Next Generation Engineering Consultancy Services

Phase 1 & Phase 2 Geoenvironmental Assessment for Greenheys Business Centre, Pencroft Way, Manchester Science Park, M 6JJ

Project No: NX534/Rev2



Client

bruntwood SciTech

Next Generation Engineering Consultancy Services

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Written by: Matthew Tomkinson
Geoenvironmental Engineer
(For and on Behalf of NX Consulting Ltd)

Written & Approved by:

Mark Newton
Director (For and on Behalf of NX Consulting Ltd)

Revision History

Revision	Date	Description	Reviewed by	Approved by
Issue	May 2023	Interim – awaiting final 3no. gas monitoring visits		
Rev 1	June 2023	Revision following supplementary site investigation.		
Rev 2	August 2023	Amended rotary logs and revision soil GAC assessment.		

Issued By:
Station House
Stamford New Road
Altrincham
WA14 1EP

Contact: Mark Newton
Email: marknewton@nxconsulting.org.uk
Telephone: 0161 929 6034

EXECUTIVE SUMMARY

Site Location	Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ.
Grid Reference	384283E, 396283N.
Site Area	0.56ha
Current Site Use	Greenheys House is a turn of the century brick and glass clad warehouse building which was converted into offices with various additions, alterations and extensions over the last 20years. The most recent of which was completed in 2016. It generally, comprises, Ground floor, Mezzanine and Converted loft space and is approximately 30,000sq ft, in floor area. The building is heated via radiators from 6no heating boilers situated on the lower sub-ground floor. Access to the building was not available during the site walkover. However, according to MSP staff, no significant potential sources of contamination are stored within the office building and external areas. The building is located within the northwestern of the science park complex and bound to the north by a motor car repair workshop, a Mosque prayer hall and McDougall Sports Centre. The site is bordered to the north by areas of car parking and cleared ground. A takeaway restaurant – located within a terraced property – and the McDougall Centre can also be found to the north. Car parking is located to the east of the main entrance in the east of the building. The building is bound to the west by Greenheys Lane with residential properties beyond that, and is bound to the south by New Base Building. No unstable slopes, or significant induced surface settlements were observed during the site walkover.
Development Proposals	The development includes the construction of a 7-storey building comprising up to 17,249sq. m (GIA) commercial floorspace across 6 occupiable floors (Use Class E), plus plant level above; in addition to associated cycle parking, hard and soft landscaping, access and servicing and other associated works. The proposals comprise two phases, comprising: Phase 1: Construction compound and removal of trees (no below ground works); • Phase 2: Greenheys Building and associated landscaping and access. As Phase 1 will be returned to a cleared site following construction, only Phase 2 is relevant for the purpose of this assessment.
Geology Mapping & BGS Boreholes	Geological mapping shows the site to be underlain by sandstone of the Chester Pebble Beds Formation and Glacial Till (Diamiction). Glaciofluvial Sheet Deposits (sand and gravel) are also found to underlie the surrounding area (266m N). Nearby BGS boreholes indicates that bedrock may be present at depths circa 10.00m bgl. No faults are shown within the immediate vicinity of the site.
Hydrology	The Groundsure report indicates that no surface water features are situated within 250m of the site.

	A culverted watercourse is situated 5m west - Corn Brook (Hidden River) in culvert https://hidden-manchester.org.uk/#/waterways/corn-brook
Hydrogeology	The drift deposits (Glacial Till) is classified as a Secondary Undifferentiated Aquifer (Assigned where it is not possible to attribute either category A or B to a rock type) by the Environment Agency. Bedrock deposits – Chester Pebble Beds Formation strata underlying the site are a Principal Aquifer (geology of high intergranular and/or fracture permeability, usually providing high levels of water storage). 6no. historic and 6ni. active groundwater abstractions are recorded within 1km of the site. The site is also within a source protection zone 3 (Total Catchment). The overlying Devensian Till has been noted to be predominantly cohesive in nature and the anticipated thickness of around 10m is expected to provide a degree of protection to the underlying Principal Aquifer.
Site History	**On-Site** Historical mapping indicates the property has been developed out since at least 1848. Identified potentially contaminative past usages include a garage, residential housing, a warehouse and a depot. Greenheys Business Centre is likely to have been built on the site between 1990 and 1994. **Off-Site** Numerous potentially contaminative land usage was identified in close proximity to the site including: yards, mills, works, garages, car-parks, electrical substations, warehouses, residential properties, schools, public houses, breweries, a science park, churches, and The Victorian University of Manchester. Historical mapping from 1948-1949 show areas of now unoccupied land are present within 250m to the north of site, possibly relating to WW2 bombing. General redevelopment of the site and surrounding area which may have been a source of imported, potentially contaminated Made Ground.
Utility Locations	Underground services impact the site and the engineer should familiarise themselves with their presence and implications on the development. Drainage chambers were observed during the site walkover.
Landfill Sites, Permits, Radon & Ground Gases	No current or historic landfill sites/waste related industry or areas of recent infilling/upfilling have been identified in close proximity to the site. BGS mapping shows an area of made ground to the northeast. Given the history of the site and surrounding area, the risk from hazardous ground gas is considered to be Low. The GroundSure report states that less than 1% of homes in the site vicinity were above the action level. Therefore, radon protection measures are not required in the construction of new dwellings or extensions. Based on results of ground gas monitoring carried out to date no specialist gas protection measures are likely to be required. Pending the findings of hydrocarbon screening and ongoing ground gas monitoring, worst case CIRIA 665 Situation 2 measures may to be required which incorporates a vapour

	membrane to address potential hydrocarbon odours encountered beneath the existing building . Additional development costs likely to be as follows: **Comments:** **Depending on the foundations and sub floor construction utilised, some or all of the following protective measures may be required.** • **Reinforced cast in-situ floor slab (suspended or non-suspended) with a proprietary methane & vapour resistant membrane.** • **Membrane to be sealed across whole building including cavity walls.** • **Possibly ventilated subfloor void, depending on sub floor construction.** • **All joints and penetrations to be sealed.**
Flood Risk	Corn Brook is culverted to the west of Greenhey's Lane. https://hidden-manchester.org.uk/#/waterways/corn-brook According to GroundSure data, a portion of the western side of the site is within an Environment Agency indicative Zone 2 & Zone 3 flood plain. Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level. Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Again, as with Flood Zone 2, where information is available they may show the highest known flood level. The site does not benefit from Environment Agency defined flood defences. A small section in the western portion of the site is at medium risk from river and coastal flooding. The remainder of the site is not reported to be at risk from river and coastal flooding. The site is at high risk from groundwater flooding. **Comments:** **DWLLP should establish whether or not a quantitative flood risk assessment is required.**
Geological Mapping	Glacial Till – Diamiction, is recorded to underlie the site and surrounding area, and Glaciofluvial Sheet Deposits – sand and gravel, are recorded within the surrounding area (266m N). The solid geology comprises the Chester Pebble Beds Formation (sandstone). The site and adjacent property are not affected by known faulting.
Mining	Risks in relation to underground coal workings affecting the property are considered to be low.
Unexploded Ordnance	The regional unexploded bomb risk map from Zetica indicates that the site is in an area at moderate risk from possible Unexploded Ordnance (UXO) resulting from the Second World War.

	A detailed UXO risk assessment report has been compiled by 1st Line Defence (Ref: DA17581-00) and dated May 2019, for the Greenheys Building. The majority of the site was deemed to be low risk. However, an area of cleared ground; which may be indicative of WWII bombing was recorded in the southwest. This area was deemed to be a medium risk and the following mitigation measures were recommended: The majority of the site is low risk with a small area of car park in the southwest being deemed a medium risk area. As such, the following recommendations were made: <u>All Works</u> 1. UXO Risk Management Plan 2. Site Specific UXO Awareness Briefings to all personnel conducting intrusive works. <u>Medium Risk Areas</u> Open Excavations (trial pits, service pits, bulk excavations, strip foundations etc.) 1 UXO Specialist On-site Support Boreholes and Piled Foundations Intrusive Magnetometer Survey of all borehole and pile locations/clusters down to maximum bomb penetration depth. Note – proactive on-site UXO support/survey should not be necessary for any works taking place at the location of and down to the depths of significantly worked post-war made ground/post-war fill. During the NX consulting preliminary intrusive works, an Unexploded Ordnance Awareness Briefing was carried out to personnel conducting intrusive works was undertaken on the first morning on site (12/04/23) with all relevant personnel in attendance. Additionally, a UXO Specialist was present on site where borehole positions were drilled within the area allocated Medium Risk. These works involved an Intrusive Magnetometer Survey of all Borehole locations down to a maximum bomb penetration depth (13/04/23).
Site Investigation Works	NX Consulting have carried out a preliminary intrusive investigation in May 2023. Due to access restriction supplementary works are required within the University of Manchester area and trial pitting within eastern and western car parks. Further works are also recommended to delineate potential hydrocarbon contamination within the areas of WS17, WS10 and WS18. The supplementary works were carried out in June 2023 Cable tool percussion boreholes should be formed beneath the building once the building is demolished, to discount the potential for contamination to have migrated deeper than recorded within the hand held window sampler boreholes. The deeper boreholes should also confirm the true nature of drift deposits between 6.00m and 11.00m where open hole drilling has proved strata tentatively only.

Ground Conditions

Made Ground

The proven depth of Made Ground across all boreholes ranged from 0.25mbgl (WS09) to 1.50mbgl (WS01). The average depth of Made Ground across all boreholes was 0.75mbgl. However, deeper areas of Made Ground should be anticipated elsewhere upon site given the historical nature of development.

For purposes of identification, we have attempted to classify the Made Ground, with a few exceptions, into the following five distinct soil types;

- Tarmacadam/concrete over uncompact brown gravelly sand/sandy gravel (subgrade type material)
- Uncompact dark brown/grey/black fine to coarse slightly ashy slightly silty clayey sand/gravelly sand
- Compact grey ashy sandy gravel of limestone (subbase type material)
- Soft to firm black/grey/brown ashy slightly silty very sandy very gravelly clay
- Soft to firm brown slightly ashy reworked clay with rare gravel.

Relic in situ brick walls and demolition arisings were noted within a number of hand pits. These are expected to be present widespread across the site and will require treatment (screening/crushing/replacement) to create a stable working platform for plant and proposed roads/car parking.

Within the area to the north of Greenheys building an area surrounded by hoarding was investigated where ground conditions comprised a relatively flat lying concrete surface (possible former concrete slab) within the west with residential properties beyond. The ground conditions within the east comprised demolition arising material with full intact bricks and cobbles of brick and concrete present upon the surface. All ground within the hoarding was heavily overgrown with weeds (reaching up to 3m in height) with some semi mature trees present too. Access had to be cleared using drilling equipment to enable the works to commence.

Drift Deposits

Glacial Till was encountered within the majority of exploratory holes between depths of 0.25-11.00m bgl (tentatively proven between 6m and 11.00m), with the exception of WS05, WS05A, WS12, WS12A, WS13 and WS13A where the Made Ground was not able to be fully penetrated.

Glacial Till was noted to typically comprise loose to medium dense light brown fine to coarse SAND with rare gravel to depths of 1.50-2.60mbgl. The sand was generally noted to become darker in colour and gravel content increased with depth. Machine excavated trial pits within the supplementary works noted similar features to the preliminary phase observations, but also indicates a separate lithology of SAND AND GRAVEL was present beneath the sand.

Beneath the sand in all exploratory holes, firm to stiff dark brown (rarely sandy/pockets of sandy clay) CLAY with rare gravel. The clay consistently became stiff to very stiff between 3.00mbgl to 4.00mbgl. within the WS boreholes, and became very stiff to hard within RBH01 and RBH02 at 5.50mbgl, prior to SPT refusal at 6.0mbgl. Clay was present to the end of the drilling within the WS boreholes and was proven to a maximum depth of 7.0mbgl (RBH03).
Dense to very dense brown slightly clayey sand and gravel was tentatively found beneath clay within all rotary boreholes, between 6.0mbgl and

	11.0mbgl. Gravel content within this strata typically comprised angular to subrounded mudstone, sandstone and other mixed lithology. At 10.50mbgl to 11.00mbgl within RBH01 (just prior to bedrock) the sand was noted to become reddish brown in colour. Beneath this (11.00mbgl) the boreholes were progressed as cored drillholes. Uncorrected SPT 'N' values within the drift deposits were in the range 4-50, with an average 'N' of 22.06 and generally increased with depth. **Bedrock** Suspected solid geology was encountered within all of the rotary core boreholes at depths between 11.00-20.00mbgl. and noted to comprise weak to medium strong reddish brown fine to coarse grained SANDSTONE with rare mineral inclusions and intraclasts. Subhorizontal bedding fractures, thinly spaced, planar, smooth to slightly rough were also noted upon recovered core runs. Recovery from shallower depths was often poor due to the rock being poorly cemented. This generally improved as drilling progressed. The colour of the sandstone was also noted to become reddish brown banded grey at 18.00mbgl in RBH01. Groundwater strikes within 18No. window sampler boreholes and 2No.trial pits at depths of between 1.5 & 2.3mbgl (perched above the clay) within the Glacial SAND at the following depths below. It should be noted that water added to aid rotary drilling, within deeper granular strata (between 6.0m and 11.00m depth) may have masked the presence of groundwater within these deposits. Several exploratory probeholes noted the presence of concrete and brick cobble and boulder obstructions within Made Ground of WS05, WS05A, WS12, WS12A, WS13 & WS13A. Visual and olfactory evidence of hydrocarbon contamination was recorded during the preliminary and supplementary site investigation works within a number of exploratory boreholes.
Geotechnical Assessment	Based on information provided to date, a CFA and/or bored piled solution is likely to be the most suitable solution for the proposed buildings; socketed into the sandstone bedrock. A number of trees are present which are within possible influencing distance of the site. Foundations and drainage should be designed in line with NHBC Standards guidance document Chapter 4.2 Building Near Trees. Surface hardstanding, existing underground services, basements, foundations and made ground should be anticipated across parts of the site. Obstructions in the form of relic foundations, infilled cellars/basements and roads/infrastructure should be anticipated across the site. Heavy plant and machinery will be required to break out existing slabs/retaining walls/ground beams and cellars/basement slabs. These materials will require 'grubbing out' and treatment (screening/crushing/segregation and reused (where appropriate) on site to prevent formation of the piled foundations and services formation.

	Although unlikely, existing piles may be present upon site and during site preparation will need to be recorded /surveyed to enable foundations and infrastructure to the new development to be designed. A perched and discontinuous groundwater regime is likely to be present within granular soils within the upper 3m of strata and possibly within sand and gravel deposits between 6.00m and 11m depth. The creation and maintenance of a project risk register is seen as good practice and is a requirement under CDM. All risks identified by those involved in the design of earthworks should be filed into the project risk register. Where a project includes geotechnical design, a geotechnical risk register should be developed to support and enhance the project risk register. Soil materials used in the reprofiling of the site should be classified in accordance with Table 6/1 of Department of Transports Specification for Highways Works. The Glacial sand deposits are likely to be classified as Class 1A/1B and compaction should be carried out in dry periods to enable compaction. Excavations are unlikely to remain fully dry but should be able to be controlled by a screened sump pump techniques within the upper 1.00m to 1.50m bgl of strata. Specialist dewatering techniques (such as well point systems) may be required below the above depths and a specialist hydrologist should be employed to provide advice prior to forming/designing excavations below this depth. Consideration of the hydrocarbon contaminated soil and groundwater should be considered as part of any dewatering discussions. During excavations below the water table is likely to result in groundwater ingress will occur resulting in running sand conditions and a resulting volume loss to surrounding soils. Prior to demolition it would be prudent to survey in the positions of any existing basement walls and (where close to existing site boundaries and/or infrastructure/underground services) either left in-situ and/or utilize temporary support, should such conditions be encountered. The option for classifying soil/fill should be selected and should maximize the potential to win suitable fill from the site. Unsuitable materials (including existing foundations/slabs) will require 'grubbing out' and treatment (screening/crushing/segregation and reused (where appropriate) on site as part of the site preparation and any upfill and to prevent deflection of the piled foundations. Unsuitable materials will require removal from site to suitably licensed waste management facility. Any replaced 'site won' or imported materials will need to be compacted in a controlled manner in line with the Department of Transport, Specification for Highway Works. During site reprofiling, the earthworks designer should assess the requirement for pre-earthworks drainage that allows for temporary fill surfaces to be sealed and shaped to shed water and operational restrictions during periods of rainfall.

	Safety precautions should not be neglected especially where personnel are to enter excavations when close support would be required. The stability of the upper 1.00m of Made Ground/sand deposits are likely to remain stable in the short term, however, spalling and collapse is likely where deeper areas of sand due to the presence of groundwater. All excavations and basement construction should be conducted in line with CIRIA Report 97 – Trenching Practice and BRE 440 Foundations, Basements and External Works 2002. If excavations are cut at a safe angle of repose or benched a suitably qualified geotechnical engineer should be present to check for potential signs of instability. For design purposes, a conservative CBR value of 2% should be used for pavement construction within the Made Ground. Where possible all soils should be retained on site to reduce disposal costs. Soakaways are unlikely to be suitable due to the nature of made ground, soil and groundwater contamination, shallow groundwater and relatively impervious Glacial Clay at depths of circa 3.0m. Surface treatment should be anticipated within all areas comprising excavation, crushing, screening with reuse and/or removal from site.
Conceptual Model	The Site is not included on the list of sites designated as contaminated land. With respect to existing commercial development, the likelihood of action being taken under the Environmental Protection Act 1990 is considered to be low. A preliminary and refined risk assessment, based upon the findings of the intrusive investigation, is presented in Appendix F the general findings of which are discussed below. Outline remediation solutions for site development will involve further quantitative groundwater modelling to inform a suitable remediation solution, probably comprising post demolition delineation of hydrocarbon contaminated soils and perched groundwater and/or in-situ treatment of all hydrocarbon impacted soil and groundwater from locations identified to date, beneath the former garage and factory. As part of any options appraisal consideration should be given to incorporating vapour monitoring to establish the suitability of a vapour membrane; to reduce potential volatilisation via indoor air migration pathways to adversely impact site occupiers. It should be noted that at present, the actual source of the hydrocarbon contamination has not been established and during demolition works further trial pitting is recommended to establish the potential presence of below ground fuel tanks/infilled vehicle inspection pits. An engineer should be present also during the lifting of slabs and treatment of the made ground (screening/crushing/placement of piling matts). Further testing and verification sampling will be required should such features be established. Within landscaping areas and P.O.S. a minimum requirement of 600mm of clean cover (150mm topsoil) / removal & replacement of made grounds should be assumed at this stage. A hard to dig layer or geotextile (designed to reduce infiltration) will be required within the cover system platform. If a geotextile is

	adopted then drainage should be introduced within the cover system layer to prevent waterlogged conditions within landscaped and P.O.S areas. Specialist potable water pipework will be required. This will need to be confirmed following completion of a UKWIR assessment with the Regulators and testing along the line of the proposed pipework once positions are known. Site workers involved in excavations for foundations, roads, sewers etc during the construction works may come into direct contact with the soils containing hydrocarbons, PAH's or potentially other forms of contamination including asbestos. We would therefore recommend that simple precautionary measures be adopted during the construction phase i.e. good personal hygiene, provision of suitable welfare facilities and basic personnel protective equipment. Any areas of proposed landscaping and public open space will require imported subsoil/topsoil materials which will require chemical validation to demonstrate that they are suitable for a commercial end use and taken to depths sufficient to provide a sufficient cover system for all proposed materials used which are capable to support root growth. To ensure a low risk to controlled waters and human health receptors, it is recommended that a suitable remediation strategy is developed for the site. A piling risk assessment will be required to establish the most suitable pile type for the ground conditions encountered. This is a condition of planning. Carbon Dioxide concentrations greater than 5.0% resulting in the determination of Characteristic Situation 2 classification were noted in RBH01. Gas protection measures should be installed in accordance with BS8485: 2015. Based on a Type C development and CS2 classification a gas protection score of 2.5 to will need to be achieved. Post remediation ground gas monitoring should be considered as it may confirm that ground gas protection measures are not necessary. Prior to the adoption of any gas protection measures, agreement should be sought from the local authority environmental health department and building control. The remediation strategy will need to be agreed with Manchester City Council and Environment Agency. A P20 quantitative controlled water risk assessment being required to establish suitable remediation levels for site cleanup and to inform any remediation solution. Risk to Controlled water are considered to be low upon completion of the development. A CL:AIRE COP Materials Management Plan (MMP), remediation strategy and final validation reports are recommended and will be required prior to discharge of any outlying planning conditions. This report should be issued to the Director of Planning at Manchester City Council to prevent delays in the project. Standard contaminated land planning conditions (requiring investigation, risk assessment, remediation strategy, implementation and validation) are likely to be applied to any planning consent and will require staged regulatory approval.

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1.0 INTRODUCTION

1.1 Instruction

NX Consulting Limited have been commissioned by Bruntwood SciTech (The Client) to complete a Phase 1 Geoenvironmental Desk Study & supplementary Phase 2 Ground Investigation report on Land off Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ.

The development includes the construction of a 7-storey building comprising up to 17,249sq. m (GIA) commercial floorspace across 6 occupiable floors (Use Class E), plus plant level above; in addition to associated cycle parking, hard and soft landscaping, access and servicing and other associated works.

The proposals comprise two phases, comprising:

- Phase 1: Construction compound and removal of trees (no below ground works);
- Phase 2: Greenheys Building and associated landscaping and access.

As Phase 1 will be returned to a cleared site following construction, only Phase 2 is relevant for the purpose of this assessment.

1.2 Previous Works

NX Consulting carried out a series of geoenvironmental assessments at the site comprising of a pre-acquisition Phase 1 geoenvironmental survey of the MSP site, in February 2012. A Phase 1 and preliminary phase 2 geoenvironmental assessment of Ripon Street depot in May 2014 and a Phase 1 and Phase 2 geoenvironmental site investigation on land for the Bright Building (Formerly The Hub) in November 2014. This was followed by a remediation strategy in February 2015.

NX carried out a Phase 1 desk study, phase 2 intrusive investigations, remediation strategy and verification reporting of the New Base Building (Directly to South) between the 16th and 19th of May 2019 and July 2022. 1st Line Defence carried out a detailed Phase 1 UXO assessment report of the New Base abuilding 2019.

1st Line Defence also carried out a detailed Phase 1 UXO assessment report of the Greenheys Building in April 2023.

The findings of these reports are summarised briefly in clause 2.8 of this report. All reports should be read in conjunction with this study.

1.3 Objectives & Scope of Work

Guidance set out in LCRM[1], GPLC1-3[2] and the National Planning Policy Framework (NPPF)[3] states that a Preliminary Risk Assessment with a site reconnaissance is required as a minimum to ascertain if there is a potential contamination risk. If contamination is a potential, then site investigation works are carried out to establish a viable pollutant linkage to assess the potential risks to human health and controlled water receptors.

1 EA (2020). "Land contamination risk management (LCRM).
2 EA (2010). "Guiding Principles for Land Contamination." GPLC1-3.
3 DCL (2012). "National Planning Policy Framework." Department of Communities and Local Government. March 2012.

The objectives of the NX Consulting preliminary geoenvironmental site assessment was as follows:

- To undertake a Phase I Desk Study for the site;
- To provide further information on ground conditions to facilitate design of site infra-structure for the proposed new buildings, landscaping and hardstanding;
- To conduct chemical analysis on collected soil and groundwater samples of Made Ground and natural soils and provide a semi-quantitative assessment of potential risks from contaminants to human health and/or controlled waters, comprising a further Refined Conceptual Model; and,
- Provide preliminary recommendations regarding any outline remedial measures necessary to mitigate any risks to human health or controlled waters resulting from contamination on the site; or recommendations for any further work.

The preliminary scope of works included the following:

- 14no. window sampler boreholes with associated in-situ testing to maximum depths of up to 5.45m bgl;
- 3no. rotary core boreholes with associated in-situ testing to maximum depths of 20.00mbgl.
- On site environmental screening with a Photoionisation Detector (PID).

The supplementary scope of works included the following:

- 10no. window sampler boreholes with associated in-situ testing to maximum depths of up to 5.45m bgl;
- 6no. machine excavated trial pits with associated in-situ testing to maximum depths of up to 2.8m bgl;
- On site environmental screening with a Photoionisation Detector (PID).
- To conduct chemical analysis on collected soil samples of Made Ground and natural soils and provide a semi-quantitative assessment of potential risks from contaminants to human health and/or controlled waters, comprising a further Refined Conceptual Model.

1.3 Report Layout

- Section 2 of this report provides a summary of Phase 1 information from the previous NX Phase 1 & BWB reports, Groundsure Report, including site description, history, published geology, Coal Mining Risk Assessment and environmental setting.
- Section 3 details the preliminary risk assessment and site investigation design.
- Section 4, 5, 6 & 7 details the intrusive investigation carried out to validate the foundation recommendations, geotechnical conditions identified by the investigation and makes recommendations in respect of foundations, pavement construction and soakaway drainage.
- Section 8 presents the records of the chemical analyses undertaken and gives the results of the qualitative risk assessment carried out using the results of the chemical analyses and taking account of the proposed end use of the site.
- Section 9 provides outlying remedial measures arising from this investigation.

1.4 Limitations

The accuracy of the data supplied by third parties should be considered in the context of any known site conditions for which NX Consulting Limited cannot be held liable.

The comments made in this report are based on the data available at the time of its completion. Any unusual or conflicting evidence discovered during any future site works must be presented to NX Consulting as soon as possible so that any implications may be considered.
This report is provided for the benefit only of the party to whom it is addressed. NX Consulting does not extend responsibility to any third party for the whole or any part of the contents. Nx Consulting owes no duty of care in relation to this report to any third party. The investigation and reportage has been undertaken with all reasonable skill, care and due diligence. NX Consulting disclaims any responsibility to the client or others in respect of any matter(s) outside this agreed scope of the above works.
In addition to the above it should be noted that when investigating or developing land, sub-surface conditions might vary both spatially and over time. Whilst this investigation and subsequent interpretation has been undertaken to reasonably characterise current sub-surface conditions at the site within the scope of works and agreed budget, the absence of certain ground, contamination or groundwater conditions at the individual locations is not a guarantee that these conditions do not exist elsewhere on the site. Additional information, changes in legislation or revised practices may necessitate re-interpretation of part or all of this report.

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2.0 PHASE 1 ASSESSMENT SUMMARY

This section summarises pertinent information gained from reviewing the NX Consulting Phase I report (ref: NX534/R2) dated April 2023.

2.1 Site Location & Setting

Table 2.1 – Site location and Setting	
Site Location	Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ.
Grid Reference	384283E, 396283N.
Site Area	≈0.56 hectares
Site Description	Greenheys House is a turn of the century brick and glass clad warehouse building which was converted into offices with various additions, alterations and extensions over the last 20years. The most recent of which was completed in 2016. It generally, comprises, Ground floor, Mezzanine and Converted loft space and is approximately 30,000sq ft, in floor area. The building is heated via radiators from 6no heating boilers situated on the lower sub-ground floor. Access to the building was not available during the site walkover. However, according to MSP staff, no significant potential sources of contamination are stored within the office building and external areas. The building is located within the northwestern of the science park complex and bound to the north by a motor car repair workshop, a Mosque prayer hall and McDougall Sports Centre. The site is bordered to the north by areas of car parking and cleared ground. A takeaway restaurant – located within a terraced property – and the McDougall Centre can also be found to the north. Car parking is located to the east of the main entrance in the east of the building. The building is bound to the west by Greenheys Lane with residential properties beyond that, and is bound to the south by New Base Building. No unstable slopes, or significant induced surface settlements were observed during the site walkover.

2.2 Geology, Hydrology, Hydrogeology & Soil Properties

Table 2.2 – Summary of Geology Hydrology and Hydrogeology	
Made Ground	None recorded on Groundsure and BGS Mapping
Drift Geology	On site: Till, Devensian - Diamiction. Immediate surrounding area: Till, Devensian – Diamiction, and Glaciofluvial Sheet Deposits – sand and gravel (266m N).

Table 2.2 – Summary of Geology Hydrology and Hydrogeology	
Solid Geology	BGS sheet 85 'Manchester', Solid, 1:50,000 dated 201 indicates that sandstone of the Chester Pebble Beds Formation (Triassic in age) underlie the site. The Groundsure report indicates that there are a number of boreholes held by the BGS which are not publicly available. The nearest available BGS borehole are presented below: Borehole - BGS Ref: - The University Of Manchester Monitoring Borehole (drilled at former McDougal Building) - SJ89NW3286 Borehole was sunk in the approximate centre of the carpark to the north of site to 237m depth in 1999. The findings are reproduced below: • G.l. to ≈0.50m - MADE GROUND. •≈0.50 to ≈5.00m - Grey CLAY & CLAY and SAND. •≈6.00 to ≈8.00m - Grey/brown sandy CLAY with gravel and cobbles. •≈8.00 to ≈9.00m+ - Gravel of variable lithology •≈9.00 to ≈11.00m+ - fine to medium grained red SANDSTONE. (rock head expected between 9.00 and 11.00m). Groundwater was observed at 12.00mbgl rising to 7.70mbgl.
Faults	There are no bedrock faults or other linear features recorded within 500m of the site.
Hydrology	5m west - Corn Brook (Hidden River) in culvert https://hidden-manchester.org.uk/#/waterways/corn-brook
Hydrogeology	Superficial deposits - Secondary Undifferentiated Aquifer 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). Bedrock deposits – Principal Aquifer (Geology of high inter-granular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale). According to the Environment Agency, the sandstone aquifer was given an overall water quality rating of 'Poor' in 2019; the aquifer was given 'Poor' Ecological and 'Fail' Chemical ratings.

Table 2.2 – Summary of Geology Hydrology and Hydrogeology	
Water Abstractions	12no. (6 active, 6 historical) groundwater abstraction licences within 1000m for non-potable use. The nearest of which is a historical abstraction for process water, situated 474m SW. There are 2no. active groundwater abstraction licences recorded within 500m of the site. Both are situated 490m SW off site. No historical or active surface water abstraction licences recorded within 1000m.
Source Protection Zone	The site lies within a Source Protection Zone 3 (Total Catchment).
Flood Risk	According to GroundSure data, a portion of the western side of the site is within an Environment Agency indicative Zone 2 & Zone 3 flood plain. Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level. Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Again, as with Flood Zone 2, where information is available they may show the highest known flood level. The site does not benefit from Environment Agency defined flood defences. A small section in the western portion of the site is at medium risk from river and coastal flooding. The remainder of the site is not reported to be at risk from river and coastal flooding. The site is at high risk from groundwater flooding.
Shrink Swell Clays	Very low risk
Landslides	Very low risk
Ground Dissolution of soluble Rocks	Negligible risk
Compressible deposits	Negligible risk

Table 2.2 – Summary of Geology Hydrology and Hydrogeology	
Collapsible Deposits	Very low risk
Running Sands	Very low risk

2.3 Mining Extraction and Natural Cavities

Table 2.3 – Mining and Mineral Extraction	
Coal Mining	The Coal Authority (CA) indicate that the site is located within a coal mining area. However, NX Consulting consider that the risks associated with historical coal mining related activities are very low. This is based on an assessment of the local geology and from perusing the CA's online interactive map viewer.
Johnson Poole and Bloomer	Johnson, Poole and Bloomer records are listed as being obtainable within a 1000m boundary of this site.
Other mining	None identified.
Historic Ground Workings	The Groundsure report has 2no. ponds are recorded within 250m of the site. The distances and dates are listed below:

2.4 Site History

Historical maps covering the site area were obtained from Groundsure. Pertinent information recorded from a review of these maps is set out in the following table; a full copy of the maps is presented in Appendix B.

It should be noted that due to the extensive potentially contaminative historical land usages which have occurred in the area, only those usages within ≈100m of the site are listed within the 'Off-Site' column.

Table 2.4 – Site History

Map Date	On-Site Potentially Contaminative Past Uses	Off-Site Potentially Contaminative Past Uses
1851	The site is covered by terraced housing and associated roads and landscaped areas.	• Typical late 19th Century City setting with a mixture of residential properties, schools, public houses, breweries and churches.
1891	Increased development in residential housing and a decrease	• A drill hall, a horse repository and a school are present within the adjacent parcel of land to the

Table 2.4 – Site History

Map Date	On-Site Potentially Contaminative Past Uses	Off-Site Potentially Contaminative Past Uses
	in the volume of landscaped areas. Park Mews present on site.	north. The immediate surrounding area still comprises residential properties and associated roads.
1908	No apparent change noticeable in historical mapping.	• A tramway runs along Burlington Street and Greenheys Lane (western boundary of site). The horse repository and a school are now labelled as unnamed buildings. • Victoria University Buildings present 250m NE of site.
1932	A portion of the site appears redeveloped to comprise on main building within the centre and the west of site, and some residential housing remaining on the eastern side. Park Mews no longer present.	• No apparent change noticeable in historical mapping.
1948 & 1949	No apparent change noticeable in historical mapping.	• Drill hall redeveloped to the McDougall Centre. A warehouse, a college cinema, hotel, a club, a church, and garages are present within 150m of site. 2no. clothing works are recorded 150m and 180m SW of site. • Areas of now unoccupied land are present within 250m to the north of site, possibly relating to WW2 bombing.
1951	The site footprint appears to have changed significantly since the previous mapping edition. A large structure now covers much of the centre of the site, including the area where Park Mews was located. The terraced properties in the west of the site have been removed and an area of cleared ground now occupies the south-west corner of the site. The east of the site appears largely the same, with terraced properties and Park Street remaining.	• Several outbuildings immediately north of the site are no longer present. Additionally the previously labelled Drill Hall is now the McDougall Centre. Approximately 20m east of the site, some properties on the opposite side of Park Street look to have been removed. • A garage is present 90m E.

Table 2.4 – Site History

Map Date	On-Site Potentially Contaminative Past Uses	Off-Site Potentially Contaminative Past Uses
1961	The garage present on site now labelled as a works. A warehouse is now present in the northeast of site.	• A works and a warehouse present 20m and 90m east, respectively. • A works and a post office are present 85m NE. • An electrical substation is recorded 217m N (1976).
1985 & 1989	The site is completely redeveloped from a garage and warehouse and now comprises a depot.	• A factory and a garage are now present in the adjacent land to the north. • The surrounding area is redeveloped to the south, southeast and to the east as former residential housing is no longer present. Residential housing remains to the west. • Hillel House and a club are now present to the south of site and Enterprise House occupies land to the east with Skelton House to the south of it off Pencroft Way. • An electrical substation is recorded 87m NW.
1990	No apparent change noticeable in historical mapping.	• A pond is recorded 20m south of site. • Synergy House is developed 100m south of site (1993).
1994	The site is redeveloped to host Greenheys Business Centre.	• Rutherford House is now present, between Hillel House and Enterprise House. • An electrical substation is recorded 217m N (1995).
2003	No apparent change noticeable in historical mapping.	• No apparent change noticeable in historical mapping. • Williams House and Kilburn House are constructed to the east of site by 2002.
2003 - Present	No apparent change noticeable in historical mapping.	• Hillel House to the south is redeveloped to New Base Building. • Other changes occurs within the surrounding area as Manchester Science Park is developed.

Table 2.4 – Site History		
Map Date	**On-Site Potentially Contaminative Past Uses**	**Off-Site Potentially Contaminative Past Uses**
		• 2017 the Bright Building is constructed and Ripon Street Deport is demolished and turned into a surface car park. • 2022 the New Base Building is constructed to the south.
A historical tank was identified by Groundsure 165m SW of the site on 1985 mapping, and 212m NE of the site on 1977 mapping .		

2.5 Environmental Information

Table 2.5 – Environmental Information	
Environmental Permits, Incidents and Registers, Licensed Discharge Consents to Controlled Waters, Radioactive Substance Authorisations	A total of 24 contemporary trade directory entries (active & inactive) are located within 250m of the site. A number of which are located upon the site, comprising; engineering services, laboratory operations, electricity substations, transport storage and delivery. Cedric's Motors provides motor repairs and servicing and is located 49m northwest of site. There are no sites determined as contaminated land (Part 2a EPA 1990) within 250m. Medeval Limited have radioactive substances permits within Skelton House. The permits are for the use and keeping of radioactive substances on site. There are no Control of Major Accident Hazards Sites (COMAH), no Notification of Installations Handling Hazardous Substances (NIHHS), no Planning Hazardous Substance Consents and no Planning Hazardous Substance Enforcements within 250m of the site. 26no. radioactive substance authorisations are listed within 500m of the site. The nearest of which is 162m at Skelton House involving the keeping and use of radioactive materials.
Landfill Sites and Other Waste Disposal Facilities	No active or historical landfill site are recorded within 250m of the site. There are no active Licensed Waste Management Facilities, Registered Waste Treatment or Disposal Sites within 250m of the site.
Potentially contaminative land uses	22no. potentially contaminative land uses have been identified by the Groundsure report within 250m of the site, the most potentially significant are summarised as follows: • Greenheys Business Centre – On Site • Former garages – On Site • Former works – On Site

	• Former Depot – On Site • Former warehouse – On Site • Factory - 13m N • Science Park – 114m SE • Astra Telematics – 121m NE • Brewery – 152m N • Hospital – 211m N • Electricity Substation – 32m E, 82m E, 87m E, 90m NW, 96m S, 106m N. • Former Pond – 20m SE. Note: many of the potentially contaminative land usages listed are associated with likely office use only or electrical substations (>100m away).
Ecological Setting	1no. SSSI Impact Risk Zone is recorded within the Groundsure report. The details are presented below: Location: On site and surrounding area. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
Conservation Areas	No significant sites within 1000m.
Radon	The property is not situated within a Radon Affected Area, as less than 1% of properties are above the Action Level.
Diesel Storage	There are nearby locations within Manchester Science Park of diesel storage. The locations and details are present below: **Williams House** 1. Telecity have a 6000l tank to service their data centre back up generator **Kilburn House** 2. Telecity have a 7000l tank to service their data centre back up generator **Telecity** 3. Size tbc tank to service their data centre back up generator **Skelton House** 4. Qiagen have a 7000l tank to service their data centre back up generator 5. Icon have a 1000l tank to service their data centre back up generator All tanks are above ground.

2.6 BGS Boreholes

On-Site Borehole - BGS Ref: - The University Of Manchester Monitoring Borehole (drilled at former McDougal Building) - SJ89NW3286

Borehole was sunk in the approximate centre of the carpark to the north of site to 237m depth in 1999. The findings are reproduced below:

- G.l. to ≈0.50m - MADE GROUND.
- ≈0.50 to ≈5.00m - Grey CLAY & CLAY and SAND.
- ≈6.00 to ≈8.00m - Grey/brown sandy CLAY with gravel and cobbles.
- ≈8.00 to ≈9.00m+ - Gravel of variable lithology
- ≈9.00 to ≈11.00m+ - fine to medium grained red SANDSTONE.
  (rock head expected between 9.00 and 11.00m).

Groundwater was observed at 12.00mbgl rising to 7.70mbgl.

2.7 Unexploded Ordnance (UXO)

The regional unexploded bomb risk map from Zetica indicates that the site is in an area at moderate risk from possible Unexploded Ordnance (UXO) resulting from the Second World War.

A detailed UXO risk assessment report has been compiled by 1st Line Defence (Ref: DA17581-00) and dated May 2019, for the Greenheys Building. The majority of the site was deemed to be low risk. However, an area of cleared ground; which may be indicative of WWII bombing was recorded in the southwest. This area was deemed to be a medium risk and the following mitigation measures were recommended :

The majority of the site is low risk with a small area of car park in the southwest being deemed a medium risk area. As such, the following recommendations were made:

All Works

1. UXO Risk Management Plan
2. Site Specific UXO Awareness Briefings to all personnel conducting intrusive works.

Medium Risk Areas

Open Excavations (trial pits, service pits, bulk excavations, strip foundations etc.)

1 UXO Specialist On-site Support Boreholes and Piled Foundations Intrusive Magnetometer Survey of all borehole and pile locations/clusters down to maximum bomb penetration depth.

Note – proactive on-site UXO support/survey should not be necessary for any works taking place at the location of and down to the depths of significantly worked post-war made ground/post-war fill.

During the NX consulting preliminary intrusive works, an Unexploded Ordnance Awareness Briefing was carried out to personnel conducting intrusive works was undertaken on the first morning on site (12/04/23) with all relevant personnel in attendance.

Additionally, a UXO Specialist was present on site where borehole positions were drilled within the area allocated Medium Risk. These works involved an Intrusive Magnetometer Survey of all Borehole locations down to a maximum bomb penetration depth (13/04/23).

2.8 Previous Work

NX Consulting carried out a series of geoenvironmental assessments at the site comprising of a pre-acquisition Phase 1 geoenvironmental survey of the MSP site, in February 2012. A Phase 1 and preliminary phase 2 geoenvironmental assessment of Ripon Street depot in May 2014 and a Phase 1 and Phase 2 geoenvironmental site investigation on land for the Bright Building (Formerly The Hub) in November 2014. This was followed by a remediation strategy in February 2015.

Deposits comprising interbedded occasionally organic Glaciofluvial slightly gravelly, sandy clay and or very silty sand were recorded to depths ranging from 1.90m to 3.30mbgl. Stiff to hard slightly gravelly sandy brown Glacial Clay was encountered between 1.90mbgl and 4.45mbgl+.

Bedrock was not encountered within the depth of drilling but thought to be present at depths circa 11.00m bgl.

Groundwater was deemed to be a localised and a perched regime were present.

The site did not appear to be grossly contaminated and no large areas of contamination were evident during site investigation works.

Buried obstructions are likely to be present in numerous locations associated with terraced housing and former site infrastructure.

<u>New Base Building (Directly to South)</u>

An intrusive investigation was carried by Taylor Drilling Services Ltd and monitored by an engineer from NX Consulting on the between the 16th and 19th of May 2019.

During the works, 5no windowless sample boreholes were undertaken across the site to a maximum depth of 5.45m bgl.

The exploratory holes retrieved continuous soil samples; these were then logged by an on-site engineer and representative samples were taken for geotechnical and chemical analysis.

Groundwater and ground gas monitoring installations were placed to 3.00m bgl in WS2, WS3, WS4A & WS5.

5no. Cable percussive boreholes (BH01 and BH05) were formed to a maximum depth of 9.80m bgl.

During the works ground conditions established a cover of Made Ground within all exploratory hole locations to maximum proven depths of 3.50m bgl 9where deposits were able to be fully penetrate).

Surface materials comprised either black tarmacadam (BH02, BH04, RBH01, WS1, WS3, WS5) overlying dark grey brown/reddish brown gravelly sands and soft-firm dark brown slightly sandy gravelly clay with concrete, timber, metal and brick noted.

Impenetrable concrete obstructions were encountered in numerous boreholes meaning the boreholes were redrilled in a different location.

Ground conditions appear consistent with those identified within the wider site. Made Ground was identified within all exploratory hole locations to maximum proven depths of 3.50m bgl.

Where deposits were noted to predominantly comprise black macadam overlying dark grey brown/reddish brown gravelly sands and soft-firm dark brown slightly sandy gravelly clay with concrete, timber, metal and brick noted.

Underlying the Made Ground, Glaciofluvial and Glacial Clay deposits comprising firm sandy gravelly clay and/or medium dense clayey gravelly sand / sandy gravel were encountered where Made Ground was able to be penetrated to maximum depths of 9.80m bgl.

SPT 'N' values within the natural granular deposits indicate that they are loose to very dense with 'N' values ranging from 5 to 50, whilst SPT's carried out in the natural cohesive deposits recorded 'N' values ranging from 4 to 50 indicating that they are firm to stiff with locally soft bands present.

Suspected bedrock was encountered within all deeper exploratory hole locations and proven to a depth of 20.00m bgl within RBH01 comprising a reddish-brown SANDSTONE of varying strength.

Numerous Made Ground and cobble/boulder obstructions were encountered within the upper 2.0m within many exploratory hole locations. Extensive relict features comprising residential housing footings, cellar floors and former roads were deemed to be likely.

In areas of soft landscaping, to protect end users from isolated concentrations of lead contamination and possible asbestos fibres, a soil cover system (consisting of a minimum 450mm thick layer) was recommended over deposits of made ground.

3.0 PRELIMINARY CONCEPTUAL MODEL

The site characterisation attempts to identify potential previous and existing site sources of contamination. The conceptual model links the identified sources likely to cause significant possibility of significant harm via pathways to identified critical receptors. The conceptual model is therefore based on a number of identified source-pathway-receptor scenarios. For land to be classified as contaminated a significant pollutant linkage will need to be identified which will include each component of the conceptual model. The absence or removal of a source or interception of a pathway will 'break' the pollutant linkage.

The conceptual model is characterised by identification of the following:

- On-site sources, which may impact on-site receptors via plausible pathways.
- On-site source, which may impact off-site receptors via plausible pathways.
- Off-site sources, which may impact on-site receptors via plausible pathways.

The change of land use will require assessment of the new site development layout within the context of introducing new exposure pathways. The planning regime will require assessment of the site to ensure the new development will not be classed as contaminated land as defined in the Contaminated Land (Scotland) Regulations 2000.

3.1 Risk Assessment

Section 6.3 of the CIRIA Report "Contaminated Land Risk Assessment: A Guide to Good Practice" (CIRIA Report C552) describes in detail the concepts underlying the risk-based approach to assessing potentially contaminated land, introduce the roles of key legislation and describe the qualitative methodology adopted for evaluating and characterising risk.

Current best practice in the UK promotes a risk-based approach to dealing with both soil and groundwater contamination. The principal aim of the approach is to ensure protection of human health and the environment in a thorough, transparent and cost-effective manner.

Fundamental to the risk-based approach is the concept that for 'Contaminated Land' to be designated, as a consequence of historic activities, a pathway for contamination must be shown to exist between a source of contamination and a receptor. The combined presence of a source, pathway and a receptor is described as a 'pollutant linkage'.

The concepts associated with a contaminant source, pathway and receptor are defined in DETR Circular 02/2000 'Contaminated Land Environmental Protection Act 1990: Part II A'. A **source** of contamination may be considered as a 'substance which is in, on or under land that has the potential to cause harm or to cause pollution of controlled waters'. A **receptor** can be considered as either 'a living organism, a group of living organisms, an ecological system or a piece of property which is being, or could be

harmed, by a contaminant or controlled waters which are being, or could be, polluted by a contaminant'. A **pathway** may be considered as one or more routes by, or through, which a receptor is being, or could be, exposed to or affected by a contaminant. Typical pathways may include migration in groundwater, surface water run-off or infiltration, inhalation, dermal contact and ingestion.

The risks posed by an identified pollutant linkage can often be mitigated by removing the source of contamination, treating the source of contamination, blocking the relevant pathway(s) or by protecting the receptor.

PRINCIPLES OF RISK EVALUATION

The risk evaluation methodology presented below is qualitative in nature, and is therefore a subjective method. It is based upon guidance presented in CIRIA publication referenced C552, 'Contaminated land risk assessment ~ A guide to good practice', 2001 and involves the classification of the following:

The magnitude of the potential **consequence** (severity) of risk occurring (Table C 1).

The magnitude of the **probability** (likelihood) of the risk occurring (Table C 2).

These are then considered in conjunction to give a risk matrix (Table C 3)

Classification	Definition	Examples
Severe	Short-term (acute) risk to human health likely to result in 'significant harm' as defined by the Environmental Protection Act 1990, Part II A. Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem (note the definitions of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health ('significant harm' as defined in DETR, 2000). Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem, or organism forming part of such ecosystem. (Note: the definitions of ecological systems within Draft Circular on Contaminated Land, DETR, 2000).	Concentrations of a contaminant from site exceed the generic, or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of a species within a designated nature reserve.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in the *Draft Circular on Contaminated Land,* DETR, 2000). Damage to sensitive buildings/structures/ services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

Table C 1: Classification of Consequence

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

Table C 2: Classification of Probability

		Consequence			
		Severe	*Medium*	*Mild*	*Minor*
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table C3: Comparison of Consequence Against Probability

Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Table C 4: Description of the classified risks and likely action required

Table 1.0. Phase 1 Conceptual Site Model (CSM) and Preliminary Risk Assessment (Current & Proposed Commercial End Use)

SOURCE -PATHWAY -RECEPTOR LINKAGE				QUALITATIVE RISK ASSESSMENT		
Potential Contaminant Source	**Location**	**Receptors**	**Pathways to Receptors**	**Associated Hazard (Potential Severity)**	**Likelihood of Occurrence**	**Risk***
Potential contaminants may be present within Made Ground and natural strata beneath the site associated with historical past usage. - Ash, cinder and clinker used for levelling / drainage: heavy metals, sulphates and PAHs. - Hydrocarbons. - Asbestos Containing Material (ACM). - VOCs, SVOCs Asbestos Containing Materials may also present within existing structures.	Possibly within sub surface strata & Groundwater Possibly within existing structures	Ground water (Undifferentiated Aquifer & Principal Aquifer & Zone 3 SPZ)	Vertical percolation to groundwater	Groundwater (Medium – pollution of sensitive water resource)	Low Likelihood Site will predominantly be covered with buildings/hardstanding which will reduce/prevent rainwater percolation/infiltration (which could generate contaminated leachate/re-mobilise hydrocarbons etc). Site history would indicate a moderate to high likelihood of potentially elevated mobile contaminants.	**Moderate/Low (Site Investigation Required)**
		Surface Water 5m west - Corn Brook (Hidden River) in culvert	Lateral migration through permeable strata within perched groundwater	Surface Water (Medium – pollution of Sensitive water resource)	Low Likelihood Site will predominantly be covered with buildings/hardstanding which will reduce/prevent rainwater percolation/infiltration (which could generate contaminated leachate/re-mobilise hydrocarbons etc). Corn Brook is in Culvert which will restrict migration pathways	**Moderate/Low (Site Investigation Required)**
		End users of site.	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium)	Unlikely Site will predominantly be covered with buildings/hardstanding. End users will not be coming into direct contact with any soils/groundwater beneath the site. No obvious sources of hazardous gas identified within 250m. .	**Moderate/Low (Site Investigation Required)**

		Construction workers (if applicable)/future maintenance workers	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium – providing suitable PPE equipment is worn)	Likely If conditions assessed and correct PPE, dust suppression, and other health and safety measures are applied then the likelihood can be reduced to low likelihood.	**Moderate Low/moderate with adoption of PPE.**

** Risk refers to the potential risk that the Source, Pathway, Receptor linkage is complete and is used to determine if any further investigation/measures are required. It does not indicate immediate emergency risk to any individual or feature present on the site unless specifically noted.*

Table and Summary of Potential Risks, Sheet 2

SOURCE -PATHWAY -RECEPTOR LINKAGE				QUALITATIVE RISK ASSESSMENT		
Contaminant	**Location**	**Receptors**	**Pathways to Receptors**	**Associated Hazard (Potential Severity)**	**Likelihood of Occurrence**	**Risk***
Mobile/volatile contaminants from off-site sources.	Possibly within sub surface strata & Groundwater.	End users of site	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium)	Unlikely Site will predominantly be covered with buildings/hardstanding. End users will not be coming into direct contact with any soils/groundwater beneath the site. Numerous potentially contaminative historical past land usages were identified within close proximity to the site.	**Moderate/Low (Site Investigation Required)**
		Construction workers (if applicable)/ future maintenance workers	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium)	Unlikely These receptors would potentially be coming into direct contact with the soils and any perched groundwater beneath the site. Numerous potentially contaminative historical past land usages were identified within close proximity to the site.	**Moderate Low/moderate with adoption of PPE.**

Hazardous Ground Gas associated with infilled ground.	Possibly within strata beneath the site/surrounding area	End users of site	Migration through strata and accumulation under buildings of explosive and asphyxiating gases. These gases could enter the buildings via cracks/service penetrations within floorslabs via cavity walls etc and build up in confined spaces.	Human Health (Medium)	Low Likelihood No recorded landfills within 250m of the site boundary.	**Moderate/Low (Site Investigation Required)**
		Buildings & Infrastructure	Migration through strata and accumulation under buildings of explosive and asphyxiating gases. These gases could enter the buildings via cracks/service penetrations within floorslabs via cavity walls etc and build up in confined spaces.	Buildings & Infrastructure (Medium)	Low Likelihood As above.	**Moderate/Low (Site Investigation Required)**
Radon Gas	Natural strata beneath the site	End users of site	Migration through strata and accumulation under buildings of explosive and asphyxiating gases. These gases could enter the buildings via cracks/service penetrations within floorslabs via cavity walls etc and build up in confined	Human Health (Medium)	Unlikely Not within a radon area	**Low**

Coal Mining legacy (e.g. shafts/shallow workings)	On-site	Buildings & Infrastructure	Coal mining and shafts beneath the site causing surface ground instability causing building subsidence and collapse	Buildings & Infrastructure (Severe)	Unlikely Based on geology and local knowledge.	**Low/Moderate**

***** *Risk refers to the potential risk that the Source, Pathway, Receptor linkage is complete and is used to determine if any further investigation/measures are required. It does not indicate immediate emergency risk to any individual or feature present on the site unless specifically noted.*

4.0 FIELDWORKS

4.1 General

The preliminary phase of fieldworks were undertaken between 12th April 2023 and 19th April 2023. Due to limitations with accessing areas in the north of site, not all works were able to be completed meaning a second phase of supplementary works were carried out.

The second phase of supplementary works were carried out on 19th & 22nd July 2023. These works were also designed to delineate the extent of hydrocarbon contamination recorded within soil and groundwater during the preliminary works.

All arisings from the preliminary and supplementary site investigation were screened on-site for the presence of volatile organic compounds (VOC) using a MiniRae Photoionisation Detector (PID).

A plan showing all the exploratory hole locations is presented in Appendix A. All locations were checked for services against available service plans, scanned with a cable avoidance tool (CAT), and hand dug trial pits formed to a depth of 1.20metres below ground level (mbgl) prior to the intrusive investigation.

Preliminary Intrusive Works

4.2 Rotary Core Boreholes (RBH)

3no. rotary core boreholes were undertaken across the site to maximum depths of 20.00mbgl.

The exploratory holes retrieved continuous soil samples; these were then logged by an on-site engineer and representative samples were taken for geotechnical and chemical analysis.

Groundwater and gas monitoring wells were placed in all 3no. of the boreholes on completion. Table 4.2.1 below provides boreholes installations placed, depths and response zones of strata types.

Table 4.2.1 – Borehole Installation Details

Borehole & Installation Depth (mbgl)	Response Zone (mbgl)	Strata Type
RBH01 – 5.00	0.50 to 5.00	Made Ground, Sand & Clay
RBH02 – 5.00	0.50 to 5.00	Made Ground, Sand & Clay
RBH03 – 5.00	0.50 to 5.00	Made Ground, Sand & Clay

Detailed cable percussive log sheets are included in Appendix C.

4.3 Window/windowless Sampler Boreholes (WS)

14no. window sample boreholes were advanced across the site to depths of between 0.45mbgl. and 5.00mbgl. Representative samples were taken for geotechnical and chemical analysis.

7no. windowless sampler boreholes were drilled within the external areas of the site, and 7no. handheld window sampler boreholes were undertaken within internal areas of the site.

WS05, WS12 & WS13 were all redrilled due to obstructions encountered within the hand pit excavations.

Standard Penetration Tests (SPTs) were undertaken at 1m intervals within the WS boreholes. Groundwater as gas monitoring wells were placed within 7no. WS boreholes (3no. internal/4no.external) on completion.

Table 4.3.1 below provides boreholes installations placed, depths and response zones of strata types.

Table 4.3.1 – Window Sample Installation Details

Borehole & Installation Depth (mbgl)	Response Zone (mbgl)	Strata Type
WS04 – 5.00	0.50 to 5.00	Made Ground, Sand & Clay
WS05B – 5.00	0.50 to 5.00	Made Ground, Sand & Clay
WS10 – 5.00	0.50 to 5.00	Made Ground, Sand & Clay
WS11 – 5.00	0.50 to 5.00	Made Ground, Sand & Clay
WS14 – 3.00	0.50 to 3.00	Made Ground, Sand & Clay
WS16 – 3.00	0.50 to 3.00	Made Ground, Sand & Clay
WS17 – 3.00	0.50 to 3.00	Made Ground, Sand & Clay

Detailed window sample log sheets are included in Appendix C.

