. The River Itchen flows into the Solent further downstream to the south which is classified as a Site of Special Scientific Interest (SSSI).

2.3 CONTAMINATED LAND

2.3.1 SUMMARY OF PREVIOUS INVESTIGATIONS

WSP, Ground Contamination Liabilities Summary 2021 (TSR, 2021)

A single phase of intrusive ground investigation was completed at the site by WSP in March 2021. The investigation was commissioned to assess potential ground contamination risks associated with the proposed redevelopment of the site.

The ground investigations comprised the following:

- 4no. concrete core locations to allow for follow on windowless sampler drilling;
- 4No. boreholes to 5.00 m bgl, with one location (WS05) terminating at 3.0 m bgl due to hole collapse, and one location (WS08) terminating at 1.22 m bgl on very dense gravels;
- 8No. Dynamic Cone Penetrometer (DCP) tests;
- Installation of ground gas and groundwater monitoring wells within each drilled borehole;
- 2No. rounds of ground gas and groundwater level monitoring;
- Groundwater sampling from monitoring wells where groundwater was at sufficient levels for sample extraction;
- Collection of soil samples for subsequent analysis; and
- Vapour screening of soil samples using a Photo-Ionisation Detector (PID) .

Six soil samples were taken in total and screened against generic screening criteria (GAC) for the protection of human health with a commercial end use scenario. There were no exceedances of the GAC.

However, one soil sample (WS05 at 0.30 m bgl) had asbestos containing material (ACM) positively identified and was submitted for quantification. Loose fibres of asbestos were detected with a quantification value of 0.966% w/w.

Three groundwater samples were collected from the monitoring wells and screened against GAC protective of controlled waters, which included Environmental Quality Standard (EQS) to assess the risk to the River Itchen and Drinking Water Standards (DWS) to assess the risk to the Secondary A (Undifferentiated) Aquifer within the River Terrace Deposits and the Secondary A Aquifer in the Wittering Formation. The following elevated contaminants of concern were recorded:

- Elevated contaminant concentrations were encountered in groundwater samples with respect to metals, polycyclic aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPHs). The TPH exceedances were observed in WS05 and W06 only, where visual oily residue was also observed within the River Terrace Deposits.
- The exceedances were recorded within all three monitoring wells and therefore elevated concentrations is assumed to be widespread within the groundwater across the site.

The groundwater analysis results were also compared against GAC protective of human health from vapour derived from dissolved contaminants in groundwater. The GAC assumed a future commercial land use and a sand soil type. No exceedances were encountered.

Ground gas monitoring was undertaken on two occasions following the ground investigation with the following finding:

- Hydrogen sulphide and carbon monoxide did not rise above 0.1 ppm during the two monitoring visits.
- Minor elevated volatile organic compound (VOC) readings using a PID were recorded at all four monitoring wells, ranging between <0.1 ppm and 0.4 ppm.
- Depleted oxygen concentrations were recorded at WS06 and WS08, with values ranging between 13.50% v/v and 15.20% v/v.

2.3.2 CONTAMINANT LINKAGE SUMMARY

Following the intrusive ground investigation undertaken at the site, a conceptual site model (CSM) was developed, based on a continued use of the site as a transport yard, considered a commercial end-use scenario.

2.3.2.1 Sources

Based on site conditions and potential contaminant linkages, potential sources of contamination that may affect the proposed development were identified as follows:

- Asbestos within Made Ground soils;
- Dissolved metals, PAHs and TPHs in groundwater; and,
- Ground gases.

2.3.2.2 Receptors

The potential receptors were considered to comprise the following:

Human health

- Current and future site users, site workers and visitors;

- Construction and maintenance workers; and,
- Third party neighbours.

Controlled Waters

- River Terrace Deposits (Secondary Undifferentiated Aquifer)
- Wittering Formation (Secondary A Aquifer); and
- River Itchen (300 m east)

2.3.2.3 Migration Pathways

Contaminant migration pathways identified on the site included:

- Exposure of future site users to dusts / fibres via inhalation;
- Inhalation of vapours;
- Dermal contact and Ingestion of impacted soil;
- Vertical and Lateral migration within impacted soils and within groundwater; and,
- Migration of ground gas and volatile vapours.

3 PROPOSED SITE WORKS AND VERIFICATION PLAN

3.1 PROPOSED REDEVELOPMENT WORKS

The Remediation Strategy was prepared to support the resurfacing of the site, including new surface water drainage under Planning Permission F/22/92888, details of which are provided in Section 1.2..

3.2 OUTLINE REMEDIATION STRATEGY

The requirements for the remediation presented in the Remediation Strategy were based on anticipated groundworks for the drainage and resurfacing. It provided proposed mitigation measures developed to address potential contamination risks at the site. The remediation objectives proposed in the Remediation Strategy are detailed in Section 1.3.

Based on the contaminant linkages identified, the following mitigation was proposed in the Remediation Strategy:

- Implementation of an asbestos management plan to manage risks to human health associated with ACM and asbestos fibres within the Made Ground during excavations within the construction phase (contractor to provide prior to works commencing);
- Watching brief during excavation works for hotspot contamination, delineation and exported offsite if encountered;
- Management of oily residues in soils and/ or groundwater, if encountered;
- Import of chemically and geotechnically suitable materials for use within new drainage systems and below new concrete surfacing; and,
- Off-site disposal of excavated materials to a suitably licensed landfill or waste treatment centre should the cut material not be deemed suitable for reuse (an appropriate frequency and suite of testing should be agreed with the landfill in advance if further testing is required).

3.3 UNEXPECTED CONTAMINATION STRATEGY

Due to the nature of the site and the limited understanding of ground condition based on four exploratory locations, a strategy for the management of unexpected contamination was set out within the Remediation Strategy.

The strategy stated that should unexpected contamination be encountered, then further characterisation and risk assessment would be undertaken as required, whilst the Client, Principal Designer, Principal Contractor, and Local Planning Authority (LPA) also be informed. Additionally, works were to cease in the area until an inspection and any relevant laboratory testing had been undertaken, as well the development of a strategy for dealing with the contamination. Any strategies developed for dealing with unexpected contamination were to be agreed with the LPA prior to their implementation to the agreed strategy and attached to the Remediation Strategy as an addendum.

3.4 ASBESTOS MANAGEMENT PLAN

During the previous investigation, ACM were visually identified within shallow Made Ground at WS05 at 0.30 m bgl and loose fibres were detected and quantified at 0.966% w/w. This leaves the potential for further ACM and asbestos fibres to be present within the Made Ground at the site.

In line with the Remediation Strategy, the contractor was required to consider the risk from asbestos fibres to construction workers during ground disturbance.

If asbestos was identified during the excavations on the site, the material required careful management in accordance with Control of Asbestos Regulations 2012. The risk from asbestos fibre exposure was to be mitigated such as the use of dust suppression and air monitoring.

3.5 CONSENTS, LICENSES, AND PERMITS

3.5.1 PLANNING CONSENT

The remediation was completed as part of the enabling works, agreed with Eastleigh Borough Council under planning permission F/22/92888, within **Appendix C**. This Verification Report has been prepared to provide a lines of evidence approach that the works were carried out to a satisfactory level in line with the Remediation Strategy, and to ensure compliance with Planning Conditions.

This Verification Report has been prepared to enable the discharge of Planning Condition 4.

4 THE WORKS AND VERIFICATION

4.1 SEQUENCING OF WORKS

INCO were granted access to the site on 05/12/2022, with initial site and welfare compound establishment. WSP understands a general order of works completed by INCO consisted of the following:

- Removal of existing hardstanding surface;
- Excavation to proposed formation level;
- Export of surplus excavated material;
- Import of subbase material;
- Installation of new surface drainage system; and
- Resurfacing of entire site with concrete.

WSP visited the site to observe the works and sample pertinent materials on the dates provided in Table D-1, within **Appendix D**. A full record of each visit is also provided in **Appendix D**. A photographic record is provided in **Appendix F**.

4.2 SURFACE CLEARANCE

Prior to commencing surface hardstanding breakout and excavations, the surface of the site was scraped to clear loose material and silt from the hardstanding, commencing on 6 December 2022. The scraped material was stockpiled on site, referenced as Stockpile 1 (Topsoil). A composite sample of the stockpiled material was collected and sent to ALS Laboratory for analysis to characterise the material to determine disposal route, with sample reference 'ESTS-SP'. The material was assessed to be non-hazardous and contained asbestos fibres quantified at 0.0019% w/w.