Supplementary Intrusive Works

4.4 Window/windowless Sampler Boreholes (WS)

10no. window sample boreholes were advanced across the site to depths of between 3.45mbgl. and 5.45mbgl. Representative samples were taken for geotechnical and chemical analysis.

All window sampler boreholes were completed with a Tracked Archway Dart with 5no. boreholes drilled within the external areas of the site, and 5no. within internal areas of the site. Further boreholes were drilled internally during the supplementary intrusive works to target potential areas of hydrocarbon contamination identified during the preliminary works

All boreholes were drilled to their intended depths and no obstructions were encountered during the drilling works.

Standard Penetration Tests (SPTs) were undertaken at 1m intervals within select WS boreholes. Groundwater as gas monitoring wells were placed within 7no. WS boreholes (5no. internal/2no.external) on completion.

Table 4.3.1 below provides boreholes installations placed, depths and response zones of strata types.

Borehole & Installation Depth (mbgl)	Response Zone (mbgl)	Strata Type
WS08 – 2.50	0.50 to 2.50	Made Ground, Sand & Clay
WS09 – 2.50	0.50 to 2.50	Made Ground, Sand & Clay

Borehole & Installation Depth (mbgl)	Response Zone (mbgl)	Strata Type
WS17a – 3.00	0.50 to 3.00	Made Ground, Sand & Clay
WS18a – 3.00	0.50 to 3.00	Made Ground, Sand & Clay
WS19 – 2.50	0.50 to 2.50	Made Ground, Sand & Clay
WS20 – 3.50	0.50 to 3.50	Made Ground, Sand & Clay
WS21 – 2.50	0.50 to 2.50	Made Ground, Sand & Clay
WS22 – 2.50	0.50 to 2.50	Made Ground, Sand & Clay

Table 4.3.1 – Window Sample Installation Details

Detailed window sample log sheets are included in Appendix C.

4.5 Mechanically Excavated Trial Pits

6no. mechanically excavated trial pits were advanced across the site to depths of between 1.20mbgl. and 2.80mbgl. Representative samples were taken for geotechnical and chemical analysis.

Trial pit record sheets are presented in Appendix C.

4.6 Sample Collection and Analysis

Environmental sample collection was carried out in accordance with BS EN ISO 22475-1:2006. All soil and groundwater samples were collected using either clean stainless steel utensils or clean disposable gloves and placed directly into clean containers provided by the laboratory. Samples obtained during the investigation were subjected to a range of geochemical testing at appropriate UKAS accredited laboratories. Testing was carried out in accordance with the procedures outlined in BS EN ISO14688-1:2002, 14688-2:2004, and 14689-1:2003.

5.0 GROUND CONDITIONS

5.1 General

The ground conditions recorded confirmed the published geology discussed within the NX Phase 1 section of this report. In general, the ground conditions were found to comprise varying thicknesses of Made Ground overlying Glacial Till. Chester Pebble Beds Formation Sandstone was encountered in all of the rotary core boreholes underlying these deposits.

5.2 Ground & Groundwater Conditions

A summary of ground conditions and respective water strikes, from the rotary core and window sampler boreholes are provided within the Table 5.2.1 below.

Table 5.2.1. Ground Conditions Summary
M – Denotes metres below ground level

	Made Ground	Sand Deposits	Glacial Clay	Clayey, Sand, Gravel & Cobbles*	SANDSTONE BEDROCK	Groundwater Strike
RBH01	0.0 - 0.35m	1.0 - 1.7m	0.35 - 1.0m, 1.7 - 6.0m	6.0 - 11.0m*	11.0 - 20.0m+	NR
RBH02	0.0 - 0.75m	0.75 - 1.5m	1.5 - 6.0m	6.0 - 11.0m*	11.0 -20.0m+	NR
RBH03	0.0 - 0.5m	0.5 - 2.6m	2.6 - 7.0m	7.0 - 11.0m*	11.0 - 20.0m+	NR
WS01	0.0-1.5m	1.5 - 2.4m	2.4 - 5.0m+	-	-	1.7
WS02	0.0 - 0.5m	0.5 - 2.5m	2.5 - 5.0m+	-	-	1.5
WS03	0.0 - 0.9m	0.9 – 2.1m	2.1 - 5.0m+	-	-	1.9
WS04	0.0 – 1.1m	1.1 – 2.0m	2.0 - 5.0m+	-	-	1.7
WS05	0.0-0.45m+	-	-	-	-	NR
WS05A	0.0-0.75m+	-	-	-	-	0.6*
WS05B	0.0 – 1.1m	1.1 – 2.5m	2.5 - 5.0m+	-	-	1.8
WS06	0.0 – 1.1m	1.1 – 2.5m	2.5 - 5.0m+	-	-	1.5
WS07	0.0 – 1.1m	1.1 – 2.5m	2.5 - 5.0m+	-	-	2.1
WS08	0.0 – 0.9m	0.9 – 2.1m	2.1 - 5.0m+	-	-	1.7
WS09	0.0 - 0.25m	0.25 – 2.1m	2.1 - 5.0m+	-	-	1.7
WS10	0.0 - 0.65m	0.65 – 2.5m	2.5 - 5.0m+	-	-	1.9

	Made Ground	Sand Deposits	Glacial Clay	Clayey, Sand, Gravel & Cobbles*	SANDSTONE BEDROCK	Groundwater Strike
WS11	0.0 - 0.5m	0.5 – 2.6m	2.6 - 5.0m+	-	-	1.7
WS12	0.0 - 0.70m+	-	-	-	-	NR
WS12A	0.0 - 0.70m+	-	-	-	-	NR
WS13	0.0 - 0.60m+	-	-	-	-	NR
WS13A	0.0 - 0.50m+	-	-	-	-	NR
WS14	0.0 - 0.95m	0.95m - 2.50m	2.5 - 3.0m+	-	-	1.9
WS15	0.0 - 0.9m	0.9m - 2.5m	2.5 - 3.0m+	-	-	1.9
WS16	0.0 - 0.9m	0.9m - 2.7m	2.7 - 3.0m+	-	-	1.7
WS17	0.0 - 0.75m	0.75 - 2.4m	2.4 - 3.4m+	-	-	2.0
WS17a	0.0 – 1.3m	1.3 – 2.8m	2.8 - 4.0m+	-	-	2.0
WS18	0.0 - 0.75m	0.75 – 2.3m	2.3 - 3.0m+	-	-	NR
WS18a	(WS18 redrill to 3.0mbgl)		3.0 - 4.0m+	-	-	NR
WS19	0.0 – 0.8m	0.8 – 2.5m	2.5 - 3.0m+	-	-	NR
WS20	0.0 - 0.95m	0.95 – 2.4m	2.4 - 4.0m+	-	-	NR
WS21	0.0 - 0.9m	0.9 – 2.4m	2.4 - 5.0m+	-	-	1.8
WS22	0.0 - 0.8m	0.8 – 2.5m	2.5 - 5.0m+	-	-	NR
TP01	0.0 – 0.9m	0.9 – 2.1m+	-	-	-	NR
TP02	0.0 - 1.2m+	-	-	-	-	NR
TP03	0.0 – 0.9m	0.9 – 2.0m+	-	-	-	NR
TP04	0.0 - 0.8m	0.8 – 2.5m	2.5 - 2.7m+	-	-	2.3
TP05	0.0 - 0.8m	0.8 – 2.5m	2.5 - 2.8m+	-	-	2.2
TP06	0.0 – 1.1m	1.1 – 2.1m	2.1 - 2.4m+	-	-	NR

***Tentatively proven as described by drillers logs**

Made Ground

For purposes of identification, we have attempted to classify the Made Ground, with a few exceptions, into the following distinct soil types;

- Tarmacadam or concrete hardstanding.
- Uncompact brown gravelly sand/sandy gravel (subgrade type material)

- Uncompact dark brown/grey/black fine to coarse slightly ashy slightly silty clayey sand/gravelly sand.
- Compact grey ashy sandy gravel of limestone (subbase type material)
- Soft to firm black/grey/brown ashy slightly silty very sandy very gravelly clay
- Soft to firm brown slightly ashy reworked clay with rare gravel.
- Obstructions from in-situ relic infrastructure comprising intact brick, footings, cellar walls/floors, granite setts etc.

Made Ground types were consistent within the preliminary and supplementary phases of works. Made Ground was generally found at slightly shallower depths within external areas, when compared to internal areas (where final depth was proven). Average depths of 0.83mbgl and 0.9mbgl being recorded for external and internal areas, respectively. It is considered that Made Ground is likely to be present to depths of up to 3m bgl locally, based upon the observations of historical mapping.

A surface cover of tarmacadam was present within external car parking areas. The floor slab within the Greenheys Building was observed to comprise of a screed over a weakly bound angular gravel within a cement/concrete bound matrix. Intact concrete being recorded in parts.

An area of car parking and former factory within the McDougall Centre was investigated during the supplementary site investigation. The eastern half comprised an inactive external car parking area where a surface cover of tarmacadam was present. The western half and area of the former factory, was surrounded by hoarding, which was removed to allow access to WS08, WS09 and TP05.

Ground conditions within the former factory area comprised a relatively flat lying concrete slab (possible former concrete slab) within the west with residential properties beyond. The ground conditions within the east comprised demolition arising material with full intact bricks and cobbles of brick and concrete present upon the surface. All ground within the hoarding was heavily overgrown with weeds (reaching up to 3m in height) with some semi mature trees present too. Access was difficult and had to be cleared using drilling equipment to enable the works to commence.

The proven depth of Made Ground across all boreholes ranged from 0.25mbgl (WS09) to 1.50mbgl (WS01). The average proven depth of Made Ground across all boreholes was 0.85mbgl.

Made Ground – Internal Area

Recorded Made Ground within the Greenheys Building typically comprised an initial layer of screed (occasionally covered by laminate floor covering) over a weakly bound angular gravel within a cement/concrete bound matrix (acting slab). This was found to a maximum depth of 0.58mbgl within WS20 and likely to consist of an insitu relic footing. A metal girder was also found within this material between 0.1mbgl and 0.25mbgl.

The concrete encountered within WS12 & WS12A (eastern areas of the Greenheys Business Centre building) was found to be reinforced with 1cm diameter metal rebar present at depths of 0.05mbgl.

Made Ground recorded below the concrete floor slab typically comprised a 150mm to 250mm layer of sub-base type gravel consisting of compact fine to coarse ashy sandy gravel of brick, sandstone, cement, concrete, ash, limestone and other mixed lithology.

Uncompact black/grey/red/brown ashy slightly clayey gravelly cobbly sand with gravel of brick, sandstone, ash, slate, limestone and other mixed lithology was recorded beneath the sub base materials. These soils frequently consisted of full intact bricks, cobble setts and intact relic cellar/brick footings which slowed progression. Below this material and at the base of the Made Ground (overlying natural strata), soft to firm black/dark brown slightly ashy slightly sandy (reworked) clay was recorded. Reworded clay was found in all internal boreholes where Made Ground was recorded (WS14, WS15, WS16, WS17 & WS18).

WS12 and WS13 were not drilled to their intended depths due to solid obstructions encountered within the base of the hand pits. Both boreholes were relocated nearby and renamed WS12A and WS13A. These boreholes were also terminated due to obstructions preventing progress. All 4no. of these exploratory holes are situated within the southeastern corner of the building. Ground conditions within these positions generally comprised compact dark brown fine to coarse ashy silty sandy cobbly gravel of brick, sandstone, concrete, ash, clinker, limestone and other mixed lithology. Compact light grey gravel of brick, concrete and other mixed lithology was also noted within WS13.

Relic in situ brick walls were noted within hand pits within WS12 and WS12A, relic in situ brick walls were present in west and eastern faces of hand pit, (orientated N-S). Within WS13A a relic in situ brick wall was recovered as a core (between gl to 0.50mbgl).

Made Ground – External Areas

Within external areas, Made Ground typically comprised an initial layer of tarmacadam underlain by compact ashy gravelly sand/sandy fine to coarse angular gravel (subbase material) between 0.15m and 0.65m in thickness. This was found to be present to a maximum depth of 0.65mbgl in WS04. The subbase encountered within TP02 comprised a similar material with generally coarser gravel. The depth of the cobbley subbase was present was proven between 0.1m bgl to 1.15m bgl. The trial pit was terminated shortly after at 1.20m bgl due to poor stability and partial collapse.

Underlying the subbase, Made Ground consisted of a combination of soft to firm brown slightly ashy reworked clay with rare gravel of brick, ash, cement, slate, timber, clinker, concrete and/or generally loose brown slightly ashy slightly clayey sandy gravel of brick, ash, cement, slate, timber, clinker, concrete /gravelly sand. This type of Made Ground was proven to a maximum depth of 1.50m bgl (WS01).

These soils were found across all external boreholes (with the exception of RBH01 and WS09); where Made Ground was only recorded to 0.35mbgl and 0.25mbgl, respectively.

Relic intact brick cobbles and likely boulders were noted within WS04 hand pit which slowed progression 0.65m & 1.1mbgl. WS05/WS5A hand pit was excavated to 0.45m bgl where a solid concrete obstruction recorded and prevented continuation of the borehole.

Superficial Deposits

Superficial deposits was encountered within the majority of exploratory holes between depths of 0.25m-11.00m bgl, with the exception of WS05, WS05A, WS12, WS12A, WS13 and WS13A where the Made Ground was not able to be fully penetrated.

Superficial deposits were noted to typically comprise an initial layer of loose to medium dense light brown, fine to coarse SAND with rare gravel to recorded depths of 1.50-2.60mbgl. Within window sampler boreholes, the sand was generally noted to become darker in colour and gravel content increased with depth. Machine excavated trial pits within the supplementary works noted similar features to the preliminary phase observations, but also indicates a separate lithology of SAND AND GRAVEL was present beneath the sand.

Beneath the sand in all exploratory holes, firm to firm to stiff dark brown (rarely sandy) CLAY with rare fine to coarse sub angular to rounded gravel of mixed lithology was recorded. The clay appears to become stiff between 3.00mbgl to 4.00mbgl. Clay was present to the end of the drilling within the WS boreholes (5.00m bgl+) and was proven to a maximum depth of 7.0mbgl in RBH03.

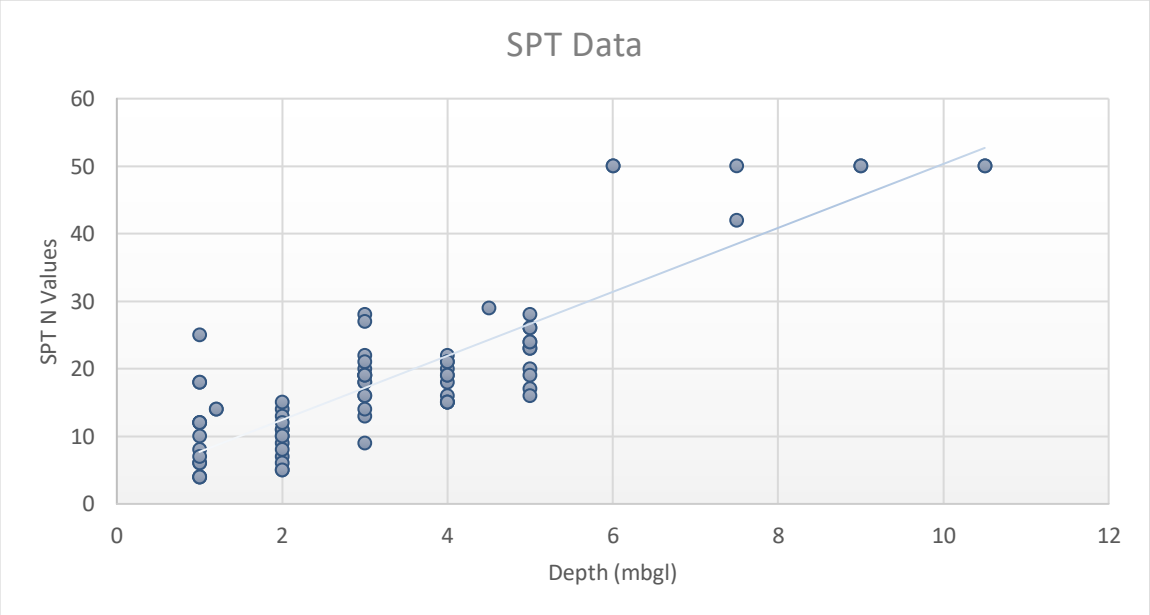
Probable Glaciofluvial drift deposits comprising dense red/brown SAND AND GRAVEL (drillers description) was found beneath clay within all rotary boreholes, between 6.0mbgl and 11.0mbgl. Gravel content within this strata typically comprised angular to subrounded mudstone, sandstone and other mixed lithology. At 10.50mbgl to 11.00mbgl within RBH01 (just prior to bedrock) the sand was noted to become reddish brown in colour. This strata was only encountered within the preliminary phase of works.

Cable tool percussion boreholes formed upon the adjacent New Base site recorded Glaciofluvial drift deposits comprising medium dense to dense clayey gravelly sand / sandy sub rounded to rounded gravel (with occasional cobbles) were encountered to maximum depths of 9.80m bgl.

The boreholes were progressed as cored drillholes once competent bedrock was encountered (11.00mbgl).

Uncorrected SPT 'N' values within the drift deposits ranged from 4-50, with an average 'N' value of 19.12 and generally increased with depth, as the strong positive correlation shows on the line of best fit within Graph 5.1.1 below. The standard deviation for the data is 11.95.

Graph 5.1.1 – SPT N Value Data within Drift Deposits.



The average SPT 'N' values for the drift deposits have been lowered following the input of data from the supplementary works. The boreholes within the supplementary works were generally drilled to shallower depths (generally to 3.0-4.0m bgl) meaning the SPT 'N' value data was generally lower. Averages from both site investigations can be seen in the table below.

Phase of Site Investigation	Average Uncorrected SPT 'N' Value
Preliminary	22.06
Supplementary	14.4
Both Phases	19.12

Handheld Shear Vane Tests

Shear vane values taken within the upper 6m the Glacial Clay deposits ranged from 68 to 130KPa, indicating that the clays generally range from firm to stiff/very stiff.

Solid Geology

Solid geology was encountered within all of the rotary core boreholes at depths between 11.00-20.00mbgl. and noted to comprise poorly cemented weak to medium strong reddish brown fine to coarse grained SANDSTONE with rare mineral inclusions and intraclasts. Subhorizontal bedding fractures, thinly spaced, planar, smooth to slightly rough were also noted upon recovered core runs. Recovery from shallower depths was often poor due to the rock being poorly cemented. This generally improved as drilling progressed. The colour of the sandstone was also noted to become reddish brown banded grey at 18.00mbgl in RBH01.

5.3 Groundwater

Table 5.3.1 above highlights recorded depths of groundwater strikes within 18No. window sampler boreholes and 2No. machine excavated trial pits, at depths of between 1.5 & 2.3 mbgl. Groundwater was recorded within the Glacial SAND at the following depths below. It should be noted that water added to aid rotary drilling, within deeper granular strata (6m to 11.00m) may have masked the presence of groundwater within these deposits.

No strikes were recorded within the sandstone strata.

BGS Borehole Ref: - The University Of Manchester Monitoring Borehole (drilled at former McDougal Building) - SJ89NW3286. The borehole was sunk in the approximate center of the carpark to the north of site to 237m depth in 1999. Groundwater was observed at 12.00mbgl rising to 7.70mbgl.

Table 5.3.1 below highlights groundwater ingress noted in 20No. exploratory holes.

Table 5.3.1 – Groundwater Observations within During Preliminary Intrusive Works

Location	Depth (m)	Strata	Comments
WS01	1.7	SAND	Moderate ground water ingress within natural SAND.
WS02	1.5	SAND	Moderate ground water ingress within natural SAND.

WS03	1.9	SAND	Moderate ground water ingress within natural SAND.
WS04	1.7	SAND	Moderate ground water ingress within natural SAND.
WS05A	0.6*	MADE GROUND	Water ingress below relic pipe within granular Made Ground.
WS05B	1.8	SAND	Moderate ground water ingress within natural SAND.
WS06	1.5	SAND	Moderate ground water ingress within natural SAND.
WS07	2.1	SAND	Moderate ground water ingress within natural SAND.
WS08	1.7	SAND	Moderate ground water ingress within natural SAND.
WS09	1.7	SAND	Moderate ground water ingress within natural SAND.
WS10	1.9	SAND	Moderate ground water ingress within natural SAND.
WS11	1.7	SAND	Moderate ground water ingress within natural SAND.
WS14	1.9	SAND	Moderate ground water ingress within natural SAND.
WS15	1.9	SAND	Moderate ground water ingress within natural SAND.
WS16	1.7	SAND	Moderate ground water ingress within natural SAND.
WS17	2.0	SAND with hydrocarbon odour.	Moderate ground water ingress within natural SAND.
WS17a	2.0	SAND with hydrocarbon odour.	Moderate ground water ingress within natural SAND.
WS21	1.8	SAND	Moderate ground water ingress within natural SAND.
TP04	2.3	SAND	Moderate ground water ingress within natural SAND.
TP05	2.2	SAND with hydrocarbon odour	Moderate ground water ingress within natural SAND.

***Denotes water possibly relating to relic features**

The shallow groundwater deposits within the alluvial deposits appears to be discontinued and perched upon the Glacial Clay. An absence of groundwater strikes and limited available nearby borehole logs has restricted regional groundwater flow calculations. It is anticipated to flow to the west/northwest towards the River Medlock and nearby culverted Corn Brook.

5.3 Underground Service Plans & Relic Tank Features

The following utilities are present across the site:

- Electricity cables routed through the site.
- Drains are present within the site boundary.
- A basement is present within the southwestern area of the site.

The design team and Client should familiarise themselves with the presence of these underground services and potential structures.

No above ground or below ground fuel tanks were observed during the site walkover or site investigation works. However, this cannot discount their potential presence. Particularly in the former factory area in the northwest.

5.4 Below ground obstructions

Several exploratory probeholes noted the presence of concrete and brick cobbles and boulder obstructions within Made Ground. Namely: WS05, WS05A, WS12, WS12A, WS13 & WS13A. Historical mapping indicates that demolition rubble associated with relic housing, slabs/cellars and slabs are likely to be present upon site within the upper 3.0m bgl.

The area in the north of site surrounded by hoarding (where WS08 and WS09 were positioned) comprised a relatively flat lying concrete surface (former concrete slab) within the west with residential properties beyond. A portion of the area comprised demolition arising material with full intact bricks and cobbles of brick and concrete present upon the surface. During the site investigation the surface was cored through with relative ease. Obstructions were not encountered within the area but should be anticipated considering its historical use as a factory.

External Boreholes

WS05 was excavated to 0.45 where a solid concrete obstruction was identified at 0.45mbgl.

WS05 was redrilled as WS05A. WS05A contained a 100mm diameter plastic pipe present in western face of hand pit, (trending NW-SE). The diameter of the pit was large enough to continue excavation, but a solid obstruction was encountered at 0.75mbgl which ultimately ended progression. WS05A was redrilled as WS05B where no obstructions were encountered.

All three of these boreholes were within the southeastern corner of the site.

Internal Boreholes

Obstructions within internal exploratory holes were recorded within WS12, WS12A, WS13 & WS13A.

WS12 and WS13 were not drilled to their intended depths due to solid obstructions encountered within the base of the hand pits. Both boreholes were relocated and renamed as WS12A and WS13A, however due to further obstructions these boreholes were terminated prematurely. All 4no. locations are situated within the southeastern corner of the site. The obstructions comprised a solid obstruction at the base of the hole at 0.7mbgl in WS12 and WS12A, and 0.6mbgl and 0.5mbgl, respectively.

The Made Ground above the internal obstructions comprised compact dark brown fine to coarse ashy silty sandy gravel surrounded by relic in situ brick walls. WS13A recovered a relic in situ brick wall within core.

A metal girder was found within the weakly bound gravel of WS20 during the supplementary works. The girder was found between 0.1mbgl and 0.25mbgl. Although the girder did not obstruct the intrusive works it is possible similar material may be encountered and below ground obstructions should be anticipated.

No redundant pipes or wires were identified within the internal boreholes.

5.5 Contamination Observations

A summary of the hydrocarbon contamination observations and volatile vapour concentrations recorded using a photo ionisation detector (PID) noted during both phases of the intrusive investigation works are summarised in Table 5.5.1 below. Site investigation/fieldwork observations, PID sampling and chemical analysis of soil samples

indicated that the hydrocarbon contamination is present within a localised corner of the northwest of site.

Table 5.5.1 – Contamination Observations during NX534 Site Investigation

Location	Observations and Depths Encountered	PID Depths (m)	PID Concentration (ppm)
Preliminary Site Investigation			
WS01-WS05B	No VOEC	0.25, 0.5, 1.0, 1.5	0.0
WS11-WS16	No VOEC	0.25, 0.5, 1.0, 1.5	0.0
WS10	Faint hydrocarbon odour observed within lower depth of Made Ground (0.25mbgl to 0.65mbgl). No visual evidence of contamination. Material tested with PID above, on, and below potential area of contamination.	0.1, 0.3, 0.75, 1, 1.5	0.0, 0.8, 0.0, 0.0, 0.0
WS17	Hydrocarbon odour observed within lower depth of natural sand (1.9mbgl to 2.5mbgl). Strata appears to become dark grey in colour. Material tested with PID above, on, and below potential area of contamination.	0.5, 1.0, 1.5, 1.8, 2.2, 2.7	0.0, 0.0, 0.0, 0.0, 0.5, 0.0
WS18	Hydrocarbon odour observed within lower depth of natural sand (2.0mbgl to 2.5mbgl). Strata appears to become dark grey in colour. Material tested with PID above, on, and below potential area of contamination.	0.5, 1.0, 1.5, 1.8, 2.2, 2.7	0.0, 0.0, 0.0, 0.0, 0.7, 0.0
Supplementary Site Investigation			
WS06, WS07 & WS09	No VOEC	No readings taken.	
WS19, WS21, WS22	No VOEC	0.25, 0.5, 1.0, 1.5	0
WS08	Hydrocarbon odour observed within lower depth of natural sand (0.25mbgl to 0.65mbgl). External exploratory hole, contaminated	No readings taken.	

	material well-ventilated with moderate odour. Strata appears to become dark grey in colour. No PID readings taken. Visible discoloration of strata, similar to previous boreholes. No visual evidence regarding sheen observed.		
WS17a	Hydrocarbon odour observed within lower depth of natural sand (1.9mbgl to 2.5mbgl). Internal exploratory hole with poor ventilation, room filled with strong odour. Strata appears to become dark grey in colour. Material tested with PID above, on, and below potential area of contamination. Odour present within water and sand. Underlying clay samples appear clean. Sheen observed on surface of liquid during water sample extraction. Samples extracted possess hydrocarbon odour.	0.1, 0.3, 0.75, 1, 1.75 2.1, 2.5, 2.7, 2.9	0.0, 0.0, 0.0, 0.0, 0.0 28.9, 41.2, 12.4, 1.9
WS18a	Borehole redrilled through WS18 to add installation. Hydrocarbon odour observed within the same depths as WS18 sand (2.0mbgl to 2.5mbgl). Internal exploratory hole with poor ventilation, room filled with moderate-strong odour. Material tested with PID above, on, and below potential area of contamination. Sheen observed on surface of liquid during water sample extraction. Samples extracted possess hydrocarbon odour.	0.5, 1.0, 1.5, 1.8 2.1, 2.3, 2.6	0.0, 0.0, 0.0, 0.0 17.6, 27.9, 0.9
WS20	Hydrocarbon odour observed within lower depth of natural sand (2.0mbgl to 2.4mbgl). Internal exploratory hole with adequate ventilation, moderate odour around working area. Strata appears to become dark grey in colour.	0.5, 1.0, 1.5, 1.75 2.1, 2.4, 2.6	0.0, 0.0, 0.0, 0.0 9.5, 11.4, 0.7

	Material tested with PID above, on, and below potential area of contamination. Sheen observed on surface of liquid during water sample extraction. Samples extracted possess hydrocarbon odour.		
TP05	Hydrocarbon odour observed within lower depth of natural sand (1.9mbgl to 2.5mbgl). External exploratory hole material recorded strong odour. Strata appears to become dark grey in colour. Material tested with PID above, on, and below potential area of contamination. Iridescent appearance on the surface of the water within base of trial pit (2.6mbgl). No free phase evident.	0.5, 1.0, 1.5, 1.8 1.9, 2.3, 2.7	0.0, 0.0, 0.0, 0.0 9.6, 17.6, 0.7

6.0 GEOTECHNICAL TESTING

6.1 Laboratory Analysis

A programme of laboratory testing was undertaken in accordance with BS 1377 (1990) "Methods of Test for Soils for Civil Engineering Purposes". The results are presented in Appendix D and are summarised below.

BS Test Number	Description
Part 2:3	Moisture Content
Part 2:5	Plasticity index
Part 2:9	Particle Size Distribution
Part 3:5,9	pH and Sulphate
Part 4:1	Dry Density/Moisture Content Relationship
Part 7.9	Unconsolidated Undrained Triaxial Test

Moisture Content

During the preliminary works, 13 samples of clay were tested for natural moisture content from drift deposits and Made Ground. The results are summarised below:

Strata	Range	Mean
All	13-24	18.85
Drift Deposits	13-24	18.75
Made Ground	22	22

During the supplementary works a further 5no samples of clay were tested for natural moisture content from drift deposits. The results are summarised below:

Strata	Range	Mean
Drift Deposits	15-24	18.80

Plasticity Index

During the preliminary works, 13No. samples of natural cohesive strata from natural cohesive strata from drift deposits and Made Ground, were analysed for plasticity index and hence shrinkage/swelling potential. The results are summarised below:

Strata	Plasticity	Plasticity Range	Amended Plasticity Range	Volume Change Potential
Clay	Low-Medium	13.0 - 24.0%	12.74 - 23.28%	Low to medium

During the supplementary works, a further 5no. samples of natural cohesive strata, were analysed for plasticity index and hence shrinkage/swelling potential. The results are summarised below:

Strata	Plasticity	Plasticity Range	Amended Plasticity Range	Volume Change Potential
Clay	Low-Medium	16.0 - 22.0%	15.36 – 21.78%	Low to medium

Particle size distribution

16No. samples were selected for the determination of particle size distribution. The resultant grading curves have been included in Appendix D.

Sulphate and pH

Samples were analysed for pH and soluble sulphate:

Property	Range
Sulphate as SO4 (g/l)	0.0043 - 0.21
Sulphate as SO4 (mg/kg)	61 - 11000
pH	6.8 - 9.5

Point Load Testing and Uniaxial Compressive Strength Testing

24no. samples of sandstone were selected for the determination of Point Load compressive testing.

Property	IS(50) Range (MPA)	Mean	Approximate UCS (MPa)*
Point Load	0.15 to 0.49	0.30	3.6 to 11.76

***Refer: Carter and Sneddon 1977 (from "Using the Point Load Test to determine the UCS of Coal Measure Rock" by Rousiak and Mark.**

Compaction Testing

Dry density/moisture content tests were carried out on 3no samples of Made Ground and natural strata materials. Maximum dry densities and optimum moisture contents ranged from 1.74Mg/m^3 to 1.90Mg/m^3 and 11% to 17% respectively.

Natural moisture contents were in the range 13-24% and the results indicate that the materials to be variable, noted to be 'wet' and 'dry' of its optimum moisture content and a degree of site treatment may be required to achieve acceptable compaction criteria.

The Made Ground is unlikely to be suitable as a structural fill for foundations and pavements in its current state and treatment (sorting, segregation, screening and lime/cement stabilisation) would be required to enable some of the materials to be re-used on parts of the site.

The Made Ground is likely to be suitable as 'bulk' fill following a degree of treatment.

7.0 GEOTECHNICAL ASSESSMENT

7.1 General

It is understood that the property is to be developed with the construction of a 7-storey building comprising up to 17,249sq. m (GIA) commercial floorspace across 6 occupiable floors (Use Class E), plus plant level above; in addition to associated cycle parking, hard and soft landscaping, access and servicing and other associated works.

No building loads have been provided to NX Consulting at the time of drafting this document.

Ground conditions encountered across the site (during the NX investigation) comprise Made Ground to possible maximum depths in excess of 1.50mbgl with associated below ground obstructions overlying loose to medium dense brown sand and predominantly firm to stiff (becoming very stiff) cohesive clay over dense sand and gravel deposits. Suspected bedrock has been encountered at depths between 11-20mbgl+ (RBH01-03) and noted to comprise a weak to medium strong reddish brown poorly cemented fine to coarse grained SANDSTONE with rare mineral inclusions and intraclasts.

SPT N values within the drift deposits recorded values of 4-50 between depths of 1.20 – 11.45mbgl.

SPT N values within the sandstone recorded values of in the order of 50 for minimal penetration prior to termination of the borehole.

7.2 Geotechnical Parameters

The following parameters are recommended for engineering design based on laboratory test results obtained to date and literature values:

Table 7.2.1: Glacial Clay		
Parameter	**Typical data range**	**Suggested Design**
Moisture Content (%)	13.0 - 24.0	18.0 to 24.0
Amended Plasticity Index (%)	12.74 - 23.28	21.00
Bulk Density (Mg/m3)	2.14 - 2.31	2.20
SPT N-value	4 - 50	4 – 2.0m bgl 10 – 3.0m to 6.0mbgl
Undrained Shear Strength (kN/m2)	65 - 130	65 – 2.0m bgl 85 – 3.00m to 6.00m bgl
Effective Cohesion (kN/m^2	-	0
Coefficient of compressibility (m2/MN)	-	10/Cu
Angle of Friction (phi')	-	26 (localised granular GT also applied – conservative)
Permeability (m/sec)	-	10^{-8}
ACEC	DS1	AC1s

Table 7.2.2 – Fluvioglacial Sand & Gravel

Parameter	Typical data range	Recommended Design
Moisture Content (%)	-	-
Plasticity Index (%)	-	-
Bulk Density (Mg/m3)	-	2.0
SPT N-value	42 to 50	42
Net Allowable Bearing Capacity kN/m2 (Foundation 1m width)	66 to 270	100
Undrained Shear Strength (kN/m2)	-	-
Effective Cohesion (kN/m2	-	0
Angle of Friction (phi')	-	38
Coefficient of compressibility (m2/MN)	-	-
Infiltration Rate (m/sec)	5×10^{-6}	5×10^{-6}
ACEC	DS-1	DS-1

Table 7.2.3 – Sandstone Bedrock	
Parameter	**Recommended Design**
SPT N-value	50 to 50/35mm
Highly weathered SANDSTONE recovered as sand and gravel	Angle of shearing resistance = 36°
SANDSTONE	Friction Angles for clean fractures in rock of 30° (Tomlinson 2001)
UCS (MPa)	3.6 (conservative) to 11.6
Bulk Density (Mg/m3)	2.1

7.3 General

It is likely that a post-development foundation system cannot fully be confirmed until final building levels and any 'Build Near' restrictions are established. It is understood that the upper 1.0 to 3.0m of strata is to be grubbed up, screened, crushed and replaced to create a stable working platform, free from obstructions and hydrocarbon contamination to detrimentally impact pile formation and create potential migration pathways to the underlying Principal Aquifer.

A degree of surface treatment comprising screening, crushing, excavation and re-compaction will need to be carried out beneath former buildings, external car parking and infrastructure prior to the formation of foundations.

The Made Ground deposits and drift deposits are considered unsuitable as an adequate founding stratum due to the proposed loads and the possible risks of unacceptable total and differential settlements occurring.

Lightly Loaded Foundations and Floorslab

Given the heavy nature of the proposed building loads Vibro Stone Column (VSC) are not considered suitable for the main building. For ancillary and lighter loaded buildings, retaining walls and floor slabs, VSC can be considered.

It is normal for the specialist contractor to give assurances on the subsequent engineering performance of the treated ground. Notwithstanding the above it is considered that following thorough treatment by vibro compaction allowable bearing capacities in the order of 100 to 150kN/m2 to allow for reinforced concrete spread foundations and 30 to 50kN/m2 for the floor slab are likely to be achievable. Any adopted vibro-treatment design should take into account any long-term deeper settlements. It is strongly recommended that, prior to the adoption of this proposal, vibro contractors are provided with a copy of this report and attend site to form trial pits, to confirm the suitability of their proprietary systems on site. It is important to note however, that the success of vibro treatment on this site would depend achieving proposed loading scenarios for the floorslabs. Any unsuitable materials may be required to be removed and replaced within more suitable granular fill.

Options would need to consider the effects of noise and vibration on nearby structures and the presence of below ground obstructions recorded during this assessment.

The advice of specialist vibro compaction contractors should be sought on the suitability and load carrying capacity of their proprietary system for the use at the site and their attention brought to the nature and composition of the Made Ground, obstructions, below ground services and Glacial Till.

If treatment of the upper 2m of ground is not carried out, pre-auguring and/or excavation will be required at vibro column locations to establish the potential presence and any required removal of obstructions present within the upper 1.50m+ of made ground.

Main Building Foundations

Piles

Given the likely heavy building loads, presence of a potentially significant thicknesses of Made Ground, groundwater within the loose to medium sand/sand and gravel deposits to possible depths of c.3.00m bgl+, piled foundation are likely to be the most suitable foundation solution onto the underlying sandstone deposits (beneath the weathered layer).

Soil and rock properties are presented in Table 7.3.1 below are recommended for 'preliminary' pile based on log description and in-situ testing results, as well as published

geotechnical data of soil and rock properties. Point load analysis indicates that the bedrock is poorly cemented and are generally very weak to weak. Therefore, the UCS of lower bound of very weak should be adopted as a conservative approach.

If adopted, piled foundation options would need to consider the effects of noise and vibration on nearby structures and the presence of below ground obstructions and hydrocarbon contamination recorded during this assessment. Access for piling rigs with sufficient capacity to penetrate moderately strong to strong sandstone should also be considered.

The advice of specialist piling contractors should be sought on the suitability and load carrying capacity of their proprietary system for the use at the site and their attention brought to the nature and composition of the Made Ground, obstructions, below ground services, Glacial Till and sand and gravel deposits.

Again, if treatment of the upper made ground strata is not carried out, pre-auguring and/or excavation will be required at pile locations to establish the potential presence and any required removal of obstructions present within the upper 2.0m+ of made ground.

Following treatment, in-situ load tests should be carried out on the compacted ground to verify performance and foundation and slab design.

A number of trees are present which are within possible influencing distance of the site. Foundations and drainage should be designed in line with NHBC Standards guidance document Chapter 4.2 Building Near Trees.

Floor Slabs

Suspended floor slabs or ground bearing slabs onto pre-treated ground are recommended due to the depth of Made Ground and variability of strata encountered. Adequate support and reinforcement should be adopted to reduce slab deflections in line with structural standards.

Table 7.3.1 –Soil Properties adopted in the Preliminary Pile Design

Stratum	Soil Properties	Remark
Made Ground/ Fill	Bulk Density = 18 kN/m^3	Contribution of shaft resistance being ignored.
Glacial Till	Bulk Density = 18 kN/m^3 Angle of shearing resistance = 26º	
Sand and gravel	Bulk Density = 18 kN/m^3 Angle of shearing resistance = 38º	Based on medium dense granular materials with recorded lowest SPT N = 42.
Highly weathered SANDSTONE recovered as sand and gravel	Bulk Density = 18 kN/m^3 Angle of shearing resistance = 36º	Based on the lower bound of dense granular materials as recorded as sandstone sand and gravel
Very weak SANDSTONE	Bulk Density = 21 kN/m^3 UCS = 3.6 MPa RQD < 30% Angle of shearing resistance = 30º	Based on worst case point load and description of predominantly described very weak to moderately strong

7.4 Earthworks, Excavations and Groundwater

All projects involving earthworks come under the requirements of the Construction (Design and Management) Regulations 2007 (CDM). The creation and maintenance of a project risk register is seen as good practice and is a requirement under CDM. All risks identified by those involved in the design of earthworks should be filed into the project risk register. Where a project includes geotechnical design, a geotechnical risk register should be developed to support and enhance the project risk register.

Site preparation prior to upfilling should include removal of all vegetation, topsoil and any uncontrolled filling/Made Ground. Earthworks materials should be classified in accordance with Table 6/1 of Department of Transports Specification for Highways Works (Series 600 SHW); summarised below.

Table 7.3.1 – Classes of Earthworks Materials Permitted for Incorporation into the Works

Use	Permitted Class(es)
General fill – granular (and granular improvement layer, where required)	1A, 1B, 1C
General fill – cohesive	2A, 2B
Fill to landscape areas	4
Topsoil	5A, 5B
Embankment Starter Layer	6A, 6B,6C
Capping	6F1,6F2,6F3
Fill to reinforced earthworks	6I/J
Backfill to structures	6N, 6P [6NI, 6PI]

Any embankments and site slopes should be constructed utilizing Class1A, 1B, 1C granular fill as specified within (Series 600 SHW). The starter layer for embankment construction should comprise Class 6A, 6B, 6C granular fill. Unacceptable material, Class U2 shall be as defined in Clause 601.3 Series 600 SHW.

Dry density/moisture content tests were carried out on 3no samples of Made Ground and natural strata materials. Maximum dry densities and optimum moisture contents ranged from 1.74Mg/m^3 to 1.90Mg/m^3 and 11% to 17% respectively.

The results indicate that the materials to be variable, noted to be 'wet' and 'dry' of its optimum moisture content and a degree of site treatment may be required to achieve acceptable compaction criteria. The Made Ground are unlikely to be suitable as a structural fill for foundations and pavements in its current state and treatment (sorting, segregation, screening and replacement) would be required to enable some of the materials to be re-used on parts of the site as structural fill for pavements and floorslabs.

The Made Ground is likely to be suitable as 'bulk' fill following a degree of treatment.

The option for classifying soil/fill should be selected and should maximize the potential to win suitable fill from the site. Unsuitable materials will require treatment (screening/crushing/segregation and reused (where appropriate) on site as part of the site preparation and upfill. Unsuitable materials will require removal from site to suitably licensed waste management facility.

During site upfilling, consideration should be given for pre-earthworks drainage that allows for temporary fill surfaces to be sealed and shaped to shed water and operational restrictions during periods of rainfall.

The requirements for geotextiles to be used to separate earthworks materials should be assessed by a suitably qualified specialist contractor/manufacturer. The required design life should be no less than 120 years.

Details of laying and lapping shall be in accordance with the specialist contractors recommendations.

Excavations into the Made Ground, sand and Glacial Till should be viable using conventional hydraulic excavating plant. Where relict concrete, cobbles and boulders are present within the upper 1.50m+, breaking equipment may be needed to achieve the design depth required.

The stability of foundation excavations are likely to be variable and collapse and spalling of the granular strata (particularly where groundwater is present) and Made Ground materials should be anticipated. All excavations should be conducted in line with CIRIA Report 97 – Trenching Practice and BRE 440 Foundations, Basements and External Works 2002.

Trenchboxes or similar will be required to support drainage and deep foundation excavations locally. Where trenchfill foundations are to be used, support and dewatering would be required in any case to maintain the necessary integrity of the concrete.

Any replaced 'site won' or imported materials will again need to be compacted in a controlled manner in line with the Department of Transport, Specification for Highway Works Specification 600 & 800 series, subject to additional confirmatory earthworks testing.

Where possible all soils should be retained on site to reduce disposal costs.

Pavement Construction

DCP tests were carried out in a number of boreholes. Results are provided within Appendix D. If the CBR is less than 2.5%, foundation improvement work shall be undertaken in accordance with IAN 73/06. An initial design CBR value of 2% is recommended for the granular Made Ground deposits. Should the proposed formation be formed off the recorded compacted MOT Type 1 gravel (within existing car parking areas) at depths ranging from 0.20m bgl to 0.65m bgl a CBR value of 10 to 15% may be achievable.

Once the enabling works and piling matt formation has been are carried, design CBR values should be confirmed by carrying out in-situ plate load tests. It may be prudent to excavate areas of soft strata, if encountered, and replaced with suitably compacted gravel due to the risk of deformation and short to long term settlements.

If the works are carried out during periods of inclement wet weather, very soft ground should be anticipated and imported stone or ground improvement may be required for temporary enabling works.

Groundwater, excavations & Surface Water Management

A localised perched shallow groundwater regime is present within shallow drift deposits. Ground water shall be control in accordance with CIRIA report 113 "Control of Ground Water to Temporary Works.

It should be noted that water added to aid rotary drilling, within deeper granular strata (between 6.0m and 11.00m depth) may have masked the presence of groundwater within these deposits.

It is likely that seepages of groundwater would be encountered within the Made Ground and in excavations. Specialist dewatering measures are unlikely to be required for shallow excavations, (typically <1m bgl) and sump pumps should be adequate. Excavations below 1.00m bgl to 2.00m bgl may require specialist dewatering measures (such as well point systems) and temporary support from groundwater recorded within the Glacial Sand deposits. Collapse and spalling and running sand deposits should be anticipated within this strata where groundwater is present. A specialist hydrogeologist should be appointed to provide advice in this regard.

If groundwater or surface water flows into foundation excavations, 'blinding' concrete should be used at the base of the foundation and excavations. Foundation concrete should be poured as soon as possible afterwards.

Arrangements should be made to prevent ponding and water softening in any excavation and within formation level soils. The Contractor should ensure that ground levels are of sufficient gradient to enable the collection of surface water run-off in sumps or grips.

Any potentially contaminated water shall not be allowed to migrate into other areas until the results of the analysis are available and, if required, a suitable means of water treatment has been agreed.

Pumping from over excavated sumps may be required to maintain satisfactory working conditions.

Groundwater should be monitored prior to and throughout the construction period to establish and groundwater changes and associated impact on construction and design.

Concrete Classification

The results from the chemical laboratory sulphate and pH analysis for the site indicate that a worst-case Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) class of AC-1.

7.5 Soakaway Drainage

NX Consider that soakaways are unlikely to be suitable at this site within the interbedded clay and sand deposits and presence of shallow groundwater. Furthermore, the presence of potential localised hydrocarbon contamination in location across the site likely precludes the acceptability of use.

7.6 Shallow Mineworkings

Based on the published geology and Coal Authority Mining Report, the risk to the proposed development from shallow coal mineworkings is considered to be very low.

8.0 GEOCHEMICAL GROUND AND GROUNDWATER ASSESSMENT

8.1 Introduction & Sampling Strategy

The preliminary conceptual site model identified that, the potential for the existence of contamination beneath the site was moderate. A review of the Phase 1 Desk Study Report revealed a number of potential contamination sources, most notably a garage formerly occupying the centre and western portion of the site. A warehouse was also noted in the north east of the site and another former garage and a former factory were noted on the adjacent land to the north of the site. Therefore, sampling and exploratory holes were targeted for a general screening of site wide soils targeting the areas identified in historical mapping.

NX Preliminary Works

- WS03, 04, 10, 11, 12, 13, 14, 15, 16, 17, 18 were targeted at former garage and factory buildings in the north and western areas of the site

NX Supplementary Works - June 2023

- WS06-09, 17a, 18a, 19 to 22, TP04 and TP05 were targeted inaccessible areas and to help delineate hydrocarbon contamination recorded within the preliminary investigation.

Chemical Analytical Strategy

NX Preliminary Investigation

Due to the commercial nature of the site and surrounding areas (garage and factory), all arisings from the Ground Investigation were screened on-site for the presence of volatile organic compounds (VOC) using a MiniRae Photoionisation Detector (PID). No significantly elevated concentrations were recorded during the preliminary works.

During the preliminary works, 22no. samples of Made Ground soils, superficial strata were tested for a number of general screening tests including pH and metals, cyanide, phenols, sulphide, sulphur, asbestos, speciated PAH and TPH and BTEX to confirm the site's anticipated risk status to human health receptors from soil contamination as determined within the NX Consulting Desk Study for the site.

13no. samples of Made Ground were analysed for asbestos screening and general screening leachate analysis.

18 samples were analysed for petroleum hydrocarbons Criteria Working Group (TPHCWG) for both aliphatic and aromatic compounds.

6 samples of Made Ground and natural deposits were sampled for Waste Assessment Classification (WAC).

5 water samples were analysed where groundwater was present, selected boreholes were purged and analysed for a suite of compounds listed above.

No visual or olfactory contamination was recorded within the Glacial Till and sandstone core and as such analysis of the deeper strata was not carried out.

NX Supplementary Investigation Works

Due to the commercial nature of the site and surrounding areas (garage and factory) and presence of hydrocarbon contaminated soils recorded within the preliminary investigation

works, all arisings from the Ground Investigation were screened on-site for the presence of volatile organic compounds (VOC) using a MiniRae Photoionisation Detector (PID). No significantly elevated concentrations were recorded during the preliminary works.

During the supplementary works, a further 2no. samples of Made Ground soils, superficial strata were tested for a number of general screening tests including pH and metals, cyanide, phenols, sulphide, sulphur, asbestos, speciated PAH and TPH and BTEX to confirm the site's anticipated risk status to human health receptors from soil contamination as determined within the NX Consulting Desk Study for the site.

2no. samples of Made Ground were analysed for asbestos screening.

12 samples were analysed for speciated PAH and petroleum hydrocarbons Criteria Working Group (TPHCWG) for both aliphatic and aromatic compounds.

5no samples were analysed for SVOC & VOC compounds from visible hydrocarbon impacted soils.

1 sample of Made Ground and natural deposits were sampled for Waste Assessment Classification (WAC).

7no. groundwater samples were analysed (where groundwater was present), selected boreholes were purged and analysed for total organic carbon, speciated PAH, TPHWCG, SVOC and VOC compounds.

No visual or olfactory contamination was recorded within the Glacial Till and sandstone core and as such analysis of the deeper strata was not carried out.

The following contamination assessment sub-sections will discuss the identified risks associated with individual contaminant groups based on contamination testing results, undertaken on samples from the intrusive investigation.

8.2 Rationale

In May of 2008, Contaminated Land: Application in Real Environments (CLAIRE) in conjunction with the Chartered Institute of Environmental Health (CIEH), with support from the Soil and Groundwater Technology Association (SAGTA), released a document entitled 'Guidance on Comparing Soil Contamination Data with a Critical Concentration' [7].

The document provides advice on the use of statistical techniques in the assessment of soil contamination data. It forms part of a package of improved UK guidance highlighted in the Defra discussion paper 'Assessing risks from land contamination – a proportionate approach. Soil Guideline Values: the Way Forward (CLAN 06/2006). The overall aim is to increase understanding of the role statistics can play in quantifying the uncertainty attached to estimates of the mean concentration of contaminants thereby creating a more informed basis for regulatory decision-making.

The guidance presents a structured approach that can be followed when employing statistical techniques for data assessment.

In April 2012 revised Statutory Guidance stated that:

"New technical tools and advice may be developed and used to help regulators and others conform to this Guidance."

"Tools might be developed to help assessors apply the Category 1-4 Screening Levels (C4SLs) approach in relation to specific substances or situations. For example, this might include the development of generic screening levels to help assessors decide when land might be assumed to be in Category 4."

C4SLs are intended as generic screening values to help show when land is within Category 4. They describe a level of risk that whilst above 'minimal' is still 'low', providing a 'higher simple test' for deciding that land is suitable for use and definitely not contaminated.

Current Soil Guideline Values / Generic Assessment Criteria can now be replaced with more pragmatic (but still strongly precautionary) Category 4 Screening Levels and provide a higher simpler test for deciding that land is suitable for use and definitely not contaminated

C4SL's retained and used the CLEA framework, modified according to considerations of the underlying assumptions and science, within the context of Defra's policy background.

8.3 Soil Guideline Values

The Environment Agency's position on CLEA guidance is as follows:

"The CLEA guidance is non-statutory. It does not purport to interpret the policies or procedures of the Environment Agency and shall not operate as a statutory license, waiver, consent or approval from the Environment Agency"[9].

"The CLEA guidance describes the soil concentrations above which, in the opinion of the Environment Agency, there may be concern that warrants further investigation and risk evaluation for both threshold and non-threshold substances. These levels are a guide to help assessors estimate risk. It does not provide a definitive test for telling when risks are significant"[9].

The soil guideline value (SGV) is derived by estimating the concentration of a substance in soil, which will result in an amount of the contaminant entering the human body that is equal to the relevant Health Criteria Value(s).Revised guidance and software has been published for calculation of generic assessment criteria, which will lead to the publication of SGVs based on the new approach. New TOX and SGV reports for priority substances are due to be published after March 2009. The 'old' ten SGV reports will be replaced.

The Environment Agency and DEFRA have produced two new reports - "Human health toxicological assessment of contaminants in soil" and "Updated technical background to the CLEA model". This has led to the withdrawal of CLR7-10, which no longer reflects the current approach and formed the basis of the existing SGVs, as a result all the existing SGV reports have been withdrawn.

The publication of new substance specific TOX reports will lead to the withdrawal of the existing reports. Practitioners are expected to produce their own generic assessment criteria using the CLEA software and handbook.

8.4 LQM/CIEH Suitable 4 Use Levels (S4UL)

The LQM/CIEH S4ULs are intended for use in assessing the potential risks posed to human health by contaminants in soil and has transparently-derived and cautious 'trigger' values above which further assessment of the risks or remedial action may be needed. They replace the second edition of the LQM/CIEH General Assessment Criteria (GAC) published in 2009.

In this instance initial potential risk to human health will be determined by comparison of appropriate chemical analysis to the values specified in the current LQM/CIEH Suitable 4 Use Levels'. With respect to lead the current Category 4 Screening Level will be used.

8.5 Site Soils

8.5.1 NX Consulting Investigation

The chemistry analysis results, presented in Appendix D, have been compared against the Tier 1 criteria for a *commercial industrial with limited managed landscaping* end use to reflect the development proposals. Exposure pathways are restricted to the following from deep and shallow site soils:

- Ingestion of soil,
- Ingestion of site derived household dust,
- Dermal contact with soil,
- Dermal contact with site derived household dust,
- Inhalation of fugitive soil dust,
- Inhalation of fugitive site derived household dust,
- Inhalation of vapours outside
- Inhalation of vapours inside

For risk assessment purposes a conservative soil organic matter value of 1.0% has been used.

Made Ground & Natural Soils

Table 8.5.1 displays the contaminant results details and any Tier 1 thresholds exceedances:

Table 8.5.1 – Summary of Tier 1 Exceedances

Summary of Tier 1 Exceedances Commercial End Use with limited managed landscaping					
Solid Contamination Results					
DETERMINAND	**No. of Samples**	**Range**	**Average**	**GAC**	**No of Exceedences**
Inorganics, Carbon and Asbestos					
Asbestos Quantification (%)	15	**Not Detected <0.001%**		-	-
pH	22	6.8-8.5	7.67	-	-
Total Sulphate	19	61-11000	841.05	-	-
Total Cyanide	19	<1.00	<1.00	1400	0
Sulphide	19	<1.00 – 33	5.14	-	-

Total Organic Carbon (%)	31	<0.5 – 2.9	0.74	-	-
Metals and Semi-Metals					
Arsenic	21	1.6-24	7.43	640	0
Cadmium	21	<0.1-<0.2	<0.1-<0.2	190	0
Chromium III	21	7-27	15.83	8600	0
Copper	21	3.8-120	18.56	68,000	0
Lead	21	6.1-290	35.3	750	0
Mercury (Inorganic)	21	0.3-1.20	0.33	1,100	0
Nickel	21	7.2-33	16.88	980	0
Selenium	21	<1	<1	1,200	0
Zinc	21	13-140	42.63	730,000	0
Boron	21	0.2-1.9	0.52	240,000	0
Speciated Petroleum Hydrocarbons (TPH-CWG)					
TPH-CWG - Aliphatic >EC5 - EC6	30	<0.001	<0.001	3,200	0
TPH-CWG - Aliphatic >EC6 - EC8	30	<0.001	<0.001	7,800	0
TPH-CWG - Aliphatic >EC8 - EC10	30	<0.001 – 3.1	0.19	2,000	0
TPH-CWG - Aliphatic >EC10 - EC12	30	<1.00 – 85	11.85	9,700	0
TPH-CWG - Aliphatic >EC12 - EC16	30	<2.00 – 850	54.47	59,000	0
TPH-CWG - Aliphatic >EC16 - EC21	30	<8.00 – 860	68.90	1,600,000	0
TPH-CWG - Aliphatic >EC21 - EC35	30	<10.0 – 230	23.07	1,600,000	0
TPH-CWG - Aliphatic (EC5 - EC35)	30	<10.0 – 2000	149.56	-	-
TPH-CWG - Aromatic >EC5 - EC7	30	<0.001	<0.001	26,000	0
TPH-CWG - Aromatic >EC7 - EC8	30	<0.001	<0.001	56,000	0
TPH-CWG - Aromatic >EC8 - EC10	30	<0.001-0.02	<0.003	3,500	0
TPH-CWG - Aromatic >EC10 - EC12	30	<1.00 – 31	2.96	16,000	0

TPH-CWG - Aromatic >EC12 - EC16	30	<2.00 – 440	63.70	36,000	0
TPH-CWG - Aromatic >EC16 - EC21	30	<10.0 – 730	23.42	28,000	0
TPH-CWG - Aromatic >EC21 - EC35	30	<10.0 – 230	50.76	28,000	0
Polynuclear Aromatic Hydrocarbons (PAHs)					
Naphthalene	30	<0.05 – 1.7	0.21	190	0
Acenaphthylene	30	<0.05 - 46	4.90	83,000	0
Acenaphthene	30	<0.05 – 2.2	0.23	84,000	0
Fluorene	30	<0.05 – 2.4	0.88	63,000	0
Phenanthrene	30	<0.05 – 10	0.77	22,000	0
Anthracene	30	<0.05 – 4.0	0.40	520,000	0
Fluoranthene	30	<0.05 – 8.7	0.58	23,000	0
Pyrene	30	<0.05 – 8.2	0.6	54,000	0
Benzo(a)anthracene	30	<0.05 – 3	0.29	170	0
Chrysene	30	<0.05 – 3.4	0.31	350	0
Benzo(b)fluoranthene	30	<0.05 – 3.5	0.34	44	0
Benzo(k)fluoranthene	30	<0.05 – 1.1	0.16	1,200	0
Benzo(a)pyrene	30	<0.05 – 2.9	0.30	35	0
Indeno(1,2,3-cd)pyrene	30	<0.05 – 1.7	0.20	500	0
Dibenz(a,h)anthracene	30	<0.05 – 0.52	0.10	3.5	0
Benzo(ghi)perylene	30	<0.05 – 2.2	0.23	3,900	0
Total PAH (Sum of USEPA 16)	30	<0.8 – 56.0	6.76	-	0
BTEX and MTBE (µg/kg)					
Benzene	18	<5.00	<5.00	27	0
Toluene	18	<5.00	<5.00	55,600	0
Ethylbenzene	18	<5.00	<5.00	5,700	0
p&m-xylene	18	<5.00	<5.00	5,900	0
o-xylene	18	<5.00	<5.00	5,900	0
MTBE (Methyl Tertiary Butyl Ether)	18	<5.00	<5.00	-	0

Table 8.5.1 above shows that there were no Tier 1 exceedances for the soils analysed to date, beneath the existing building and the proposed development, for both natural soils and Made Ground soils.

Semi and volatile organic compound analysis was carried out and the results were generally recorded below detection limits of the instrument for the majority of compounds tested.

8.5.2 Water Supply

Approval should be obtained from the relevant water supply company before supply pipes are installed in order to confirm pipe selection. Pipe selection is currently made based on the UK Water Industry Research Ltd [UKWIR] report entitled "Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites".

The results indicate that specialist protection measures are required in relation to the water supply pipework. A UKWIR risk assessment is recommended to be completed at the depth of the proposed pipes are likely to be required. It is anticipated that specialist water supply pipework will be required for the new buildings. Testing along the line of proposed pipework is recommended once the positions are known.

8.5.3 Phytotoxicity

Phytotoxicity Guidance on the effects of metal contamination on plant growth is provided within the Ministry of Agriculture, Fisheries and Food (MAFF) Code of Good Agricultural Practice for the Protection of Soil.
Thresholds have not been exceeded within all samples analysed within the made-ground or natural soils with respect to the end use of the site for a commercial end use.

8.5.4 Controlled Waters

A low to moderate risk to Controlled Waters receptors was identified at the site within the previous NX Consulting Desk Study report requiring a site investigation with groundwater sampling to determine the presence of otherwise of source-receptor pathways.

NX carried out a series of leachate tests from samples of Made ground and natural sand deposits where hydrocarbon contamination was evident. The findings are summarised on Table 8.5.2 below.

Groundwater sampling was carried out in accordance with BS EN ISO 22475-1 or BS ISO 5667-11, utilizing low flow sampling techniques. Groundwater was found to be absent in parts across the site during post investigation monitoring. Where present groundwater was found to be perched within the sand/sand and gravel deposits above the Glacial Clay deposits. The findings are summarised on Table 8.5.3 below.

Leachate Analysis

NX carried out 9no. leachate samples for analysis from within the different exploratory holes located onsite. The findings are summarised in Table 8.5.2.

Table 8.5.2 – Leachate Analysis Summary

DETERMINAND	UNITS	EQS	DWS	No	Max C	No of Exceedences	LOC. OF EX.
INORGANICS							
Arsenic	µg/l	50	10	9	1.4	**0**	N/A
Cadmium	µg/l	5	5	9	<0.08	**0**	N/A
Chromium	µg/l	2	50	9	6.4	**1**	- WS10 (1.10mbgl).
Copper	µg/l	5	2000	9	12	**3**	- WS01 (1.30mbgl) - WS10 (1.10mbgl) - WS14 (1.00mbgl)
Total Cyanide	µg/l	-	50	9	<10	**0**	N/A
Lead	µg/l	4	10	9	4.1	**1**	- WS01 (1.30mbgl)
Mercury	µg/l	1	1	9	<0.05	**0**	N/A
Nickel	µg/l	8	20	9	4.4	**0**	N/A
Selenium	µg/l	-	10	9	<4	**0**	N/A
Zinc	µg/l	30	5000	9	17	**0**	N/A
pH	-	6-9	-	9	6.5-7.5	**0**	N/A
ORGANICS							
Naphthalene	µg/l	10	-	9	<0.01	**0**	N/A
Benzo(a)pyrene	µg/l	0.05	0.01	9	<0.01	**0**	N/A
benzo[b/k]fluoranthene	µg/l	0.03	-	9	<0.01	**0**	N/A
benzo[g,h,i]perylene & indeno(1,2,3-cd]pyrene	µg/l	0.02	-	9	<0.01	**0**	N/A
Total Petroleum Hydrocarbons	µg/l	-	10	9	<10	**0**	N/A
TPH Aliphatic C5-C6	µg/l	-	10	9	<10	**0**	
TPH Aliphatic C6-C8	µg/l	-	10	9	<10	**0**	
TPH Aliphatic C8-C10	µg/l	-	10	9	<10	**0**	
TPH Aliphatic C10-C12	µg/l	-	10	9	<10	**0**	
TPH Aliphatic C12-C16	µg/l	-	10	9	<10	**0**	
TPH Aliphatic C16-C35	µg/l	-	10	9	<10	**0**	

*Notes: The WHO Guideline Values for petroleum products in drinking water have been applied in the absence of a current UK specific TPH water quality standard. However, for the aromatic TPH bandings of C6-C7, C7-C8 and C8-C10 the more conservative UK specific EQS for benzene, toluene and ethylbenzene have been selected as the Tier 1 screening criteria.

Groundwater Analysis

5no. groundwater samples were obtained from RBH02, WS04, WS05B, WS10 & WS11 during post investigation monitoring during the preliminary works. A further 7no samples were analysed from exploratory holes WS08, WS09, WS18a, WS19, WS20 & WS22 following the supplementary intrusive boreholes. The findings are summarised in Table 8.5.3.

Table 8.5.3 – Groundwater Analysis Summary

DETERMINAND	UNITS	EQS	DWS	No	Max C	No of Exceedences	LOC. OF EX.
INORGANICS							
Arsenic	µg/l	50	10	5	1.52	**0**	-
Cadmium	µg/l	5	5	5	0.29	**0**	-
Chromium	µg/l	2	50	5	0.3	**0**	-
Copper	µg/l	5	2000	5	2.9	**0**	-
Total Cyanide	µg/l	-	50	5	<10	**0**	-
Lead	µg/l	4	10	5	<0.2	**0**	-
Mercury	µg/l	1	1	5	<0.05	**0**	-
Nickel	µg/l	8	20	5	5.4	**0**	-
Selenium	µg/l	-	10	5	5.7	**0**	-
Zinc	µg/l	30	5000	5	8.4	**0**	-
pH	-	6-9	-	5	7.1 – 7.5	**0**	-
ORGANICS							
Naphthalene	µg/l	10	-	12	10	**1**	WS8 – 1.70m
Benzo(a)pyrene	µg/l	0.05	0.01	12	4.40	**5**	WS8 – 1.70m WS18a – 2.00m WS19 – 2.00m WS20 – 2.15m WS22 – 2.00m
benzo[b]fluoranthene	µg/l	0.03	-	12	4.70	**4**	WS18a – 2.00m WS19 – 2.00m WS20 – 2.15m WS22 – 2.00m
benzo[k]fluoranthene	µg/l	0.03	-	12	3.80	**0**	WS8 – 1.70m WS18a – 2.00m WS19 – 2.00m WS20 – 2.15m

benzo[g,h,i]perylene & indeno(1,2,3-cd]pyrene	µg/l	0.02	-	12	11.0	**6**	WS8 – 1.70m WS17a – 2.00m WS18a – 2.00m WS19 – 2.00m WS20 – 2.15m WS22 – 2.00m
Total Petroleum Hydrocarbons (C10 – C35)	mg/l	-	0.01	12	350	**7**	WS05B – 2.00mbgl WS8 – 1.70m WS17a – 2.00m WS18a – 2.00m WS20 – 2.15m WS22 – 2.00m
Total Petroleum Hydrocarbons (C6–C10)					0.28	**2**	WS8 – 1.70m WS17a – 2.00m
TPH Aliphatic C5-C6	mg/l	-	0.01	12	<0.001	**0**	
TPH Aliphatic C6-C8	mg/l	-	0.01	12	<0.001	**0**	
TPH Aliphatic C8-C10	mg/l	-	0.01	12	0.16	**2**	WS8 – 1.70m WS17a – 2.00m
TPH Aliphatic C10-C12	mg/l	-	0.01	12	17	**4**	WS8 – 1.70m WS17a – 2.00m WS18a – 2.00m WS20 – 2.15m
TPH Aliphatic C12-C16	mg/l	-	0.01	12	17	**6**	WS8 – 1.70m WS17a – 2.00m WS18a – 2.00m WS20 – 2.15m WS22 – 2.00m
TPH Aliphatic C16-C35	mg/l	-	0.01	12	109		WS8 – 1.70m WS17a – 2.00m WS18a – 2.00m WS20 – 2.15m WS22 – 2.00m

*Notes: The WHO Guideline Values for petroleum products in drinking water have been applied in the absence of a current UK specific TPH water quality standard. However, for the aromatic TPH bandings of C6-C7, C7-C8 and C8-C10 the more conservative UK specific EQS for benzene, toluene and ethylbenzene have been selected as the Tier 1 screening criteria.

8.5.5 Discussion and Recommendations

Soils

The environmental chemistry results together with the findings of the intrusive investigation are consistent with the site's historical uses. Drawings within Appendix A highlights the

were visual and olfactory evidence of hydrocarbon contaminated soils were recorded. observations and exceedances. No elevated concentrations of TPH have been recorded in excess of tier 1 screening values in the soils within the north/northwestern sector of the site.

Asbestos

None of the 15no tested samples of Made Ground have recorded asbestos, with preliminary quantification determining concentrations of 'Not Detected <0.001%' total mass.

Although unlikely, it should be noted that there may of course be areas of undetected contamination between our sampling points.

All Asbestos Containing Material (ACM) identified during the site enabling works must be dealt with in strict accordance with the Control of Asbestos Regulations (CAR) 2012, UK Waste Management Legislation and the Environmental Protection Act 1994.

As a contingency measure and to protect construction workers and future end users from any asbestos contamination, we recommend that the following protective measures are adopted during the proposed ground preparatory works:

- All site personnel should be provided with PPE when excavations and demolition works are taking place.
- A water bowser or other dust suppression equipment shall be provided in order to dampen exposed surfaces; during the movement of plant and removal of arisings.
- Provision of personal monitors for site staff to measure individual exposure to asbestos fibres.

Should off-site disposal be required, then additional asbestos quantification and waste classification testing should be undertaken to ensure that it is classified correctly and disposed at a suitably licenced facility.

All ACM impacted soils must be managed so as to ensure no airborne fibre release during construction or placement of impacted material in such a manner to ensure no future exposure risk.

Risks to Controlled Water Receptors

The NX site investigation works has encountered ground conditions comprising Made Ground over fine to coarse sand/sand and gravel, overlying predominantly cohesive clay deposits. These drift deposits are classified as a Secondary Undifferentiated aquifer deposits with the underlying sandstone is recorded to be a Principal aquifer.

The Groundsure report indicates that there are no surface water features within 250m of the site. A culverted watercourse is situated 5m west of the site, Corn Brook (Hidden River) in culvert.

Both site and regional groundwater flow is anticipated to be to the northwest towards Corn Brook and the River Medlock. An absence of groundwater strikes and limited available nearby borehole logs has restricted regional groundwater flow calculations.

The drift deposits have been recorded to depths ranging from 0.35m bgl to 11.00m over the Principal Aquifer. Glacial Clay deposits between 2.40m and 7.00m bgl are expected to provide infiltrations rates in the order of 10-9m/sec.

The proposed development is to comprise a 7-storey building with hard and soft landscaping, access and servicing and other associated works.

Leachate and groundwater testing analysis indicates inorganic contaminants to be largely absent beneath the site. The testing highlighted above has recorded a number of inorganic contaminants within the leachate samples in both Made Ground and drift deposits; at concentrations exceeding the respective EQS screening values recorded in WS01, WS10 & WS14. UKDWS screening values were not exceeded within the tested samples. The exceedances within copper, chromium and lead highlighted above are considered to be marginal due to the limited concentrations of heavy metals recorded within the soils across the site.

The NX site investigation works has encountered ground conditions comprising Made Ground predominantly cohesive clay deposits which will restrict vertical and lateral percolation of recorded low levels of copper, chromium, lead. Given the low mobility of these contaminants, the potential for the contaminants to represent suspended solids and development proposals comprising predominantly hardstanding impermeable surfaces reducing infiltration the risks to controlled water receptors post construction is deemed to be low.

As such, risks to Corn Brook and the Principal Aquifer post construction is deemed to be low from inorganic contamination.

During the preliminary works, the groundwater testing highlighted Total Petroleum Hydrocarbons (C10 – C35) values slightly exceeding the respective EQS screening values within WS05B. However, supplementary works have been carried out and analysis is consistent with on-site observations whereby, groundwater concentrations of up to 350mg/l were recorded in exploratory boreholes within WS8, 17a, 18a, 20 & 22 above UKDWS and EQS guideline values.

To ensure a low risk to controlled waters and human health receptors, it is recommended that a suitable remediation strategy is developed for the site. A piling risk assessment will be required to establish the most suitable pile type for the ground conditions encountered.

The remediation strategy will need to be agreed with Manchester City Council and Environment Agency. A P20 quantitative controlled water risk assessment being required to establish suitable remediation levels for any site cleanup.

Remediation Options Appraisal

Drawings within Appendix A highlights the recorded hydrocarbon observations and groundwater/leachate exceedances. Testing indicates that the hydrocarbon contamination is contained within the sand/sand and gravel deposits; and groundwater (where present). Testing of the Glacial Clay indicates that the clay is acting as a barrier to downward and lateral migration.

It is outside the scope of this document to determine the most suitable (and cost effective) Option for site remediation; that would be dependent on the redevelopment layout, programme and the nature of soils to be exposed at the surface. Nonetheless, at this stage and for guidance purposes, a viable remediation solution for commercial site development would involve the following possible options:

1). P20 risk assessment modelling confirms low risk of offsite groundwater migration to impact compliance point receptors. Leave the soils and groundwater contamination in-situ and adopt a vapour membrane to mitigate risks to future building occupiers.

2). Post demolition delineation of hotspots and removal and/or in-situ treatment of all hydrocarbon impacted soil and groundwater from locations identified to date, beneath the former garage and factory. A vapour membrane may be required dependent on the residual soil and groundwater post remediation.

3). Site soils will need to be placed below a suitable clean cover layer to ensure they pose no unacceptable risk to the future site users. Within areas of proposed landscaping it is recommended that a minimum of 600mm of Made Ground (below proposed formation level), should be removed from site and replaced with clean inert materials to form a capping layer over any potential contamination.

   Materials imported to site are required to be suitable for the intended commercial end use.

Delineation of the hydrocarbon source area and identification of source concentrations can have high uncertainty, particularly horizontally, given the practical limitations of intrusive investigations. As part of any options appraisal, consideration should be given to incorporating vapour monitoring to establish the suitability of a vapour membrane; to reduce potential volatilisation via indoor air migration pathways to adversely impact site occupiers.

It should be noted that at present the actual source of the hydrocarbon contamination has not been established and during demolition works further trial pitting is recommended to establish the potential presence of below ground fuel tanks/infilled vehicle inspection pits.

An engineer should be present also during the lifting of floor slabs and treatment of the made ground (screening/crushing/placement of piling matts). Further testing and verification sampling will be required should such features be established.

All operations will be subject to regulation using a 'Materials Management Plan' (MMP) to be created in accordance with Version 2 of the CL:AIRE Definition of Waste – Industry Code of Practice. The MMP should be created with due consideration to all proposed remediation and enabling works operations prescribed within this document and should be undertaken by a Qualified Person and a signed declaration submitted to the EA prior to re-use of materials on the site.

Topsoil should be in line with BS 3882: 2015 'Specification for topsoil' within the clean cover system.

8.5.6 Waste Classification

Site soils have been characterised against hazardous waste criteria using Hazwasteonline. Any soils to be exported from site should be allocated an appropriate waste code, following the steps within WM3.

The results appended to this document indicate that the samples tested are likely to predominantly be classified as NON-HAZARDOUS WASTE. However, localised shallow Made Ground deposits are likely to be determined to be classified as HAZARDOUS WASTE. This should be confirmed by the appointed waste management contractor following submission of all available test results carried out at the site to date. The waste classification

assessment only applies to those soils that have been tested. If other soils are to be disposed of off-site then further analysis may be required.

It is the responsibility of those generating the waste (i.e. the site), to ensure that the waste is handled and disposed of appropriately. Waste carriers transporting, and sites accepting, this material should have a corresponding code within their permits.

Waste acceptance criteria (WAC) testing results indicate that sampled Made Ground soils will be suitable for an non-hazardous and inert non-hazardous landfills.

In order to prevent excessive costs and reduce the environmental impact of the development it is recommended that removal of wastes from the site, including waste soils, is kept to a minimum. It is however, envisaged that arisings will be created during the works; in particular within service excavations and site reprofiling.

To evaluate the various on-site soils for potential offsite disposal, soils are classified in accordance with the Hazardous Waste Directive (HWD) that enables the provision of a European Waste Catalogue (EWC) Code for use during offsite disposal and a Hazardous or Non-Hazardous Classification. Non-Hazardous material is suitable for disposal in a Non-Hazardous landfill; however, disposal to an Inert Landfill requires further Waste Acceptance Criteria (WAC) testing in accordance with BS EN 12457–3. Material classed as Hazardous also requires WAC testing to assign a suitable hazardous classification.

The Landfill Regulations require that all Hazardous and Non-Hazardous solid waste must be treated prior to offsite disposal to landfill. You can define 'treatment' by using the following 'three-point test'. All three criteria must be satisfied for all of the waste to qualify as being treated:

1. It must be a physical, thermal, chemical or biological process including sorting.
2. It must change the characteristics of the waste.
3. It must do so in order to:

a. Reduce its volume; or
b. Reduce its hazardous nature; or
c. Facilitate its handling; or
d. Enhance recovery.

It should be noted that a site investigation is unable to identify all below ground conditions at a site and therefore, it should be noted that if during construction works soils that require offsite disposal are identified as being different to what has been preliminarily tested in this report, additional testing will be required prior to disposal or recovery at a licensed offsite facility.

It is also recommended that prior to offsite disposal or recovery of any waste soils; the receiving landfill facility should be sent copies of all relevant chemical analysis and written confirmation of acceptance of soils provided.

All producers of waste have a duty of care to ensure that any waste they produce is handled safely and within the law. They must check that anyone they pass waste on to is authorised to take it. This includes the authorised site earmarked to handle the waste and any haulier (licensed waste carrier) used to transport the waste between the sites.

All waste holders must act to keep waste safe against:

1. Corrosion or wear of waste containers;

2. Accidental spilling or leaking or inadvertent leaching from waste unprotected from rainfall;
3. Accident or weather breaking open contained waste and allowing it to escape;
4. Waste blowing away or falling while stored or transported;
5. Scavenging of waste by vandals, thieves, children, trespassers or animals.

Holders should protect waste against the above risks while it is in their possession and they should also protect it for its future handling requirements. Waste should reach not only its next holder but a licensed facility or other appropriate destination without escape. It is recommended that the container used to transport the waste is suitable not only to prevent solid and liquid residues escaping, but also any potentially dangerous vapours or odours associated with the waste.

Segregation of different categories of waste where they are produced may be necessary to prevent the mixing of incompatible wastes. Segregation may assist the disposal of waste to specialist outlets. Where segregation is practiced on sites, the waste holder should ensure that his employees and anyone else handling waste there are aware of the locations and uses of each segregated waste container.

Waste handed over to another person should be in some sort of container, which might include a skip. The only reasonable exception would be loose material loaded into a vehicle and then covered sufficiently to prevent escape before being moved. Waste containers should suit the material put in them.

A waste transfer note (WTN) is a document which must accompany any transfer of waste between different holders. The purpose of a WTN is to allow other people who handle your waste to know what they are dealing with so that they can manage it safely and properly.

A WTN must be created for each load of waste that leaves the site.

The WTN must contain enough information about the waste to enable anyone coming into contact with it to handle it safely, and either dispose of it or allow it to be recovered within the law. If insufficient information is given on the WTN the responsible party may liable to be prosecuted.

Records of all waste transferred or received must keep for at least two years.

8.6 Ground Gases

8.6.1 Asphyxiant, Noxious or Explosive Gases

Risk Assessment & Methodology

CIRIA Report 665 "Assessing Risks Posed by Hazardous Ground Gases to Buildings" presents current best practice on the assessment of ground gases for commercial and residential buildings (with the exception of low rise traditional housing). The report presents a risk based approach based on gas screening levels which depend on both the concentration and emission rate of gas from the ground. Gas screening levels are calculated as follows:

$$Gas\ screening\ value\ (l/hr) = gas\ concentration\ (\%)\ X\ measured\ borehole\ flow\ rate\ (l/h)\ /100$$

Gas screening values should be calculated on a borehole basis in the first instance. Consideration of worst case i.e. highest flow and highest concentrations should only be considered if the CSM warrants it.

The monitoring boreholes were installed with ground gas monitoring wells, with response zones set within the made ground and drift deposits. Exploratory hole records showing monitoring well constructions and locations of monitoring wells are presented in Appendix C.

The assessment of potential ground gas generation is based on the observations of trends and patterns of change in ground gas concentration, by the direct measurement of ground gas from the monitoring wells. During each visit the measurement of methane, carbon dioxide, oxygen, hydrogen sulphide, carbon monoxide, gas flow, groundwater level and barometric pressure were recorded.

Potential Sources

The preliminary risk assessment identified the risk from hazardous ground gas as moderate risk and low to moderate source generating potential in line with CIRIA 665, due to the potential for Made Ground and former developments on and within the surrounding area of the site. The Made Ground was recorded to maximum depths of 1.50+ and where present, material does not contain significant deleterious items/organic matter.

Potential pathways

The potential pathways into the building are:

1. Horizontal and vertical migration through the ground into the building via cracks in the floor slab or around services.

Lateral migration could occur from the adjacent infilled sites through the shallow Made Ground deposits and drainage annulus within service trenches.

Receptors

The receptors considered in this assessment are the users of the building and the building. The buildings will comprise a 7-storey building with open ventilated spaces and will have smaller spaces (storerooms/toilets, offices etc) within it. The buildings are a low to moderate sensitivity receptor due to its anticipated infrequent occupancy and potential for well-ventilated areas within the lab spaces.

Ground Gas Monitoring

Suitability of Data

At times during the monitoring visits, the response zones in boreholes were not flooded and water was found to be present within all boreholes with the exception of WS14, WS16 & WS17 (internal locations).

Given the developmental history of the site and recorded historical works within the surrounding area, the source generating potential for the site was deemed to be low to moderate and a total of 6no visits are planned in line with Ciria 665 guidelines.

Results

To date, 6No.rounds of monitoring have been undertaken with a barometric pressure of between 1006-1025mb.

A summary of the soil gas monitoring results is presented in Table 8.6.1 below and copies of the log sheets presented in Appendix G.

Table 8.6.1 – Summary of Gas Monitoring Results (NXC)

NX Consulting Borehole Reference	Max CO2 (%v/v)	Max Flow (l/hr)	Max GSV (l/hr)	Max CH4 (%v/v)	Max GSV (l/hr)
External Boreholes					
RBH01	6.4	0.0	<0.01	0.0	<0.01
RBH02	4.7	0.0	<0.01	0.0	<0.01
WS04	0.4	0.0	<0.01	0.0	<0.01
WS05B	1.4	0.0	<0.01	0.0	<0.01
WS10	2.8	0.0	<0.01	0.1	<0.01
WS11	0.1	0.0	<0.01	0.0	<0.01
Internal Boreholes					
WS14	2.5	0.0	<0.01	0.1	<0.01
WS16	1.6	0.0	<0.01	0.1	<0.01
WS17	0.5	0.0	<0.01	0.0	<0.01

Recommendations & Gas Protection Design

In line with CIRIA 665 Guidance on methane and carbon dioxide, the site is to be developed for commercial end use and the ground gas investigation has identified a maximum carbon dioxide concentration of 6.4% with a maximum flow recorded of 0.0l/hr. The maximum-recorded concentration for methane was 0.0%. In addition, hydrogen sulphide concentrations of 0.0 ppm were recorded.

Elevated GSV values, Carbon Dioxide concentrations within greater than 5.0% resulting in the determination of Characteristic Situation 2 classification were noted in RBH01. Gas protection measures should be installed in accordance with BS8485: 2015. Based on a Type C development and CS2 classification a gas protection score of 2.5 to will need to be achieved.

Table 8.6.2 Gas Protection – Greenheys, MSP

Building Type	Floor Slab Type	Ventilation	Available Points Score
C	Cast in situ monolithic reinforced ground bearing raft or reinforced	Full gas membrane installed to	3.5 to 6

	cast in situ suspended	BS8485:2015 and validated to CIRIA 735	

Gas protection measures should be installed as prescribed in BRE 414 with the ventilation of the sub-floor void designed to provide a minimum of one complete volume change per 24 hours.

Independent validation of gas protection measures is needed to achieve the required points score.

Prior to the adoption of any gas protection measures, agreement should be sought from the local authority environmental health department and building control.

8.5.2 Radon & Hydrocarbons

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level. Therefore, no radon protective measures are necessary.

As mentioned earlier, part of any remedial options appraisal consideration should be given to incorporating vapour monitoring to establish the suitability of a vapour membrane; to reduce potential volatilisation via indoor air migration pathways to adversely impact site occupiers.

9.0 PRE-REMEDIATION CONSTRAINTS AND OUTLINE REMEDIATION STRATEGY

9.1 Supplementary Investigation

During the preliminary works, all arisings from the ground investigation were screened on-site for the presence of volatile organic compounds (VOC) using a MiniRae Photoionisation Detector (PID). No elevated concentrations were recorded.

A supplementary phase of intrusive investigation have been carried out within the area of the former garage and localised areas where potential visual and olfactory evidence of hydrocarbon contamination was observed.

9.2 Invasive Plants

The presence of Japanese Knotweed and/or other invasive plants was not apparent during the fieldwork, however, advice should be sought from a suitably qualified ecologist should any suspicious plant growth be encountered.

9.2 Services

The following utilities are present across the site:

- Electricity cables routed through the site.
- Drains are present within the site boundary.
- A small basement/plant room is present within the southwestern area of the site.

9.3 Hardstanding & Surface Cover

The external portion of the sites surface cover comprises areas of concrete/tamacadam hardstanding/car parking areas and pavement surrounding the building. Internal areas comprise areas of concrete slab & screed.

Photographs presented in Appendix A of shows the nature of surface cover.

9.4 Land Condition and Outline Remediation

9.4.1 Foundations and Ground Stability

The proposed ground level is assumed to be similar to the existing site level and without significant change will be made.

Anticipated Ground Condition & Additional Intrusive Works

Ground conditions encountered across the site (during the NX investigation) comprise Made Ground to possible maximum depths in excess of 1.50mbgl, with occasional below ground obstructions overlying fine to coarse sand, underlain by predominantly firm to stiff cohesive clay, underlain by dense to very dense brown slightly clayey sand and gravel. Suspected bedrock has been encountered at depths between 11.00-20.00mbgl+ and noted to comprise weak to medium strong reddish brown poorly cemented fine to coarse grained SANDSTONE.

Numerous obstructions have been recorded within the formed exploratory holes associated with previous site infrastructure. Obstructions in the form of relic foundations, infilled cellars/basements and roads/infrastructure should be anticipated across the site. Heavy plant and machinery may be required to break out existing slabs/retaining walls/ground beams and cellars/basement slabs.

Groundwater strikes within window sampler boreholes at depths of between 1.50 & 2.00mbgl (perched above the clay) within the sand/sand and gravel. It should be noted that water added to aid rotary drilling, within deeper granular strata (between 6.0m and 11.00m depth) may have masked the presence of groundwater within these deposits.

Foundations

The Made Ground deposits are considered unsuitable as an adequate founding stratum due to the proposed loads and the possible risks of unacceptable total and differential settlements occurring.

It is considered that the use of vibro replacement stone columns are suitable for lightly loaded foundations and floor slab. For the main building Contiguous Flight Augur or a bored piled foundations are the most suitable solution for both foundation to reduce the risk of excessive total and differential settlement associated with Made Ground and drift deposits. Geotechnical testing indicates that site clays are of low to medium shrinkage potential.

A piling risk assessment will be required to establish the most suitable pile type and mitigate the risk of hydrocarbon contamination to impact the underlying secondary A and Principal Aquifers.

A number of trees are present which are within possible influencing distance of the site. Foundations and drainage should be designed in line with NHBC Standards guidance document Chapter 4.2 Building Near Trees.

Site Won Soils

The Made Ground is unlikely to be suitable as a structural fill for foundations and pavements in its current state and treatment (sorting, segregation, screening and possible lime/cement stabilisation) would be required to enable some of the materials to be re-used on parts of the site as structural fill for pavements and floorslabs. Granular soils would need to consider inclement weather as the soils would turn very soft during heavy rainfall if left exposed.

Excavation, Earthworks and Groundwater Measures

Excavations into the Made Ground and superficial deposits should be viable using conventional hydraulic excavating plant. Where relict floor slabs, concrete, hard to dig gravel, cobbles and boulders are present within the upper 1.5m, breaking equipment may be needed to achieve the design depth required.

The stability of foundation excavations are likely to be variable and collapse and spalling of the granular strata (particularly where groundwater is present) and Made Ground materials should be anticipated. All excavations should be conducted in line with CIRIA Report 97 – Trenching Practice and BRE 440 Foundations, Basements and External Works 2002.

A specialist hydrogeologist should be appointed to provide advice on dewatering measures within the Glacial Till deposits where well point systems may be required, to prevent spalling, collapse and running sand conditions. Trenchboxes or similar may be required to support drainage and deep foundation excavations. Where trenchfill foundations are to be used, support and dewatering would be required in any case to maintain the necessary integrity of the concrete.

Any replaced 'site won' or imported materials will again need to be compacted in a controlled manner in line with the Department of Transport, Specification for Highway Works. However, the clay and fine sand encountered beneath the site is not likely to be suitable for re-use as structural fill in its current form due to being too wet. Additionally, these materials would not be suitable to form capping or sub-base.

Where possible all soils should be retained on site to reduce disposal costs.

During periods of inclement weather, surface water management controls will be required.

Access Road and Hardstanding

If the CBR is less than 2.5%, foundation improvement work shall be undertaken in accordance with IAN 73/06. Consideration should be given to cement/lime stabilisation to provide a stable working platform for site plant, personnel and proposed pavements. A suitably qualified treatment specialist should be contacted to confirm the suitability of these soils and achievable CBR values following treatment.

Prior to the construction, it is recommended in-situ CBR tests using a bearing plate to be carried out at the formation once the formation elevation is determined.

Soakaways

NX Consider that soakaways are unlikely to be suitable at this site within the interbedded clay and sand deposits and presence of shallow groundwater. Furthermore, the presence of potential localised hydrocarbon contamination in location across the site likely precludes the acceptability of use.

Concrete Design

Concrete should be of minimum Design Sulphate Class of DS-1 and an Aggressive Chemical Environment for Concrete (ACEC) class of AC-1s.

9.4.2 Contamination

A preliminary and refined risk assessment, based upon the findings of the intrusive investigation, is presented in Appendix F the general findings of which are discussed below.

Outline remediation solutions for site development will involve further quantitative modelling to inform a suitable remediation solution, probably comprising post demolition delineation of hydrocarbon hotspots and removal and/or in-situ treatment of all hydrocarbon impacted soil and groundwater from locations identified to date, beneath the former garage and factory.

As part of any options appraisal consideration should be given to incorporating vapour monitoring to establish the suitability of a vapour membrane; to reduce potential volatilisation via indoor air migration pathways to adversely impact site occupiers.

It should be noted that at present the actual source of the hydrocarbon contamination has not been established and during demolition works further trial pitting is recommended to establish the potential presence of below ground fuel tanks/infilled vehicle inspection pits.

An engineer should be present also during the lifting of slabs and treatment of the made ground (screening/crushing/placement of piling matts). Further testing and verification sampling will be required should such features be established.

Within landscaping areas and P.O.S. a minimum requirement of 600mm of clean cover (150mm topsoil) / removal & replacement of made grounds should be assumed at this stage. A hard to dig layer or geotextile (designed to reduce infiltration) will be required within the cover system platform. If a geotextile is adopted then drainage should be introduced within the cover system layer to prevent waterlogged conditions within landscaped and P.O.S areas.

Specialist potable water pipework will be required. This will need to be confirmed following completion of a UKWIR assessment with the Regulators and testing along the line of the proposed pipework once positions are known.

Site workers involved in excavations for foundations, roads, sewers etc during the construction works may come into direct contact with the soils containing elevated concentrations of PAH's, or potentially other forms of contamination including asbestos. We would therefore recommend that simple precautionary measures be adopted during the construction phase i.e. good personal hygiene, provision of suitable welfare facilities and basic personnel protective equipment.

Any areas of proposed landscaping and public open space will require imported subsoil/topsoil materials which will require chemical validation to demonstrate that they are suitable for a commercial end use and taken to depths sufficient to provide a sufficient cover system for all proposed materials used which are capable to support root growth.

To ensure a low risk to controlled waters and human health receptors, it is recommended that a suitable remediation strategy is developed for the site. A piling risk assessment will be required to establish the most suitable pile type for the ground conditions encountered.

Carbon Dioxide concentrations greater than 5.0% resulting in the determination of Characteristic Situation 2 classification were noted in RBH01. Gas protection measures should be installed in accordance with BS8485: 2015. Based on a Type C development and CS2 classification a gas protection score of 2.5 to will need to be achieved. Post remediation ground gas monitoring should be considered as it may confirm that ground gas protection measures are not necessary. Prior to the adoption of any gas protection measures, agreement should be sought from the local authority environmental health department and building control.

The remediation strategy will need to be agreed with Manchester City Council and Environment Agency. A P20 quantitative controlled water risk assessment being required to establish suitable remediation levels for site cleanup and to inform the remediation solution.

Risk to Controlled water are considered to be low upon completion of the development.

A CL:AIRE COP Materials Management Plan (MMP), remediation strategy and final validation reports are recommended and will be required prior to discharge of any outlying planning conditions.

This report should be issued to the Director of Planning at Manchester City Council to prevent delays in the project.

APPENDICES

Appendix A – Drawings & Site Photographs

Appendix B – Groundsure Report & Historical Mapping

Appendix C – Exploratory Hole Logs

Appendix D - Geotechnical Laboratory Test Results

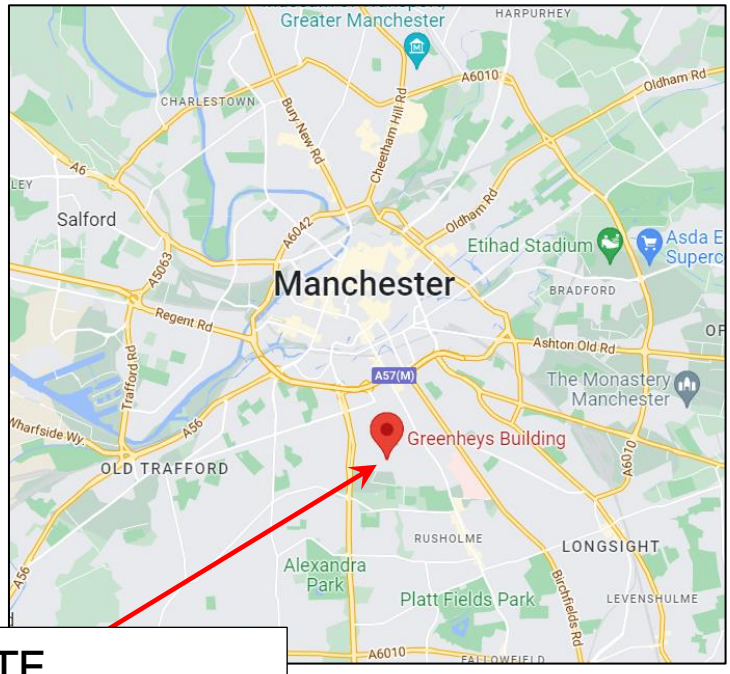
Appendix E – Chemical Test Results

Appendix F – Conceptual Models & Risk Assessments

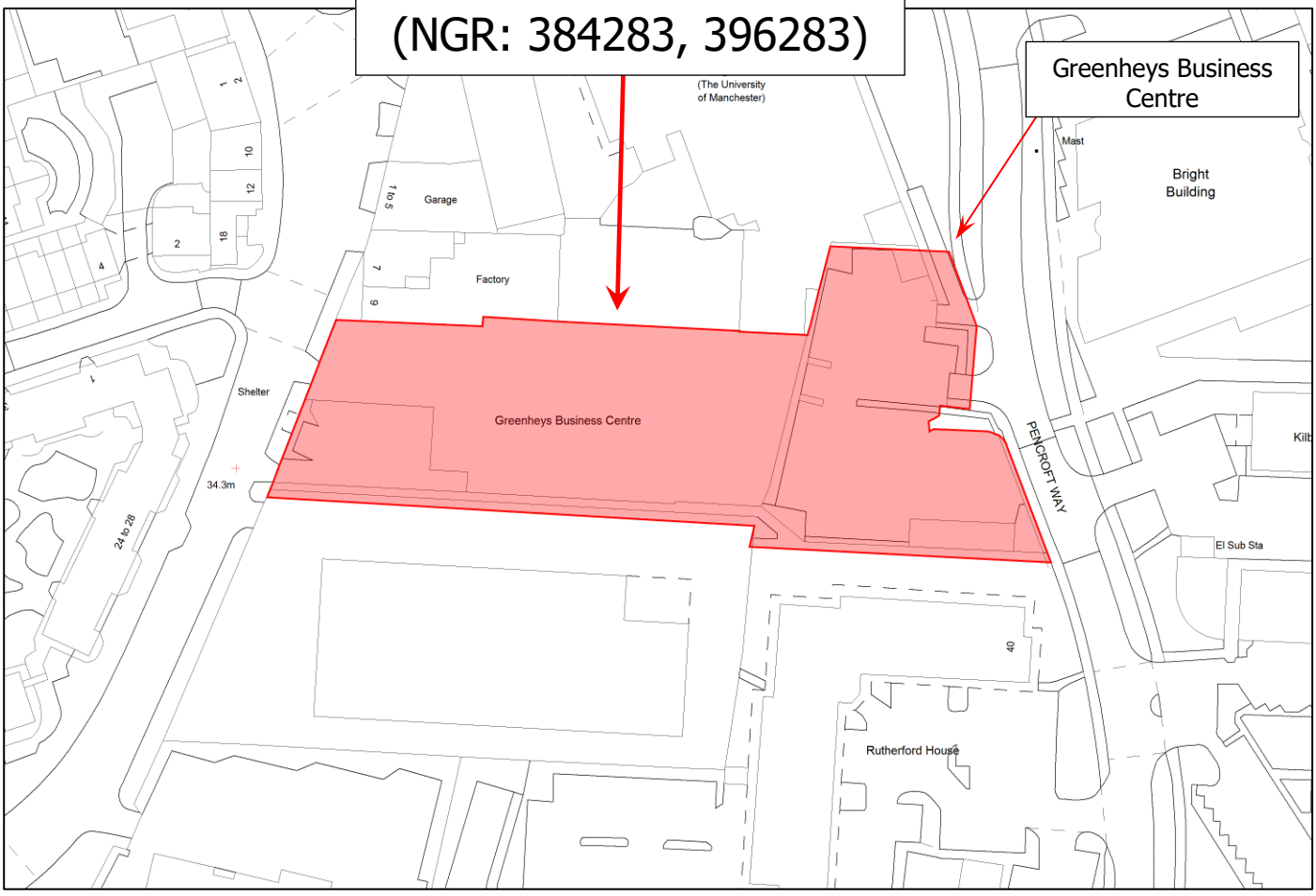
Appendix G – Gas Monitoring Results

Appendix A – Drawings & Site Photographs





SITE
(NGR: 384283, 396283)



nxconsulting

Next Generation Engineering Consultancy Services

Tel: 0161 904 0187
E-mail: admin@nxconsulting.org.uk
Web: www.nxconsulting.org.uk

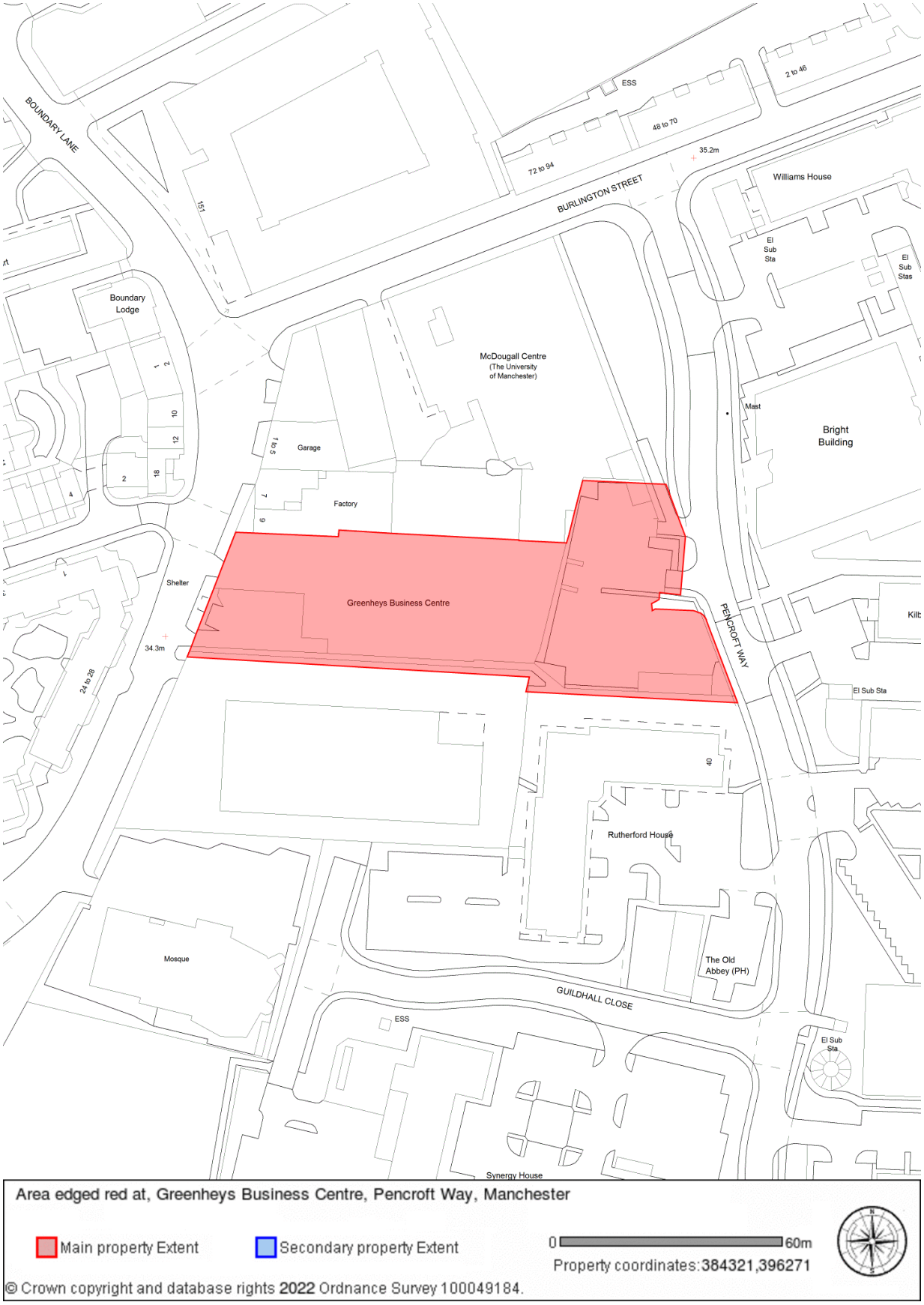
Ref: NX534 Figure 1

Project:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Title:

Site Location Plan



nxconsulting

Next Generation Engineering Consultancy Services

Tel: 0161 904 0187
E-mail: admin@nxconsulting.org.uk
Web: www.nxconsulting.org.uk

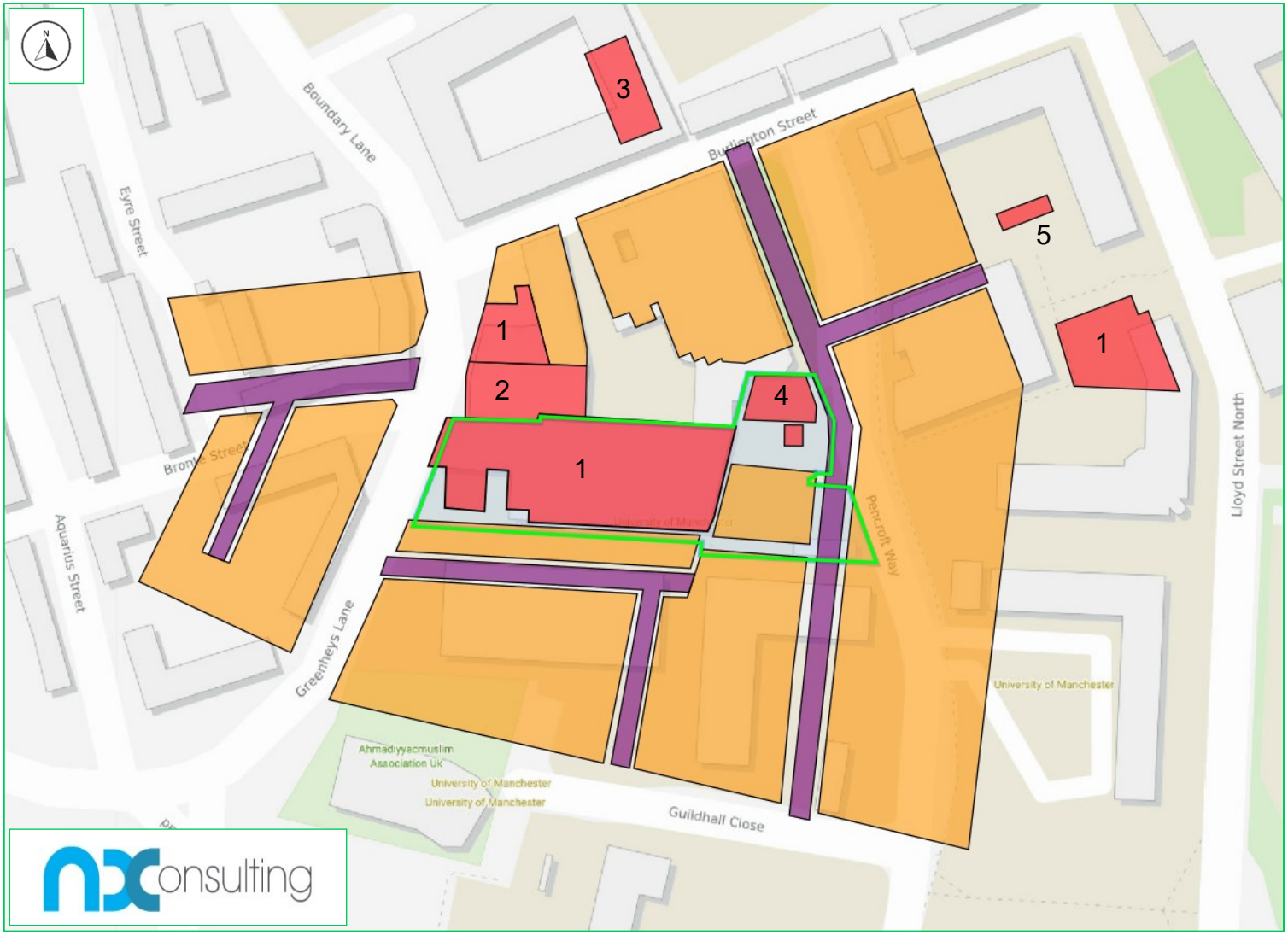
Ref: NX534 Figure 2

Project:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Title:

Site Boundary Plan



Key	
	Approximate Site Boundary
	Denotes Significant Former Developments
	Denotes Subordinate Former Developments
	Denotes Former Roads
1	Former Garage
2	Former Factory
3	Former Clothing Works
4	Former Warehouse
5	Former Engineering Works

Ref: NX534 Figure 2.1

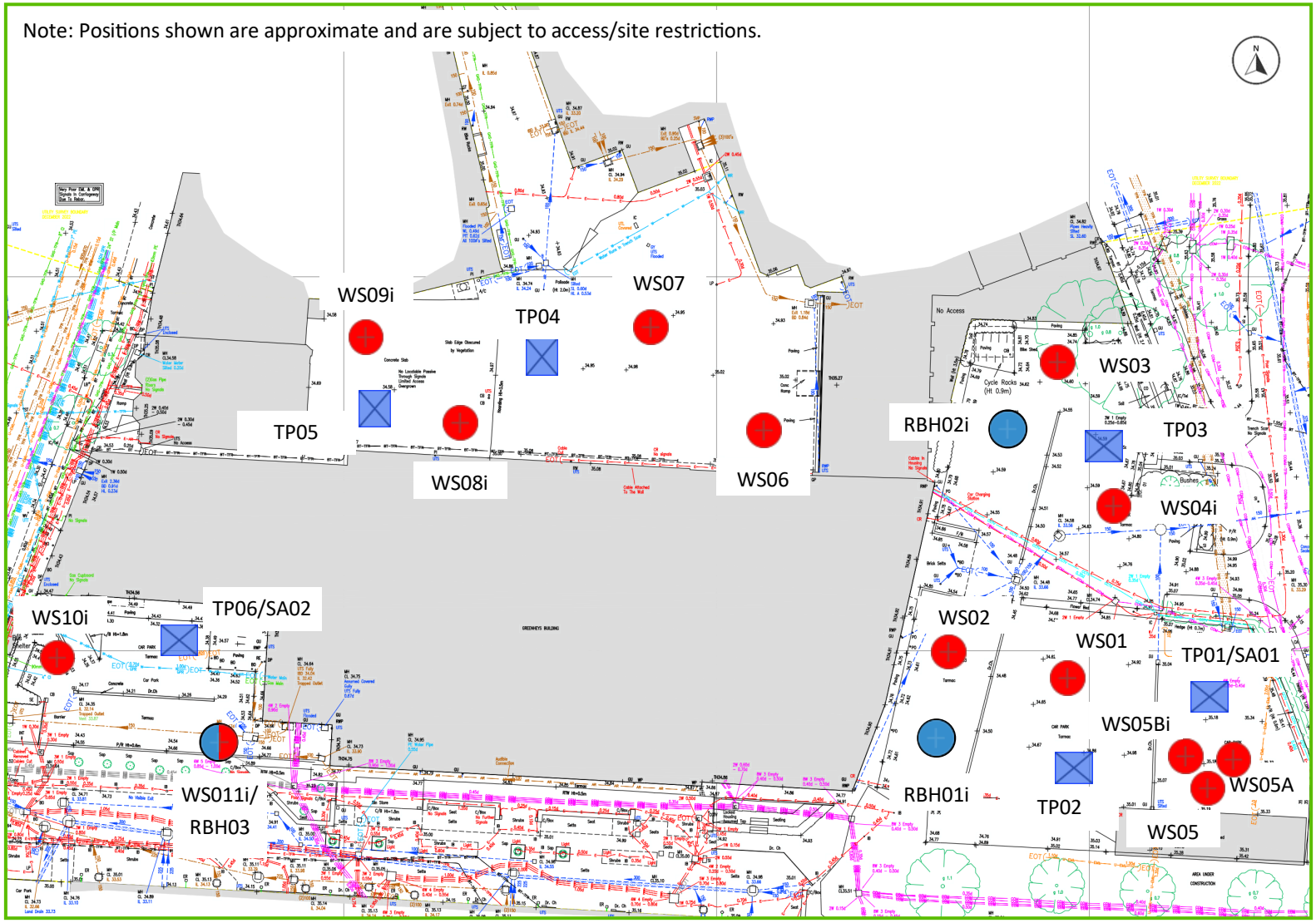
Project:

Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ

Title:

Conceptual Site Plan

Note: Positions shown are approximate and are subject to access/site restrictions.



Key

	NX Consulting Window Sampler Boreholes (WS)
	NX Machine Excavated Trial pit (TP)/Soak Away (SA)
	NX Consulting Rotary Core Boreholes to 20.00m bgl (RBH)
i	Denotes NX groundwater/ gas installation

nxconsulting

Ref: NX534 Figure 3

Project:

Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ

Title:

External Exploratory Hole Location Plan

Note: Positions shown are approximate and are subject to access/site restrictions.