A photographic record of the surface clearance and stockpiled material is presented in **Appendix F**, as Plate 1 and Plate 2. The laboratory report for the material is presented in **Appendix G** and the disposal consignment note is presented in **Appendix H**.

4.3 BOREHOLE DECOMMISSIONING

Prior to commencing surface hardstanding breakout and excavations, three monitoring wells installed within the underlying aquifers (WS05, WS06 and WS07) were decommissioned on 6 December 2022. This was completed to remove the pathway from surface to the Secondary B aquifer of the Wittering Formation. To avoid any risk of cross contamination when sealing, the pipework was maintained (not removed) and any pathway sealed by gradually adding a low permeability bentonite clay pellet to create the seal. The bentonite pellets were periodically wetted, to allowing the seal to form. INCO were asked to cut the pipework to the preferred reduced levels when preparing the ground level for concrete resurfacing. All locations were capped with the new concrete surfacing, adding to the seal. The remaining monitoring well, WS08, was not installed within the underlying aquifer (<1.0 m bgl within the Made Ground), however INCO were asked to apply the same method to this well. WSP were not on site when this well was decommissioned and no photo was provided by INCO, although they did confirm it was completed. As this well is only installed into the Made Ground, there is no significant risk present.

A photographic record of the monitoring well decommissioning is presented on Plate 4 to Plate 6 within **Appendix D**.

4.4 GENERAL SURFACE BREAKOUT AND EXCAVATION

Breakout of the existing surface concrete and hardstanding commenced on 19 December 2022, following clearance at surface of soft materials as discussed in Section 4.2. The works were progressed from roughly north to south, stockpiling material for offsite disposal/ recycling as it progressed. The breakout and excavations were managed by a competent supervisor from INCO and their subcontractor, Wodehouse. WSP verified the breakout and excavations were being progressed in accordance with the Remediation Strategy during their site visits.

Material broken out and excavated was segregated into three streams for stockpiling:

- Concrete/ hardstanding
- Asphalt (tarmac)
- General soils

Composite soil samples were collected from the stockpiled material by WSP and sent to an MCERTS accredited laboratory, ALS Laboratory, for testing and analysis. All material was sent offsite, therefore all samples collected were analysed for waste characterisation and WAC.

A photographic record of the surface breakout and excavation to subbase formation is presented in **Appendix F** (Plate 9 to 15) and the laboratory reports are presented in **Appendix G**.

4.5 DEEPER EXCAVATION FOR ATTENUATION TANK

Excavation commenced at the beginning of March for the installation of the below ground attenuation/separator tank as part of the new surface water drainage system. This was the deepest excavation on the site completed to the order of 4.30 m bgl. The pit sides were supported by temporary sheet piles (See Plate 29 photograph in **Appendix F**) with groundwater rest level confirmed at 2.40 m bgl. Overlying natural superficial soil deposit comprising of River Terrace Deposits were confirmed between the Made Gound veneer in turn overlying the bedrock of the Wittering Formation at approximately 2.0 m to 2.50 m bgl. The arisings were observed (Plate 30 photograph in **Appendix F**) as a light greyish brown silty gravelly sand with cobbles (River Terrace Deposits) and silty slightly sandy brownish grey soft to stiff consistency clay (Wittering Formation).

The contractor separated the soil types and representative samples were taken for laboratory Waste Acceptance testing (Appendix G, reference Stockpile 6 and Stockpile 7 samples). In addition, a representative sample of the groundwater was recovered for laboratory testing (Appendix G, sample reference GW-2) to assist with groundwater management prior to the installation of the tank (see Section 4.8). During the watching brief there was no evidence of olfactory contamination within the recovered soils or encountered groundwater. Asbestos Observations and removal

Asbestos as ACM was historically identified in one soil sample during the 2021 intrusive ground investigation, within WS05 at a depth of 0.30 m bgl. Loose fibres within the soil sample were quantified at 0.966% w/w. Due to this previous reported asbestos contamination in the shallow soils, the excavations for these works were initially started at the vicinity of WS05 on 19 December 2022 to delineate potential further asbestos contamination.