Key

●	NX Consulting Handheld Window Sampler Boreholes (WS)
⊠	NX Machine Excavated Trial pit (TP)/Soak Away (SA)
●	NX Consulting Supplementary Window Sampler Boreholes 20th & 22nd June 2023
i	Denotes NX groundwater/ gas installation

nxconsulting

Ref: NX534 Figure 4

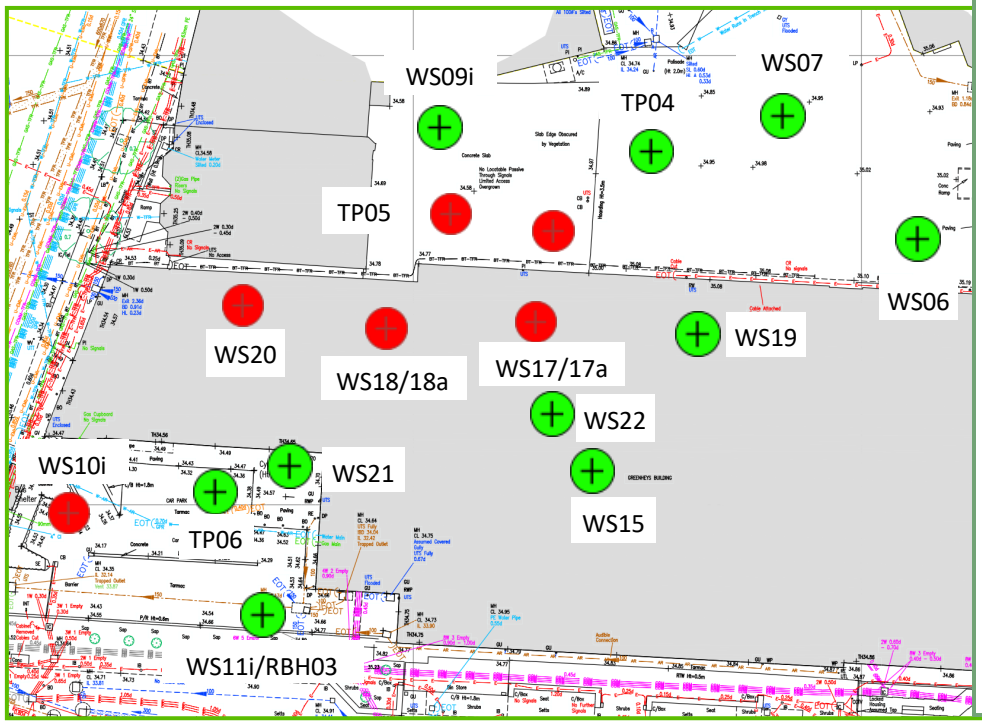
Project:

Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ

Title:

Internal Exploratory Hole Location Plan

NX Consulting Sample List:		
Exploratory Hole:	Sample depth (m):	Depth of Contamination Observed:
WS10	0.25, 0.7, 1.1	0.20m to 0.65mbgl
TP06	N/A	N/A
WS21	1.8	N/A
WS11/RBH03	0.5, 0.8, 1.5	N/A



NX Consulting Sample List (continued):		
Exploratory Hole:	Sample Depth (m):	Depth of Contamination Observed:
WS09	0.5, 1.5	N/A
TP04	N/A	N/A
WS07	0.6, 1.2	N/A
TP05	1.6, 2.0, 2.7	1.9m to 2.5mbgl
WS08	1.5, 1.8, 2.3	1.7m to 2.1mbgl
WS20	1.9, 2.1, 2.6	2.0m to 2.5mbgl
WS18	0.8, 2.1	2.0m to 2.5mbgl
WS18a	N/A	2.0m to 2.5mbgl
WS17	0.3, 0.7, 0.8, 1.9, 2.5	1.9m to 2.5mbgl
WS17a	1.8, 2.2, 2.9, 3.2	1.9m to 2.5mbgl
WS19	0.35, 2.4	N/A
WS22	2.0	N/A
WS15	0.3, 0.8, 1.0	N/A
WS20	1.9, 2.1, 2.6	2.0m to 2.4mbgl

Key	
⊕	NX Consulting WS/BH/TP with contamination observations recorded.
⊕	NX Consulting WS/BH/TP without contamination observations recorded.
i	Denotes NX groundwater/ gas installation

nxconsulting

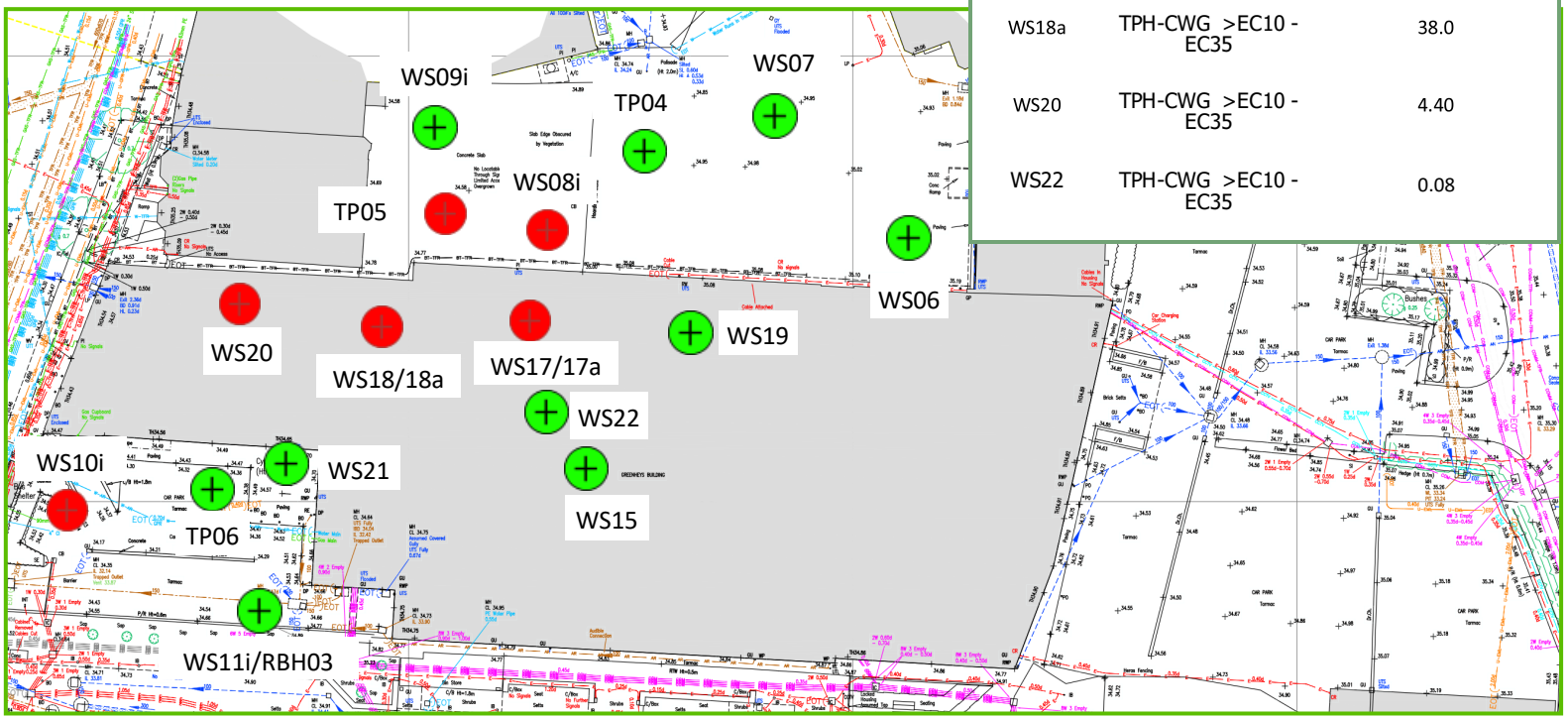
Ref: NX534 Figure 5

Project:

Greenheys Business Centre, Pencroft Way, Manchester, M15 6JJ

Title:

Hydrocarbon Contamination Observation Plan



TPH-CWG >EC10 - EC35 Groundwater Exceedances

Exploratory Hole:	Determinand	Concentration (mg/ll)
WS05B	TPH-CWG >EC10 - EC35	0.09
WS8	TPH-CWG >EC10 - EC35	350.0
WS17a	TPH-CWG >EC10 - EC35	160.0
WS18a	TPH-CWG >EC10 - EC35	38.0
WS20	TPH-CWG >EC10 - EC35	4.40
WS22	TPH-CWG >EC10 - EC35	0.08

Key

⊕	NX Consulting WS/ BH/TP with visual & olfactory observa-tions recorded.
⊕	NX Consulting WS/ BH/TP without visual & olfactory contamination obser-vations
i	Denotes NX ground-water/gas installation

Ref: NX534 Figure 6

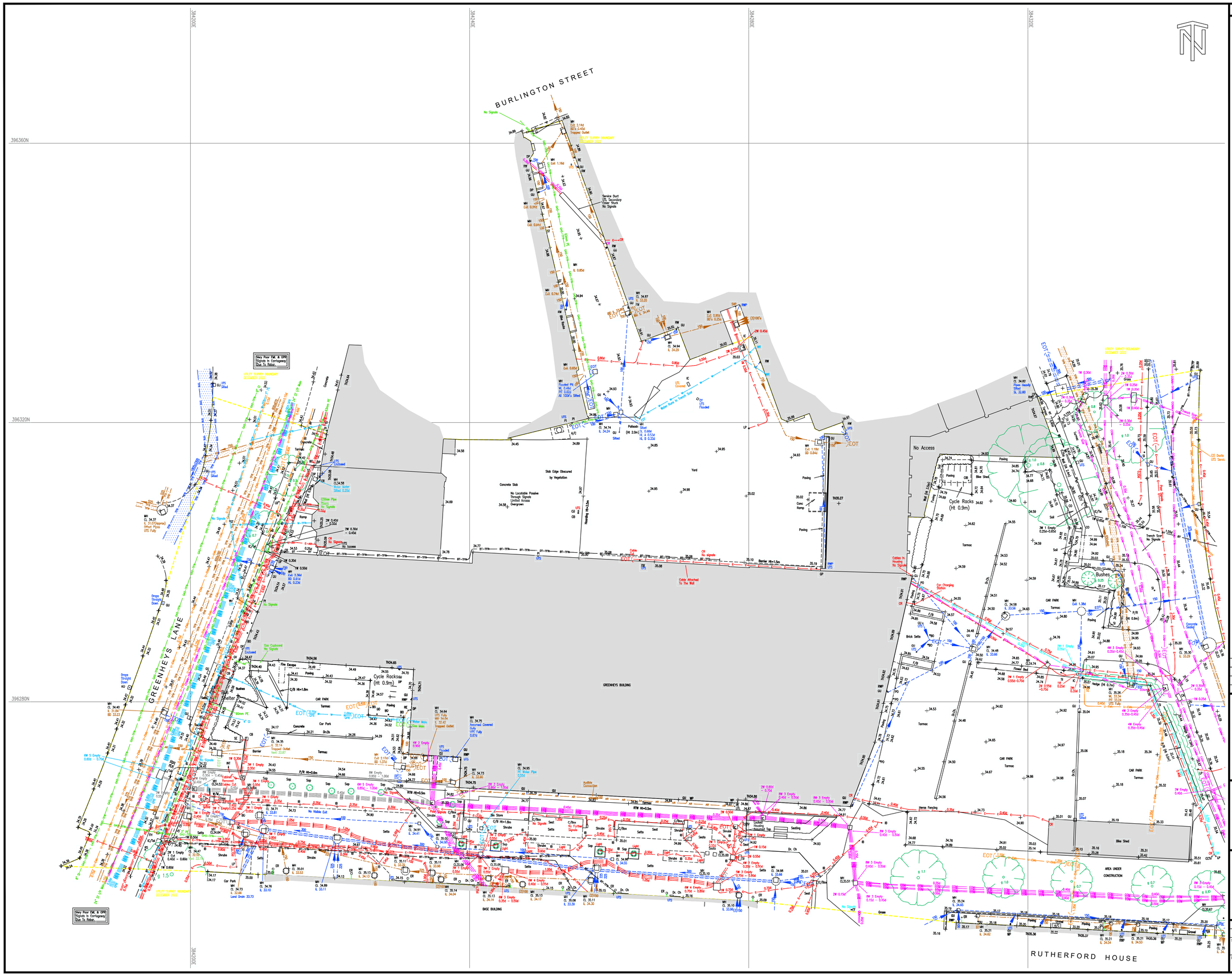
Project:

Greenheys Business Centre, Pencroft Way, Man-chester, M15 6JJ

Title:

UKDWS & EQS Groundwater Exceedances for

EC10 TO 35 Hydrocarbon Contamination



NOTES

KEY

Grid & Datum - Local Plane Grid related to OS National Grid & Datum By GNSS RTK Observations

STANDARD ABBREVIATIONS

STREET FURNITURE

A/C - AIR CONDITIONING
AE - AERIAL
AL - ALARM
AV - AIR VALVE
BA - BUOYANCY AID
BB - BELISHA BEACON
BD - BUILDING DIVIDE
BH - BOREHOLE
BL - BASEMENT LIGHT
BO - BOLLARD
BP - BOUNDARY POST
BR - BOULDER
BU - BUS STOP
CA - CABLE
CB - CONTROL BOX
CC - CLOSE CIRCUIT TV
CIB - CIGARETTE BIN
Col - COLUMN
CT - CLOSE CIRCUIT TV POLE
DP - DOWN PIPE
DR - DRAIN
Dr.Ch - DRAINAGE CHANNEL
DU - DUCT
E - ELECTRIC
EP - ELECTRICITY POLE
ER - EARTH ROD
FA - FENDOR ANCHOR
F/B - FLOWER BED
FH - FIRE HYDRANT
FL - FLOODLIGHT
FS - FLAG STAFF
GA - GAS
GM - GAS METER
G - GIRTH
GP - GATE POST
GU - GULLY
GV - GAS VALVE
Hyd - HYDRANT
IC - INSPECTION COVER
IT - TRAFFIC COVER
JB - JUNCTION BOX
KO - KERB OFFLET
LA - LADDER
LB - LITTER BIN
LC - LIGHTING COLUMN
LI - LIGHT
LP - LAMP POST
MBO - MOORING BOLLARD
MA - MAST
MH - MANHOLE
MO - MONUMENT
MP - MILE POST
MR - MOORING RING
MW - MONITORING WELL
NP - NAME PLATE
OH - OVERHEAD
OSBM - ORDNANCE SURVEY BENCH MARK
PA - PLAY APPARATUS
PB - POLICE BOX
PH - PUBLIC HOUSE
PI - PIPE
PL - PLANT
PM - PARKING METER
PN - PLANTER
PO - POST
PP - PETROL POL PUMP
RH - RIDGE HEIGHT
RS - ROAD SIGN
RTW - RETAINING WALL
RWP - RAINWATER PIPE
SM - STANCHION
SC - SPEED CAMERA
SD - SATELITTE DISH
S/F - SAFETY FENCE
SG - SIGNAL
SI - SIGN
SMP - SERVICE MARKER POST
SS - SECURITY SENSOR
ST - STOP TAP
SU - STUMP
SV - STOP VALVE
SW - SWITCHGEAR
TA - TANK
TA - TAP
TBM - TEMPORARY BENCH MARK
TCB - TELEPHONE CALL BOX
TE - TELEPHONE
TM - TICKET MACHINE
TS - TRAFFIC SIGNAL
TP - TELEGRAPH POLE
UTL - UNABLE TO LIFT
VDP - VEHICLE DETECTOR PAD
VP - VENT PIPE
WB - WHISTLE BLOW
WM - WATER METER
WO - WASH OUT
WP - WASTE PIPE

FENCE TYPES

B/W - BARBED WIRE
C/B - CLOSE BOARDED
C/I - CORRUGATED IRON
C/P - CONCRETE PANEL
HRN - HANDRAIL
I/R - IRON RAILING
PAL - PALISADE
P/C - POST & CHAIN
P/P - POST & PANEL
P/R - POST & RAIL
PSB - PEDESTRIAN SAFETY BARRIER
P/W - POST & WIRE
W/M - WIRE MESH

LEVELS

BL43.45 - BED LEVEL
EV43.45 - EAVE LEVEL
IL43.45 - INVERT LEVEL
43.45 - SPOT LEVEL
RF43.45 - ROOF LEVEL
RL43.45 - RIDGE LEVEL
SB43.45 - SOFT BED LEVEL
SL43.45 - SOFFIT LEVEL
TH43.45 - THRESHOLD LEVEL
WL43.45 - WATER LEVEL

SYMBOLS

HEDGE
GATE
BUILDING
TREE CANOPY
CONTROL STATION
TACTILE PAVING
TREE

UNDERGROUND SERVICE KEY

Foul/Combined water drain
Foul/Combined drain 300Ø and above
Surface water drain
Surface water drain 300Ø and above
End of trace
Electric cables
HV cables
Gas
Water
Telephone
Catv
CCTV
Comms
Fibre Optics
Pipe
Vents
Fuel
Offsets
Vapour Recovery
Gauge Lines
Unidentified GPR
Unidentified EML
Taken From Records
Assumed Routes
Empty Ducts
Earth Rod
Rising Main
Overhead
Heating Pipes
Traffic Signals

Where chamber extents are significantly greater than the cover size, their approximate extents are shown thus;

ABBREVIATION KEY

AR assumed route
BB base bend
BD backdrop
CC cable chase
CL cable level
CR cable riser
DP down pipe
EOT end of trace
EP electricity pole
FH fire hydrant
G gully
GV gas valve
HOR head of run
HL high level
IC inspection chamber
IL invert level
MH manhole
PR pipe riser
RE rodding eye
RWP rainwater pipe
SV stop valve
SVP soil vent pipe
TE trapped exit
TFR taken from records
TP telegraph pole
UTF unable to find
UTL unable to lift
UTS unable to survey
UTT unable to trace
WC water closet
WL water level
WM water meter
WO wash out valve

UTILITY SURVEY NOTES

ELECTROMAGNETIC AND/OR GROUND PENETRATING RADAR TECHNIQUES HAVE BEEN USED TO LOCATE AND MAP UNDERGROUND UTILITIES AND FEATURES ON THIS DRAWING. N D OLIVER & CO LTD HAVE MADE EVERY ENDEAVOUR TO MAKE SURE THAT THE INFORMATION CONTAINED WITHIN THIS DRAWING IS ACCURATE AND OF THE HIGHEST QUALITY. HOWEVER, THE RESULTS FROM THESE TYPES OF SURVEYS ARE NOT INFALLIBLE AND SHOULD THE LOCATION OR DEPTH OF SERVICES/FEATURES BE OF PARTICULAR IMPORTANCE TO A PROJECT, THEN IT IS STRONGLY ADVISED THAT TRIAL EXCAVATIONS SHOULD BE UNDERTAKEN TO CONFIRM SURVEY RESULTS.

N D OLIVER & CO LTD HAVE USED ALL RECORD DRAWINGS THAT WERE AVAILABLE TO US BY THE CLIENT OR BY THE RELEVANT UTILITY COMPANIES AT THE TIME OF SURVEY. WHERE THESE RECORDS ARE INCOMPLETE OR OF INSUFFICIENT PAPER SIZED, MATERIAL IS NOT GUARANTEED. SERVICES LOCATED FROM RECORD DRAWINGS WILL BE SHOWN AND ANNOTATED AS TAKEN FROM RECORDS (TFR). HISTORIC RECORD INFORMATION IS OFTEN INCOMPLETE/INACCURATE AND CANNOT BE RELIED UPON.

A SINGLE LINE INDICATING A UTILITY MAY INDICATE THE PRESENCE OF MULTIPLE SERVICES WITHIN CLOSE PROXIMITY TO EACH OTHER. WHERE A SINGLE LINE TYPE IS SHOWN WE RECOMMEND HAND DIGGING WITHIN 0.5m, TO EXPOSE HIDDEN SERVICES.

WHERE QUOTED, DEPTH INFORMATION OF UNDERGROUND SERVICES/FEATURES IS STATED, DEPTHS ARE GENERALLY WITHIN +/- 10% ACCURATE, BUT CANNOT BE GUARANTEED. ANY DEPTHS SHOWN ARE USUALLY TO THE TOP OF THE SERVICE/FEATURE, UNLESS STATED OTHERWISE. GRAVITY SEWERS AND DRAINS ARE USUALLY TO INVERT (BASE OF DRAINAGE CHANNEL) UNLESS OTHERWISE STATED.

AT N D OLIVER & CO LTD WE USE SKILLED STAFF AND MODERN CALIBRATED EQUIPMENT TO PERFORM OUR SURVEYS. HOWEVER, THE COMPLETENESS OF ANY UNDERGROUND SURVEY CANNOT BE 100% GUARANTEED AND WE CANNOT BE HELD RESPONSIBLE FOR ANY INACCURACIES BEYOND THOSE THAT COULD BE REASONABLY EXPECTED BY A COMPETENT COMPANY.

CONTRACTORS UTILISING OUR DRAWINGS FOR INTRUSIVE WORK SHOULD TAKE ALL REASONABLE MEASURES TO WORK SAFELY IN ACCORDANCE WITH HSG47 GUIDELINES 'AVOIDING DANGER FROM UNDERGROUND SERVICES'.

Rev	Date	Drawn	Description	Ch'k'd	App'd

N D OLIVER & CO
CHARTERED GEOMATIC SURVEYORS
Jupiter House, 21 Roebuck Lane, Sale, Manchester, M33 7SY
T: 0161 973 3495 F: 0161 962 6819
E: mail@ndoliver.com www.ndoliver.com

Client
BDP
11 DUCIE STREET
PICCADILLY BASIN
MANCHESTER
M1 2JB

Title
GREENHEYS BUILDING
MANCHESTER SCIENCE PARK
M15 6JJ

TOPOGRAPHICAL SURVEY
SHEET 1 OF 2

Surveyed	PK	Drawn	PK	Drawn Date: 16/12/2022
Checked	AM	Approved	NDO	
Scale 1:250 @ A1		Project 9872		Status ORIG
		CAD File \\NDO-SBS\Projects\9872\DRAWING\9872_005.DWG		
Drawing No 9872 / 005 / 1				Rev 0

BURLINGTON STREET

GREENHEYS LANE

BRONTE STREET

PENCROFT WAY

Proposed site boundary

Greenheys Redevelopment Building

BASE Building

GENERAL NOTES

Do not scale this drawing.

Contractor to check all dimensions and report all errors and omissions to the Engineer.

Details shown on this drawing are schematic only and are subject to detailed design by architect

Rev	Detail	By	Auth	Date

Revisions

DW Consulting LLP

Marsland House
Marsland Road
Sale, M33 3AQ

Tel: 0161 969 4144

www.dwllp.com

Hornbeam House
Hornbeam Park,
Hookstone Road
Harrogate, HG2 8QT

Tel: 01423 855930

Client

Bruntwood SciTech

Project

Greenheys Redevelopment
Manchester Science Park

Drawing Title

Proposed Site Layout

Drawing Status

scheme

Drawing No.

GRE-DWC-XX-DR-C-200

Scale	Sheet Size	Revision
1:250	A1	P01

Date	Drawn	Checked	Auth
Jan'23			

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Plate 1 – Greenheys Business Centre, looking west from Pencroft Way.



Plate 2 – Looking south along Pencroft Way.



Plate 3 – Greenheys Business Centre main entrance.



Plate 4 – Looking south across carpark within the east of site.



Plate 5 – AC units present adjacent to site entrance.

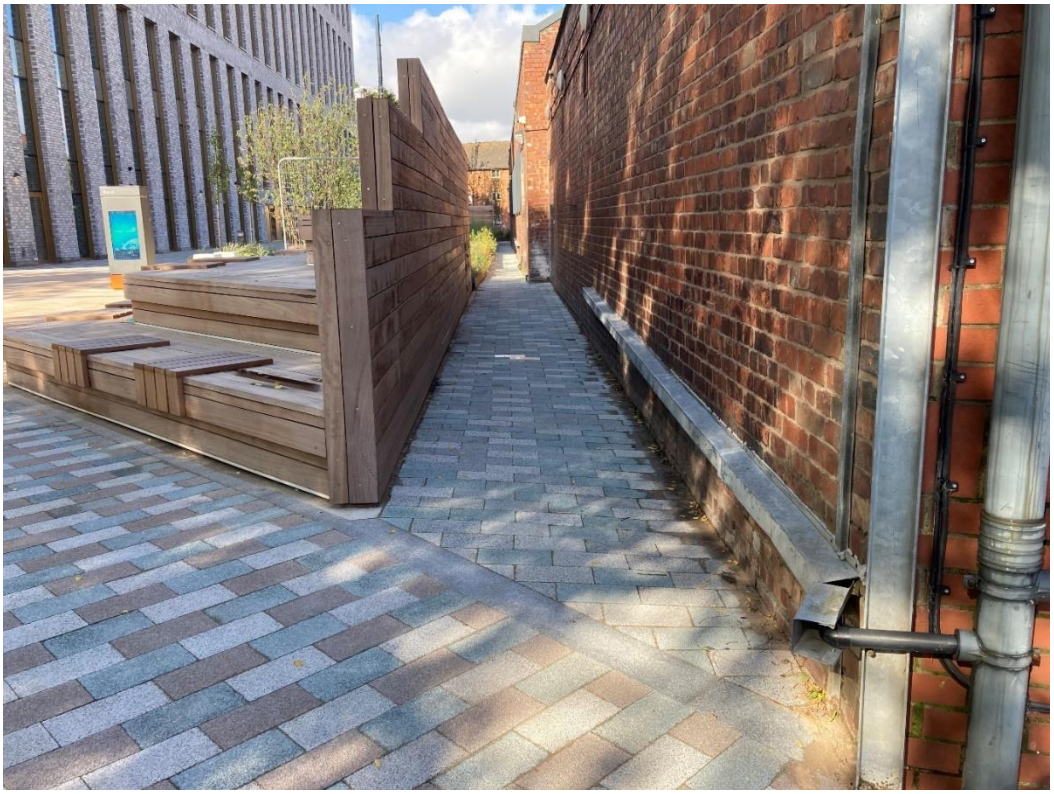


Plate 6 – The sites southern boundary, bordering the north of New Base Building, looking west.



Plate 7 – AC units present in southwest corner of Greenheys building, looking northeast.



Plate 8 – Bin storage area in the southwest corner of site.



Plate 9 – Looking east along Burlington Street.



Plate 10 – Former McDougall Centre, to the north of site off Burlington Street.



Plate 11 – Area to the south west of Greenheys building and location of RBH04



Plate 12 – Short road to the east of site off Pencroft Way.



Plate 1 – Rotary Borehole 01 (RBH01) – Box 1 – 11.00mbgl to 14.00mbgl.



Plate 2 – RBH01 – 11.00mbgl to 14.00mbgl.



Plate 3 – RBH01 – Box 2 – 14.00mbgl to 17.00mbgl.



Plate 4 – RBH01 – 14.00mbgl to 17.00mbgl.



Plate 5 – RBH01 – Box 3 – 17.00mbgl to 20.00mbgl.



Plate 6 – RBH01 – 17.00mbgl to 20.00mbgl.

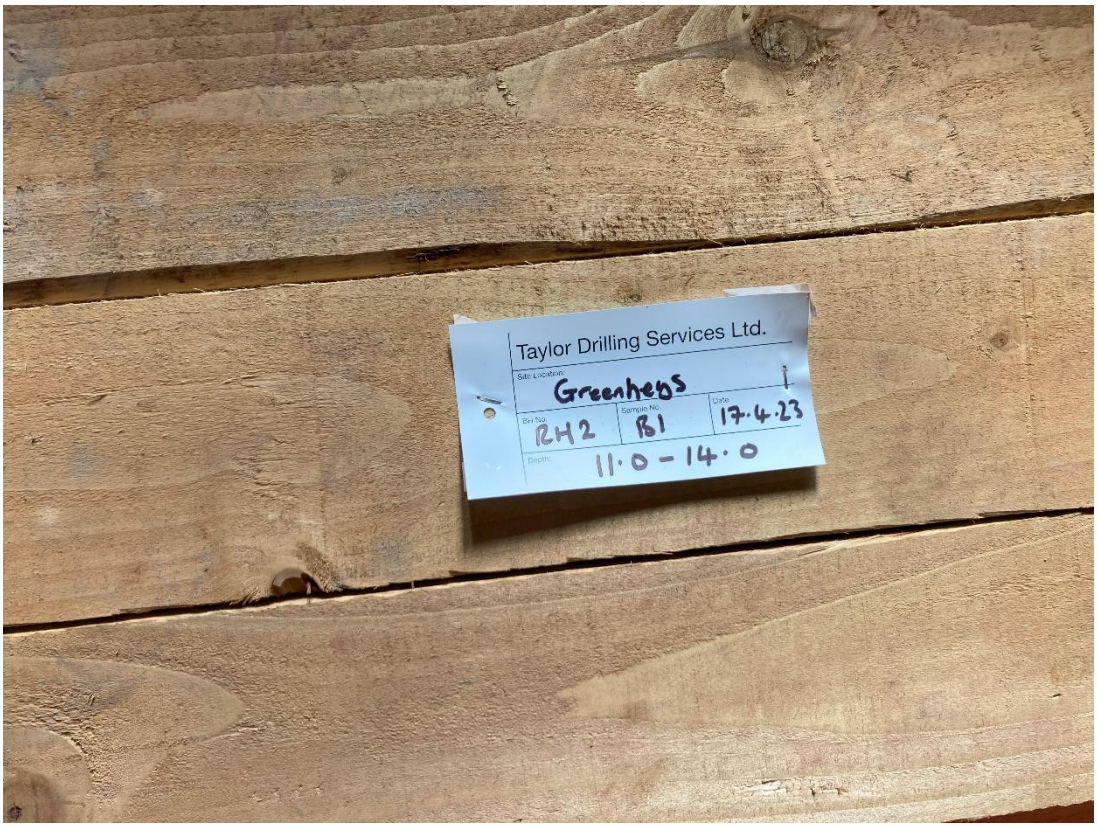


Plate 7 – RBH02 – Box 1 – 11.00mbgl to 14.00mbgl.



Plate 8 – RBH02 – 11.00mbgl to 14.00mbgl.



Plate 9 – RBH02 – Box 2 – 14.00mbgl to 17.00mbgl.



Plate 10 – RBH02 – 14.00mbgl to 17.00mbgl.



Plate 11 – RBH02 – Box 3 – 17.00mbgl to 20.00mbgl.



Plate 12 – RBH02 – 17.00mbgl to 20.00mbgl.

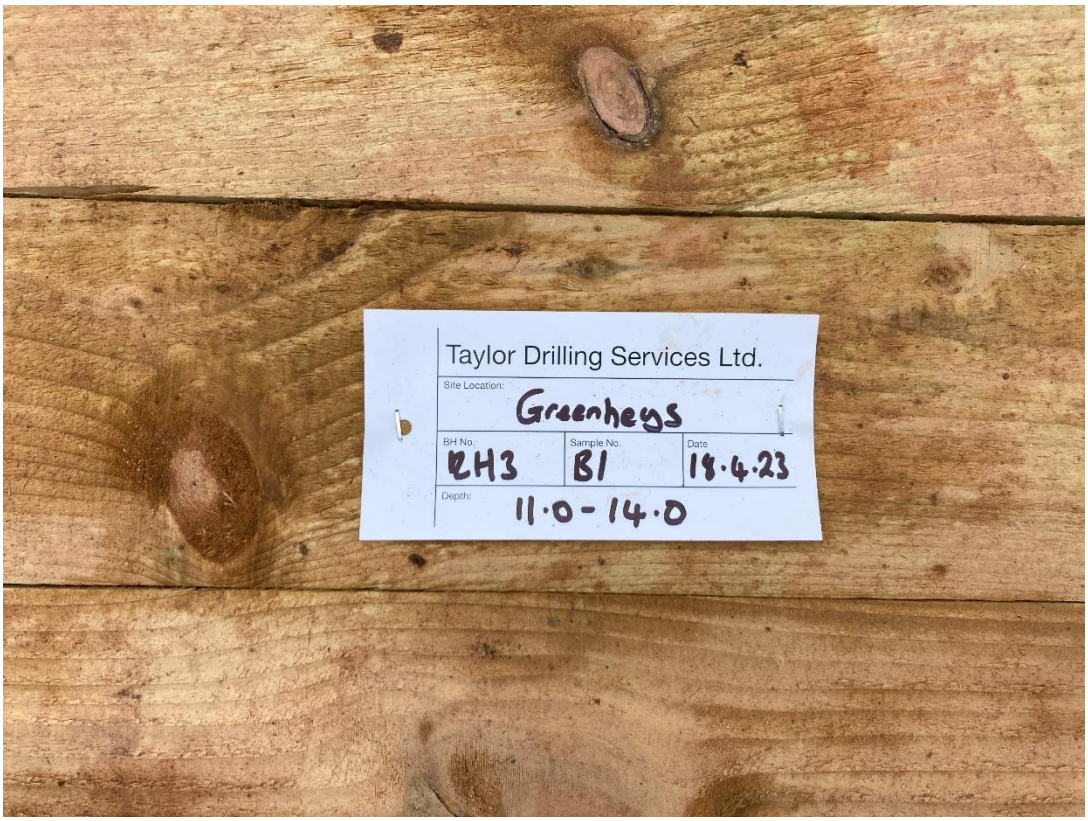


Plate 13 – RBH03 – Box 1 – 11.00mbgl to 14.00mbgl.



Plate 14 – RBH03 – 11.00mbgl to 14.00mbgl.

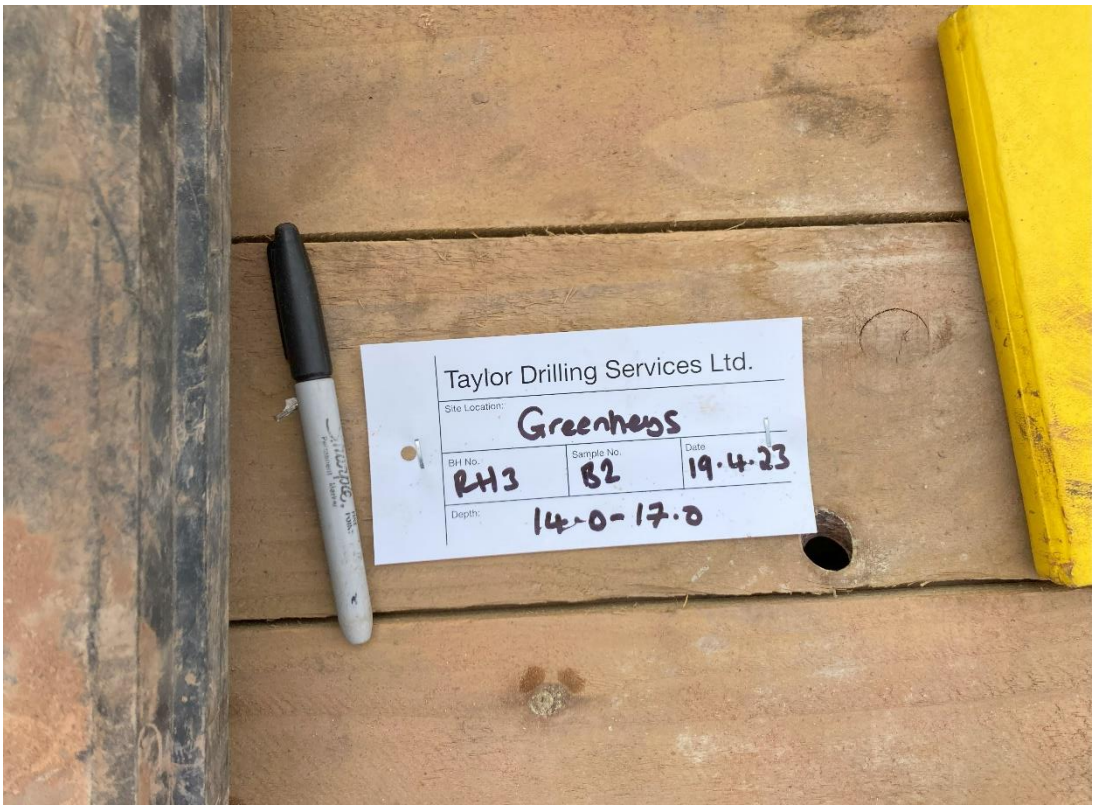


Plate 15 – RBH03 – Box 2 – 14.00mbgl to 17.00mbgl.



Plate 16 – RBH03 – 14.00mbgl to 17.00mbgl.



Plate 17 – RBH03 – Box 3 – 17.00mbgl to 20.00mbgl.



Plate 18 – RBH03 – 17.00mbgl to 20.00mbgl.



Plate 1 – Window Sampler Borehole 12 (WS12) hand pit arisings, ground level (gl) to 0.70m below ground level (bgl).



Plate 2 – WS12 final depth, solid obstruction in base of hole at 0.70mbgl.



Plate 3 – WS12A core, gl to 0.15mbgl.



Plate 4 – WS12A hand pit arisings, 0.15mbgl to 0.70mbgl.



Plate 5 – WS12A final depth, solid obstruction in base of hole at 0.70mbgl.



Plate 6 – WS13 core, gl to 0.25mbgl.



Plate 7 – WS13 hand pit arisings, gl to 0.60mbgl.



Plate 8 – WS13 final depth, solid obstruction in base of hole at 0.60mbgl.



Plate 9 – WS13A core, gl to 0.50mbgl.



Plate 10 – WS13A final depth, solid obstruction in base of hole at 0.50mbgl.



Plate 11 - WS14 core, gl to 0.20mbgl.



Plate 12 – WS14 hand pit arisings, 0.20mbgl to 1.2mbgl.



Plate 13 – WS14 1.2mbgl to 3.0mbgl.



Plate 14 – WS15 core, gl to 0.25mbgl.



Plate 15 - WS15 hand pit arisings, 0.25mbgl to 1.2mbgl.



Plate 16 – WS15 1.2mbgl to 3.0mbgl.



Plate 17 - WS16 core, gl to 0.25mbgl.



Plate 18 - WS16 hand pit arisings, 0.25mbgl to 1.2mbgl.



Plate 19 - WS16 1.2mbgl to 3.0mbgl.



Plate 20 - WS17 core, gl to 0.25mbgl.



Plate 21 - WS17 hand pit arisings, 0.25mbgl to 1.2mbgl.



Plate 22 - WS17 1.2mbgl to 3.5mbgl.



Plate 23 - WS17A 1.2mbgl to 4.0mbgl.



Plate 24 - WS18 gl to 2.0mbgl.



Plate 25 - WS18 2.0mbgl to 3.0mbgl.



Plate 26 - WS18 (redrill) gl to 4.0mbgl.



Plate 27 – WS19 gl to 3.0mbgl.



Plate 28 – WS20 concrete core gl to 0.58mbgl. Metal girder between 0.10mbgl to 0.25mbgl.



Plate 29 – WS20 hand pit arisings 0.58mbgl to 1.2mbgl.



Plate 30 – WS20 1.2mbgl to 4.0mbgl.



Plate 31 – WS22 core and hand pit arisings, gl to 1.2mbgl.



Plate 32 – WS22 1.2mbgl to 3.0mbgl.



Plate 1 – WS06 gl to 5.0mbgl.



Plate 2 – WS07 gl to 5.0mbgl.



Plate 3 – WS08 gl to 5.0mbgl.



Plate 4 - WS09 gl to 5.0mbgl.



Plate 5 - WS09 gl to 0.25mbgl.



Plate 6 – WS21 hand pit arisings, gl to 1.2mbgl.



Plate 7 – WS21 1.2mbgl to 3.0mbgl, (3.0mbgl to 5.0mbgl absent within photo).



Plate 1 – Window Sampler Borehole 12 (WS12) hand pit arisings, ground level (gl) to 0.70m below ground level (bgl).



Plate 2 – WS12 final depth, solid obstruction in base of hole at 0.70mbgl.



Plate 3 – WS12A core, gl to 0.15mbgl.



Plate 4 – WS12A hand pit arisings, 0.15mbgl to 0.70mbgl.



Plate 5 – WS12A final depth, solid obstruction in base of hole at 0.70mbgl.



Plate 6 – WS13 core, gl to 0.25mbgl.



Plate 7 – WS13 hand pit arisings, gl to 0.60mbgl.



Plate 8 – WS13 final depth, solid obstruction in base of hole at 0.60mbgl.



Plate 9 – WS13A core, gl to 0.50mbgl.



Plate 10 – WS13A final depth, solid obstruction in base of hole at 0.50mbgl.



Plate 11 - WS14 core, gl to 0.20mbgl.



Plate 12 – WS14 hand pit arisings, 0.20mbgl to 1.2mbgl.



Plate 13 – WS14 1.2mbgl to 3.0mbgl.



Plate 14 – WS15 core, gl to 0.25mbgl.



Plate 15 - WS15 hand pit arisings, 0.25mbgl to 1.2mbgl.



Plate 16 – WS15 1.2mbgl to 3.0mbgl.



Plate 17 - WS16 core, gl to 0.25mbgl.



Plate 18 - WS16 hand pit arisings, 0.25mbgl to 1.2mbgl.



Plate 19 - WS16 1.2mbgl to 3.0mbgl.



Plate 20 - WS17 core, gl to 0.25mbgl.



Plate 21 - WS17 hand pit arisings, 0.25mbgl to 1.2mbgl.



Plate 22 - WS17 1.2mbgl to 3.5mbgl.



Plate 23 - WS17A 1.2mbgl to 4.0mbgl.



Plate 24 - WS18 gl to 2.0mbgl.



Plate 25 - WS18 2.0mbgl to 3.0mbgl.



Plate 26 - WS18 (redrill) gl to 4.0mbgl.



Plate 27 – WS19 gl to 3.0mbgl.



Plate 28 – WS20 concrete core gl to 0.58mbgl. Metal girder between 0.10mbgl to 0.25mbgl.



Plate 29 – WS20 hand pit arisings 0.58mbgl to 1.2mbgl.



Plate 30 – WS20 1.2mbgl to 4.0mbgl.



Plate 31 – WS22 core and hand pit arisings, gl to 1.2mbgl.



Plate 32 – WS22 1.2mbgl to 3.0mbgl.



Plate 1 – TP01 arisings.



Plate 2 – TP01 gl to 2.1mbgl.



Plate 3 – TP02 arisings.



Plate 4 - TP02 gl to 1.15mbgl.



Plate 5 - TP03 arisings.



Plate 6 – TP03 gl to 2.0mbgl.



Plate 7 – TP04 arisings.



Plate 8 – TP04 gl to 2.7mbgl.



Plate 9 – TP05 arisings.



Plate 10 - TP05 gl to 2.8mbgl.



Plate 11 – TP05 arisings, hydrocarbon odour observed between 1.9mbgl to 2.5mbgl.



Plate 12 - TP06 arisings.



Plate 13 – TP06 gl to 2.4mbgl.

Appendix B – Groundsure Report & Historical Mapping

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Order Details

Date: 01/09/2022

Your ref: nx534

Our Ref: GS-9022498

Site Details

Location: 384283 396283

Area: 0.56 ha

Authority: Manchester City Council



Summary of findings p. 2

OS MasterMap site plan p.12

Aerial image p. 8

groundsure.com/insightuserguide

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	0	7	17	-
15	1.2	Historical tanks	0	0	3	13	-
16	1.3	Historical energy features	0	0	7	19	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	1	1	4	1	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
19	2.1	Historical industrial land uses	0	0	12	25	-
21	2.2	Historical tanks	0	0	5	23	-
22	2.3	Historical energy features	0	0	17	36	-
24	2.4	Historical petrol stations	0	0	0	0	-
25	2.5	Historical garages	2	5	8	1	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	1	-
27	3.5	Historical waste sites	0	0	0	0	-
27	3.6	Licensed waste sites	0	0	0	0	-
28	3.7	Waste exemptions	0	0	1	12	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
30	4.1	Recent industrial land uses	4	6	17	-	-
32	4.2	Current or recent petrol stations	0	0	0	1	-
33	4.3	Electricity cables	0	0	0	0	-
33	4.4	Gas pipelines	0	0	0	0	-
33	4.5	Sites determined as Contaminated Land	0	0	0	0	-

33	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
33	4.7	Regulated explosive sites	0	0	0	0	-
34	4.8	Hazardous substance storage/usage	0	0	0	0	-
34	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
34	**4.10**	**Licensed industrial activities (Part A(1))**	0	0	0	28	-
38	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
38	**4.12**	**Radioactive Substance Authorisations**	0	0	6	20	-
42	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
42	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
43	4.15	Pollutant release to public sewer	0	0	0	0	-
43	4.16	List 1 Dangerous Substances	0	0	0	0	-
43	4.17	List 2 Dangerous Substances	0	0	0	0	-
43	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	0	1	-
44	**4.19**	**Pollution inventory substances**	0	0	0	5	-
45	**4.20**	**Pollution inventory waste transfers**	0	0	0	2	-
49	**4.21**	**Pollution inventory radioactive waste**	0	0	0	1	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
50	**5.1**	**Superficial aquifer**	Identified (within 500m)				
52	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
53	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
54	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
54	5.5	Groundwater vulnerability- local information	None (within 0m)				
55	**5.6**	**Groundwater abstractions**	0	0	0	8	26
64	5.7	Surface water abstractions	0	0	0	0	0
64	5.8	Potable abstractions	0	0	0	0	0
65	**5.9**	**Source Protection Zones**	1	0	0	2	-
65	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
66	**6.1**	**Water Network (OS MasterMap)**	0	1	0	-	-

67	6.2	Surface water features	0	0	0	-	-
67	**6.3**	**WFD Surface water body catchments**	1	-	-	-	-
67	**6.4**	**WFD Surface water bodies**	0	0	0	-	-
68	**6.5**	**WFD Groundwater bodies**	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
69	**7.1**	**Risk of flooding from rivers and the sea**	High (within 50m)				
70	7.2	Historical Flood Events	0	0	0	-	-
70	7.3	Flood Defences	0	0	0	-	-
70	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
70	7.5	Flood Storage Areas	0	0	0	-	-
71	**7.6**	**Flood Zone 2**	Identified (within 50m)				
72	**7.7**	**Flood Zone 3**	Identified (within 50m)				
Page	Section	Surface water flooding					
73	**8.1**	**Surface water flooding**	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding					
75	**9.1**	**Groundwater flooding**	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
76	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
76	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
76	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
76	10.4	Special Protection Areas (SPA)	0	0	0	0	0
77	10.5	National Nature Reserves (NNR)	0	0	0	0	0
77	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
77	10.7	Designated Ancient Woodland	0	0	0	0	0
77	10.8	Biosphere Reserves	0	0	0	0	0
78	10.9	Forest Parks	0	0	0	0	0
78	10.10	Marine Conservation Zones	0	0	0	0	0
78	10.11	Green Belt	0	0	0	0	0
78	10.12	Proposed Ramsar sites	0	0	0	0	0

78	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
79	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
79	10.15	Nitrate Sensitive Areas	0	0	0	0	0
79	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
80	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
81	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
82	11.1	World Heritage Sites	0	0	0	-	-
83	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
83	11.3	National Parks	0	0	0	-	-
83	**11.4**	**Listed Buildings**	0	0	3	-	-
84	11.5	Conservation Areas	0	0	0	-	-
84	11.6	Scheduled Ancient Monuments	0	0	0	-	-
84	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
85	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
86	12.2	Open Access Land	0	0	0	-	-
86	12.3	Tree Felling Licences	0	0	0	-	-
86	12.4	Environmental Stewardship Schemes	0	0	0	-	-
86	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
87	13.1	Priority Habitat Inventory	0	0	0	-	-
87	13.2	Habitat Networks	0	0	0	-	-
87	13.3	Open Mosaic Habitat	0	0	0	-	-
87	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
88	**14.1**	**10k Availability**	Identified (within 500m)				
89	**14.2**	**Artificial and made ground (10k)**	0	1	0	4	-
91	**14.3**	**Superficial geology (10k)**	1	0	0	2	-

92	14.4	Landslip (10k)	0	0	0	0	-
93	**14.5**	**Bedrock geology (10k)**	1	0	0	0	-
94	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
95	**15.1**	**50k Availability**	Identified (within 500m)				
96	15.2	Artificial and made ground (50k)	0	0	0	0	-
96	15.3	Artificial ground permeability (50k)	0	0	-	-	-
97	**15.4**	**Superficial geology (50k)**	1	0	0	2	-
98	**15.5**	**Superficial permeability (50k)**	Identified (within 50m)				
98	15.6	Landslip (50k)	0	0	0	0	-
98	15.7	Landslip permeability (50k)	None (within 50m)				
99	**15.8**	**Bedrock geology (50k)**	1	0	0	0	-
100	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
100	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
101	**16.1**	**BGS Boreholes**	0	1	15	-	-
Page	Section	Natural ground subsidence					
103	**17.1**	**Shrink swell clays**	Very low (within 50m)				
104	**17.2**	**Running sands**	Very low (within 50m)				
105	**17.3**	**Compressible deposits**	Negligible (within 50m)				
106	**17.4**	**Collapsible deposits**	Very low (within 50m)				
107	**17.5**	**Landslides**	Very low (within 50m)				
108	**17.6**	**Ground dissolution of soluble rocks**	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
110	18.1	Natural cavities	0	0	0	0	-
111	18.2	BritPits	0	0	0	0	-
111	**18.3**	**Surface ground workings**	0	1	1	-	-
111	18.4	Underground workings	0	0	0	0	0
111	18.5	Historical Mineral Planning Areas	0	0	0	0	-

112	18.6	Non-coal mining	0	0	0	0	0
112	**18.7**	**Mining cavities**	0	0	0	0	1
112	**18.8**	**JPB mining areas**	Identified (within 0m)				
113	**18.9**	**Coal mining**	Identified (within 0m)				
113	18.10	Brine areas	None (within 0m)				
113	18.11	Gypsum areas	None (within 0m)				
114	18.12	Tin mining	None (within 0m)				
114	18.13	Clay mining	None (within 0m)				

Page	Section	Radon
115	**19.1**	**Radon**	Less than 1% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
116	**20.1**	**BGS Estimated Background Soil Chemistry**	1	0	-	-	-
116	**20.2**	**BGS Estimated Urban Soil Chemistry**	5	1	-	-	-
117	**20.3**	**BGS Measured Urban Soil Chemistry**	0	1	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
118	21.1	Underground railways (London)	0	0	0	-	-
118	21.2	Underground railways (Non-London)	0	0	0	-	-
118	21.3	Railway tunnels	0	0	0	-	-
118	21.4	Historical railway and tunnel features	0	0	0	-	-
118	21.5	Royal Mail tunnels	0	0	0	-	-
119	21.6	Historical railways	0	0	0	-	-
119	21.7	Railways	0	0	0	-	-
119	21.8	Crossrail 1	0	0	0	0	-
119	21.9	Crossrail 2	0	0	0	0	-
119	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 22/04/2019

Site Area: 0.56ha

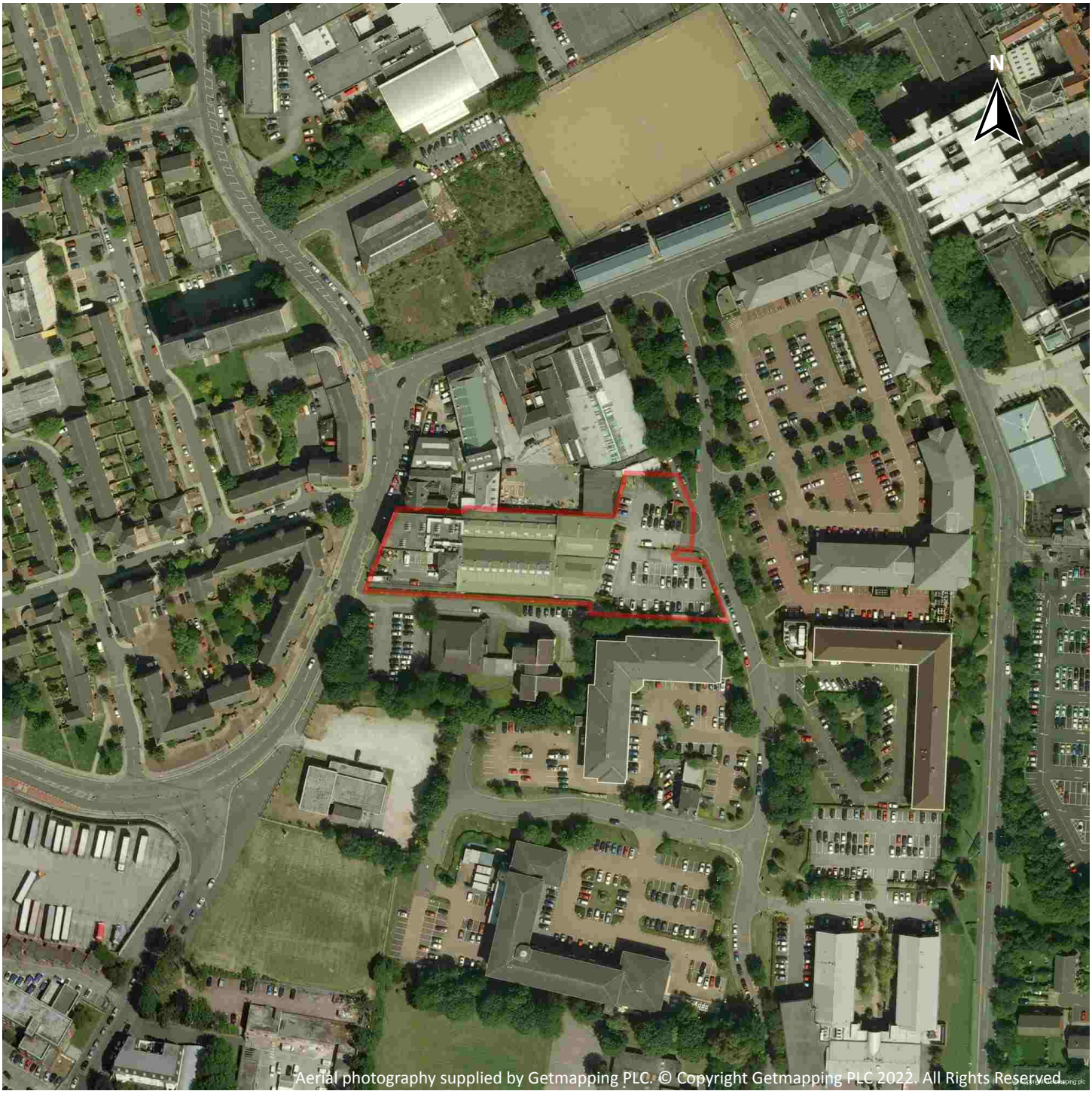
Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.56ha