During the surface breakout and shallow excavation in the vicinity of WS05, suspected asbestos was observed as loose lagging type ACM, and the excavation was stopped. This area was sufficiently covered and secured with fencing. Samples of the material were collected by INCOs asbestos

specialist, Harper Envirosafe Ltd, and taken back to their inhouse laboratory for identification. The results returned negative results for asbestos however, at the time of reporting, copies of the results have not been provided by INCO to WSP. A photographic record of the excavation and suspected ACM is provided in **Appendix F** as Plate 7 and Plate 8.

Despite the negative result, surface breakout and excavation works only re-commenced following INCO engaging the services of an asbestos specialist to carry out ambient air fibre monitoring. This included boundary site monitoring and some target monitoring around the excavations works (Plate 12). There was no exceedance of the ambient air fibre limit during the monitoring carried out throughout the works. Although the results were confirmed to WSP on site by the asbestos analyst, the reports of the results were not made available by INCO to WSP at the time of reporting.

During the breakout and lifting of the surface concrete slab, further damping on the working area was continually provided with water suppressant (Plate 12) with periodic VOC monitoring during the Watching Brief (Plate 13).

On 19 December 2022, two suspected ACM bonded corrugated roof sheets, encased within the base of concrete surfacing being broken out, was encountered in the west of the site. This was initially covered and secured with fencing (Plate 11). The ACM was removed and placed into an 8-yard lidded and locked skip dedicated for asbestos on site, until it was exported offsite by L&S Waste Management Ltd and taken to Hills Waste Facility on the 14 March 2023. A record of the hazardous waste consignment note is provided in **Appendix H**. A photographic record of the ACM observation and management is provided as Plate 10 to Plate 25 in **Appendix F** and location of the identified ACM indicated in **Figure 4 (Appendix A)**.

During material excavation and subbase formation levelling works, INCO maintained the services of the asbestos specialist Harper Envirosafe Ltd to provide specialist asbestos guidance during works. The asbestos specialist provided advice and methodologies for mitigating asbestos fibre release, provided tool box talks to the site team and undertook personnel and verification monitoring.

4.6 UNEXPECTED CONTAMINATION

In addition to the ACM bonded corrugated roof sheets discussed in Section 4.6 the following unexpected contamination was encountered during the works.

On 4 January 2023, wooden sleepers with a creosote odour were recovered during the surface slab removal, in proximity to the former railway lines, at the southeast of the site. A sample of the wood was placed in a sealed bag and the vapour were recorded using a PID (Photoionisation Detector), providing a reading of 315 ppm (parts per million). The impacted wooden sleepers were subsequently stored separate to general excavation arisings.

On the 21 March 2023, again towards the southeast of the site and during the excavation for the geo-cellular storage system, a further sleeper with slight creosote odour was recovered within the excavation. This was stored separately from the remaining arisings. Again, a sample from the sleeper was tested with PID meter with a vapour reading of 20 ppm.

During the excavation for the below ground pump chamber at the base of the vehicle ramp, groundwater was encountered within the test pit (see photograph Plate 23 in **Appendix F**). A very slight sheen was noted on the standing water surface. Subsequently a representative sample of the groundwater was recovered on the 24 January 2023 for laboratory testing and a copy of the laboratory

certificate is shown in **Appendix G** (sample reference GW-1). The installation of the pump chamber was halted prior to confirming the appropriate management of the groundwaters (see Section 4.8).

Figure 4 (Appendix A) shows the approximate locations of the described observed unexpected contamination.

No further unexpected contamination was identified during the resurfacing works by INCO, their subcontractors, or by WSP during their site visits.

4.7 GROUNDWATER MANAGEMENT

As noted in Section 4.5 the surface water management design for the site included an attenuation tank to be installed below ground. This required an excavation to a depth of 4.30 m bgl during which a rest groundwater was encountered at 2.20 m bgl, which was consistent with previously recorded levels between 2.0 m and 2.2 m bgl (TSR 2021). Due to the relatively low volume of groundwater requiring removal, INCO progressed with removal of the groundwater using a tanker.

A sample of the groundwater was collected by WSP on 14 March 2023 and analysed for a suite of determinands to allow for waste classification and determination of disposal route. The laboratory certificate is shown in **Appendix G**, sample reference GW-2. The result was comparable to the three groundwater samples collected during the ground investigation in 2021. The groundwater contained elevated concentrations of lower banded TPH (bands between aromatic 10-12 to aromatic 21-35) above the EQS screening criteria used in the TSR, 2021, protective of surface waters. A waste classification report using Hazwaste Online® tool was used to determine if the liquid was hazardous for disposal in addition to informing the EWC code. The hazard classification and EWC code enabled INCO to determine a disposal route for the liquid. The sample was classified as non-hazardous with EWC code 16 10 01.

On 5 April 2023, 54,000 litres of groundwater was abstracted from the excavation and removed from site via two tankers to allow completion of the excavation and installation of the attenuation tank. The waste transfer notes for the water disposal is presented in **Appendix H**. The groundwater removed from site was taken to a wastewater treatment facility.

Records by INCO confirmed that there was no oily sheen or residue observed during the groundwater abstraction.

Groundwater was handled and removed from site in accordance with section 6.4 of the Remediation Strategy.

4.8 MATERIALS MANAGEMENT

4.8.1 MATERIAL MOVEMENT AND REUSE

All material broken out and excavated as part of the works was exported from site. There was no reuse of materials during this project.

4.8.2 MATERIAL EXPORTED FROM SITE

A summary of material exported offsite to suitably licensed facilities for restoration, treatment, or disposal under waste regulations is outlined below in **Table 4-1**. A record of waste transfer notes and hazardous waste consignment notes is provided in **Appendix H**. A record of carrier licenses and environmental permits for the waste facilities are provided in **Appendix I**.

Table 4-1 – Material Exported from Site

Material Classification	Loads	Estimated Volume (tonnes)	Estimated Volume (m ³)	Haulier	Destination	EWC Code
Clean Aggregate / Spoil of soil and stone ¹	236 no. 8-wheel tippers	4,248	2,236	L&S Waste Management Ltd	Farlington Waste & Southampton Waste & Marchwood Quarry	17 05 04
Clean Concrete	89 no. 8-wheel tippers	1,602	843	L&S Waste Management Ltd	Farlington Waste & Southampton Waste	17 01 01
Hardcore Clean Concrete	18 no. 8-wheel tippers	162	95	L&S Waste Management Ltd	Farlington Waste & Southampton Waste	17 01 07
Clean Asphalt	18 no. 8-wheel tippers	270	159	L&S Waste Management Ltd	Farlington Waste	17 03 02
Asbestos	1 no. 8 yard skip	1	1	L&S Waste Management Ltd	Hills Waste Facility, Purton	17 06 05
Non-Hazardous Soil and Stone Contains <0.1% Asbestos	2 no. 8-wheel tippers	36	19	L&S Waste Management Ltd	Otterbourne	17 05 04

4.8.3 IMPORTED MATERIALS

To generate a suitable subbase ahead of the installation of the concrete surfacing, material was imported onto site as outlined in **Table 4-2**. The subbase material comprised quarried primary aggregate and therefore testing on the material was not required.

The total volume of material imported onto site to form the subbase for the new concrete surfacing is 1,849 tonnes (estimated as 3,143 m³). The material import tickets is presented in **Appendix J**.

¹ Watching brief attendance 21/3/23 (Appendix D) confirmed receiver returned x3 loads of previous site material due to asphalt contamination within. This is understood to be segregated and sent offsite as asphalt waste stream.

Table 4-2 – Imported Materials

Contractors material / class reference	Estimated volume (T)	Contractors defined site uses
Recycled aggregate	72	General fill to achieve formation level.
Limestone	301	Subbase
Limestone/granite	1,232	Subbase
Marine Aggregate	244	Subbase

5 FINAL SITE CONDITION

5.1 FINAL SITE CONDITION

From the WSP site visits and records provided by INCO, WSP can confirm the planned earthworks associated with the resurfacing of the site was successfully carried out in line with the Remediation Strategy. From WSP's last site visit on 5 July 2023, all that remained was completion of the laying of the concrete surfacing, which was partially complete, as presented in Plate 34, within **Appendix F**.