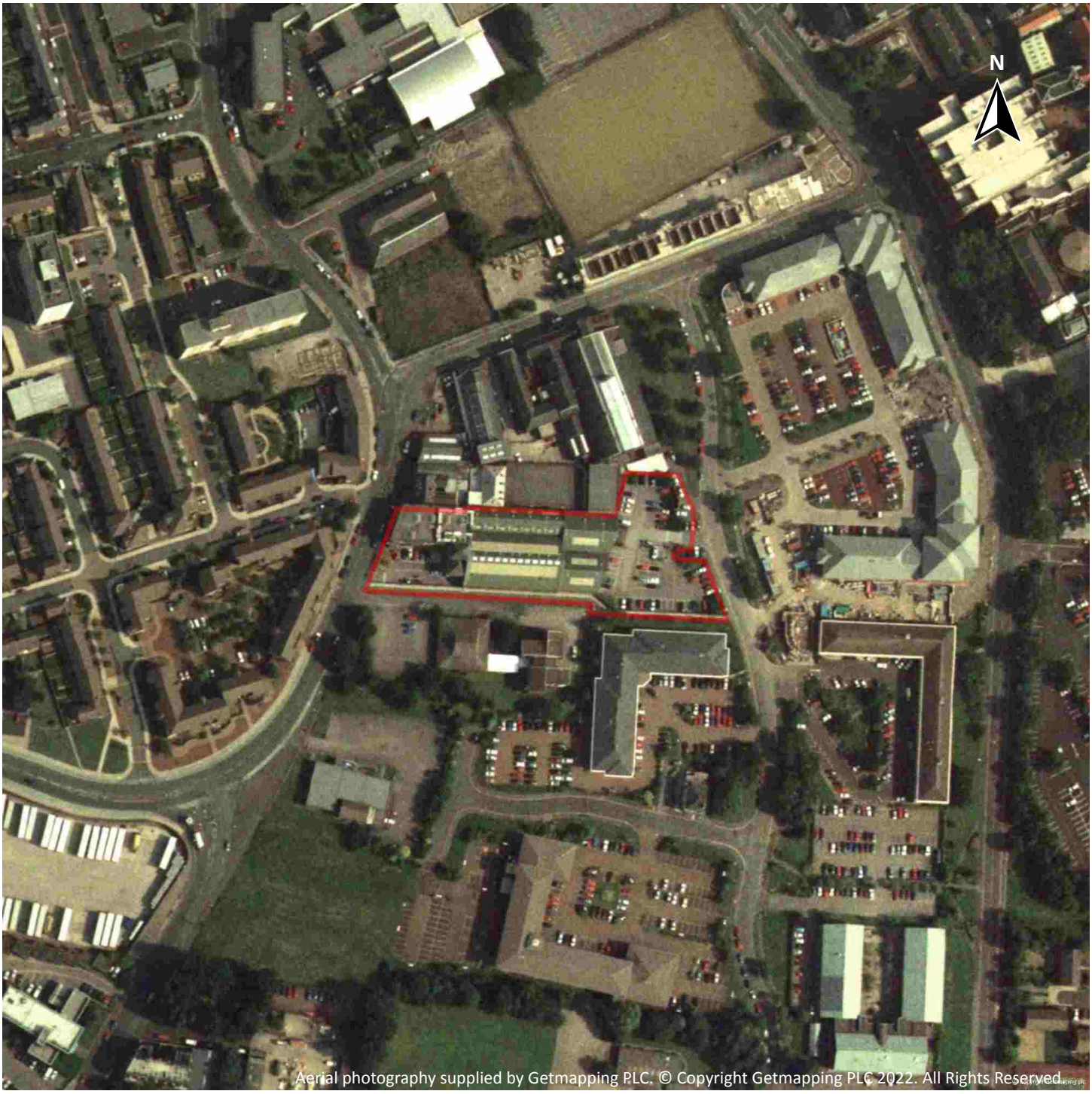
Recent site history - 2009 aerial photograph



Capture Date: 02/06/2009

Site Area: 0.56ha

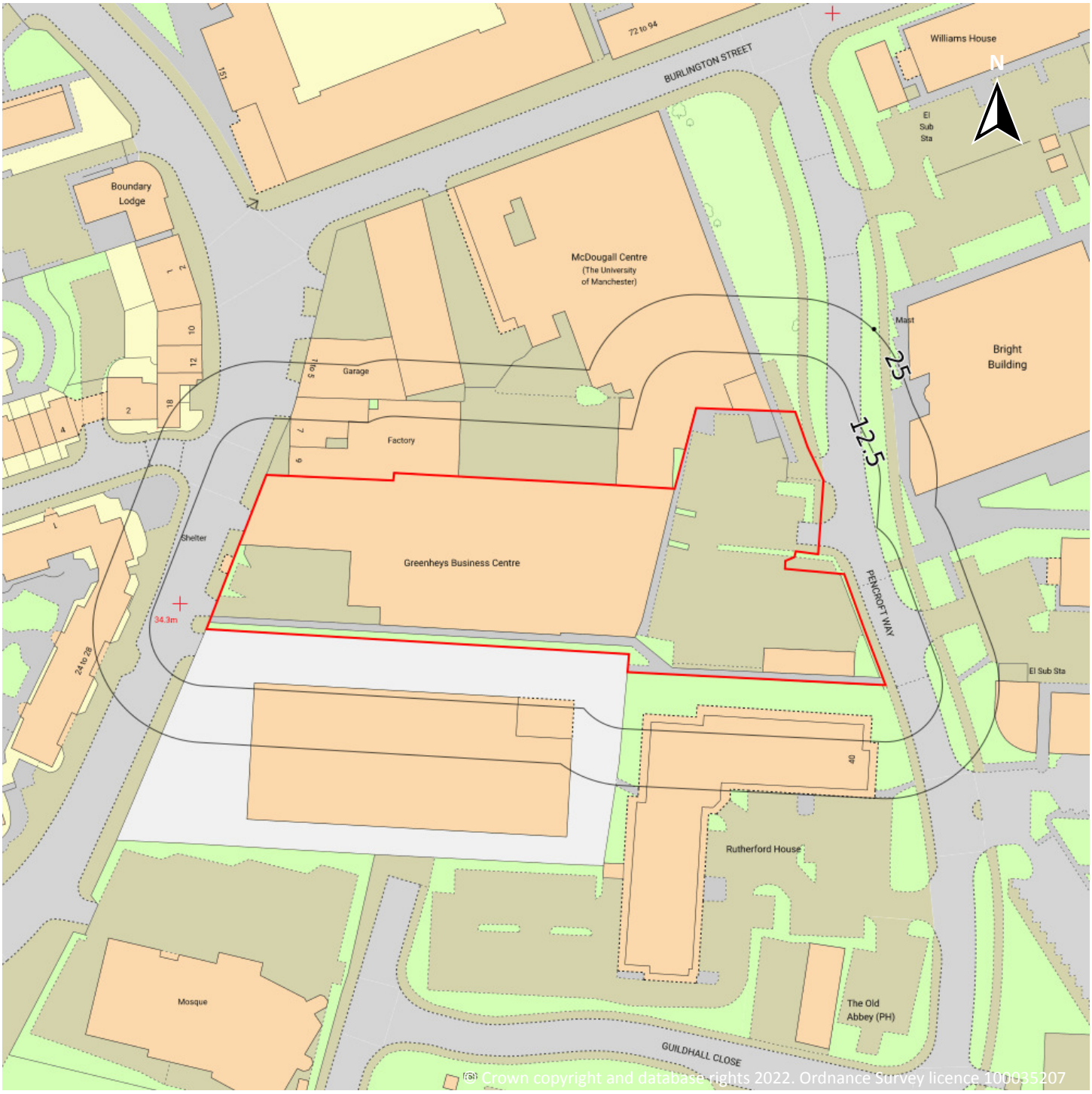
Recent site history - 2000 aerial photograph



Capture Date: 27/06/2000

Site Area: 0.56ha

OS MasterMap site plan



Site Area: 0.56ha

1 Past land use



1.1 Historical industrial land uses

Records within 500m	24

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
C	152m NE	Brewery	1923	822704

ID	Location	Land use	Dates present	Group ID
D	205m SW	Police Station	1985 - 1994	898743
D	205m SW	Police Station	1978	907392
E	211m N	Hospital	1956 - 1971	888723
E	211m N	Hospital	1985 - 1994	889041
E	211m N	Hospital	1978	967869
8	223m SW	Brewery	1988 - 1994	946375
9	261m SE	Hospital	1956	834384
12	319m SE	Infirmary	1971	934544
J	327m E	Laundry	1934 - 1938	852808
J	327m E	Laundry	1915	903308
J	332m E	Laundry	1923	923957
L	340m N	Corporation Yard	1915	882266
L	340m N	Corporation Yard	1934 - 1938	891984
L	343m N	Corporation Yard	1923	894742
O	390m NE	Hospital	1915	978354
O	390m NE	Hospital	1934 - 1938	988396
M	392m SW	Electricity Station	1916 - 1923	890897
P	396m SE	Infirmary	1978	923267
P	396m SE	Infirmary	1985 - 1994	924246
Q	397m N	Unspecified Works	1916	830418
Q	425m N	Police Station	1971	832593
16	483m E	Unspecified Works	1915 - 1923	917847
M	494m SW	Police Station	1956 - 1971	908783

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	16

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
6	165m SW	Unspecified Tank	1985 - 1993	142618
C	212m NE	Unspecified Tank	1963 - 1977	145447
E	250m N	Unspecified Tank	1891	115789
G	260m NE	Unspecified Tank	1949	115791
10	268m NW	Unspecified Tank	1891	115790
G	272m NE	Unspecified Tank	1948 - 1951	145356
H	280m S	Unspecified Tank	1950 - 1951	137128
I	280m S	Unspecified Tank	1951	128535
I	280m S	Unspecified Tank	1963	142907
I	281m S	Unspecified Tank	1961	142416
H	286m S	Unspecified Tank	1951	115793
13	356m NW	Unspecified Tank	1891	115792
R	435m SW	Tanks	1989 - 1995	140966
M	456m SW	Tanks	1989 - 1995	127356
R	467m SW	Unspecified Tank	1989 - 1995	131681
M	481m SW	Unspecified Tank	1977 - 1985	123613

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	26

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
A	87m NW	Electricity Substation	1985 - 1998	82837
A	88m NW	Electricity Substation	1985	70233
4	90m S	Electricity Substation	1985 - 1998	67357
E	217m N	Electricity Substation	1997	71999
E	217m N	Electricity Substation	1995	81166
E	218m N	Electricity Substation	1976	65876
7	218m NW	Electricity Substation	1977 - 1993	82490
F	251m W	Electricity Substation	1978 - 1996	78759
F	252m W	Electricity Substation	1988 - 1990	72713
11	282m N	Electricity Substation	1976 - 1997	80266
K	329m NW	Electricity Substation	1976	77058
K	337m NW	Electricity Substation	1997	76100
K	337m NW	Electricity Substation	1995	81497
M	385m SW	Electricity Substation	1922 - 1949	80679
N	388m SW	Electricity Substation	1989 - 1992	65881
N	407m SW	Electricity Substation	1976	80116
N	407m SW	Electricity Substation	1984 - 1989	80039
N	407m SW	Electricity Substation	1992	64418
15	414m SE	Electricity Substation	1989 - 1994	73602
Q	417m N	Electricity Substation	1948 - 1951	84116
S	444m E	Electricity Substation	1987	67118

ID	Location	Land use	Dates present	Group ID
S	446m E	Electricity Substation	1980 - 1998	65163
M	460m SW	Electricity Substation	1908	62142
T	477m NE	Electricity Substation	1987 - 1992	73834
T	478m NE	Electricity Substation	1989	73030
17	490m E	Electricity Substation	1993 - 1998	69691

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	**7**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Garage**	**1951 - 1961**	**26752**
2	16m N	Garage	1985 - 1998	27461
3	69m E	Garage	1951 - 1961	27462
B	124m E	Garage	1961 - 1963	26831
5	152m NE	Garage	1949 - 1951	26098
B	153m E	Garage	1961	22803

ID	Location	Land use	Dates present	Group ID
14	388m NW	Garage	1955	20301

This data is sourced from Ordnance Survey / Groundsure.

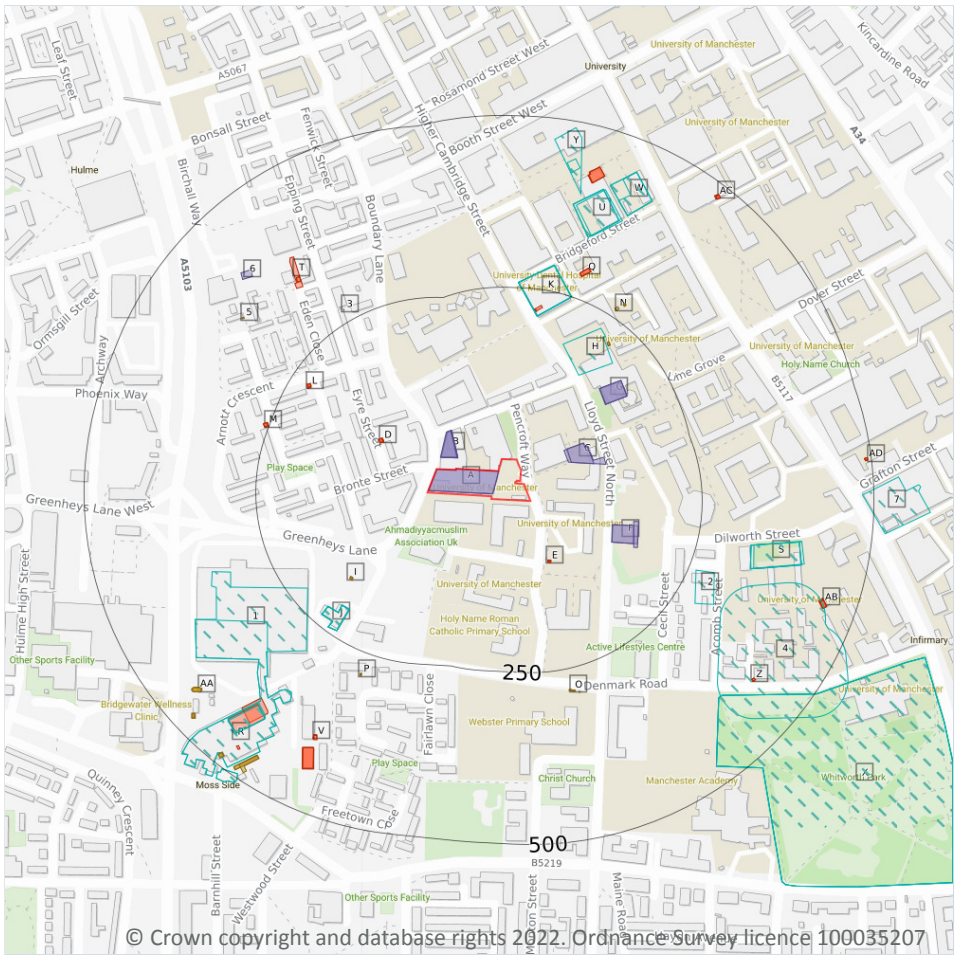
1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



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2.1 Historical industrial land uses

Records within 500m	37

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
H	152m NE	Brewery	1923	822704
J	205m SW	Police Station	1988	898743
J	205m SW	Police Station	1978	907392

ID	Location	Land Use	Date	Group ID
J	205m SW	Police Station	1985	898743
J	205m SW	Police Station	1994	898743
K	211m N	Hospital	1971	888723
K	211m N	Hospital	1956	888723
K	211m N	Hospital	1988	889041
K	211m N	Hospital	1978	967869
K	211m N	Hospital	1985	889041
K	211m N	Hospital	1994	889041
1	223m SW	Brewery	1994	946375
2	261m SE	Hospital	1956	834384
R	300m SW	Brewery	1988	946375
4	319m SE	Infirmary	1971	934544
S	327m E	Laundry	1938	852808
S	327m E	Laundry	1934	852808
S	327m E	Laundry	1915	903308
S	332m E	Laundry	1923	923957
U	340m N	Corporation Yard	1938	891984
U	340m N	Corporation Yard	1934	891984
U	340m N	Corporation Yard	1915	882266
U	343m N	Corporation Yard	1923	894742
W	390m NE	Hospital	1938	988396
W	390m NE	Hospital	1934	988396
W	390m NE	Hospital	1915	978354
R	392m SW	Electricity Station	1916	890897
R	396m SW	Electricity Station	1923	890897
X	396m SE	Infirmary	1988	924246
X	396m SE	Infirmary	1978	923267
X	396m SE	Infirmary	1985	924246

ID	Location	Land Use	Date	Group ID
X	396m SE	Infirmary	1994	924246
Y	397m N	Unspecified Works	1916	830418
Y	425m N	Police Station	1971	832593
7	483m E	Unspecified Works	1923	917847
R	494m SW	Police Station	1971	908783
R	494m SW	Police Station	1956	908783

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m **28**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
I	165m SW	Unspecified Tank	1985	142618
I	165m SW	Unspecified Tank	1993	142618
H	212m NE	Unspecified Tank	1977	145447
H	213m NE	Unspecified Tank	1963	145447
K	250m N	Unspecified Tank	1891	115789
N	260m NE	Unspecified Tank	1949	115791
3	268m NW	Unspecified Tank	1891	115790
N	272m NE	Unspecified Tank	1948	145356
N	272m NE	Unspecified Tank	1951	145356
O	280m S	Unspecified Tank	1950	137128
O	280m S	Unspecified Tank	1950	137128
O	280m S	Unspecified Tank	1951	137128
P	280m S	Unspecified Tank	1963	142907
P	280m S	Unspecified Tank	1951	128535

ID	Location	Land Use	Date	Group ID
P	281m S	Unspecified Tank	1961	142416
O	286m S	Unspecified Tank	1951	115793
5	356m NW	Unspecified Tank	1891	115792
AA	435m SW	Tanks	1995	140966
AA	436m SW	Tanks	1989	140966
AA	436m SW	Tanks	1989	140966
R	456m SW	Tanks	1989	127356
R	456m SW	Tanks	1989	127356
R	456m SW	Tanks	1995	127356
AA	467m SW	Unspecified Tank	1995	131681
AA	467m SW	Unspecified Tank	1989	131681
AA	467m SW	Unspecified Tank	1989	131681
R	481m SW	Unspecified Tank	1977	123613
R	482m SW	Unspecified Tank	1985	123613

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**53**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
D	87m NW	Electricity Substation	1998	82837
D	87m NW	Electricity Substation	1995	82837
D	87m NW	Electricity Substation	1993	82837
D	87m NW	Electricity Substation	1985	82837
D	88m NW	Electricity Substation	1985	70233
E	90m S	Electricity Substation	1985	67357

ID	Location	Land Use	Date	Group ID
E	90m S	Electricity Substation	1998	67357
E	90m S	Electricity Substation	1995	67357
E	90m S	Electricity Substation	1993	67357
E	91m S	Electricity Substation	1985	67357
K	217m N	Electricity Substation	1995	81166
K	217m N	Electricity Substation	1997	71999
K	218m N	Electricity Substation	1976	65876
L	218m NW	Electricity Substation	1993	82490
L	219m NW	Electricity Substation	1977	82490
L	219m NW	Electricity Substation	1985	82490
L	219m NW	Electricity Substation	1985	82490
M	251m W	Electricity Substation	1995	78759
M	251m W	Electricity Substation	1996	78759
M	251m W	Electricity Substation	1978	78759
M	252m W	Electricity Substation	1988	72713
M	252m W	Electricity Substation	1990	72713
Q	282m N	Electricity Substation	1976	80266
Q	283m N	Electricity Substation	1995	80266
Q	283m N	Electricity Substation	1997	80266
T	329m NW	Electricity Substation	1976	77058
T	337m NW	Electricity Substation	1995	81497
T	337m NW	Electricity Substation	1997	76100
R	385m SW	Electricity Substation	1949	80679
V	388m SW	Electricity Substation	1989	65881
V	389m SW	Electricity Substation	1992	65881
R	395m SW	Electricity Substation	1922	80679
V	407m SW	Electricity Substation	1976	80116
V	407m SW	Electricity Substation	1984	80039

ID	Location	Land Use	Date	Group ID
V	407m SW	Electricity Substation	1989	80039
V	407m SW	Electricity Substation	1992	64418
Z	414m SE	Electricity Substation	1989	73602
Z	414m SE	Electricity Substation	1994	73602
Y	417m N	Electricity Substation	1949	84116
Y	417m N	Electricity Substation	1948	84116
Y	417m N	Electricity Substation	1951	84116
AB	444m E	Electricity Substation	1987	67118
AB	446m E	Electricity Substation	1994	65163
AB	446m E	Electricity Substation	1993	65163
AB	446m E	Electricity Substation	1980	65163
AB	446m E	Electricity Substation	1998	65163
R	460m SW	Electricity Substation	1908	62142
AC	477m NE	Electricity Substation	1987	73834
AC	478m NE	Electricity Substation	1989	73030
AC	478m NE	Electricity Substation	1992	73834
AD	490m E	Electricity Substation	1994	69691
AD	490m E	Electricity Substation	1993	69691
AD	490m E	Electricity Substation	1998	69691

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	16

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Garage**	**1961**	**26752**
A	**On site**	**Garage**	**1951**	**26752**
B	16m N	Garage	1985	27461
B	17m N	Garage	1998	27461
B	17m N	Garage	1995	27461
B	17m N	Garage	1993	27461
B	17m N	Garage	1985	27461
C	69m E	Garage	1961	27462
C	73m E	Garage	1951	27462
F	124m E	Garage	1961	26831
F	125m E	Garage	1963	26831
G	152m NE	Garage	1949	26098
G	153m NE	Garage	1949	26098
G	153m NE	Garage	1951	26098
F	153m E	Garage	1961	22803
6	388m NW	Garage	1955	20301

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	1

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Details		
5	495m SW	Site Address: Moss Side Shopping Centre, Hulme, Manchester Licence Holder Address: -	Waste Licence: Yes Site Reference: F061,0103, RD/LIC/1036/93 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 11/04/1994 Licence Surrender: -	Operator: - Licence Holder: Demolition Service Limited First Recorded 31/05/1994 Last Recorded: 05/06/1995

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	13

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

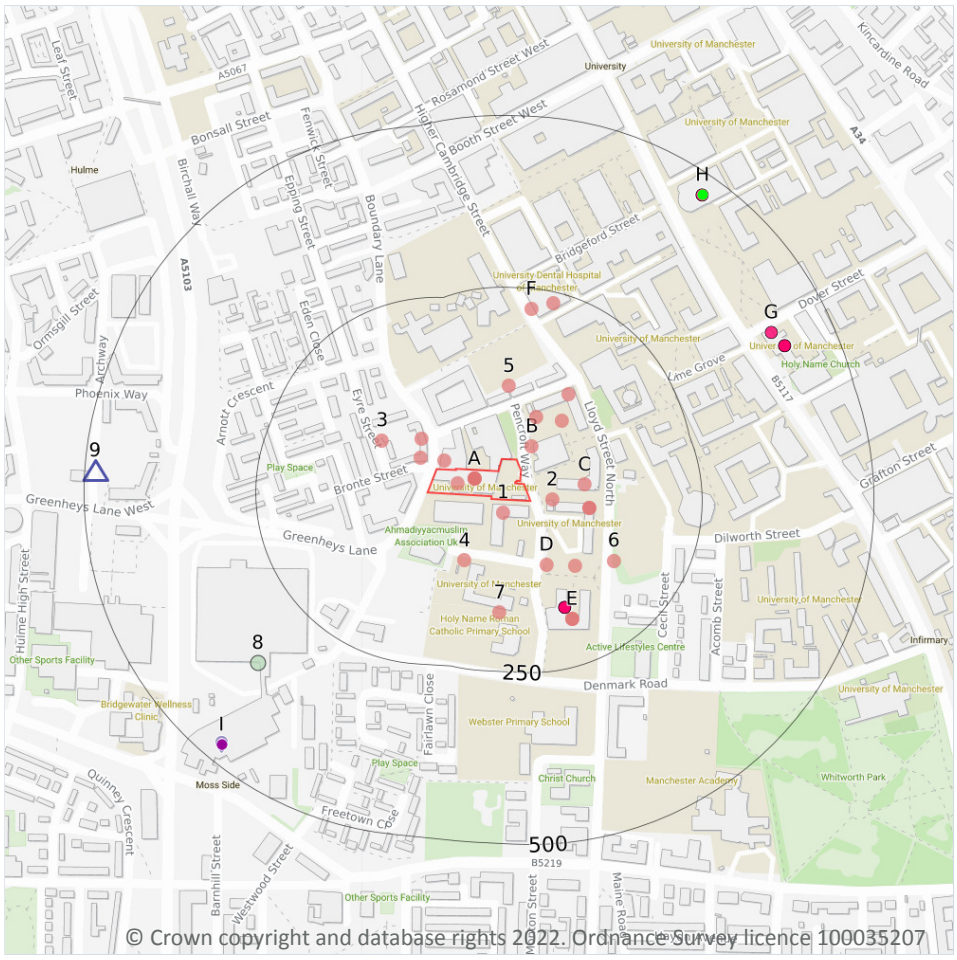
Features are displayed on the Waste and landfill map on **page 26**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	139m E	ESU Depot off Upper Lloyd Street Manchester M15 6HS	EPR/DH0971NU/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
2	368m E	Universiy of Manchester Student Union, Oxford Road, Manchester, M13 9PR	WEX077879	Using waste exemption	Not on a farm	Use of waste in construction
3	407m NE	323, OXFORD ROAD, MANCHESTER, M13 9PS	WEX281710	Using waste exemption	Not on a farm	Use of waste in construction
4	452m S	-	WEX264732	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	468m E	Whitworth Park, 316 Oxford Road, Manchester, M13 9WJ	WEX301811	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
A	468m E	Whitworth Park, 316 Oxford Road, Manchester, M13 9WJ	WEX167912	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	468m E	Whitworth Park, 316 Oxford Road, Manchester, M13 9WJ	WEX006102	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	474m NE	OXFORD ROAD, MANCHESTER, M13 9PL	WEX301809	Treating waste exemption	Not on a Farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	474m NE	OXFORD ROAD, MANCHESTER, M13 9PL	WEX301817	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
B	474m NE	OXFORD ROAD, MANCHESTER, M13 9PL	WEX301824	Treating waste exemption	Not on a Farm	Preparatory treatments (baling, sorting, shredding etc)
B	474m NE	OXFORD ROAD, MANCHESTER, M13 9PL	WEX167792	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising

ID	Location	Site	Reference	Category	Sub-Category	Description
B	474m NE	OXFORD ROAD, MANCHESTER, M13 9PL	WEX167831	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	474m NE	OXFORD ROAD, MANCHESTER, M13 9PL	WEX167918	Storing waste exemption	Not on a farm	Storage of waste in a secure place

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



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4.1 Recent industrial land uses

Records within 250m	27

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Idvac**	**Unit 15 Greenheys Business Centre, Pencroft Way, Manchester, Greater Manchester, M15 6JJ**	**Industrial Coatings and Finishings**	**Industrial Products**
A	**On site**	**Greendisti Ltd**	**Unit 15, Greenheys Business Centre, 10, Pencroft Way, Manchester, Greater Manchester, M15 6JJ**	**Distribution and Haulage**	**Transport, Storage and Delivery**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Posture Care Ltd**	**Unit 21 Greenheys Business Centre 10, Pencroft Way, Manchester, Greater Manchester, M15 6JJ**	**Industrial Repairs and Servicing**	**Repair and Servicing**
A	**On site**	**Greenheys Business Centre**	**Greater Manchester, M15**	**Business Parks and Industrial Estates**	**Industrial Features**
A	13m N	Factory	Greater Manchester, M15	Unspecified Works Or Factories	Industrial Features
1	19m S	Premaitha Health	Unit 1 Rutherford House, Pencroft Way, Manchester, Greater Manchester, M15 6SZ	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
A	29m NW	Machete Records & Productions	18b, Greenheys Lane, Manchester, Greater Manchester, M15 6NQ	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
B	29m NE	Mast	Greater Manchester, M15	Telecommunications Features	Infrastructure and Facilities
2	32m E	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
A	49m NW	Cedric's Motors	1, Greenheys Lane, Manchester, Greater Manchester, M15 6NQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
B	68m NE	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
C	82m E	Ellab Validation & Monitoring Solutions	Unit 9 Kilburn House, Lloyd Street North, Manchester, Greater Manchester, M15 6SE	Electronic Equipment	Industrial Products
C	86m E	James Fisher Mimic Marine Services	Unit 1 Enterprise House, Lloyd Street North, Manchester, Greater Manchester, M15 6SE	Marine Engineers and Services	Engineering Services
C	86m E	Your Gene Health Plc	Enterprise House, Lloyd Street North, Manchester Science Park, Manchester, Greater Manchester, M15 6SE	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
B	87m NE	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
3	90m NW	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
D	96m S	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
4	96m S	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
5	106m N	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
D	114m SE	Science Park	Greater Manchester, M15	Business Parks and Industrial Estates	Industrial Features
B	121m NE	Astra Telematics	Unit 7, Williams House, Lloyd Street North, Manchester, Greater Manchester, M15 6SE	Vehicle Components	Industrial Products
6	149m SE	Mast (Telecommunication)	Greater Manchester, M15	Telecommunications Features	Infrastructure and Facilities
7	165m S	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
E	182m S	Qiagen	Skelton House, Lloyd Street North, Manchester, Greater Manchester, M15 6SH	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
E	182m S	Qiagen	Skelton House, Lloyd Street North, Manchester, Greater Manchester, M15 6SH	Industrial Repairs and Servicing	Repair and Servicing
F	220m N	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
F	233m N	University Dental Hospital of Manchester	Dental Hospital, Higher Cambridge Street, Manchester, Greater Manchester, M15 6FH	Hospitals	Health Practitioners and Establishments

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m **1**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	LPG	Status
9	485m W	ASDA	Greenhays Lane West, Archway, Hulme, Manchester, Greater Manchester, M15 5AQ	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m	28

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Details	
I	474m SW	Operator: HEINEKEN UK LIMITED Installation Name: ROYAL BREWERY, MANCHESTER - EPR/BV7796IW Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: QP3104PJ Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 29/10/2019 Effective Date: 29/10/2019 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY MANCHESTER Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: LP3732VH Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 28/08/2014 Effective Date: 28/08/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: CP3531GM Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 01/04/2009 Effective Date: 01/04/2009 Last date noted as effective: 13/06/2022 Status: SUPERCEDED

ID	Location	Details	
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: HP3836KU Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 15/03/2010 Effective Date: 15/03/2010 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: ZP3037VD Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 23/06/2014 Effective Date: 23/06/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LIMITED Installation Name: ROYAL BREWERY, MANCHESTER - EPR/BV7796IW Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: FP3905BE Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 21/08/2020 Effective Date: 21/08/2020 Last date noted as effective: 13/06/2022 Status: EFFECTIVE
I	474m SW	Operator: HEINEKEN UK LIMITED Installation Name: ROYAL BREWERY, MANCHESTER - EPR/BV7796IW/V010 Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: HP3330JX Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 26/02/2018 Effective Date: 26/02/2018 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY MANCHESTER Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: DP3530YY Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 18/04/2017 Effective Date: 18/04/2017 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY MANCHESTER Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: KP3830WK Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 05/12/2014 Effective Date: 05/12/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: BV7796IW Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 22/12/2005 Effective Date: 22/12/2005 Last date noted as effective: 13/06/2022 Status: SUPERCEDED

ID	Location	Details	
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: SP3736UP Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 02/07/2008 Effective Date: 01/08/2008 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: UP3131UM Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 06/02/2008 Effective Date: 22/02/2008 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: KP3630WM Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 05/12/2014 Effective Date: 05/12/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: ZP3037VD Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 23/06/2014 Effective Date: 23/06/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: CP3531GM Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 01/04/2009 Effective Date: 01/04/2009 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: HP3836KU Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 15/03/2010 Effective Date: 15/03/2010 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: ONDEO INDUSTRIAL SOLUTIONS LIMITED Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: KP3630WM Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 05/12/2014 Effective Date: 05/12/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED

ID	Location	Details	
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: DP3431LK Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 27/11/2006 Effective Date: 27/11/2006 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: JP3631CT Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 06/11/2012 Effective Date: 06/11/2012 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: HEINEKEN UK LTD Installation Name: ROYAL BREWERY MANCHESTER Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: QP3438EM Original Permit Number: BV7796IW	EPR Reference: - Issue Date: 26/03/2014 Effective Date: 26/03/2014 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: SUEZ INDUSTRIAL WATER LTD Installation Name: ROYAL BREWERY EPR/CP3531GM Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: FP3105BQ Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 21/08/2020 Effective Date: 21/08/2020 Last date noted as effective: 13/06/2022 Status: EFFECTIVE
I	474m SW	Operator: SUEZ INDUSTRIAL WATER LTD Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: RP3335DD Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 30/06/2016 Effective Date: 30/06/2016 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: VWS (UK) LTD Installation Name: ROYAL BREWERY EFFLUENT TREATMENT PLANT Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: EP3637PU Original Permit Number: EP3637PU	EPR Reference: - Issue Date: 13/01/2006 Effective Date: 13/01/2006 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: VWS (UK) LTD Installation Name: ROYAL BREWERY EFFLUENT TREATMENT PLANT Process: ASSOCIATED PROCESS Permit Number: EP3637PU Original Permit Number: EP3637PU	EPR Reference: - Issue Date: 13/01/2006 Effective Date: 13/01/2006 Last date noted as effective: 13/06/2022 Status: SUPERCEDED

ID	Location	Details	
I	474m SW	Operator: SUEZ INDUSTRIAL WATER LTD Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: FP3105BQ Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 21/08/2020 Effective Date: 21/08/2020 Last date noted as effective: 13/06/2022 Status: EFFECTIVE
I	474m SW	Operator: SUEZ INDUSTRIAL WATER LTD Installation Name: ROYAL BREWERY EPR/CP3531GM Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: RP3335DD Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 30/06/2016 Effective Date: 30/06/2016 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: SUEZ INDUSTRIAL WATER LTD Installation Name: ROYAL BREWERY EPR/CP3531GM Process: ASSOCIATED PROCESS Permit Number: UP3232YC Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 08/05/2017 Effective Date: 08/05/2017 Last date noted as effective: 13/06/2022 Status: SUPERCEDED
I	474m SW	Operator: SUEZ INDUSTRIAL WATER LTD Installation Name: ROYAL BREWERY EPR/CP3531GM Process: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Permit Number: UP3232YC Original Permit Number: CP3531GM	EPR Reference: - Issue Date: 08/05/2017 Effective Date: 08/05/2017 Last date noted as effective: 13/06/2022 Status: SUPERCEDED

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m	**0**

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	**26**

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Address	Details	
E	162m S	Medeval Ltd, Skelton House,manchester Science Park,lloyd Street North, Manchester, Greater Manchester, M15 6SH	Operator: Medeval Ltd Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AC8533 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Superseded By Variation
E	162m S	Medeval Ltd, Skelton House,manchester Science Park,lloyd Street North, Manchester, Greater Manchester, M15 6SH	Operator: Medeval Ltd Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AC8533 Date of approval: 12/05/2006	Effective from: 12/05/2006 Last date of update: 01/01/2015 Status: Revoked/cancelled
E	162m S	Medeval Ltd, Skelton House, Manchester Science Park, Lloyd Street North, Manchester, Greater Manchester, M15 6SH	Operator: Medeval Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AC8525 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Superseded By Variation
E	162m S	Medeval Ltd, Skelton House, Manchester Science Park, Lloyd Street North, Manchester, Greater Manchester, M15 6SH	Operator: Medeval Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AC8525 Date of approval: 01/12/2003	Effective from: 01/01/2004 Last date of update: 01/01/2015 Status: Superseded By Variation
E	162m S	Cyprotex Discovery Ltd, Skelton House, Manchester Science Park, Lloyd Street North, Manchester, Greater Manchester, M15 6SH	Operator: Cyprotex Discovery Ltd Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BL8023 Date of approval: 04/10/2001	Effective from: 01/11/2001 Last date of update: 01/01/2015 Status: Superseded By Variation
E	162m S	Skelton House, Manchester Science Park, Lloyd Street North, Manchester, M15 6SH	Operator: Icon Development Solutions Limited Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BY5455 Date of approval: 12/05/2006	Effective from: - Last date of update: 01/01/2020 Status: Surrendered
G	413m NE	University Of Manchester, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AD0180 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Revoked/cancelled
G	423m NE	University Of Manchester, North Campus,sackville Street, Manchester, M60 1QD	Operator: University Of Manchester Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BX8653 Date of approval: 01/10/2004	Effective from: 01/10/2004 Last date of update: 01/04/2005 Status: Effective

ID	Location	Address	Details	
G	423m NE	University Of Manchester, Health And Safety Services, Radiological Protection, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG3983 Date of approval: 20/10/1994	Effective from: 20/11/1994 Last date of update: 01/01/2015 Status: Superseded By Variation
G	423m NE	University Of Manchester, Health And Safety Services, Radiological Protection, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG3983 Date of approval: 16/02/1996	Effective from: 16/02/1996 Last date of update: 01/01/2015 Status: Superseded By Variation
G	423m NE	University Of Manchester, Health And Safety Services, Radiological Protection, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG3983 Date of approval: 10/07/1997	Effective from: 01/11/1997 Last date of update: 01/01/2015 Status: Superseded By Variation
G	423m NE	University Of Manchester, Health And Safety Services, Radiological Protection, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG3983 Date of approval: 11/09/2001	Effective from: 09/10/2001 Last date of update: 01/01/2015 Status: Superseded By Variation
G	423m NE	University Of Manchester, Health And Safety Services, Radiological Protection, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG3983 Date of approval: 28/02/2002	Effective from: 01/04/2002 Last date of update: 01/01/2015 Status: Superseded By Variation
G	423m NE	University Of Manchester, Health And Safety Services, Radiological Protection, 327 Oxford Road, Manchester, Greater Manchester, M13 9PG	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AG3983 Date of approval: 01/12/2003	Effective from: 01/01/2004 Last date of update: 01/01/2015 Status: Revoked/cancelled
H	470m NE	University Of Manchester, South Campus,oxford Road, Manchester, M13 9PL	Operator: University Of Manchester Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BX8556 Date of approval: 27/01/2006	Effective from: 27/01/2006 Last date of update: 06/04/2006 Status: Effective
H	470m NE	University Of Manchester, South Campus,oxford Road, Manchester, M13 9PL	Operator: University Of Manchester Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BX8556 Date of approval: 22/08/2006	Effective from: 22/08/2006 Last date of update: 01/10/2006 Status: Effective

ID	Location	Address	Details	
H	470m NE	University Of Manchester, Oxford Road, Manchester, Greater Manchester, M13 9PL	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AD0155 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Revoked/cancelled
H	470m NE	Victoria University Of Manchester,oxford Road, Manchester, Greater Manchester, M13 9PL	Operator: Victoria University Of Manchester Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AP8713 Date of approval: 16/08/1999	Effective from: 16/08/1999 Last date of update: 01/01/2015 Status: Superseded By Variation
H	470m NE	Central Manchester University Hospitals Nhs Foundation Trust, Radiological Protection Service,327 Oxford Road, Manchester, M13 9PL	Operator: Central Manchester University Hospitals Nhs Foundation Trust Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AP9353 Date of approval: 06/03/1998	Effective from: 06/03/1998 Last date of update: 01/01/2015 Status: Superseded By Variation
H	470m NE	Central Manchester University Hospitals Nhs Foundation Trust, Radiological Protection Service,327 Oxford Road, Manchester, M13 9PL	Operator: Central Manchester University Hospitals Nhs Foundation Trust Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AP9353 Date of approval: 19/11/2001	Effective from: 19/11/2001 Last date of update: 01/01/2015 Status: Superseded By Variation
H	470m NE	Central Manchester University Hospitals Nhs Foundation Trust, Radiological Protection Service,327 Oxford Road, Manchester, M13 9PL	Operator: Central Manchester University Hospitals Nhs Foundation Trust Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AP9353 Date of approval: 19/09/2005	Effective from: 19/09/2005 Last date of update: 01/01/2015 Status: Superseded By Variation
H	470m NE	Central Manchester University Hospitals Nhs Foundation Trust, Radiological Protection Service,327 Oxford Road, Manchester, M13 9PL	Operator: Central Manchester University Hospitals Nhs Foundation Trust Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AP9353 Date of approval: 26/10/2006	Effective from: 26/10/2006 Last date of update: 01/01/2015 Status: Superseded By Variation

ID	Location	Address	Details	
H	470m NE	University Of Manchester, South Campus,oxford Road, Manchester, M13 9PL	Operator: University Of Manchester Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: BX8548 Date of approval: 01/10/2004	Effective from: 01/10/2004 Last date of update: 01/01/2015 Status: Effective
H	470m NE	University Of Manchester, South Campus, Oxford Road, Manchester, M13 9PL	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BX8564 Date of approval: 02/09/2004	Effective from: 01/10/2004 Last date of update: 01/01/2015 Status: Superseded By Variation
H	470m NE	University Of Manchester, South Campus, Oxford Road, Manchester, M13 9PL	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BX8564 Date of approval: 28/06/2005	Effective from: 22/07/2005 Last date of update: 01/01/2015 Status: Superseded By Variation
H	470m NE	University Of Manchester, South Campus, Oxford Road, Manchester, M13 9PL	Operator: University Of Manchester Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: BX8564 Date of approval: 08/12/2006	Effective from: 03/12/2007 Last date of update: 01/01/2015 Status: Effective

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m	1

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Details	
8	350m SW	Incident Date: 13/05/2003 Incident Identification: 158099 Pollutant: Inorganic Chemicals/Products Pollutant Description: Acids	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	5

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 30**

ID: I, Location: 474m SW, Permit: CP3531GM
Operator: Suez Industrial Water Ltd
Activity: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT
Address: Royal Brewery Denmark Road Moss Side Greater Manchester M15 6LD
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Nitrogen - as total N	50000kg	Below Reporting Threshold
Air	Carbon dioxide	10000000kg	Below Reporting Threshold
Wastewater	Cadmium	1kg	Below Reporting Threshold
Wastewater	Mercury	0.1kg	Below Reporting Threshold

ID: I, Location: 474m SW, Permit: BV7796IW
Operator: HEINEKEN UK LIMITED
Activity: Animal vegetable and food treating etc vegetable
Address: ROYAL BREWERY DENMARK ROAD Greater Manchester M15 6LD
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Total organic carbon (TOC)	50000kg	182522.8kg

ID: I, Location: 474m SW, Permit: BV7796IW
Operator: HEINEKEN UK LIMITED
Activity: Animal vegetable and food treating etc vegetable
Address: ROYAL BREWERY DENMARK ROAD Greater Manchester M15 6LD
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Carbon dioxide	10000000kg	27534330kg

ID: I, Location: 474m SW, Permit: CP3531GM
Operator: Suez Industrial Water Ltd
Activity: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT
Address: Royal Brewery Denmark Road Moss Side Greater Manchester M15 6LD
Sector Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Wastewater	Total organic carbon (TOC)	50000kg	182522kg

ID: I, Location: 474m SW, Permit: BV7796IW
Operator: HEINEKEN UK LIMITED
Activity: Animal vegetable and food treating etc vegetable
Address: ROYAL BREWERY DENMARK ROAD Greater Manchester M15 6LD
Sector Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Sulphur oxides (SO2 and SO3) as SO2	100000kg	Below Reporting Threshold
Wastewater	Nitrogen - as total N	50000kg	Below Reporting Threshold
Wastewater	Phosphorus - as total P	5000kg	Below Reporting Threshold
Air	Carbon monoxide	100000kg	Below Reporting Threshold
Air	Nitrogen oxides (NO and NO2) as NO2	100000kg	Below Reporting Threshold
Air	Particulate matter - total	10000kg	Below Reporting Threshold

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	**2**

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 30**

ID: I, Location: 474m SW, Permit: CP3531GM
Operator: Suez Industrial Water Ltd
Activity: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT
Address: Royal Brewery Denmark Road Moss Side Greater Manchester M15 6LD
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R11	Use of wastes obtained from any of the operations numbered R1 to R10	0.1	Absolute Value	16 05 06	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	1
R10	Land treatment resulting in benefit to agriculture or ecological improvement	1131.66	Absolute Value	02 07 05	sludges from on-site effluent treatment	0

ID: I, Location: 474m SW, Permit: BV7796IW
Operator: HEINEKEN UK LIMITED
Activity: Animal vegetable and food treating etc vegetable
Address: ROYAL BREWERY DENMARK ROAD Greater Manchester M15 6LD
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	40.558	Absolute Value	17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	0
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.2	Absolute Value	13 03 07	mineral-based non-chlorinated insulating and heat transmission oils	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.468	Absolute Value	15 01 10	packaging containing residues of or contaminated by dangerous substances	1

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
D15	Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection, on the site where it is produced)	0.2	Absolute Value	16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01	0
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.25	Absolute Value	16 01 21	hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14	1
R4	Recycling/reclamation of metals and metal compounds	0.375	Absolute Value	20 01 21	fluorescent tubes and other mercury-containing waste	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	6.055	Absolute Value	20 01 35	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components (6)	1
R4	Recycling/reclamation of metals and metal compounds	69	Absolute Value	20 01 40	metals	0
R1	Use principally as a fuel or other means to generate energy	161.833	Absolute Value	20 03 01	mixed municipal waste	0
R10	Land treatment resulting in benefit to agriculture or ecological improvement	580.293	Absolute Value	02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials	0
R10	Land treatment resulting in benefit to agriculture or ecological improvement	631.346	Absolute Value	02 07 04	materials unsuitable for consumption or processing	0
R5	Recycling/reclamation of other inorganic materials	231.76	Absolute Value	15 01 01	paper and cardboard packaging	0
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.115	Absolute Value	08 03 12	waste ink containing dangerous substances	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.1	Absolute Value	16 02 13	discarded equipment containing hazardous components (2) other than those mentioned in 16 02 09 to 16 02 12	1

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	1	Absolute Value	16 03 05	organic wastes containing dangerous substances	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.1	Absolute Value	16 05 04	gases in pressure containers (including halons) containing dangerous substances	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.1	Absolute Value	16 06 01	lead batteries	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	35.487	Absolute Value	15 01 02	plastic packaging	0
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	1.6	Absolute Value	14 06 03	other solvents and solvent mixtures	1
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.687	Absolute Value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	1
R5	Recycling/reclamation of other inorganic materials	7.08	Absolute Value	15 01 03	wooden packaging	0
R4	Recycling/reclamation of metals and metal compounds	110.04	Absolute Value	15 01 04	metallic packaging	0

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m	1

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

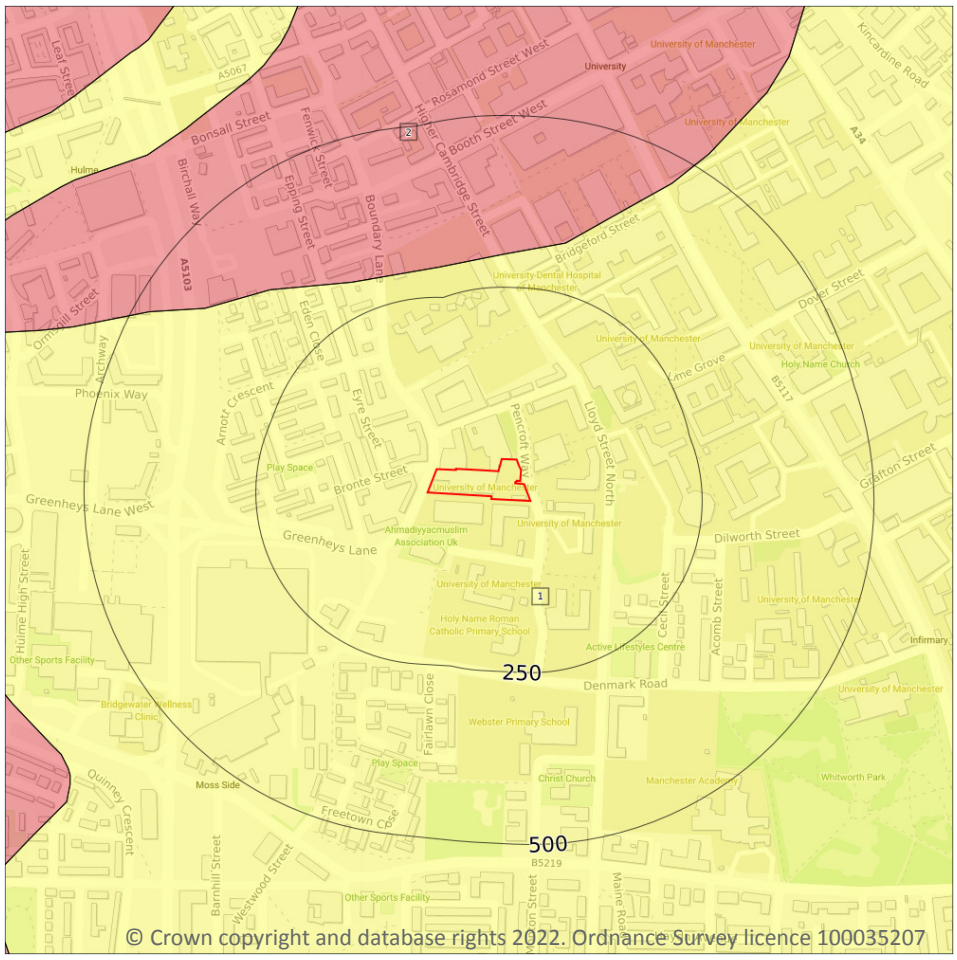
Features are displayed on the Current industrial land use map on **page 30**

ID: H, Location: 470m NE, Permit: BX8564
Operator: UNIVERSITY OF MANCHESTER
Address: SOUTH CAMPUS OXFORD ROAD MANCHESTER M13 9PL
Releases:

Route	Substance	Quantity released
Wastewater	Phosphorus 32	7.4MBq -
Wastewater	Phosphorus 33	- -
Wastewater	Other Beta/Gamma	2.03MBq -
Wastewater	Sulphur 35	1272.88MBq -
Wastewater	Other Alpha Particulate	- -
Wastewater	Uranium Alpha	- -

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m	2

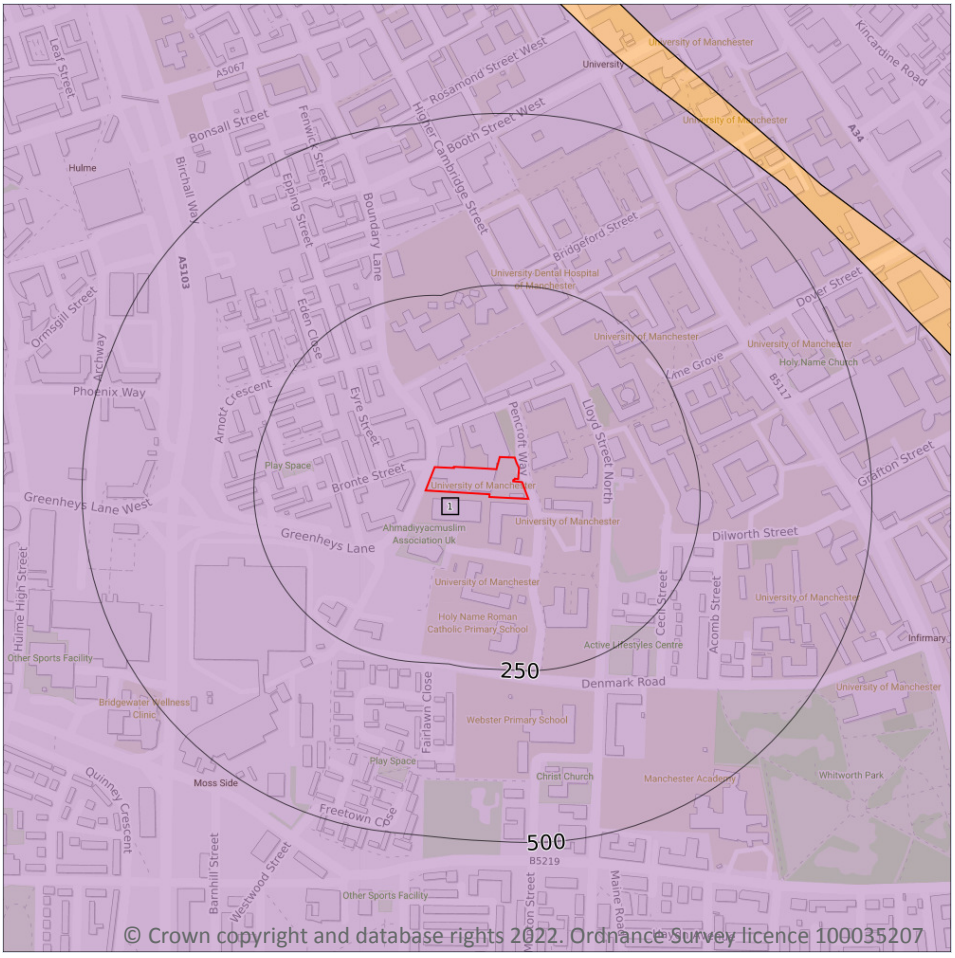
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 50**

ID	Location	Designation	Description
1	**On site**	**Secondary Undifferentiated**	**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**
2	289m N	Secondary A	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. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	1

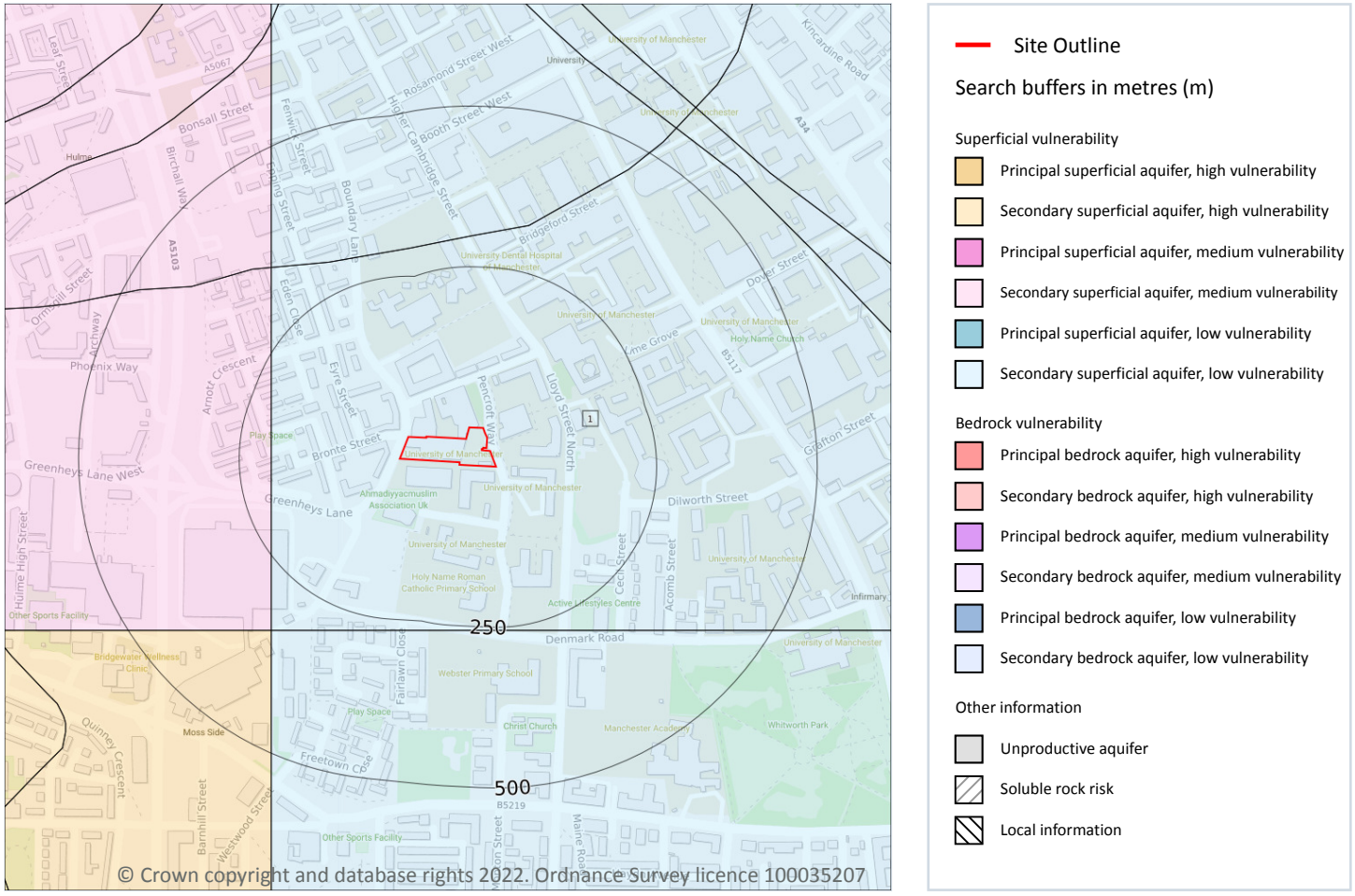
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 52**

ID	Location	Designation	Description
1	On site	Principal	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. Generally principal aquifers were previously major aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 53**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	**Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year**	**Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Low**	**Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures**

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

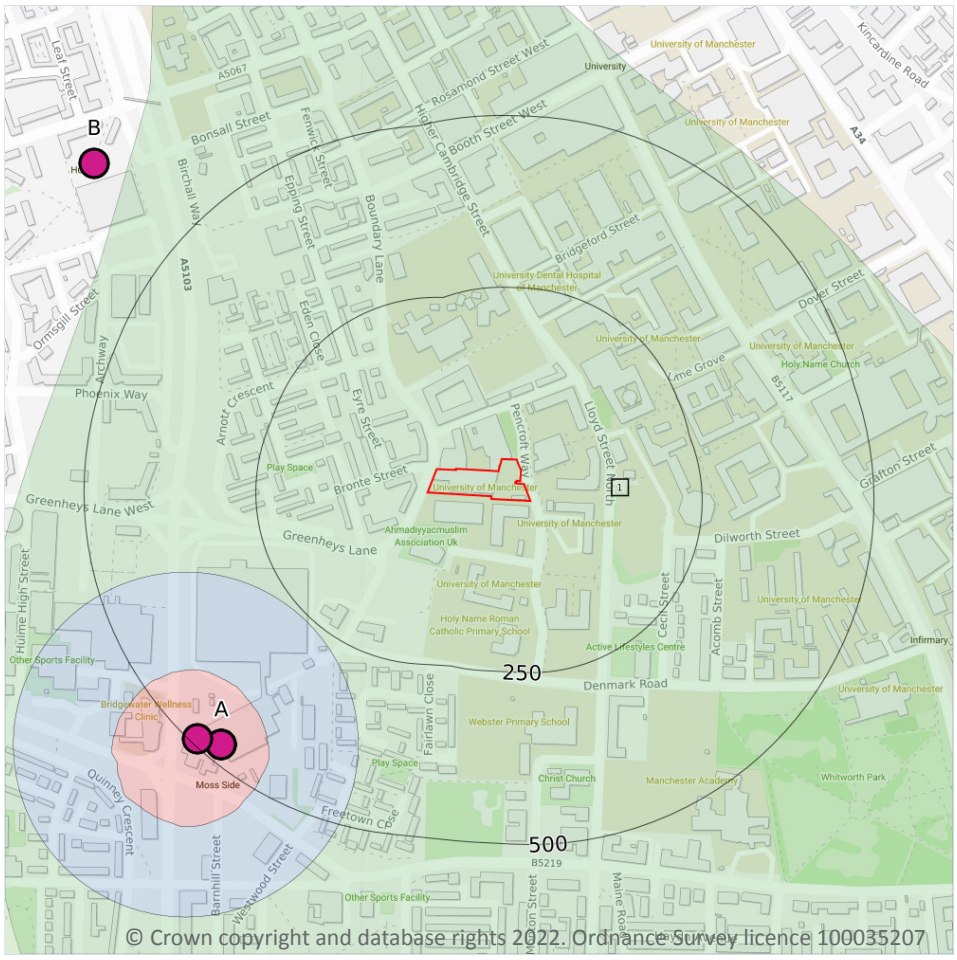
5.5 Groundwater vulnerability- local information

Records on site	0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	34

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 55**

ID	Location	Details	
A	474m SW	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -
A	474m SW	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER" Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 16/08/1995 Version End Date: -
A	474m SW	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -
A	474m SW	Status: Historical Licence No: 2569007007 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS SIDE, MANCHESTER Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Easting: 383900 Northing: 395900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/12/2003 Version End Date: -

ID	Location	Details	
A	474m SW	Status: Historical Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m^3): 227000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -
A	474m SW	Status: Historical Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383900 Northing: 395900	Annual Volume (m^3): 227000 Max Daily Volume (m^3): 900 Original Application No: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 23/11/2009 Version End Date: -
A	490m SW	Status: Active Licence No: 2569007007 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: NPS/WR/015793 Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
A	490m SW	Status: Active Licence No: 2569007007 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES MOSS SIDE MANCHESTER Data Type: Point Name: Heineken UK Ltd Easting: 383865 Northing: 395909	Annual Volume (m^3): 227,000 Max Daily Volume (m^3): 900 Original Application No: NPS/WR/015793 Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -

ID	Location	Details	
B	668m NW	Status: Active Licence No: NW/069/0004/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m^3): 274,115 Max Daily Volume (m^3): 751 Original Application No: NPS/WR/008077 Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
B	668m NW	Status: Active Licence No: NW/069/0004/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE AT MANCHESTER METROPOLITAN UNIVERSITY Data Type: Point Name: Manchester Metropolitan University Easting: 383715 Northing: 396746	Annual Volume (m^3): 274,115 Max Daily Volume (m^3): 751 Original Application No: NPS/WR/008077 Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	785m N	Status: Active Licence No: NW/069/0006/003 Details: Heat Pump Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m^3): 283,240 Max Daily Volume (m^3): 1,532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
-	785m N	Status: Active Licence No: NW/069/0006/003 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE 1 AT LOWER CHATHAM STREET Data Type: Point Name: Manchester Metropolitan University Easting: 384180 Northing: 397091	Annual Volume (m^3): 283,240 Max Daily Volume (m^3): 1,532 Original Application No: NPS/WR/015264 Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -

ID	Location	Details	
-	1065m SW	Status: Historical Licence No: 2569007009 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER" Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
-	1065m SW	Status: Historical Licence No: 2569007009 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER" Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
-	1065m SW	Status: Historical Licence No: 2569007009 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): 66826.2 Max Daily Volume (m^3): 372.772 Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 101 Version Start Date: 07/10/2000 Version End Date: -
-	1065m SW	Status: Historical Licence No: 2569007009 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, MOSS LANE WEST MANCHESTER Data Type: Point Name: HYDES BREWERY LTD Easting: 383220 Northing: 395850	Annual Volume (m^3): 66826.2 Max Daily Volume (m^3): 372.772 Original Application No: - Original Start Date: 21/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 19/07/2018 Version End Date: -

ID	Location	Details	
-	1353m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW8 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383224 Northing: 397225	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1368m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW7 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383184 Northing: 397203	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1373m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW9 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383223 Northing: 397253	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1379m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW5 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383193 Northing: 397230	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1392m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW4 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383159 Northing: 397210	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1398m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW10 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383211 Northing: 397276	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1411m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW3 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383140 Northing: 397217	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1418m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW11 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383204 Northing: 397298	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1418m N	Status: Historical Licence No: NW0690006001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m^3): 139128 Max Daily Volume (m^3): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
-	1418m N	Status: Historical Licence No: NW/069/0006/001 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: BOREHOLES AT ORIGIN DEVELOPMENTS, MANCHESTER Data Type: Point Name: West Contracting Easting: 384378 Northing: 397733	Annual Volume (m^3): 139128 Max Daily Volume (m^3): 1010 Original Application No: - Original Start Date: 19/01/2009 Expiry Date: 31/03/2015 Issue No: 1 Version Start Date: 19/01/2009 Version End Date: -
-	1426m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW6 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383171 Northing: 397275	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1440m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW2 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383113 Northing: 397230	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -

ID	Location	Details	
-	1448m E	Status: Historical Licence No: NW/069/0004/005 Details: Heat Pump Direct Source: Ground Water - North West Region Point: AREA OF ABSTRACTION - LOWER CARBONIFEROUS LIMESTONE Data Type: Poly4 Name: G T Energy UK Limited Easting: 385729 Northing: 396778	Annual Volume (m^3): 2,049,840 Max Daily Volume (m^3): 8640 Original Application No: - Original Start Date: 17/01/2013 Expiry Date: 16/01/2037 Issue No: 2 Version Start Date: 11/06/2013 Version End Date: -
-	1473m NW	Status: Active Licence No: NW/069/0006/010 Details: Dewatering Direct Source: Ground Water - North West Region Point: BOREHOLE PW1 CHESTER FORMATION AT CROWN STREET Data Type: Point Name: Renaker Build Ltd Easting: 383085 Northing: 397249	Annual Volume (m^3): 260,172 Max Daily Volume (m^3): 712.80 Original Application No: NPS/WR/034474 Original Start Date: 24/09/2021 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 24/09/2021 Version End Date: -
-	1526m NE	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER" Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1526m NE	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m^3): 331858 Max Daily Volume (m^3): 909.2 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -

ID	Location	Details	
-	1697m N	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT GEORGE ST, MANCHESTER" Data Type: Point Name: BRITISH TELECOM Easting: 384100 Northing: 398000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
-	1697m N	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GEORGE ST, MANCHESTER Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 384100 Northing: 398000	Annual Volume (m^3): 1100 Max Daily Volume (m^3): 860 Original Application No: - Original Start Date: 01/04/1984 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	**0**

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	**0**

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	3

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

Features are displayed on the Abstractions and Source Protection Zones map on **page 55**

ID	Location	Type	Description
1	**On site**	**3**	**Total catchment**
A	257m SW	2	Outer catchment
A	397m SW	1	Inner catchment

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	1

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 66**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	5m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Corn Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 66**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Irwell / Manchester Ship Canal (Irk to confluence with Upper Mers**	**GB112069061452**	**Croal Irwell**	**Irwell**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 66**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2017m NW	River	Irwell / Manchester Ship Canal (Irk to confluence with Upper Mers	GB112069061452	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1

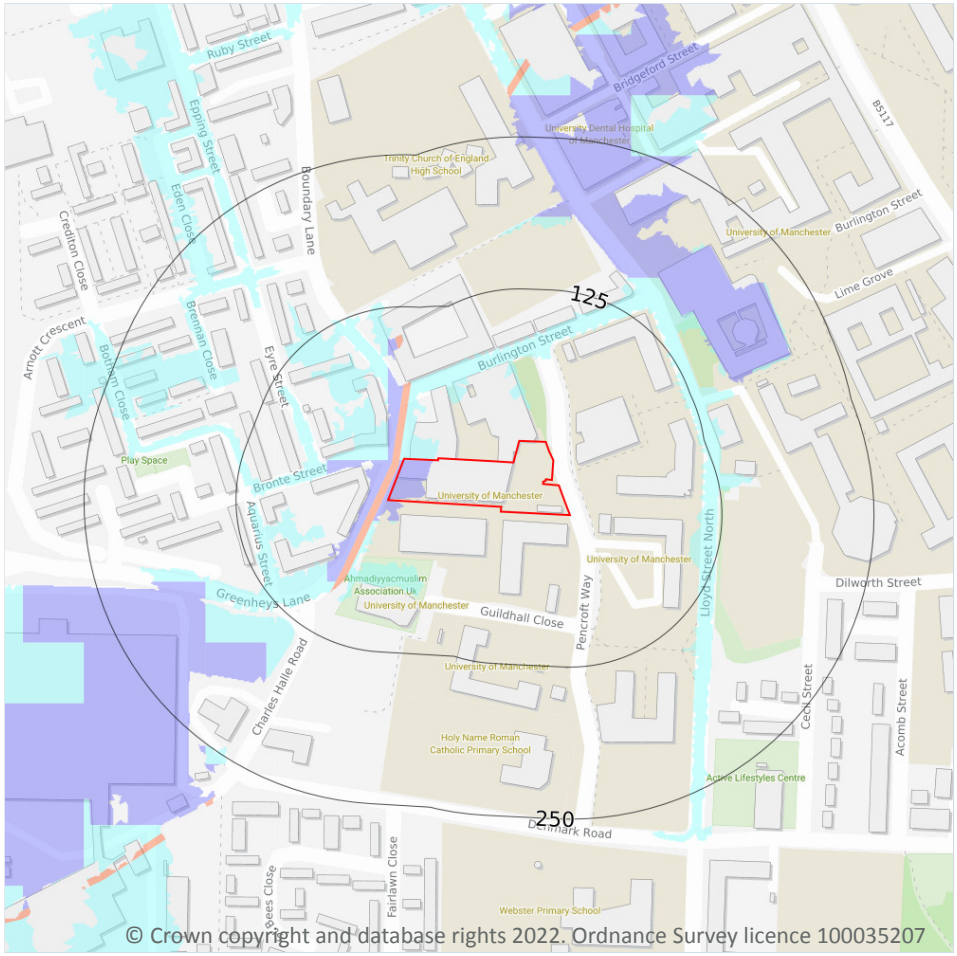
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 66**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Manchester and East Cheshire Permo-Triassic Sandstone Aquifers**	**GB41201G101100**	**Poor**	**Poor**	**Poor**	**2019**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	14

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on **page 69**

Distance	Flood risk category
On site	**Medium**
0 - 50m	High

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	**0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	**0**

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

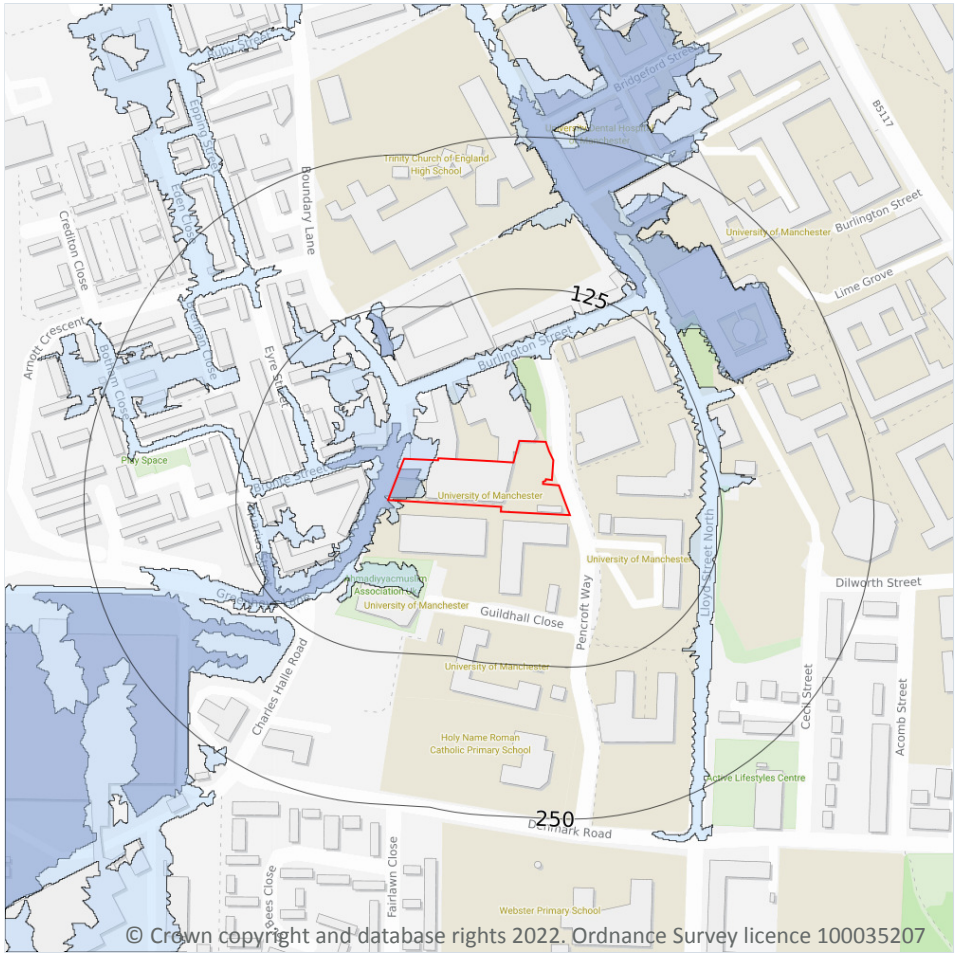
7.5 Flood Storage Areas

Records within 250m	**0**

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on **page 69**

Location	Type
On site	**Zone 2 - (Fluvial /Tidal Models)**

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m	1

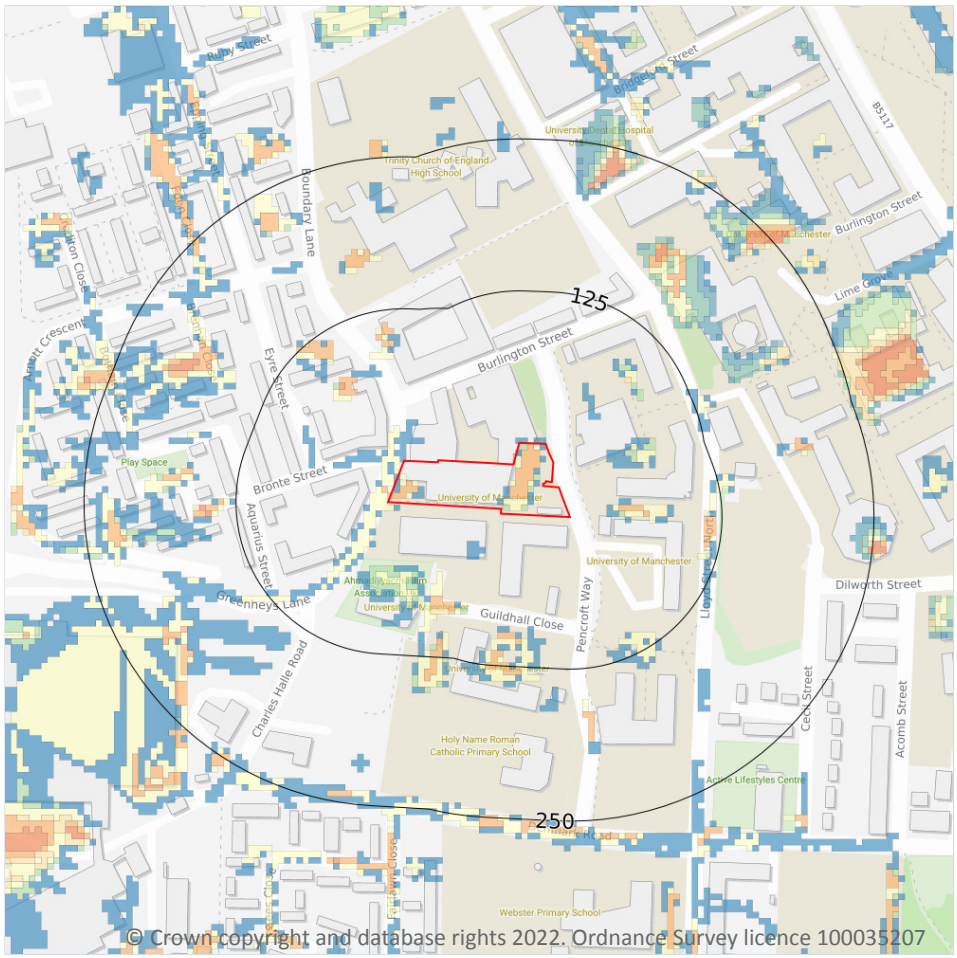
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 69**

Location	Type
On site	**Zone 3 - (Fluvial Models)**

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding



Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.1m - 0.3m**
Highest risk within 50m	**1 in 30 year, 0.1m - 0.3m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 73**

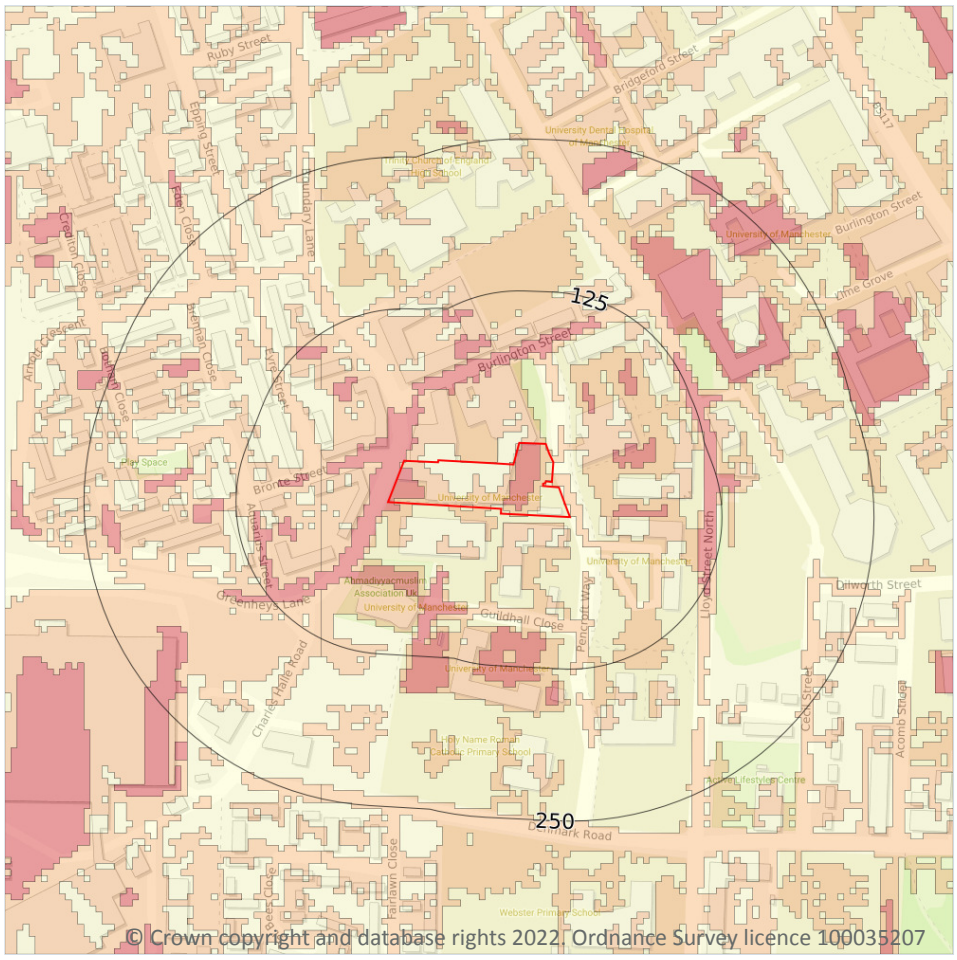
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site	**High**
Highest risk within 50m	**High**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 75**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m	0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m	0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

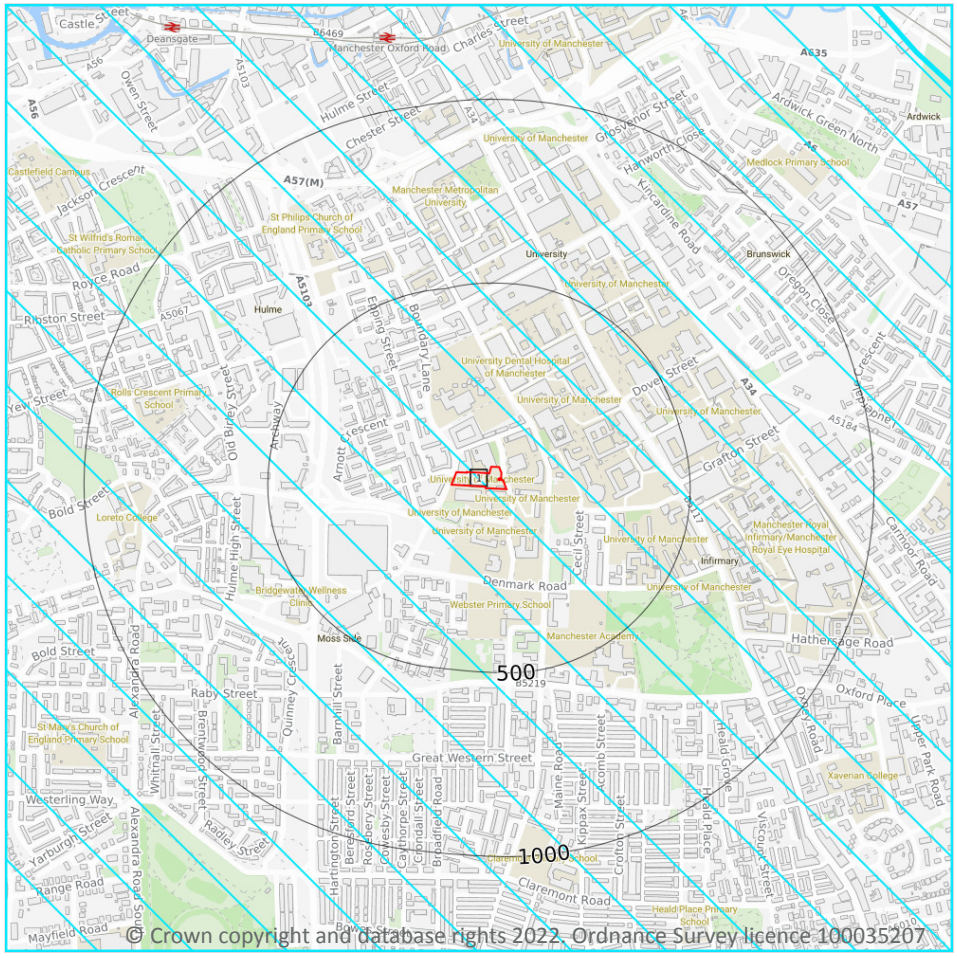
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

Not recorded

Favourable

Unfavourable - Recovering

Unfavourable - No change

Unfavourable - Declining

Partially destroyed

Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 80**

ID	Location	Type of developments requiring consultation
1	**On site**	**Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m². Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m	3

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 82**

ID	Location	Name	Grade	Reference Number	Listed date
A	220m NE	Burlington Rooms (Schunk Laboratories, Manchester University) and Attached Railings, Hulme, Manchester, M13	II	1197811	03/10/1974
1	233m NE	Pharmacy Department, Department of Adult Education, University of Manchester, Hulme, Manchester, M15	II	1209002	03/10/1974
A	244m NE	Manchester University Laboratories, Hulme, Manchester, M13	II	1402638	19/10/2011

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

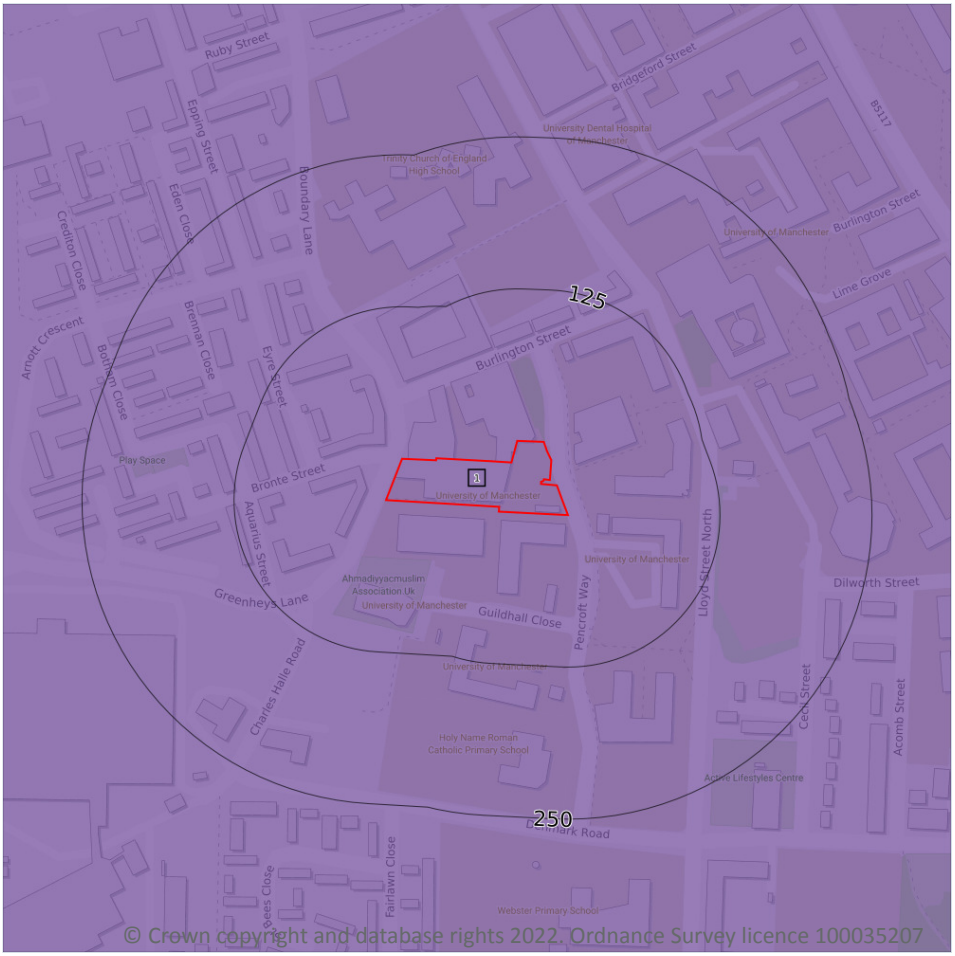
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 85**

ID	Location	Classification	Description
1	**On site**	**Urban**	-

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

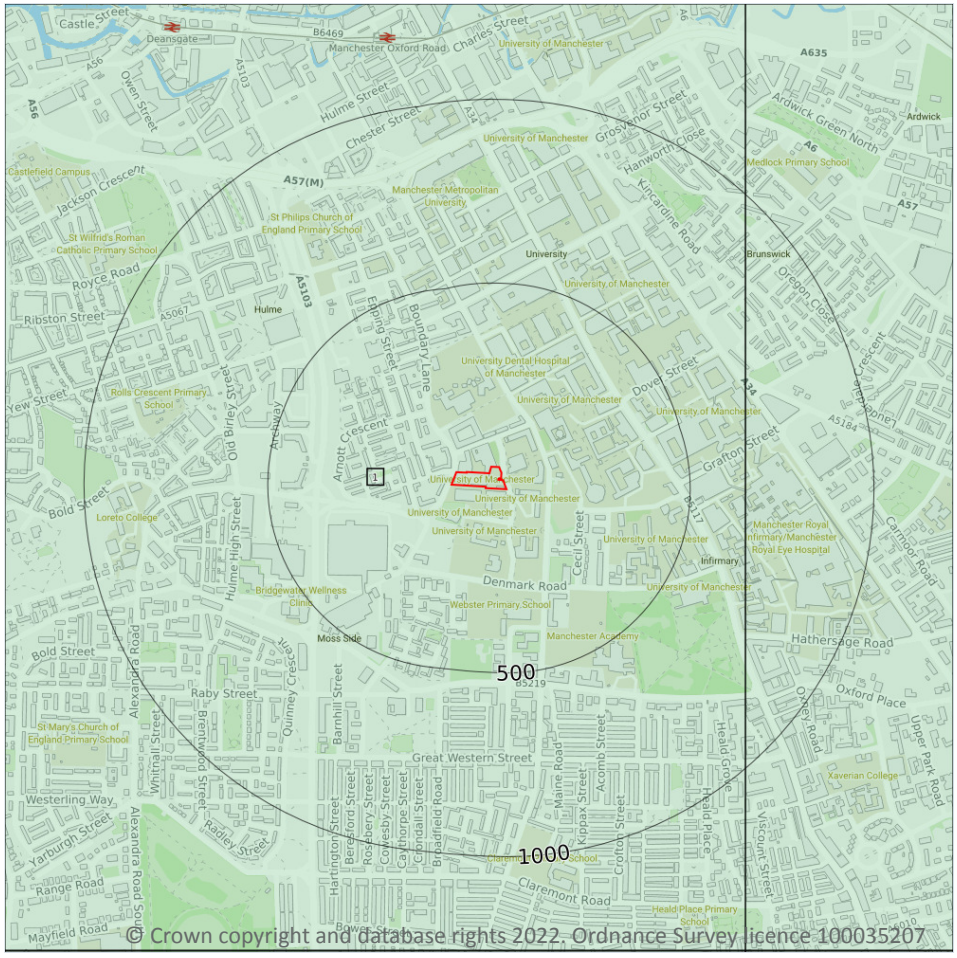
13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

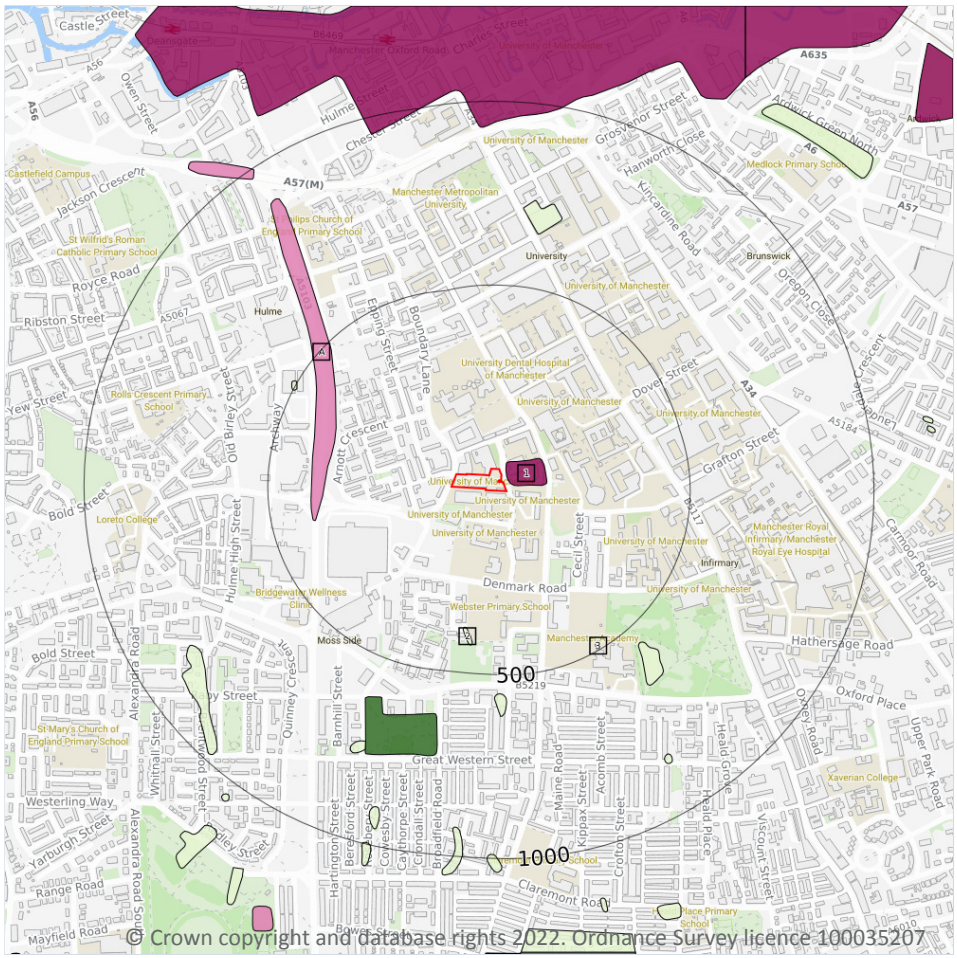
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 88**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SJ89NW**

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground



Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m	5

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

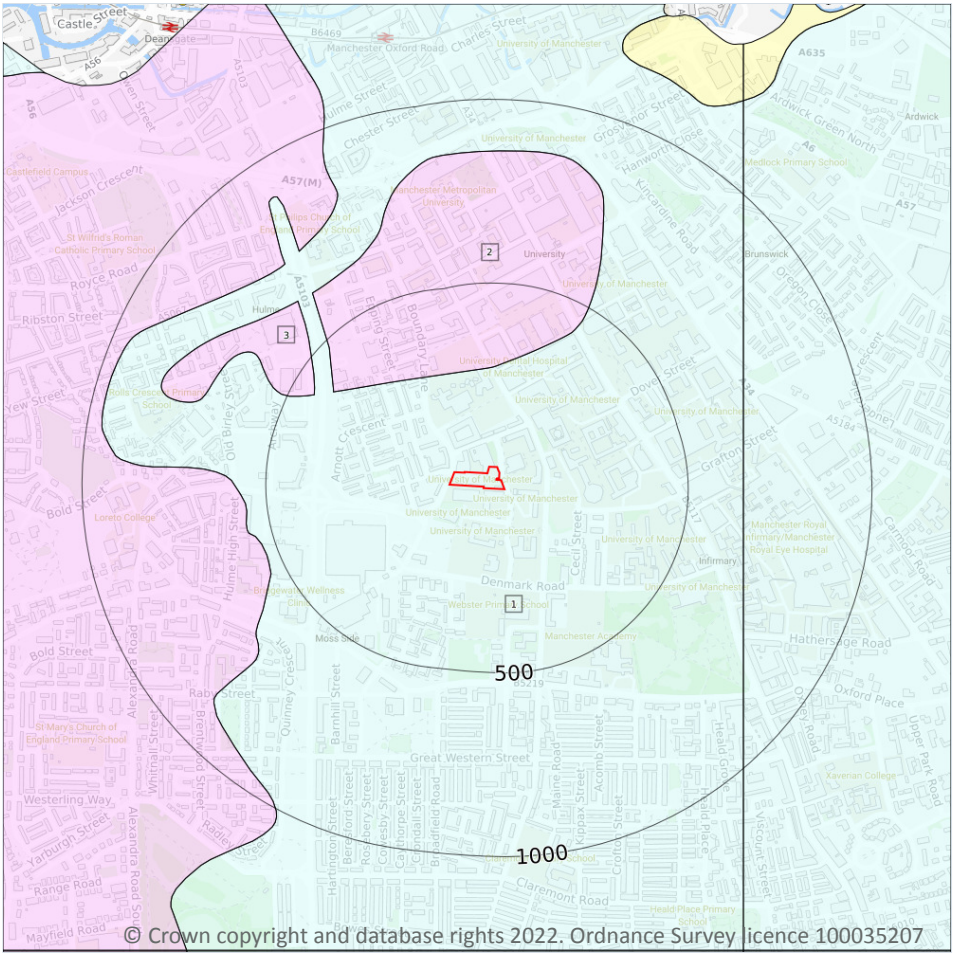
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 89**

ID	Location	LEX Code	Description	Rock description
1	14m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	338m W	WGR-VOID	Worked Ground (Undivided)	Void
2	377m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
3	477m SE	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
A	493m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m **3**

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 91**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**Till, Devensian - Diamicton**	**Diamicton**
2	266m N	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
3	436m NW	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

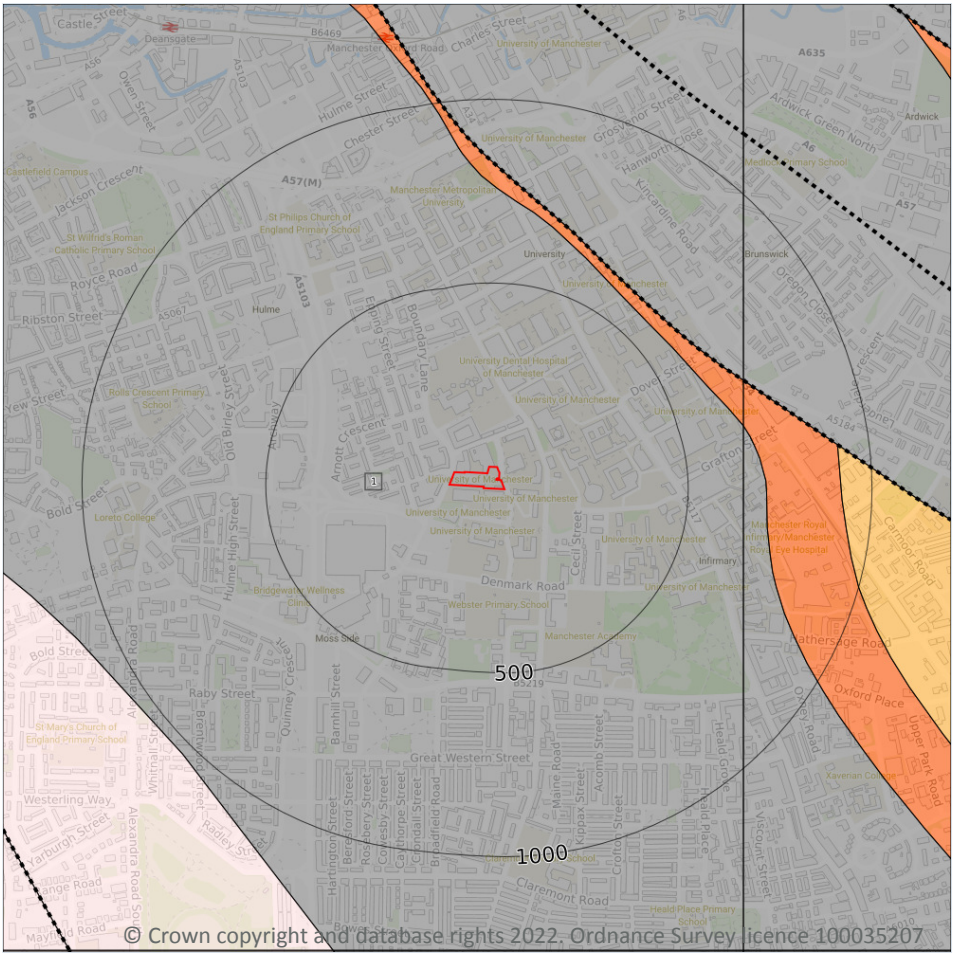
14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m	1

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 93**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CPB-SDST**	**Chester Pebble Beds Formation - Sandstone**	**Early Triassic Epoch**

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 95**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**EW085_manchester_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

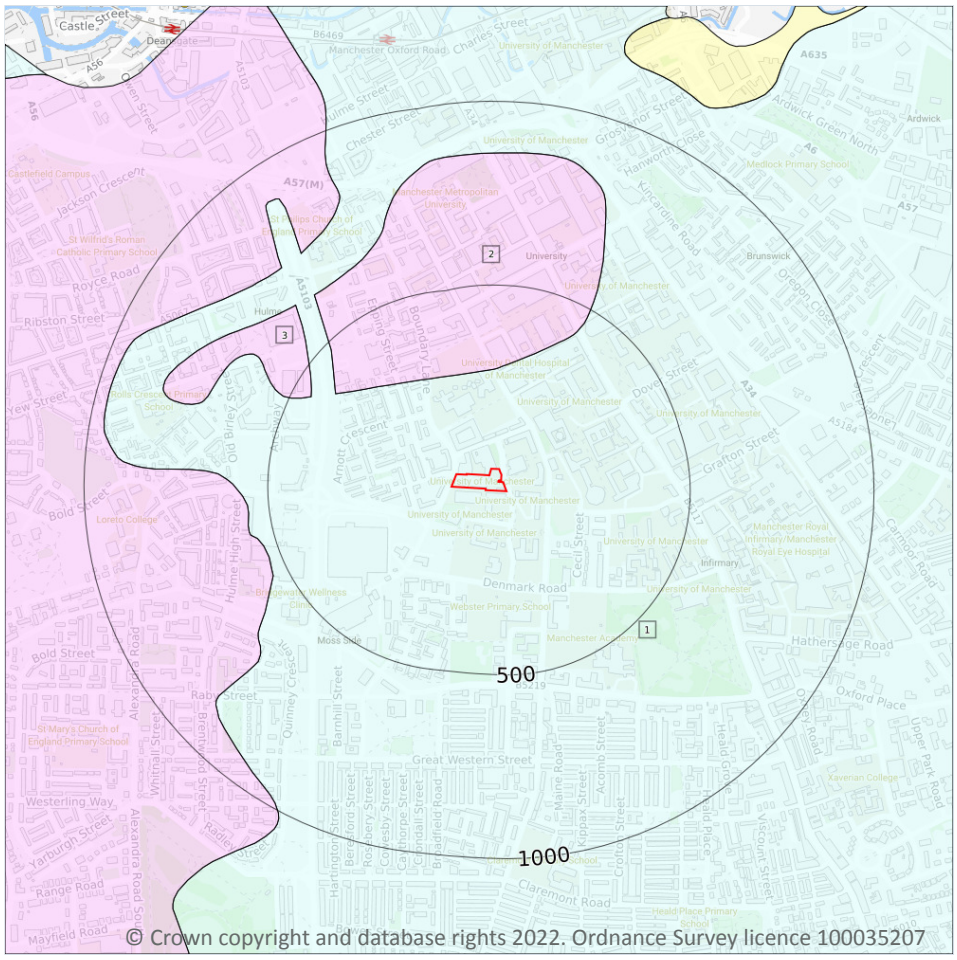
15.3 Artificial ground permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m **3**

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 97**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TILLD-DMTN**	**TILL, DEVENSIAN**	**DIAMICTON**
2	266m N	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
3	448m NW	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**Low**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

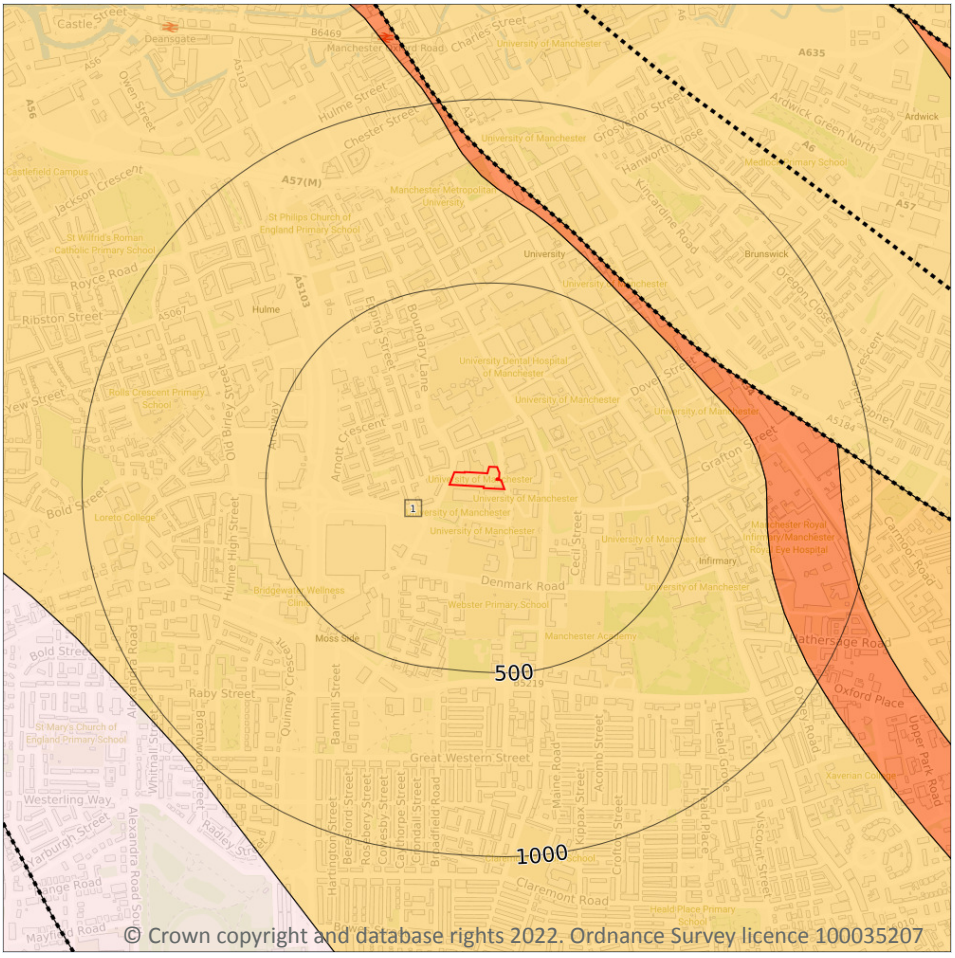
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m	1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 99**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**CHES-SDST**	**CHESTER FORMATION - SANDSTONE**	**OLENEKIAN**

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**Moderate**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

16 Boreholes



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16.1 BGS Boreholes

Records within 250m	16

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

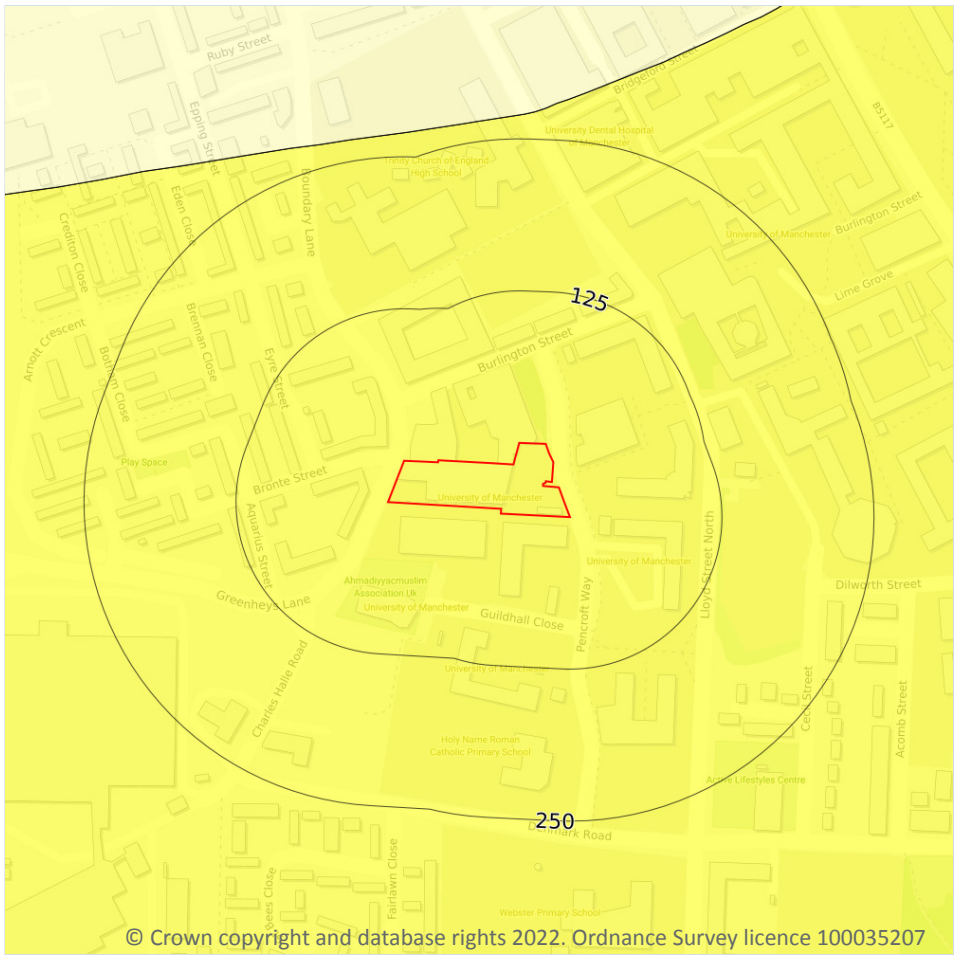
Features are displayed on the Boreholes map on **page 101**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	20m N	384270 396320	UNIVERSITY OF MANCHESTER MONITORING	237.0	N	1045480
A	93m S	384260 396170	MACHESTER SCIENCE PARK PHASE 3 1	-	Y	N/A
A	95m S	384240 396170	MACHESTER SCIENCE PARK PHASE 3 TPG	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	99m S	384280 396160	MACHESTER SCIENCE PARK PHASE 3 TPA	-	Y	N/A
A	107m S	384300 396150	MACHESTER SCIENCE PARK PHASE 3 TPH	-	Y	N/A
A	120m S	384270 396140	MACHESTER SCIENCE PARK PHASE 3 TPB	-	Y	N/A
B	125m S	384240 396140	MACHESTER SCIENCE PARK PHASE 3 TPF	-	Y	N/A
C	126m S	384330 396130	MACHESTER SCIENCE PARK PHASE 3 TPK	-	Y	N/A
2	136m S	384210 396130	MACHESTER SCIENCE PARK PHASE 3 TPE	-	Y	N/A
C	137m S	384310 396120	MACHESTER SCIENCE PARK PHASE 3 TPI	-	Y	N/A
B	144m S	384250 396120	MACHESTER SCIENCE PARK PHASE 3 TPD	-	Y	N/A
B	145m S	384240 396120	MACHESTER SCIENCE PARK PHASE 3 2	-	Y	N/A
C	147m S	384310 396110	MACHESTER SCIENCE PARK PHASE 3 3	-	Y	N/A
B	149m S	384270 396110	MACHESTER SCIENCE PARK PHASE 3 TPC	-	Y	N/A
C	157m S	384300 396100	MACHESTER SCIENCE PARK PHASE 3 TPJ	-	Y	N/A
3	197m NE	384453 396469	UNIVERSITY OF MANCHESTER, N. OF BURLINGTON STREET	91.44	N	1042405

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	1

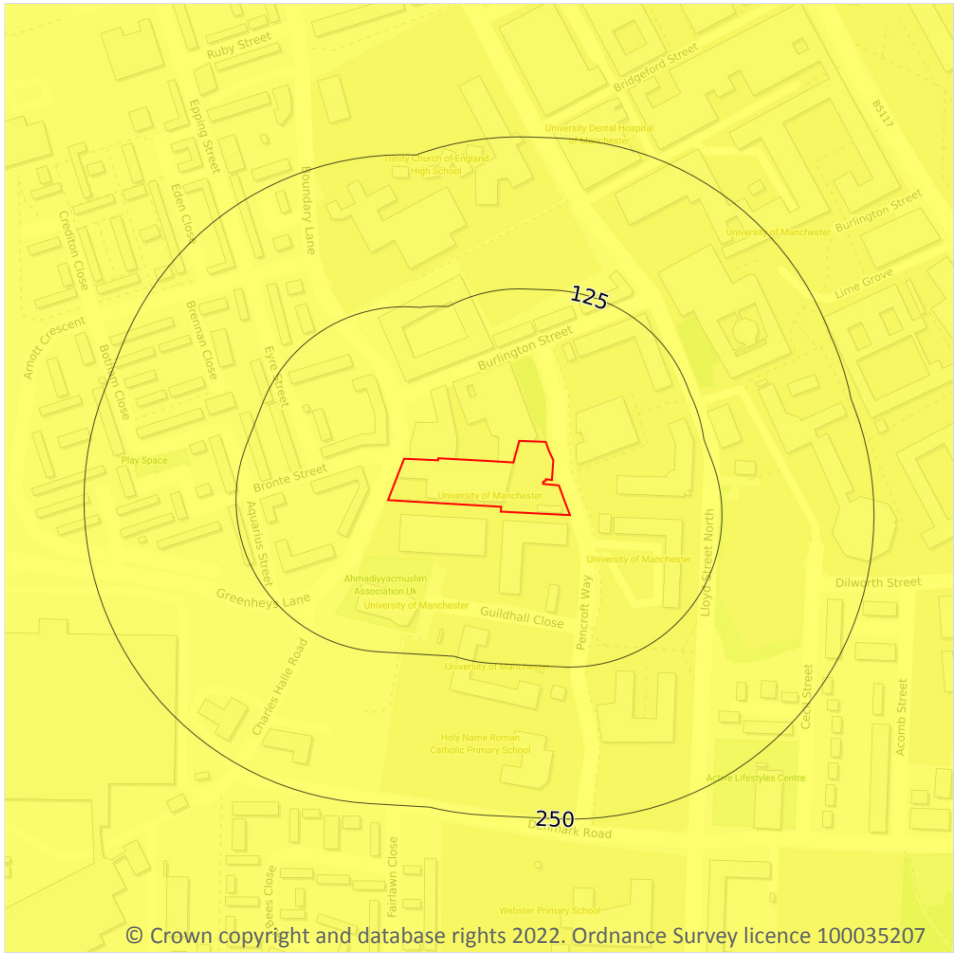
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 103**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	1