It is understood the resurfacing works are now complete.

5.2 RESIDUAL CONTAMINATION RISK

The objective of the works was to carry out resurfacing works in line with the approved Remediation Strategy under planning consent F/22/92888. The development plans, as provided in Section 1.2, confirmed that the resurfacing included the whole footprint of the site with new concrete hardstanding. This resurfacing allows the site to be suitable for commercial end use scenario.

There are no current residual contamination risks at the site on completion of the resurfacing works and for its intended use as a good yard associated with the adjacent warehouse.

5.3 OUTSTANDING VERIFICATION

The works were carried out in line with the Remediation Strategy, including the verification plan and no further verification is required for the intended future use.

6 THIRD-PARTY CONTACT AND CONSENTS

6.1 PROJECT CONTACTS

Table 6-1 – Project and Third Party Contacts

Function / Role	Name / Company	Address
Client	Industrial Investment Property Fund (IPIF)	One, Coleman Street, London, EC2R 5AA
Client Representative	Josh Cole JLL	30 Warwick Street, London, W1B 5NH
Client Environmental Advisor	Suzanne Thorpe WSP Ltd	Floor 3, Kings Orchard, 1 Queen Street, Bristol, BS2 0HQ
Principal Designer	Hurst Pierce & Mancolm LLP	Celtic House, 33 Johns Mews, London WC1N 2QL
Designer	Hurst Pierce & Mancolm LLP	Celtic House, 33 Johns Mews, London WC1N 2QL
Principal Contractor	Dave Cotterill, INCO	Barn 7, First Floor, Dunston Business Village, Stafford Road, Dunston, Stafford, ST18 9AB
Earthworks enabling and subcontractor works	Richard Gater Wodehouse Ltd	159 Ivyhouse Lane, Coseley, WV14 9LA
Asbestos Specialist	Harper Envirosafe Ltd	Anglo House, Worcester Road, Stourport-on-Severn, DY13 9AW
Laboratory Analysis: Chemical	ALS Environmental Ltd	Units 7& 8 Hawarden Business Park, manor Lane, Hawarden, Flintshire, CH5 3US
Waste Disposal (Hard material recycling)	L&S Waste Management Ltd	Ashley Crescent, Sholing, Southampton, SO19 9NA
Waste Disposal (Contaminated liquids)	Tardis Environmental UK Ltd	Carterton Industrial Estate, Black Bourton Rd, Carterton OX18 3EZ
Waste Disposal (asbestos)	L&S Waste Management Ltd	Ashley Crescent, Sholing, Southampton, SO19 9NA
Haulage: Disposal	L&S Waste Management Ltd	Ashley Crescent, Sholing, Southampton, SO19 9NA
Haulage: Imported Materials	L&S Waste Management Ltd	Ashley Crescent, Sholing, Southampton, SO19 9NA

6.2 PROJECT CONSULTTEES

Table 6-2 – Project Consultees

Function / Role	Name / Company / Organisation	Address
Regulatory authority	Health and Safety Executive	2 Rivergate, Bristol BS1 6EW
Regulatory authority	Eastleigh Borough Council	Eastleigh House, Upper Market Street, Eastleigh, Hampshire, SO50 9YN.
Landowner	Industrial Investment Property Fund (IPIF)	One, Coleman Street, London, EC2R 5AA

6.3 CONSENTS AND AUTHORISATIONS

Copies of consents and authorisations required for the site works are included in **Appendix C** which included Planning Consent from Eastleigh Borough Council and a crusher Permit from Southampton Council (not used).

7 SHES

Works were completed under the Construction (Design and Management) Regulations 2015 with INCO acting as Principal Contractor.

WSP provided the following support to the Client and INCO during the works:

- Construction Phase Plan review
- Environmental Management Plan review
- Asbestos Management Plan review
- Review and audit of management arrangements
- Assistance with review of risk assessments and method statements
- Attendance at site meetings

Hurst Pierce & Mancolm LLP, as the Principal Designer for the project, will update the existing Health and Safety Plan for the site to include any changes resulting from these resurfacing works, and append a copy of this Verification Report to the Health and Safety File.