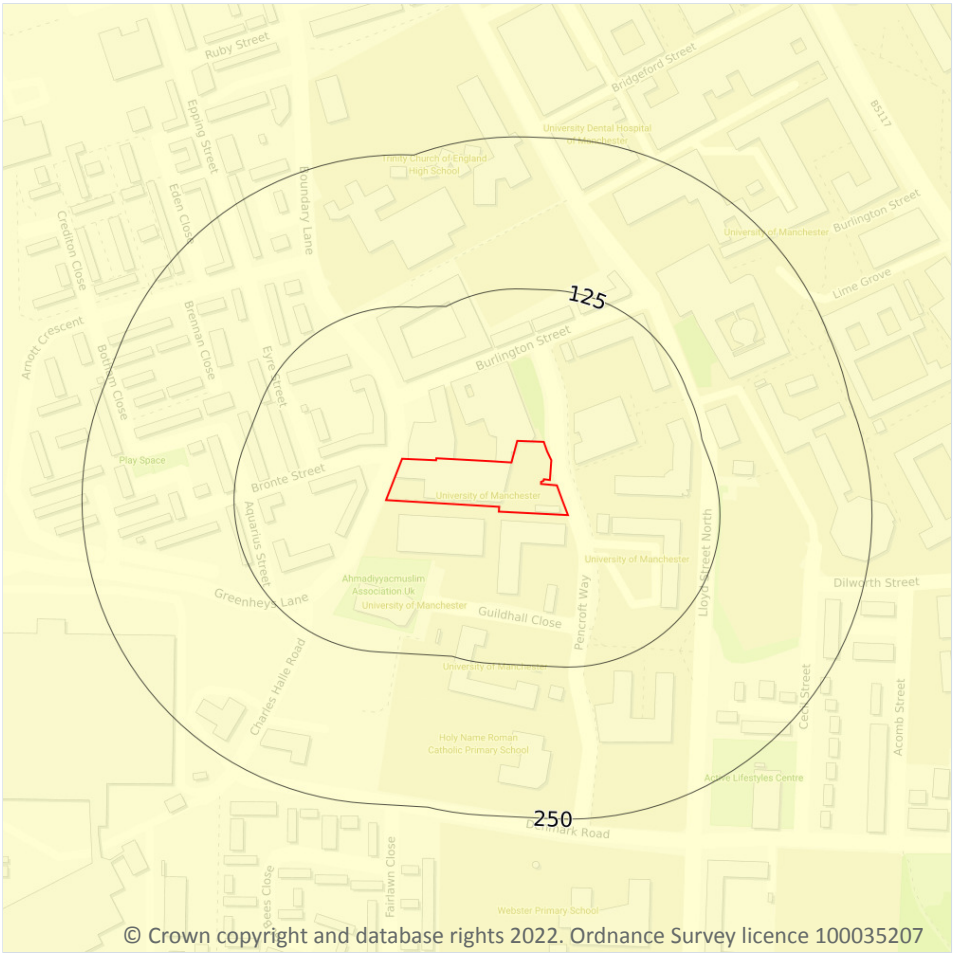
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 104**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	1

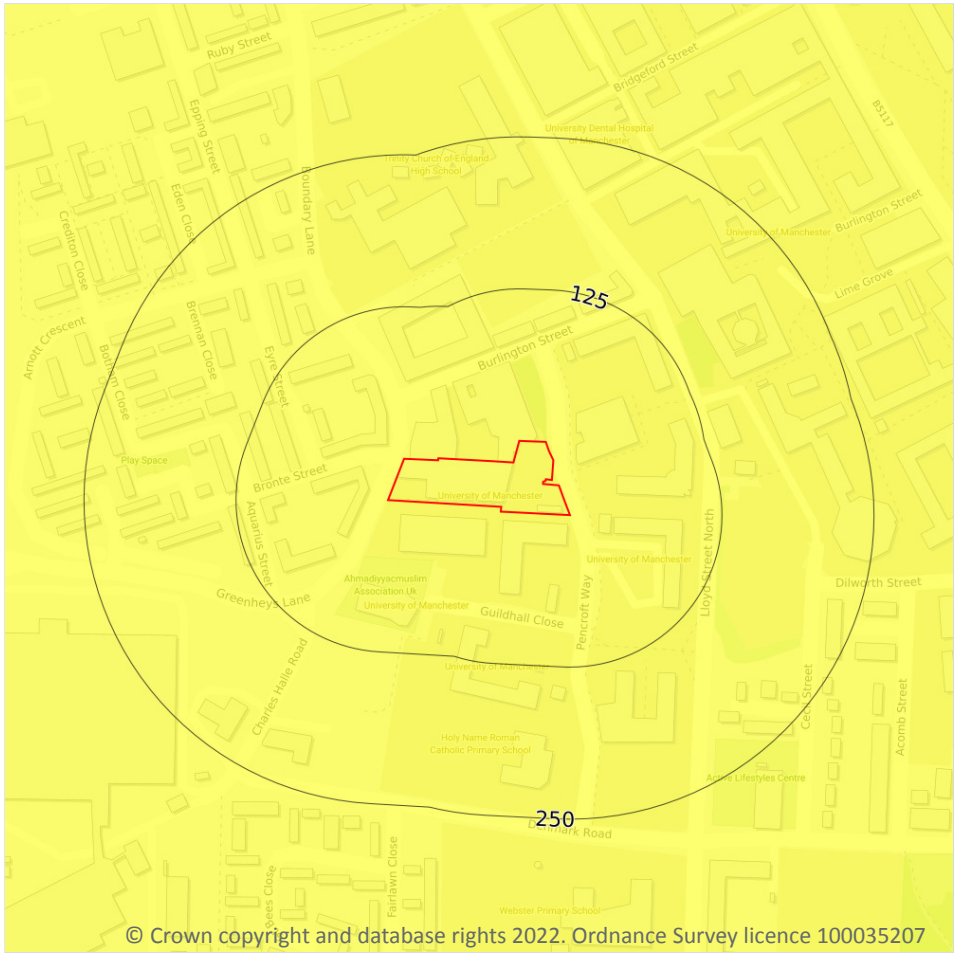
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 105**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	1

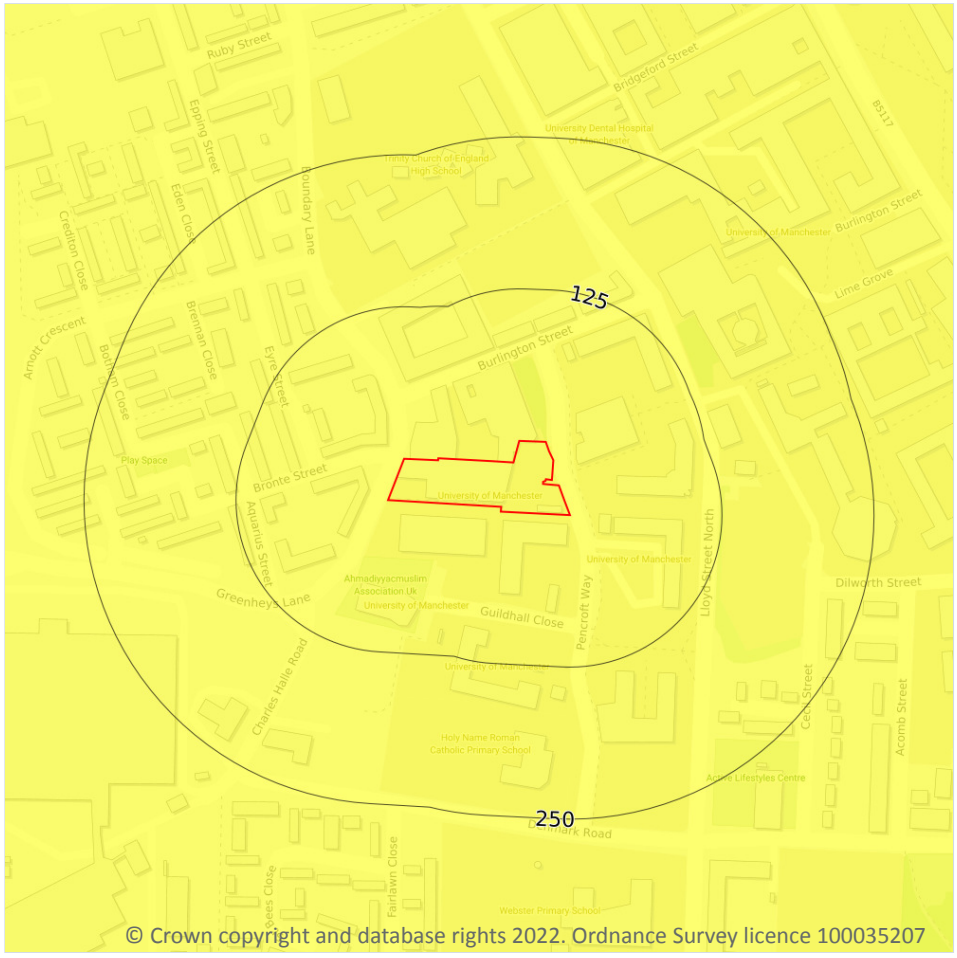
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 106**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	1

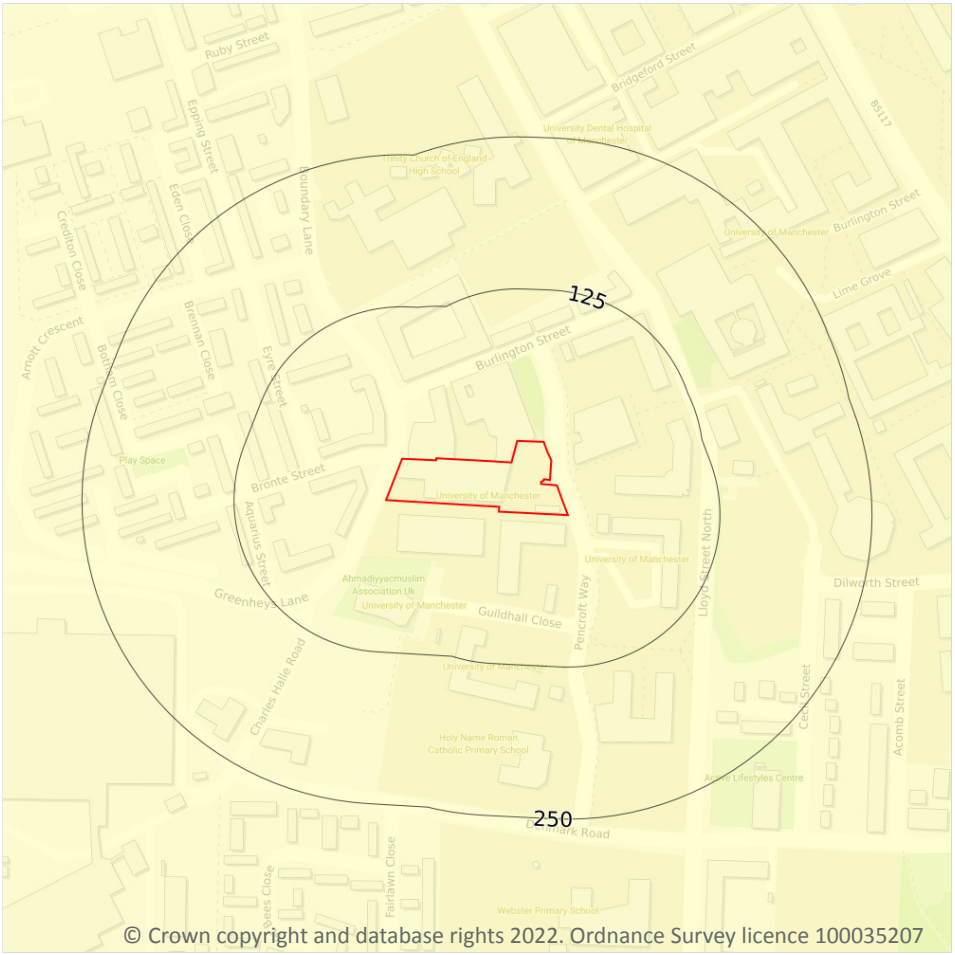
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 107**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 108**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	2

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 110**

ID	Location	Land Use	Year of mapping	Mapping scale
1	25m N	Pond	1851	1:10560
2	161m S	Pond	1851	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	1

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

Features are displayed on the Mining, ground workings and natural cavities map on **page 110**

ID	Location	Mine Address	Mineral	Data source	Publisher
-	970m NE	Manchester, Greater Manchester	Firestone, Freestone, Hearthstone, Honestone, Ragstone, Sandstone, Scythestone, Silver Sand, Whetstone	'Underground Manchester - Secrets of the city revealed'	Willow Publishing

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	1

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	**In addition to being located inside an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property which may supplement this information. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk.**

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	**1**

Areas which could be affected by past, current or future coal mining.

Location	Details
On site	**The site is located within a coal mining area as defined by the Coal Authority. A Consultants Coal Mining Report is recommended to further assess coal mining issues at the site. This can be ordered directly through Groundsure or your preferred search provider.**

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	**0**

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	**0**

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

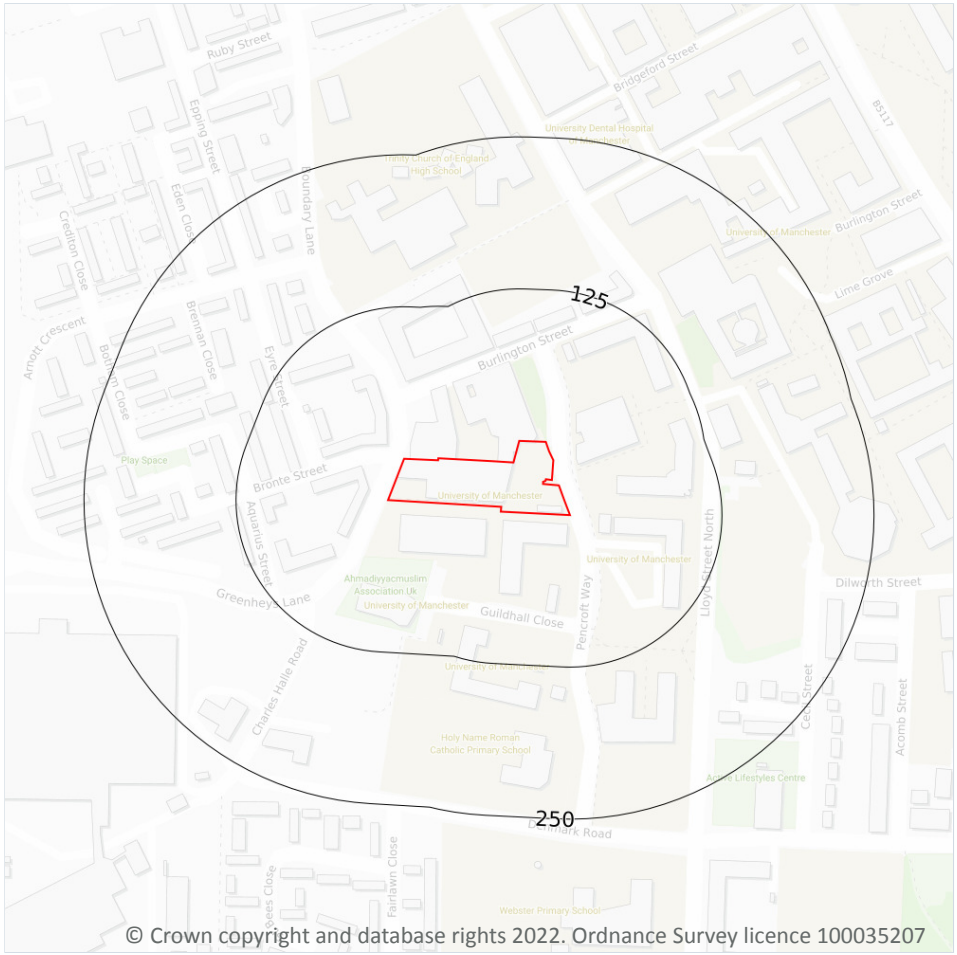
18.13 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 115**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None****

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	1

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	6

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	**14**	**2.5**	**103**	**71**	**0.5**	**52**	**38**	**19**	**11**
On site	**15**	**2.6**	**369**	**254**	**0.9**	**53**	**81**	**20**	**22**
On site	**16**	**2.8**	**115**	**79**	**0.6**	**55**	**42**	**21**	**12**
On site	**18**	**3.2**	**100**	**69**	**0.5**	**59**	**40**	**22**	**11**
On site	**22**	**3.8**	**126**	**87**	**0.6**	**66**	**47**	**26**	**11**
12m NW	17	3	303	208	0.8	54	73	20	20

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	**1**

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

Location	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Tin (mg/kg)	Sample Type
35m SW	14.1	0.7	51.9	44.2	19.2	174.6	11.2	Topsoil

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: 1056 Scale Town Plan

Map date: **1851**

Scale: 1:1,056

Printed at: 1:1,056

N
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Surveyed 1850
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

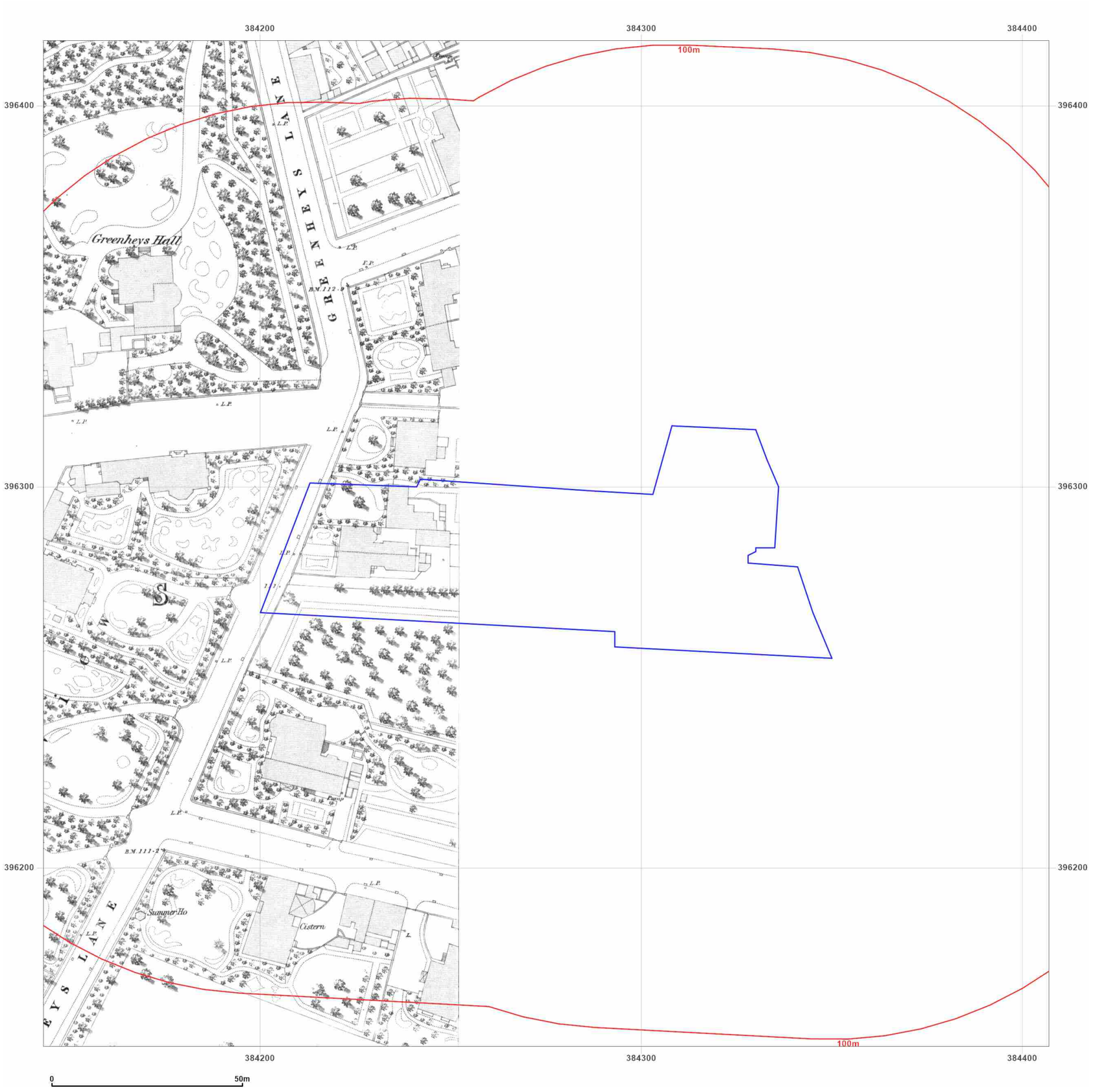
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Map Name: 1056 Scale Town Plan

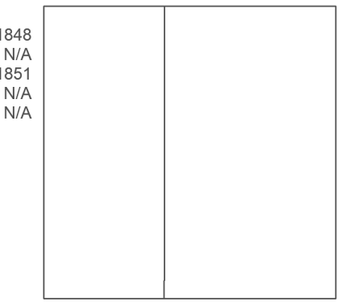
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Scale: 1:1,056

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Surveyed 1848
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A



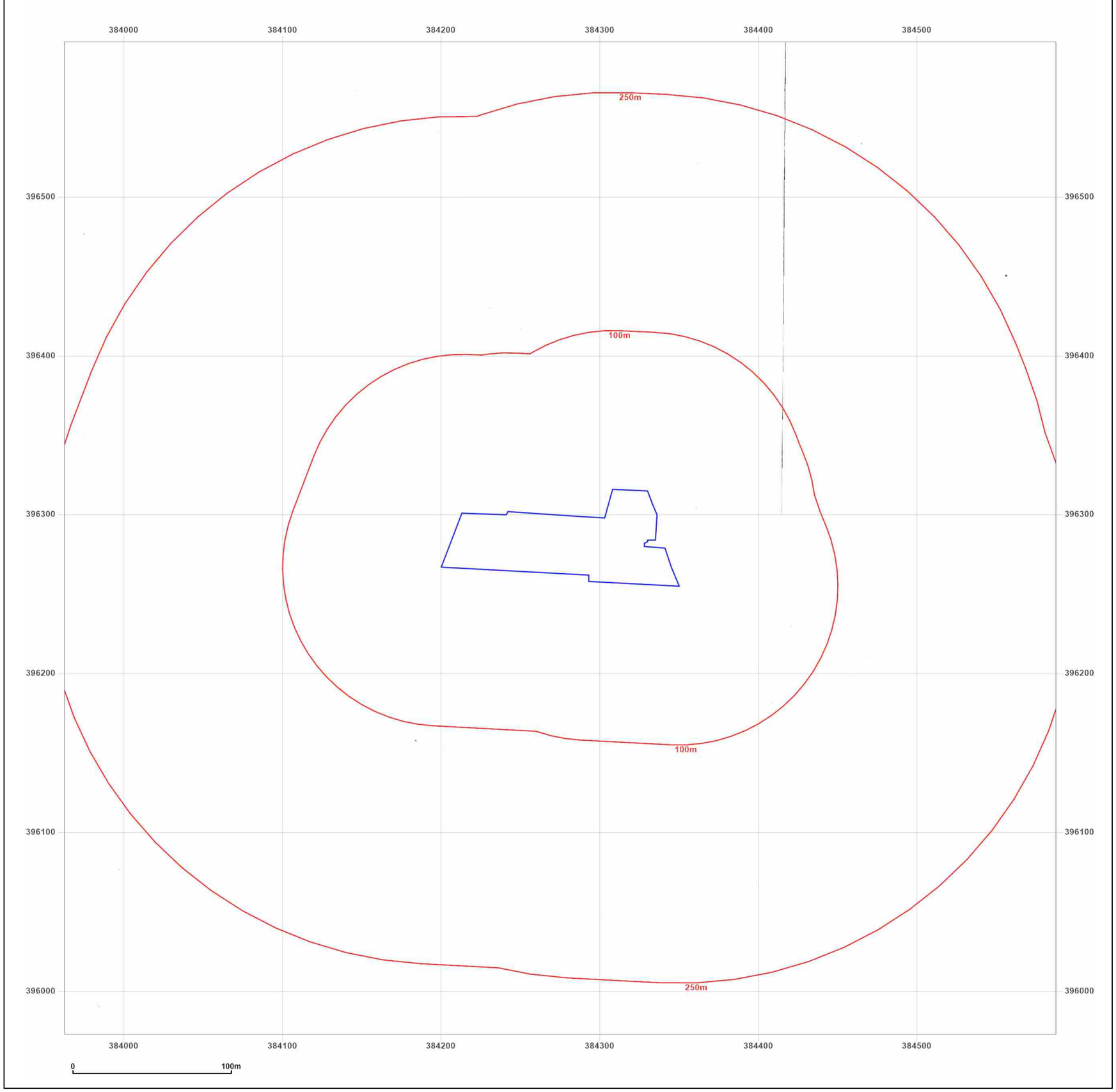
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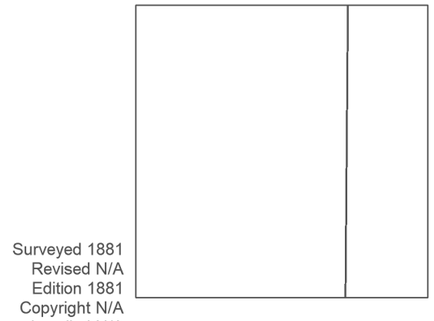
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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series
Map date: **1881**
Scale: 1:2,500
Printed at: 1:2,500

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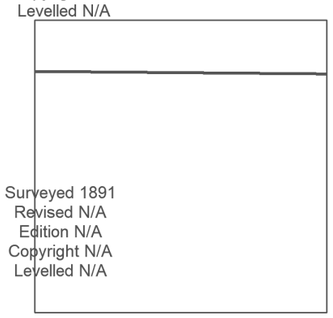
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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series Town Plan
Map date: **1891**
Scale: 1:500
Printed at: 1:1,000

N
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Surveyed 1891
Revised N/A
Edition N/A
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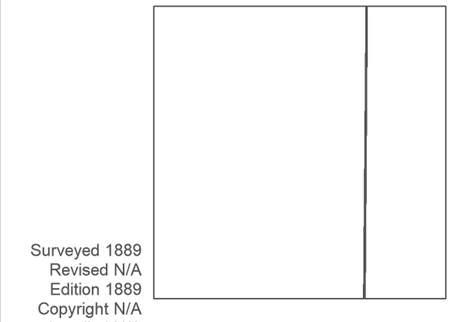
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Map date: **1889-1893**

Scale: 1:2,500

Printed at: 1:2,500

N
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Grid Ref: 384275, 396285

Map Name: County Series

Map date: **1908**

Scale: 1:2,500

Printed at: 1:2,500

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Edition 1908
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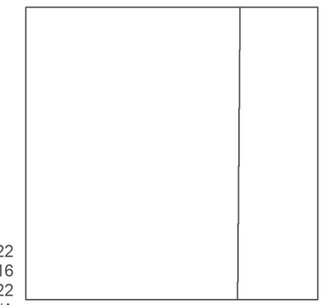
Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

N
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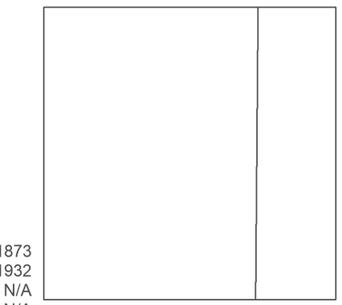
Map Name: County Series

Map date: **1932-1933**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1873
Revised 1932
Edition N/A
Copyright N/A
Levelled 1927

Surveyed 1873
Revised 1933
Edition N/A
Copyright N/A
Levelled 1927

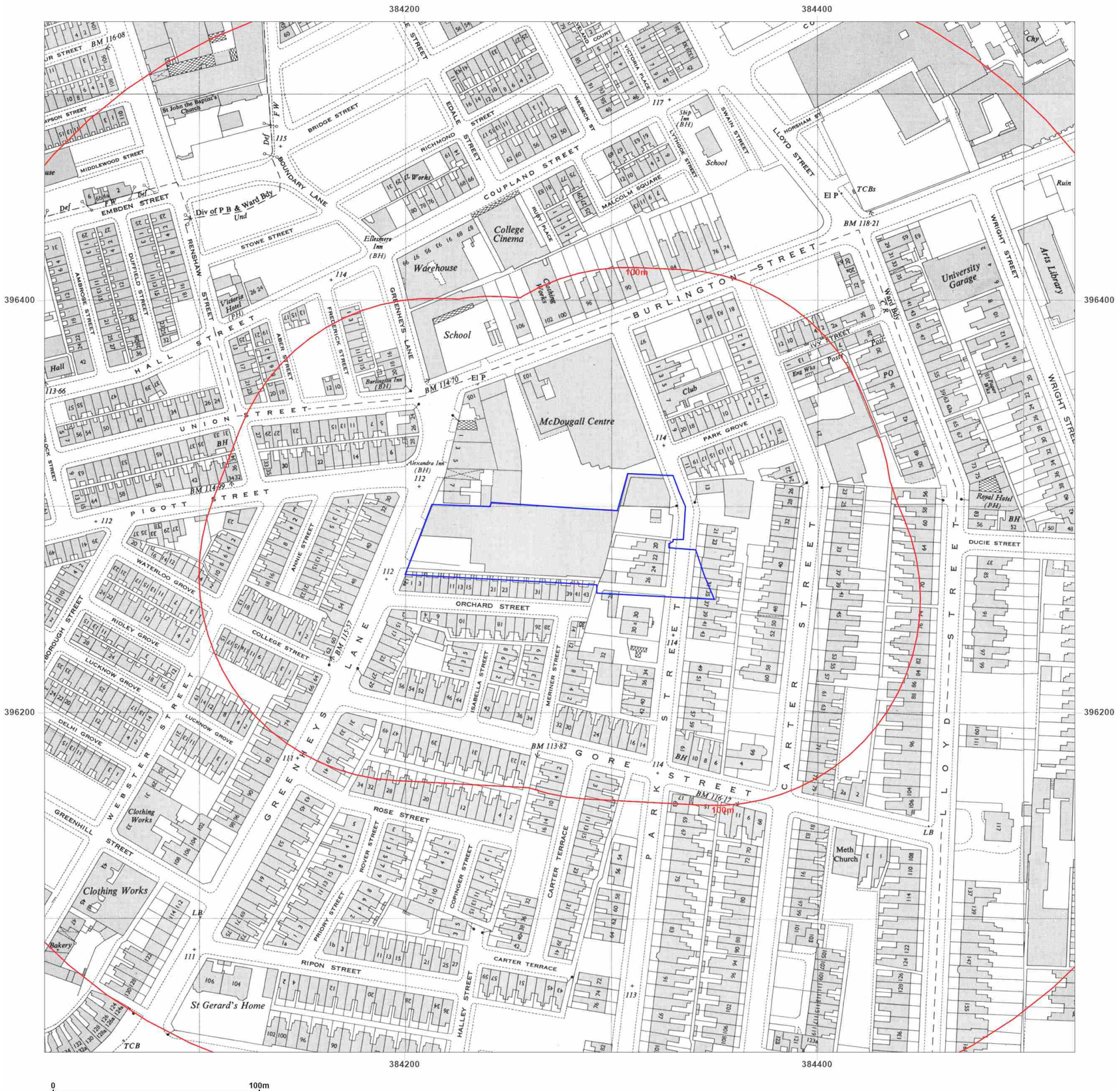
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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1948-1949**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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Levelled 1927

Surveyed 1948
Revised 1948
Edition N/A
Copyright 1948
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Surveyed 1949
Revised 1949
Edition N/A
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Revised 1949
Edition N/A
Copyright 1949
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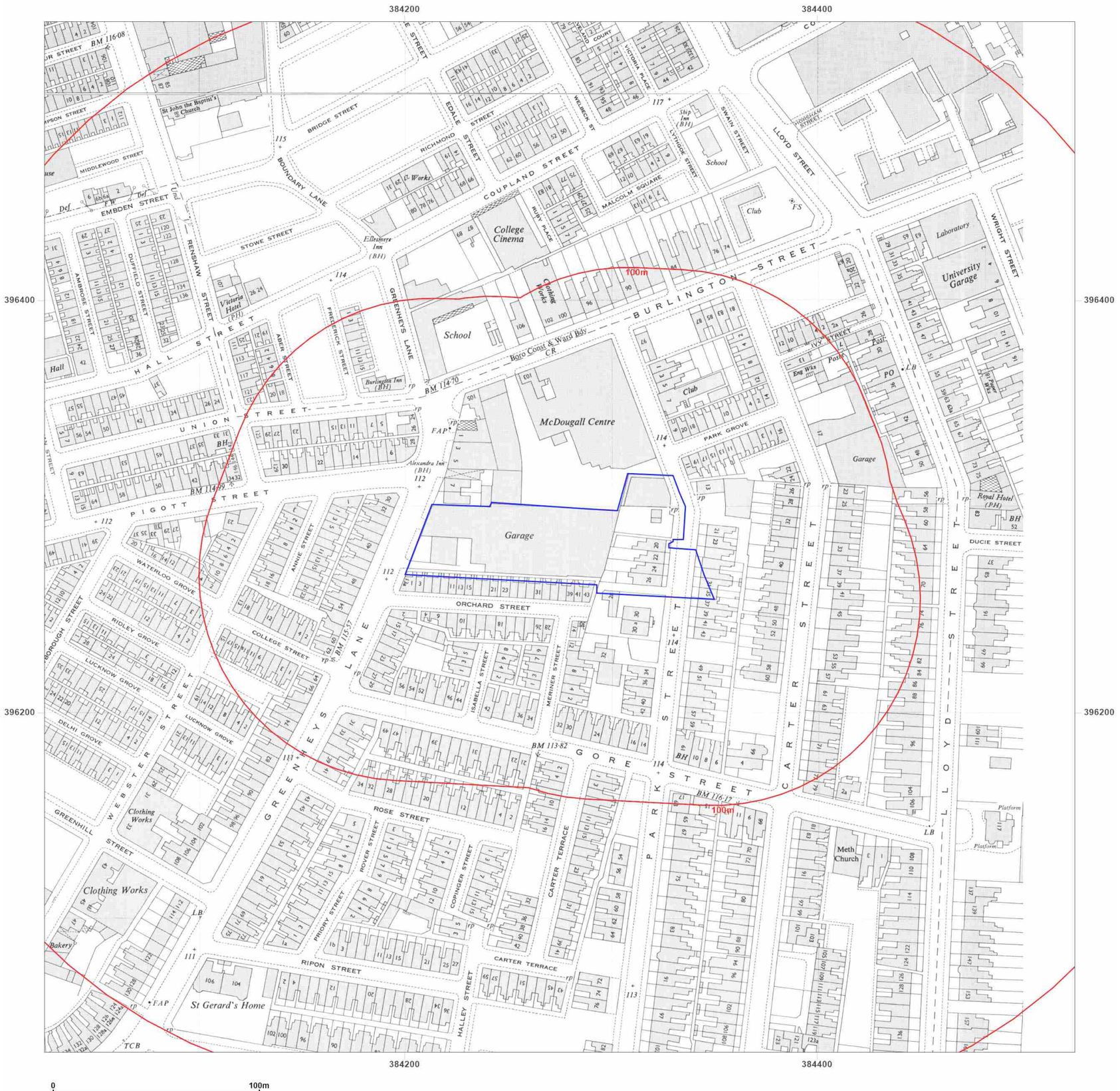
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Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1951**

Scale: 1:1,250

Printed at: 1:2,000

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Revised 1951
Edition N/A
Copyright 1951
Levelled 1927

Surveyed 1951
Revised 1951
Edition N/A
Copyright 1951
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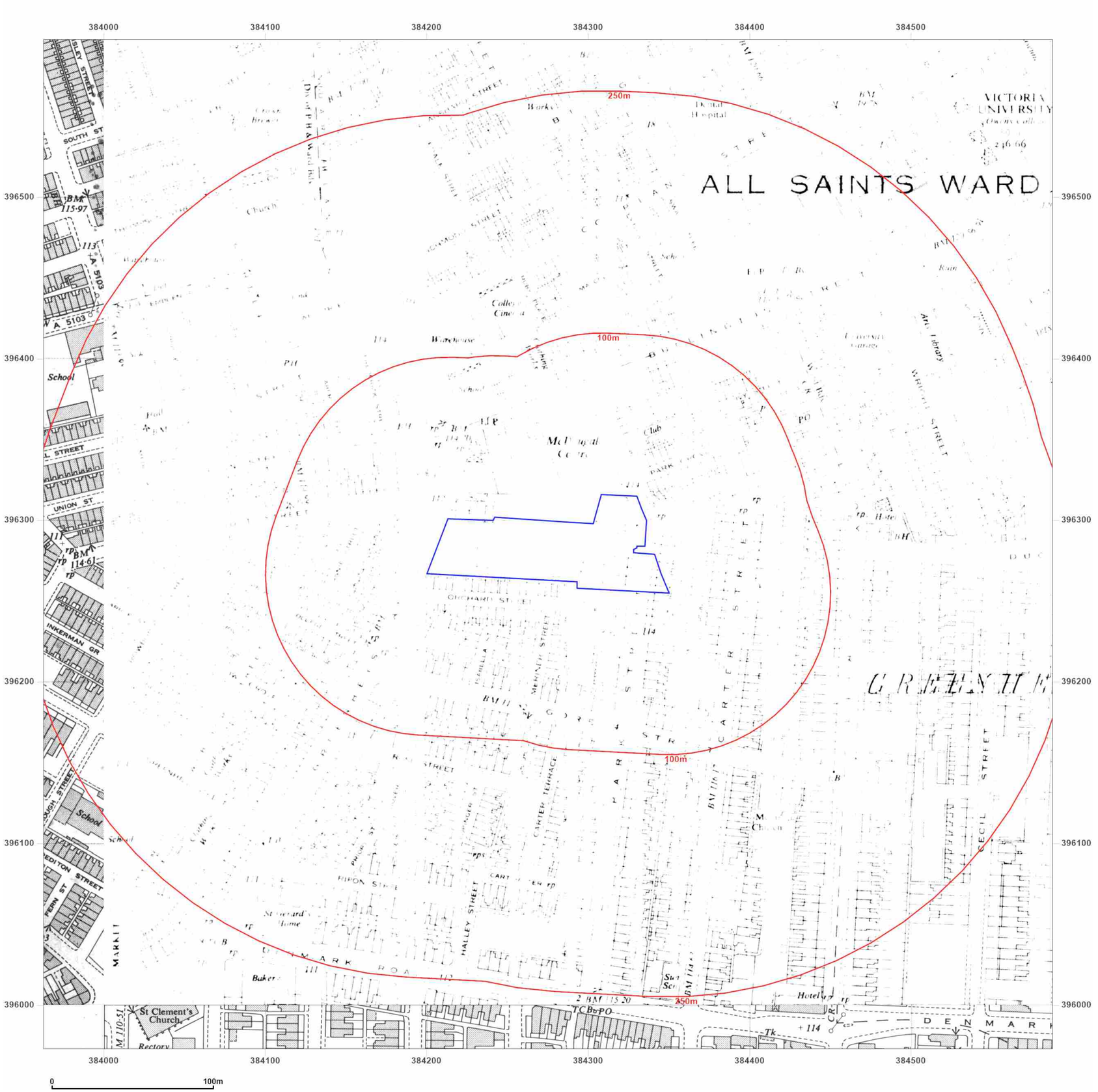
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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid
Map date: **1950-1951**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1949
Revised 1949
Edition N/A
Copyright 1950
Levelled 1927

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
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Surveyed 1950
Revised 1950
Edition N/A
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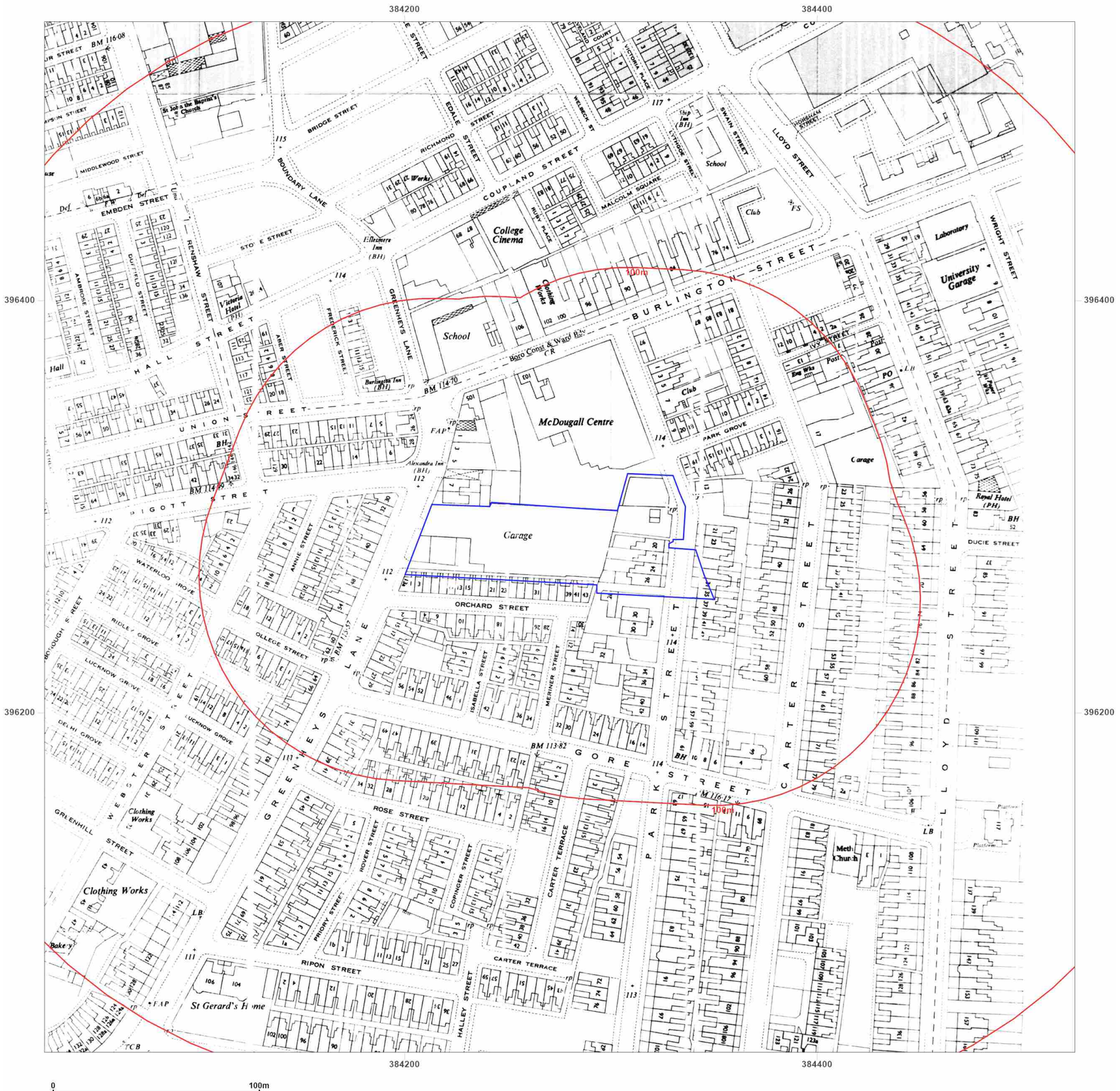
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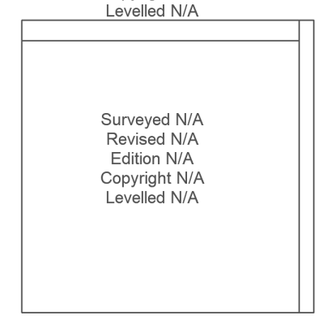
Map date: **1952**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
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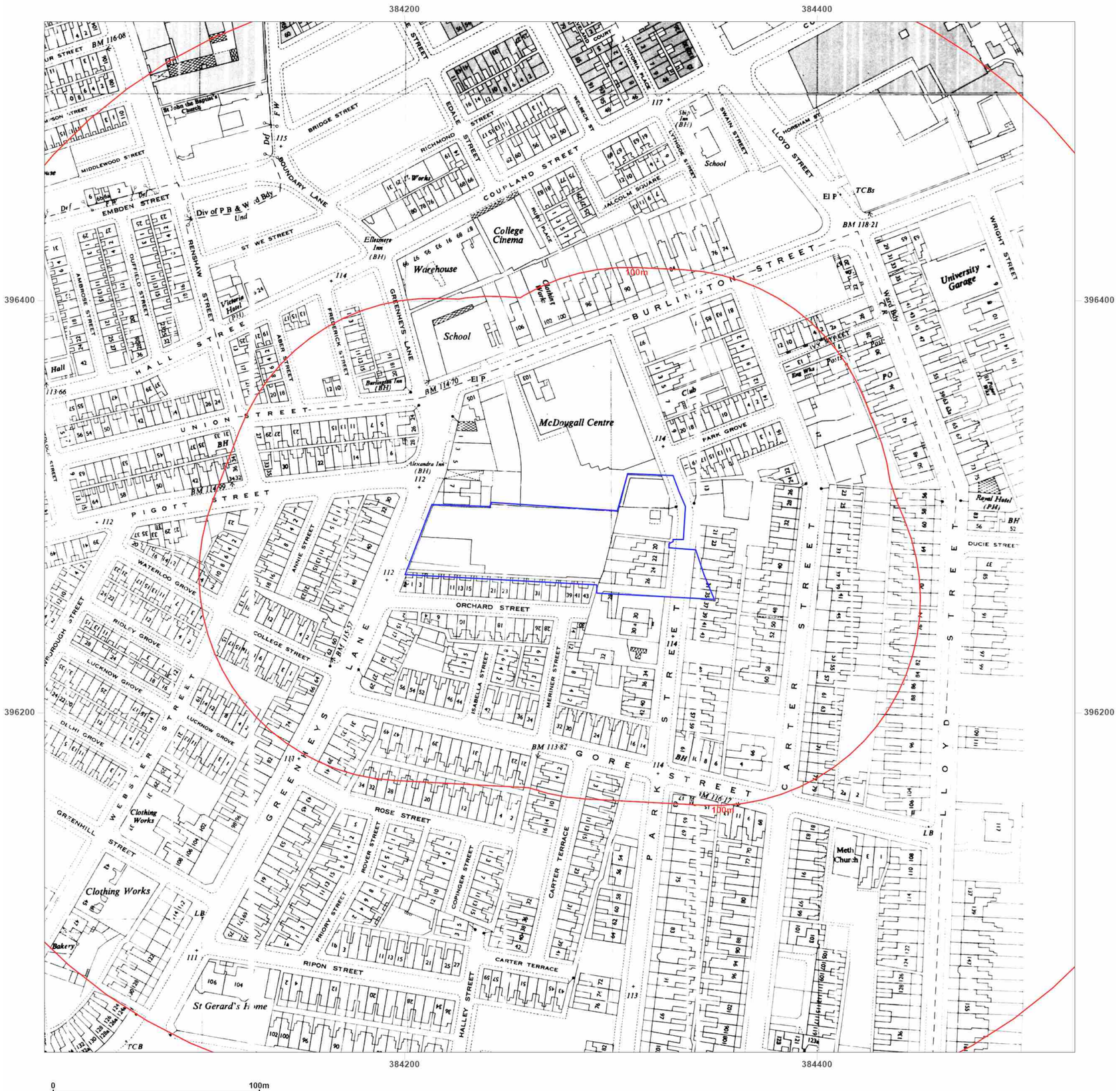
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Grid Ref: 384275, 396285

Map Name: National Grid

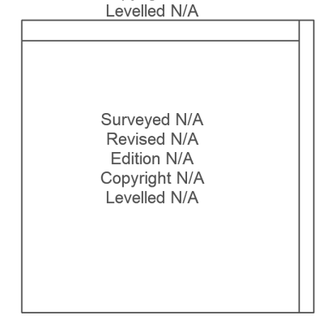
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Scale: 1:1,250

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Edition N/A
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Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1950-1955**

Scale: 1:2,500

Printed at: 1:2,500

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Edition N/A
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Levelled N/A

Surveyed 1949
Revised 1949
Edition N/A
Copyright 1950
Levelled 1929

Surveyed 1951
Revised 1951
Edition 1955
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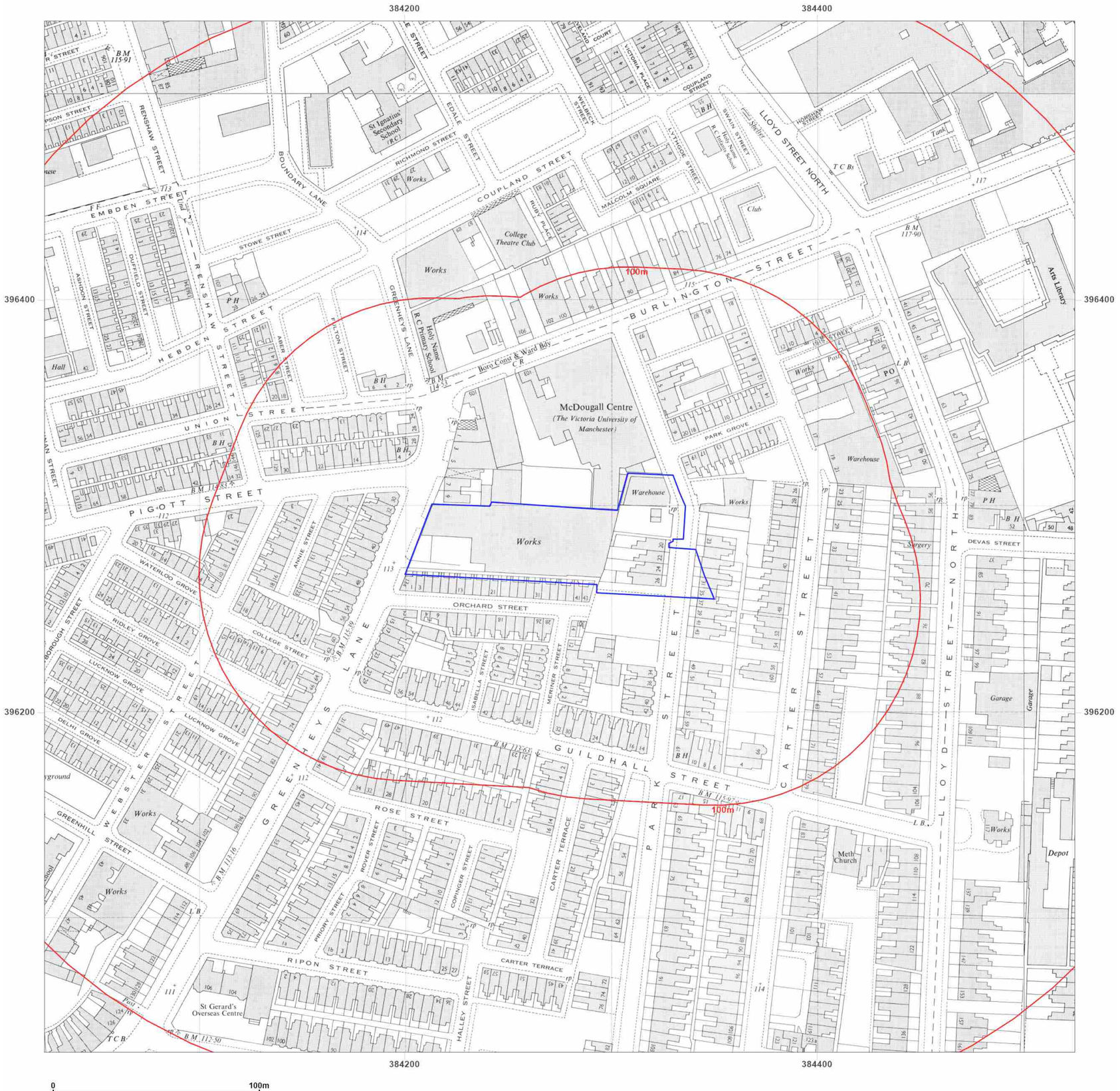
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Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1961-1963**

Scale: 1:1,250

Printed at: 1:2,000

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Levelled 1958

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Revised 1961
Edition N/A
Copyright 1961
Levelled 1958

Surveyed 1949
Revised 1963
Edition N/A
Copyright 1964
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Edition N/A
Copyright 1961
Levelled 1958

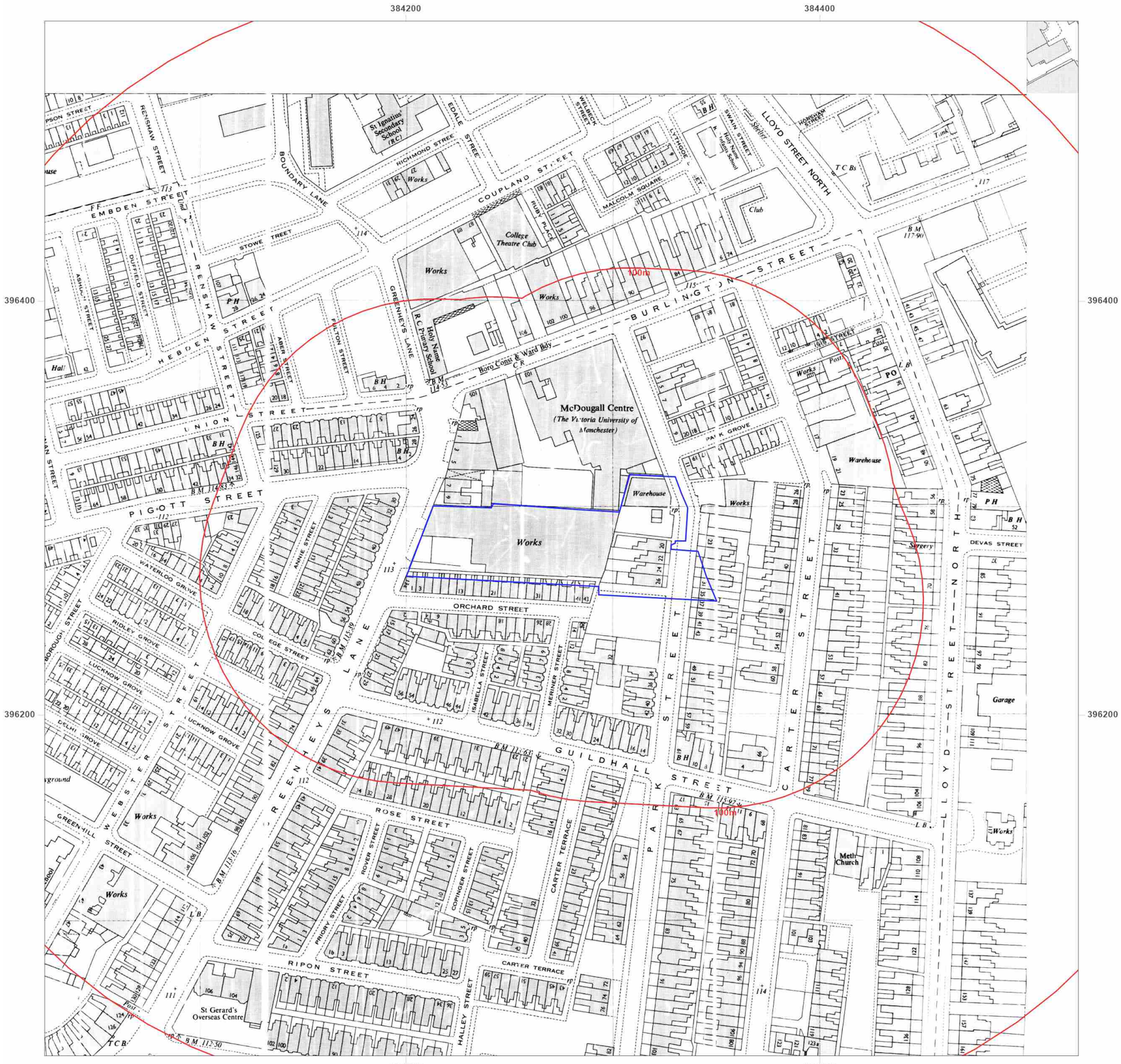
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1964-1969**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1968
Revised 1968
Edition N/A
Copyright 1969
Levelled 1964

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

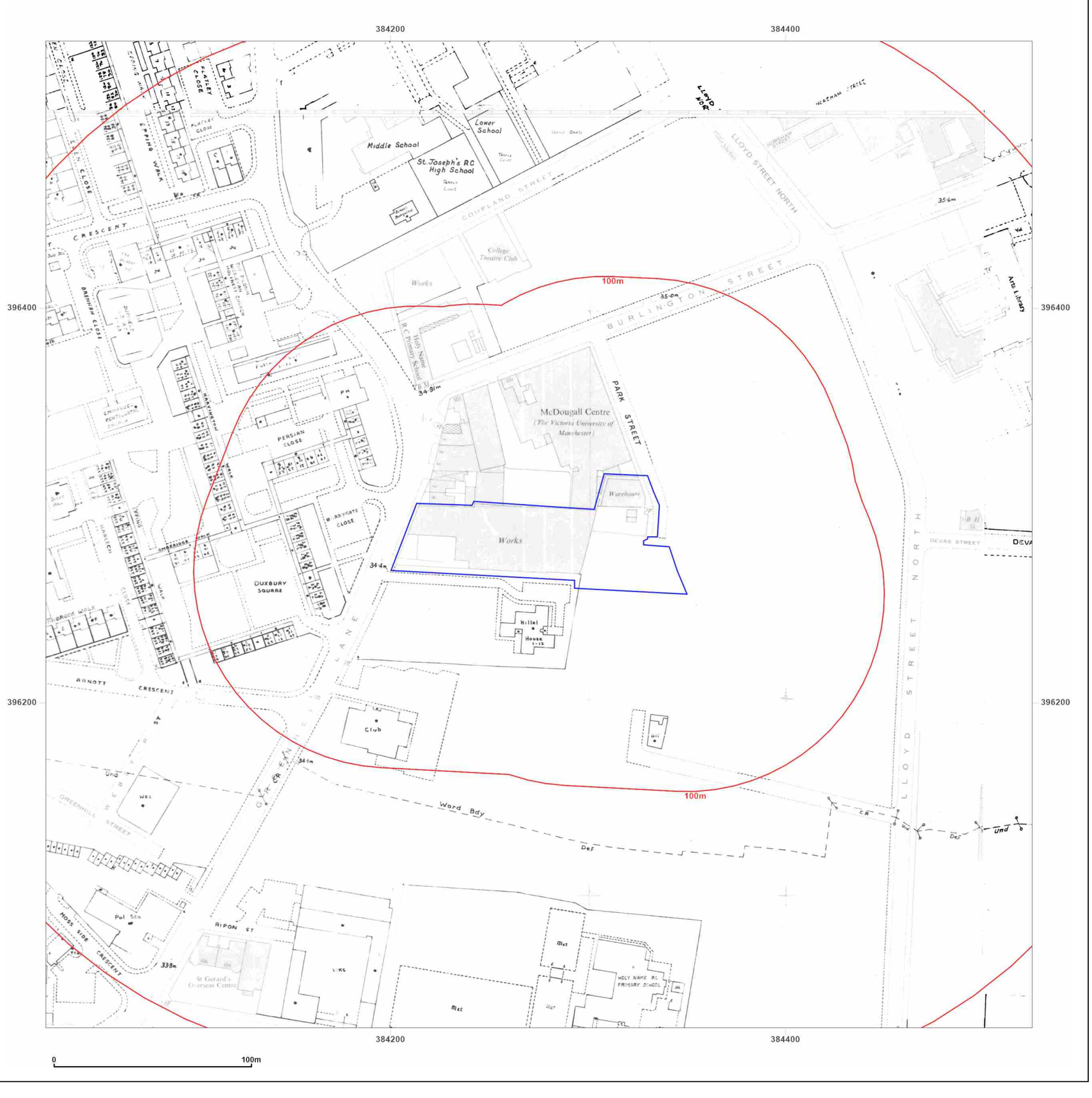
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1974-1977**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1977
Levelled 1963

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1977
Levelled N/A

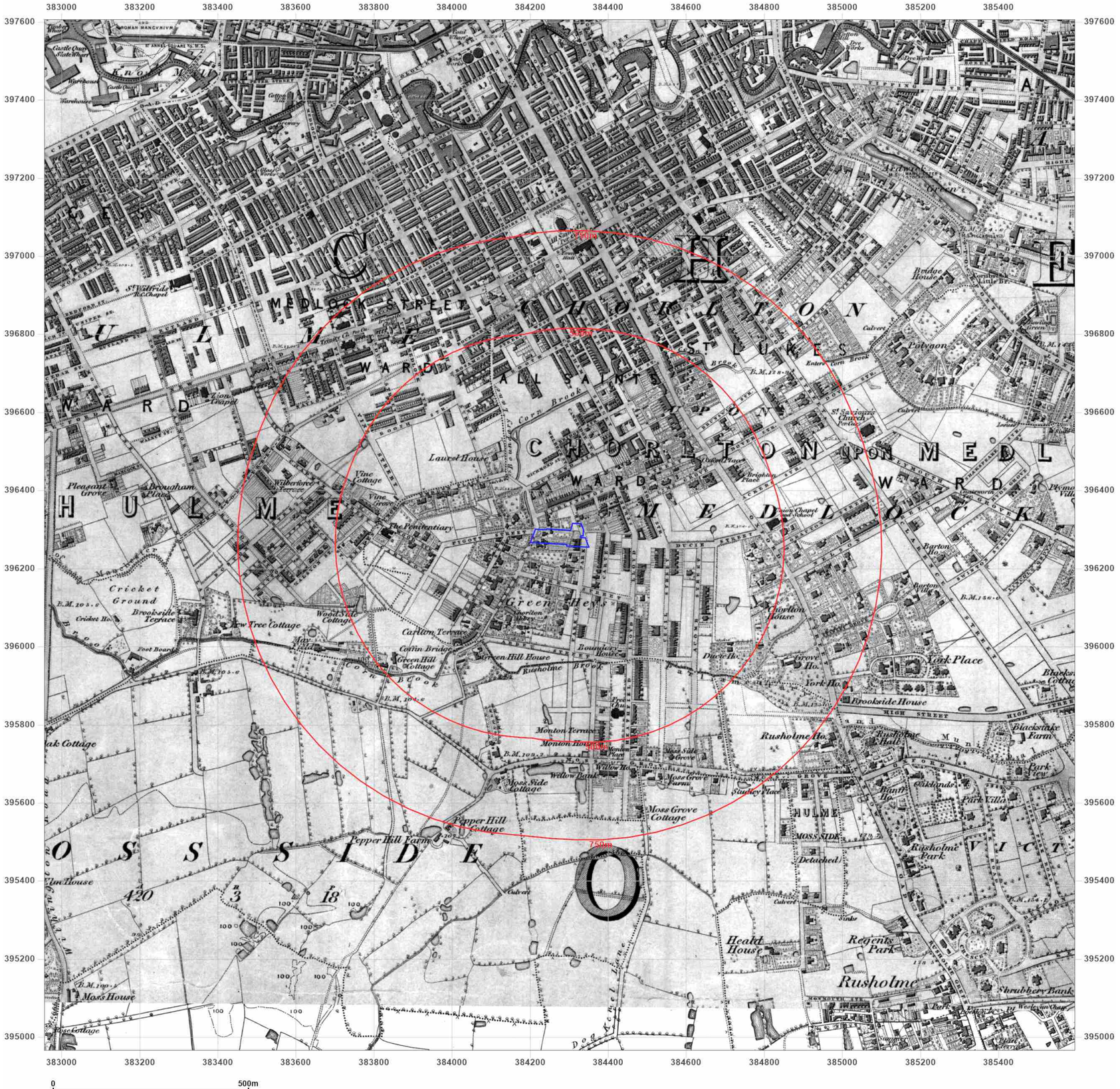
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series

Map date: **1848-1849**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1845
Revised N/A
Edition 1848
Copyright N/A
Levelled N/A

Surveyed 1845
Revised 1849
~~Edition 1849~~
Copyright N/A
Levelled N/A

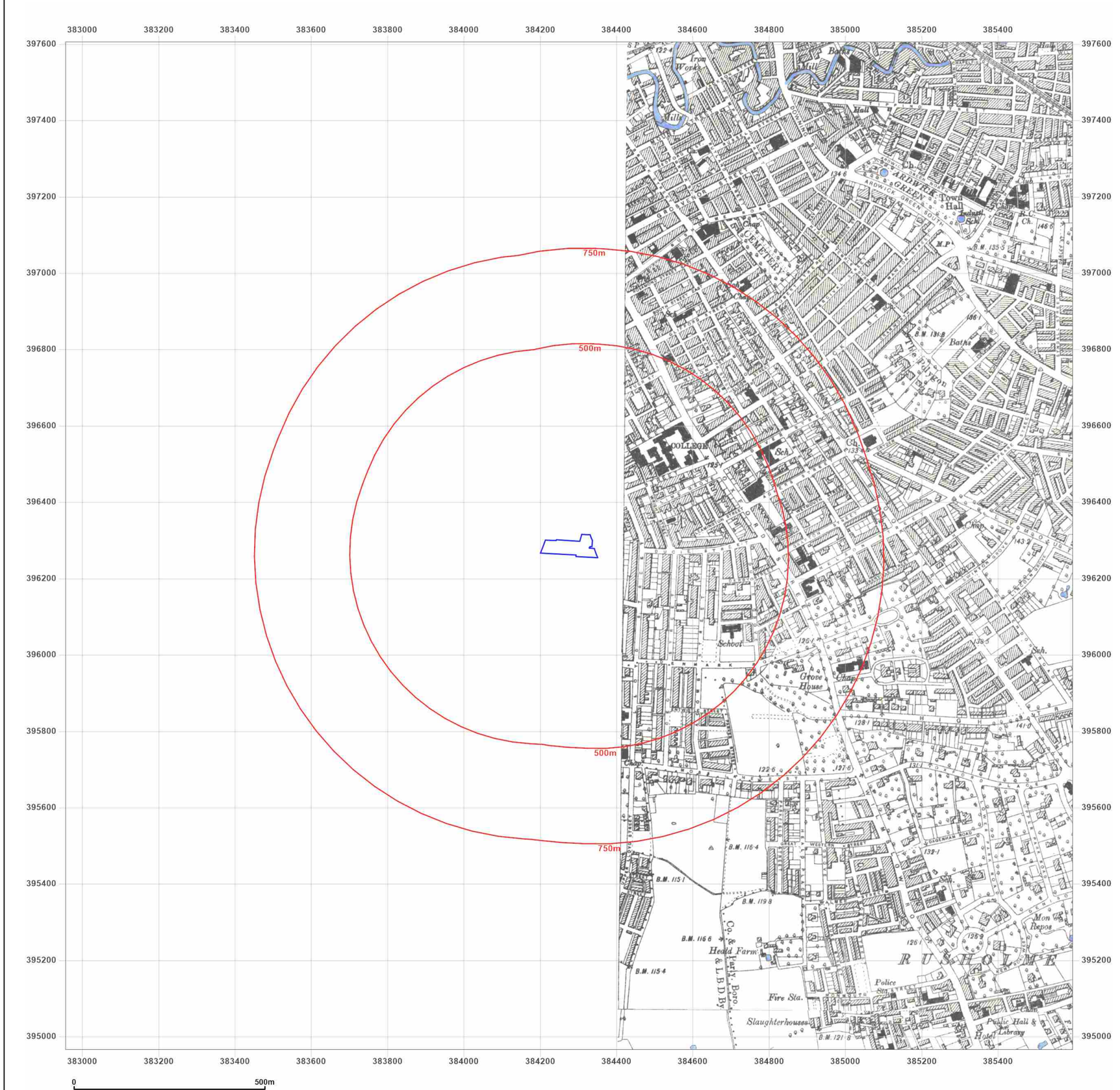
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

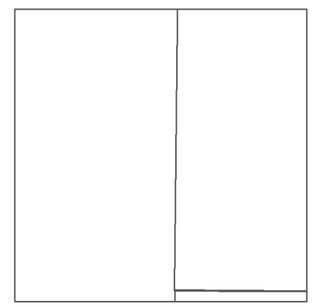
Map Name: County Series

Map date: **1890-1892**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1890
Revised 1890
Edition 1890
Copyright N/A
Levelled N/A

Surveyed 1892
Revised 1892
Edition 1892
Copyright N/A
Levelled N/A

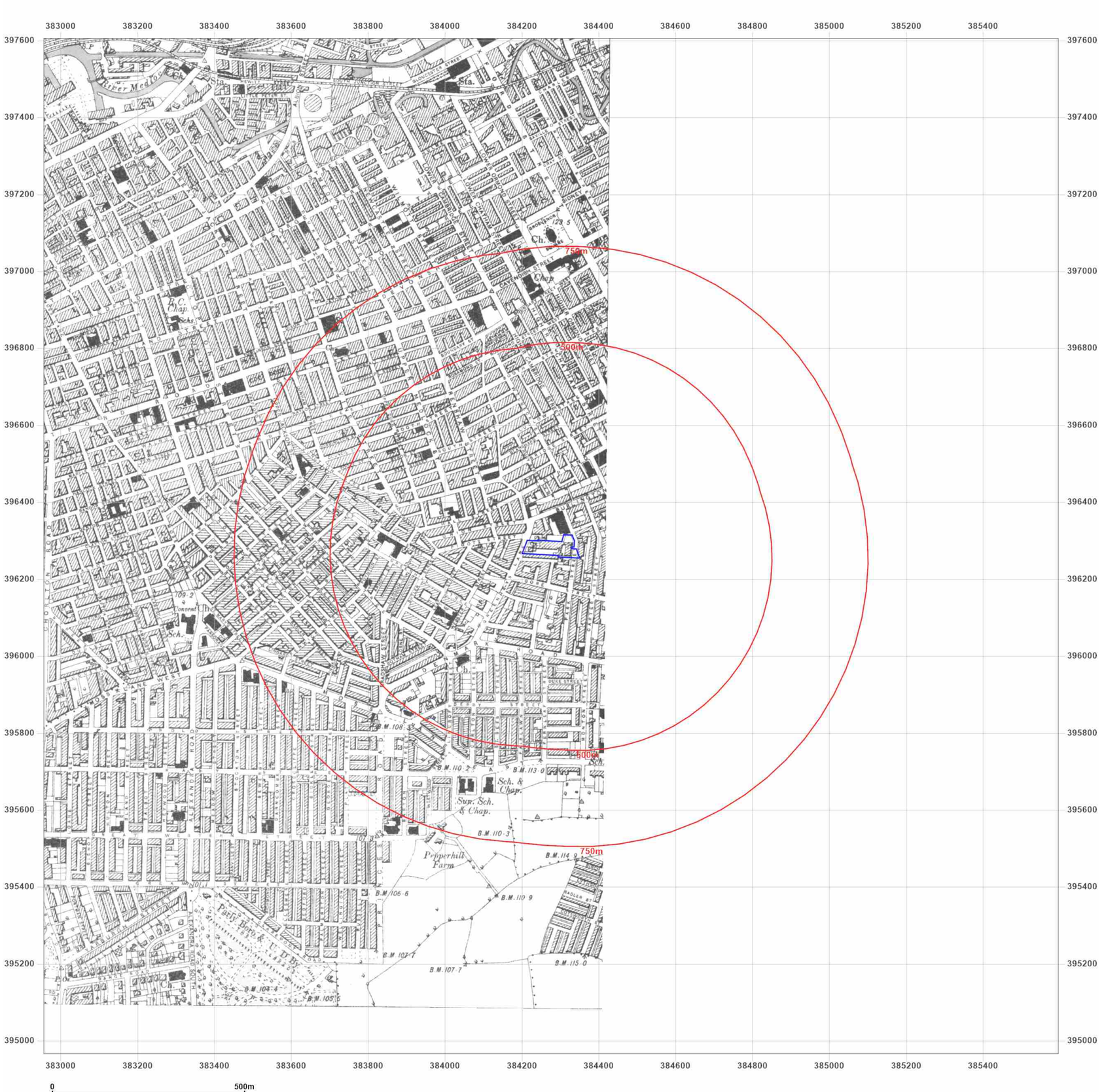
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

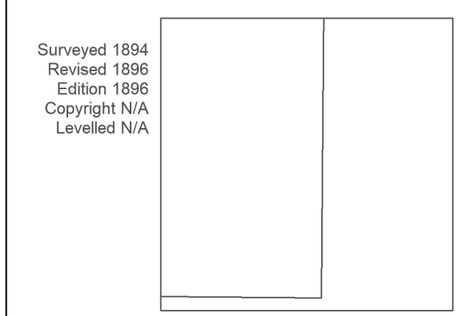
Map Name: County Series

Map date: **1896**

Scale: 1:10,560

Printed at: 1:10,560

N
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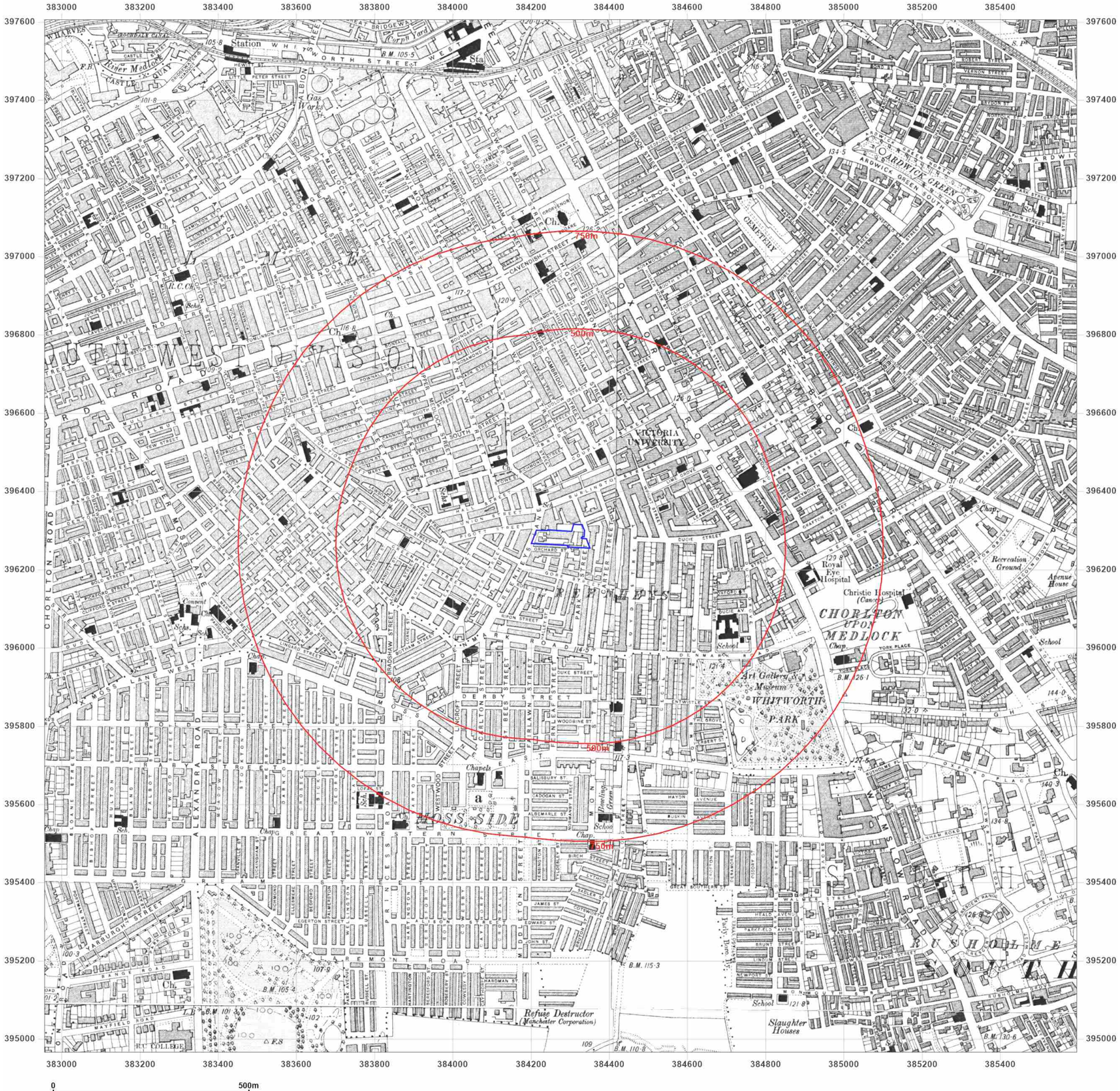
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series

Map date: **1905**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1844 Revised 1905 Edition 1905 Copyright N/A Levelled N/A	Surveyed 1844 Revised 1905 Edition 1905 Copyright N/A Levelled N/A
Surveyed 1892 Revised 1905 Edition 1905 Copyright N/A Levelled N/A	Surveyed 1892 Revised 1905 Edition 1905 Copyright N/A Levelled N/A

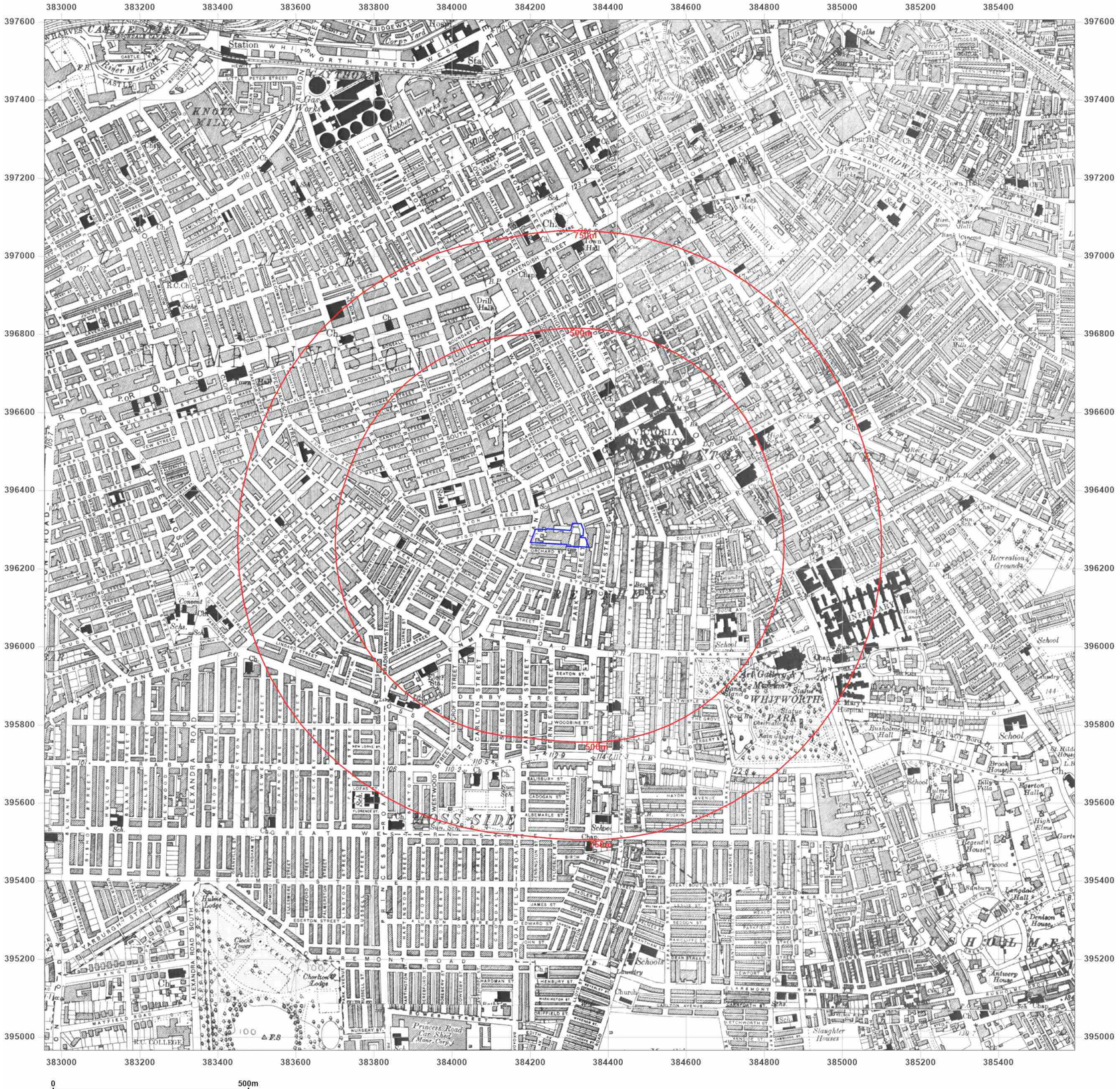
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series

Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1915
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

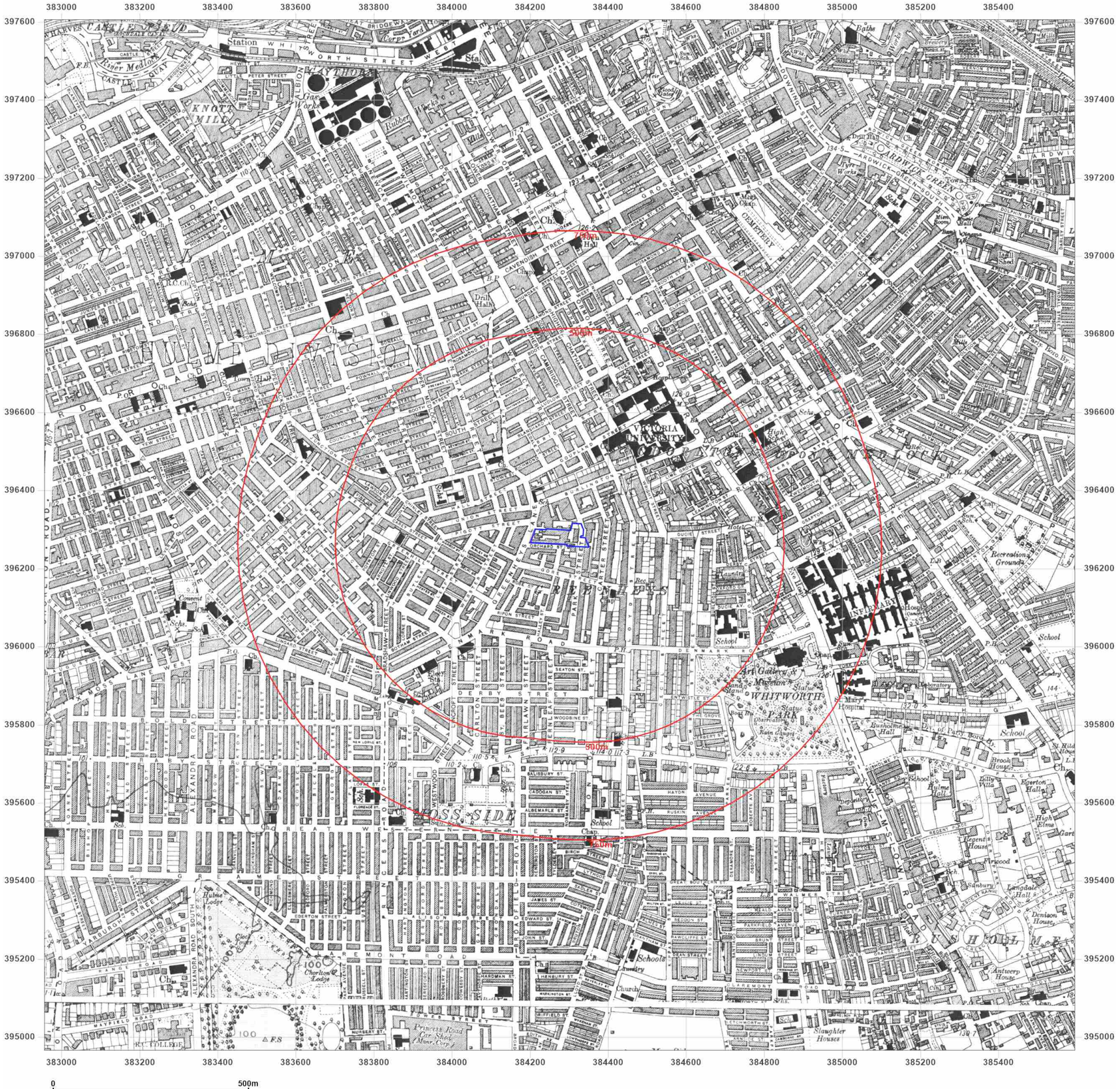
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Site Details:

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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series

Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

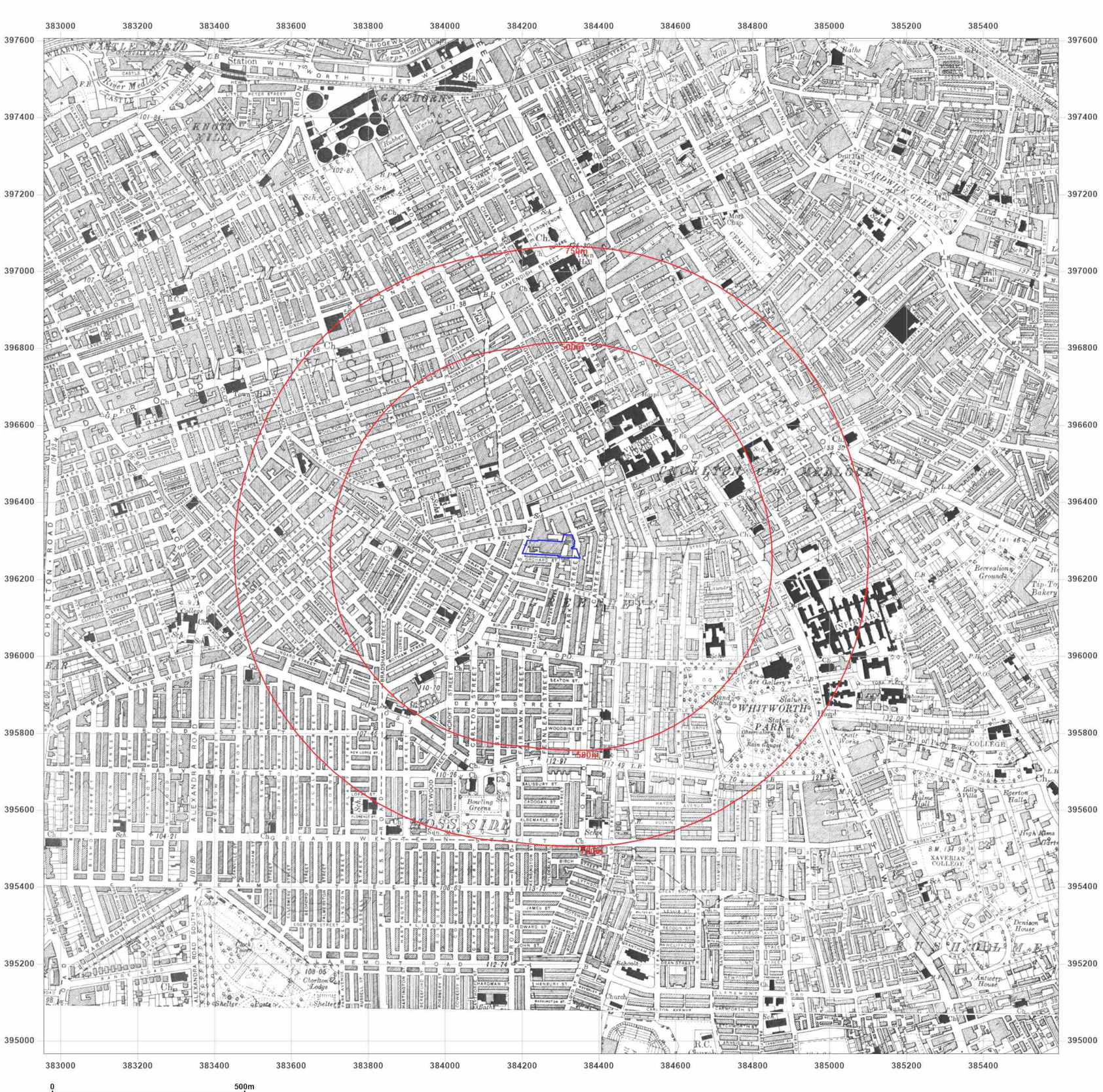
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

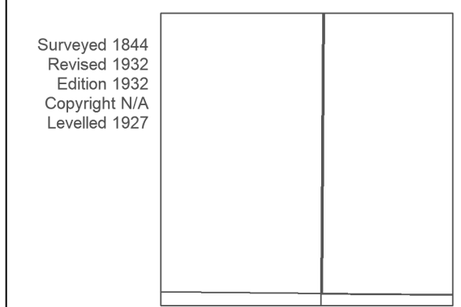
Map Name: County Series

Map date: **1932-1934**

Scale: 1:10,560

Printed at: 1:10,560

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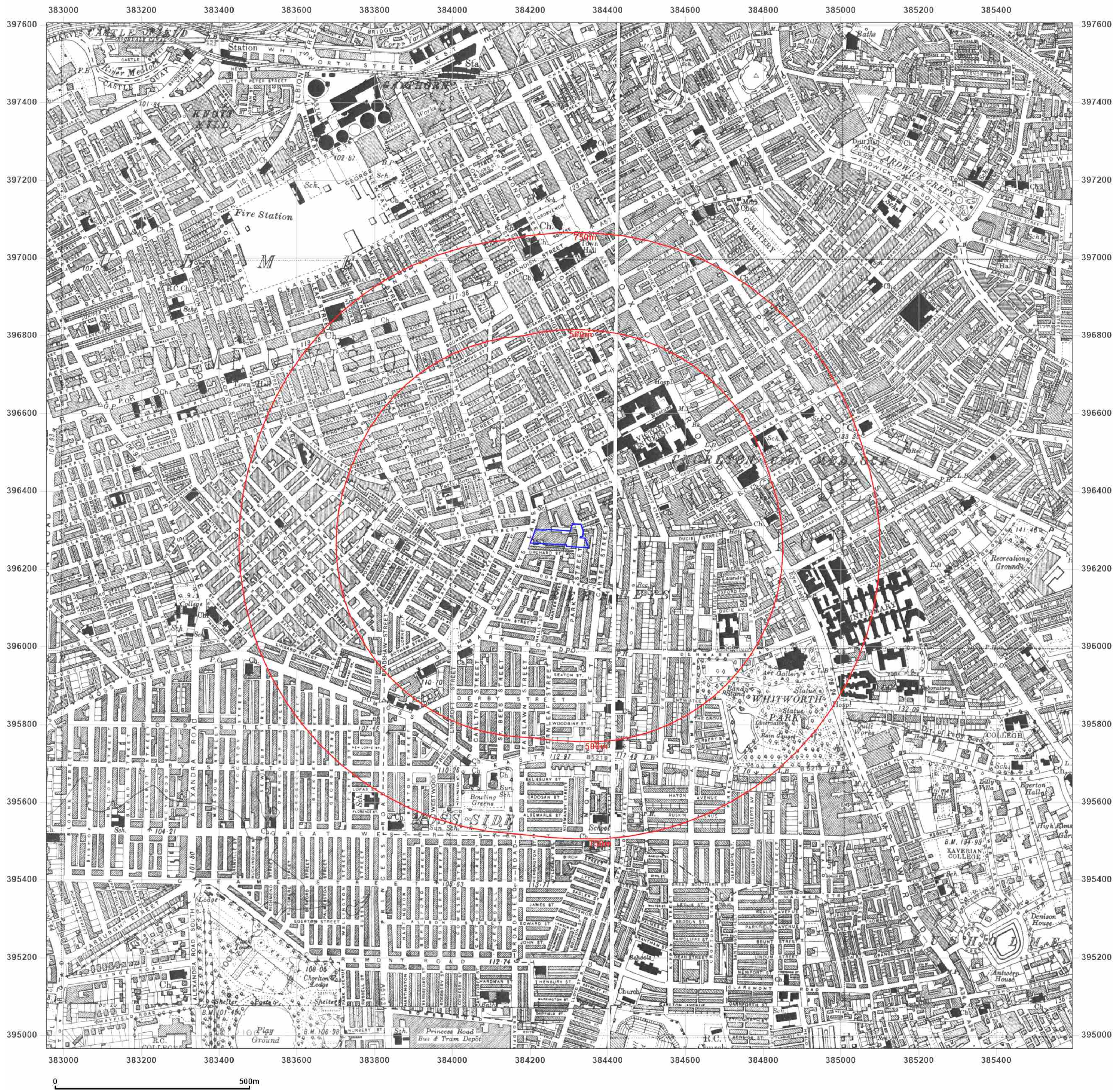
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Site Details:

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MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: County Series

Map date: **1934-1938**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1934
Edition 1934
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

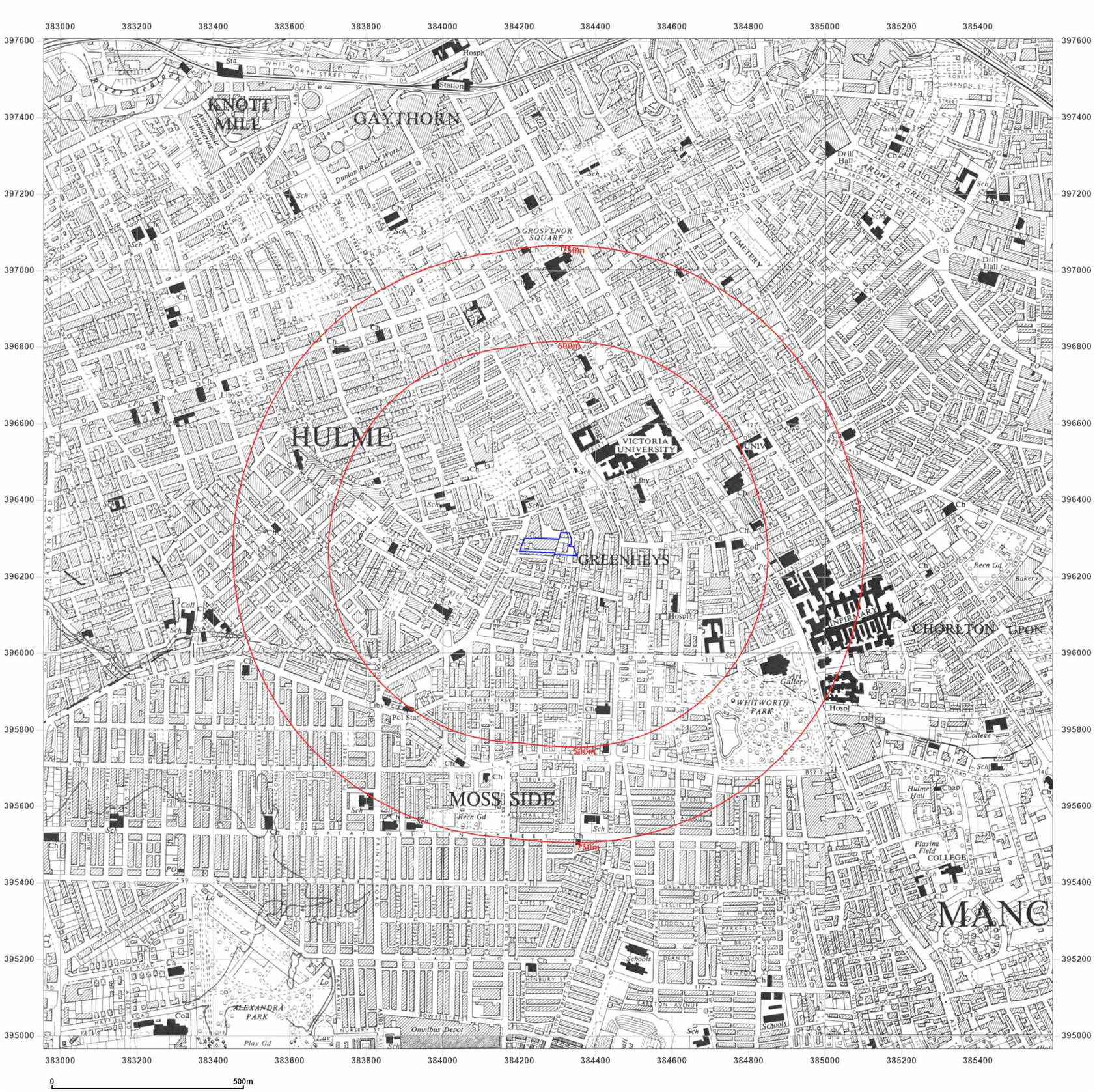
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Site Details:

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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: Provisional
Map date: **1955-1956**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled N/A

Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
Copyright 1955
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
Copyright 1955
Levelled N/A

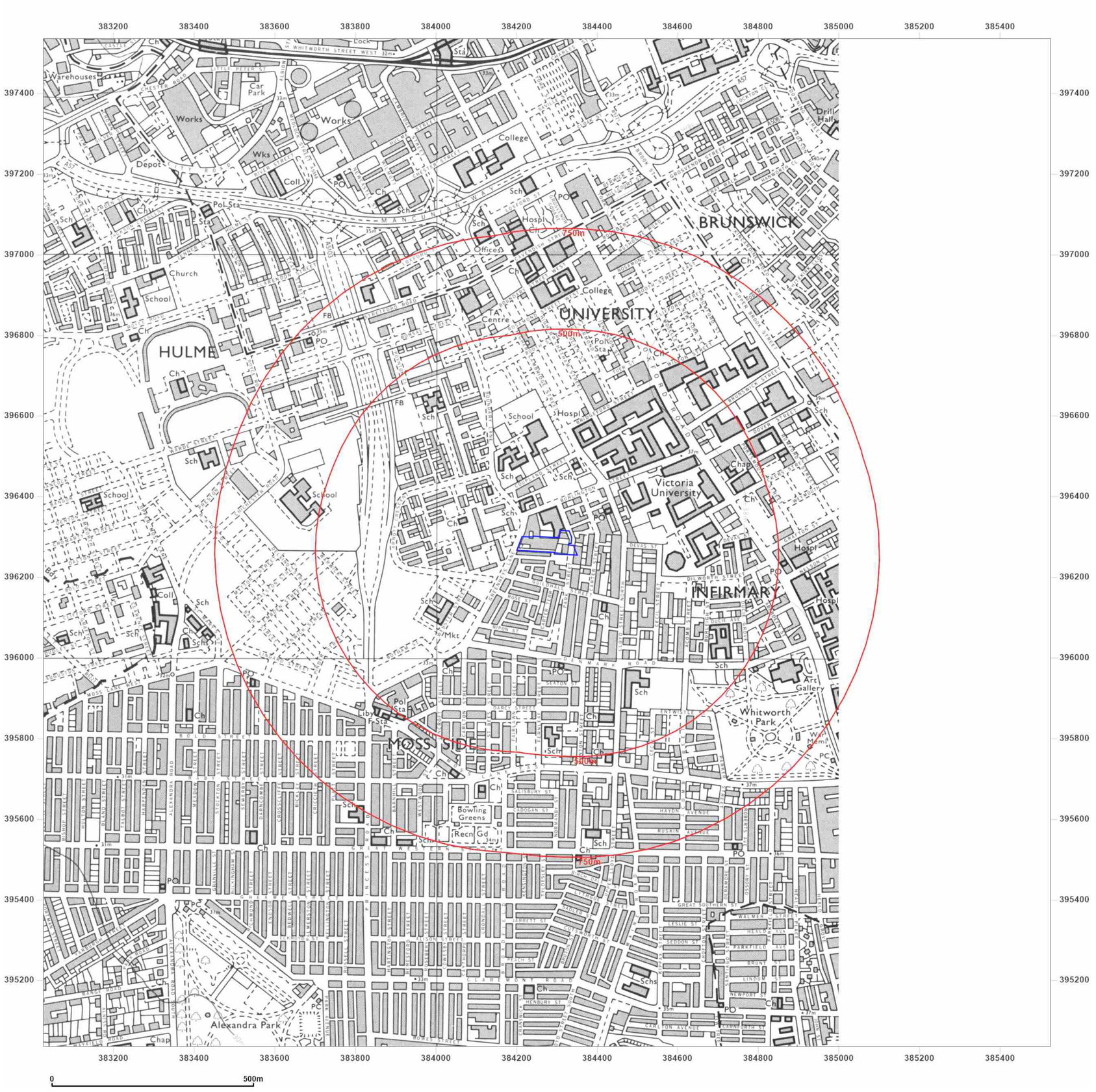
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

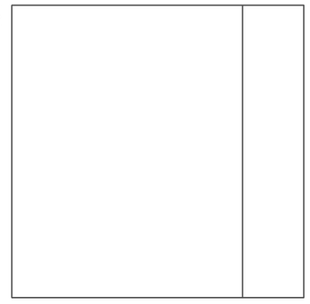
Map date: **1972**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1971
Revised 1972
Edition N/A
Copyright 1972
Levelled 1972



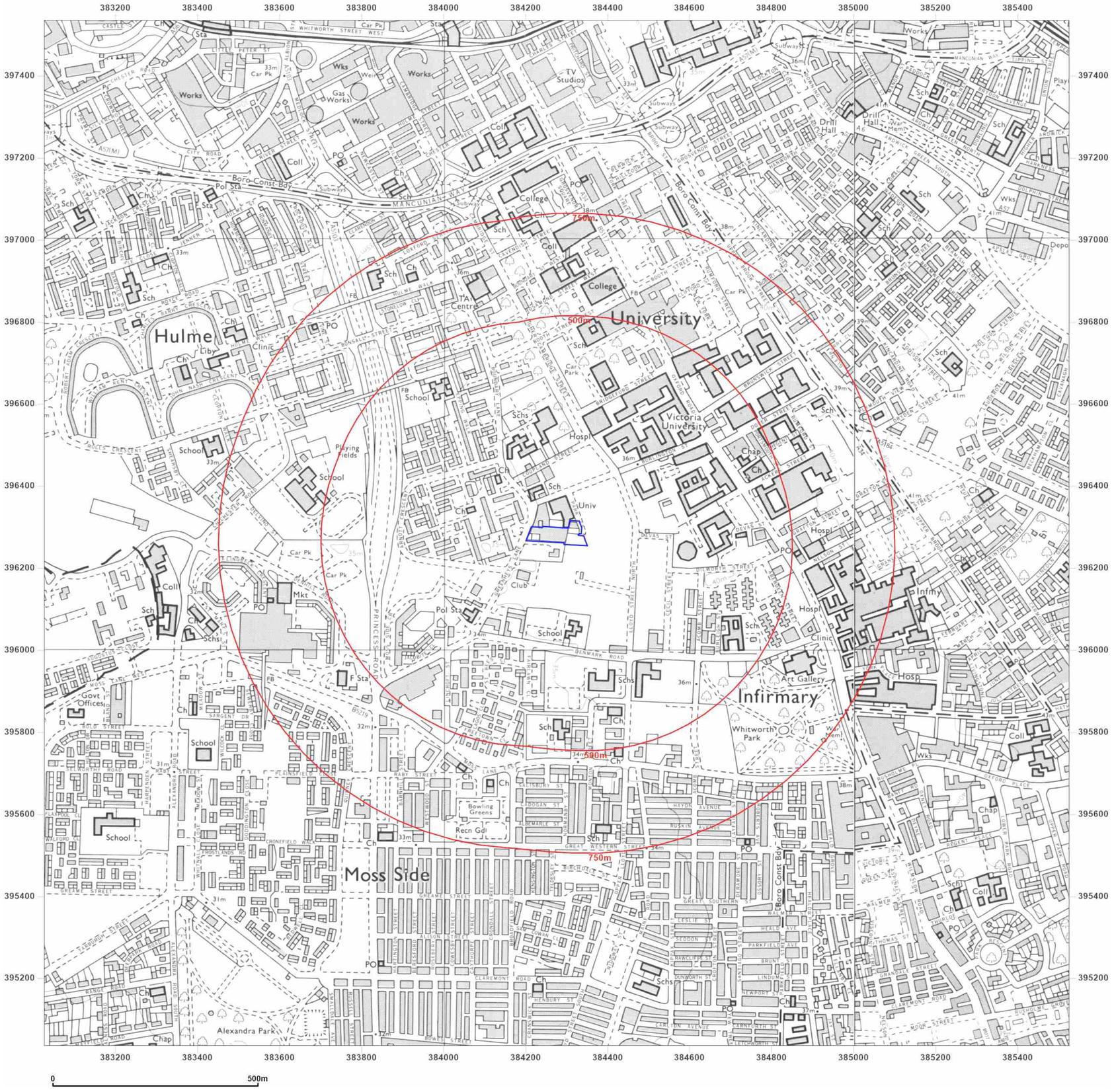
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1980-1981**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1976
Revised 1980
Edition N/A
Copyright 1980
Levelled 1976

Surveyed 1976
Revised 1980
Edition N/A
Copyright 1981
Levelled 1976

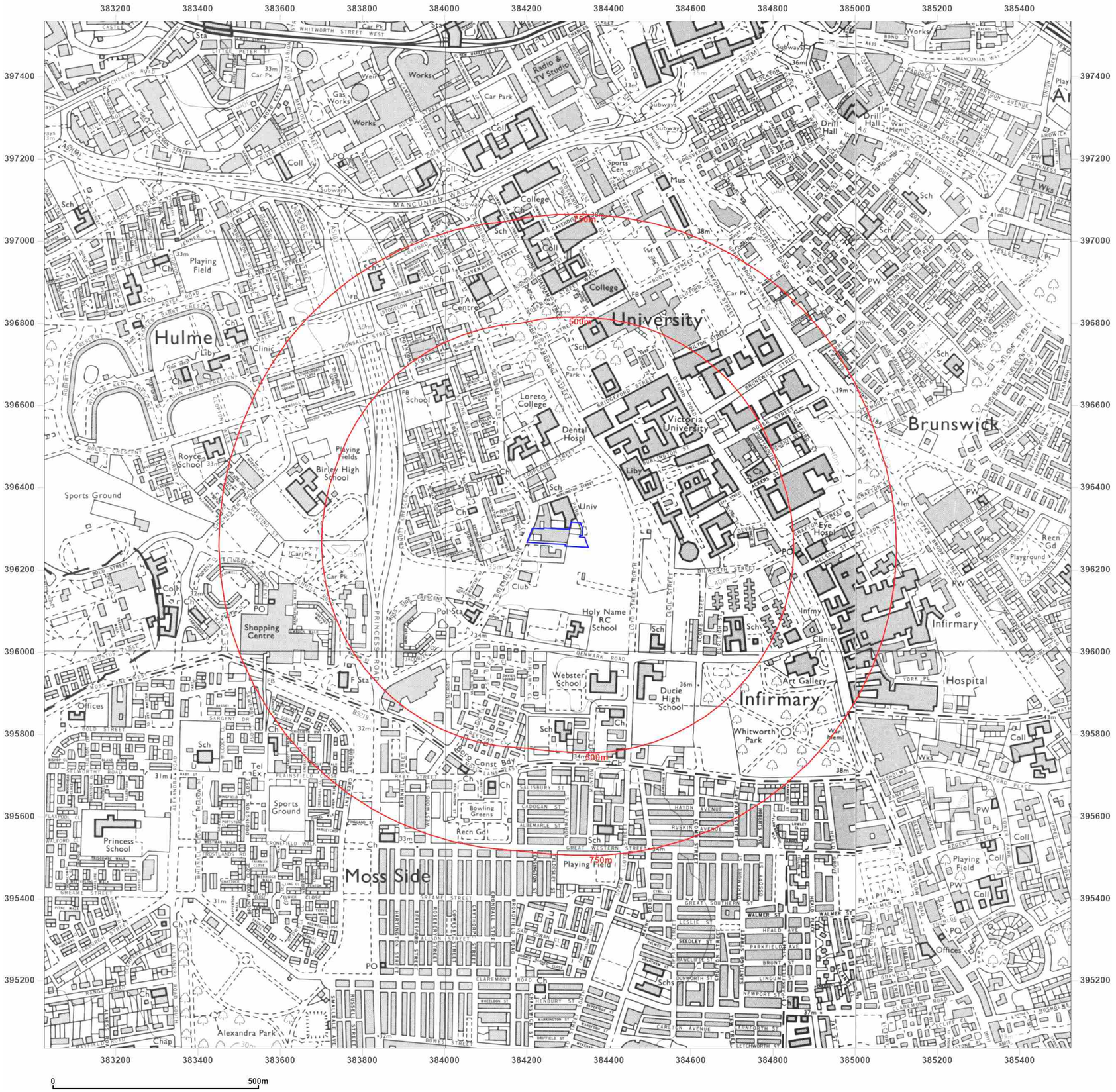
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1985**

Scale: 1:10,000

Printed at: 1:10,000

N W E S

Surveyed 1983
Revised 1985
Edition N/A
Copyright 1985
Levelled 1981

Surveyed 1985
Revised 1985
Edition N/A
Copyright 1985
Levelled 1981

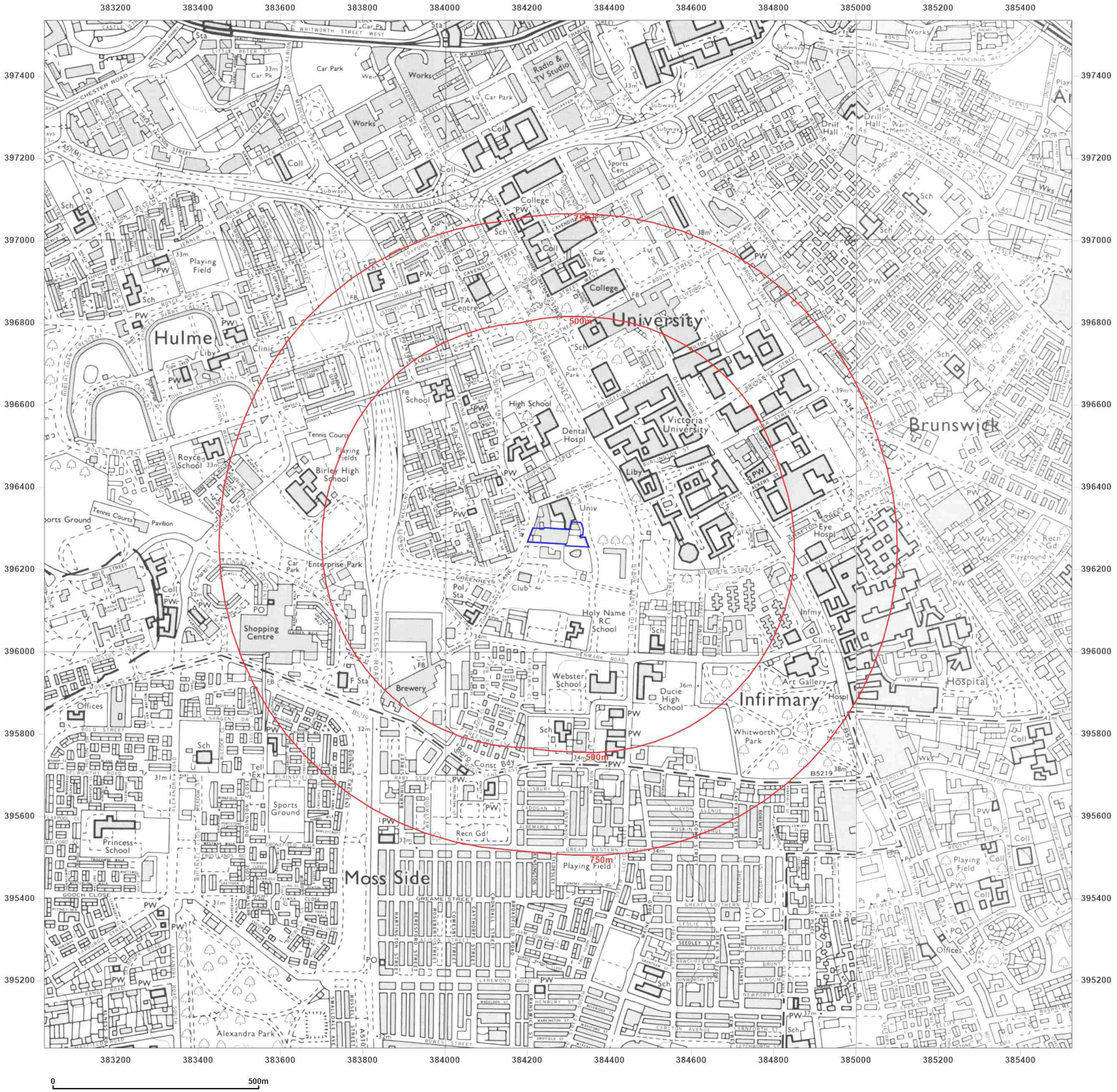
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1988-1991**

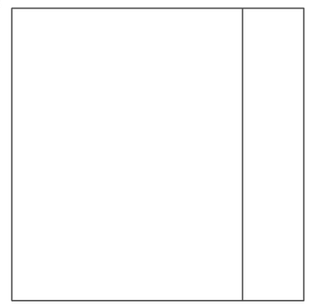
Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1986
Revised 1988
Edition N/A
Copyright 1988
Levelled 1981

Surveyed 1985
Revised 1991
Edition N/A
Copyright 1991
Levelled 1981



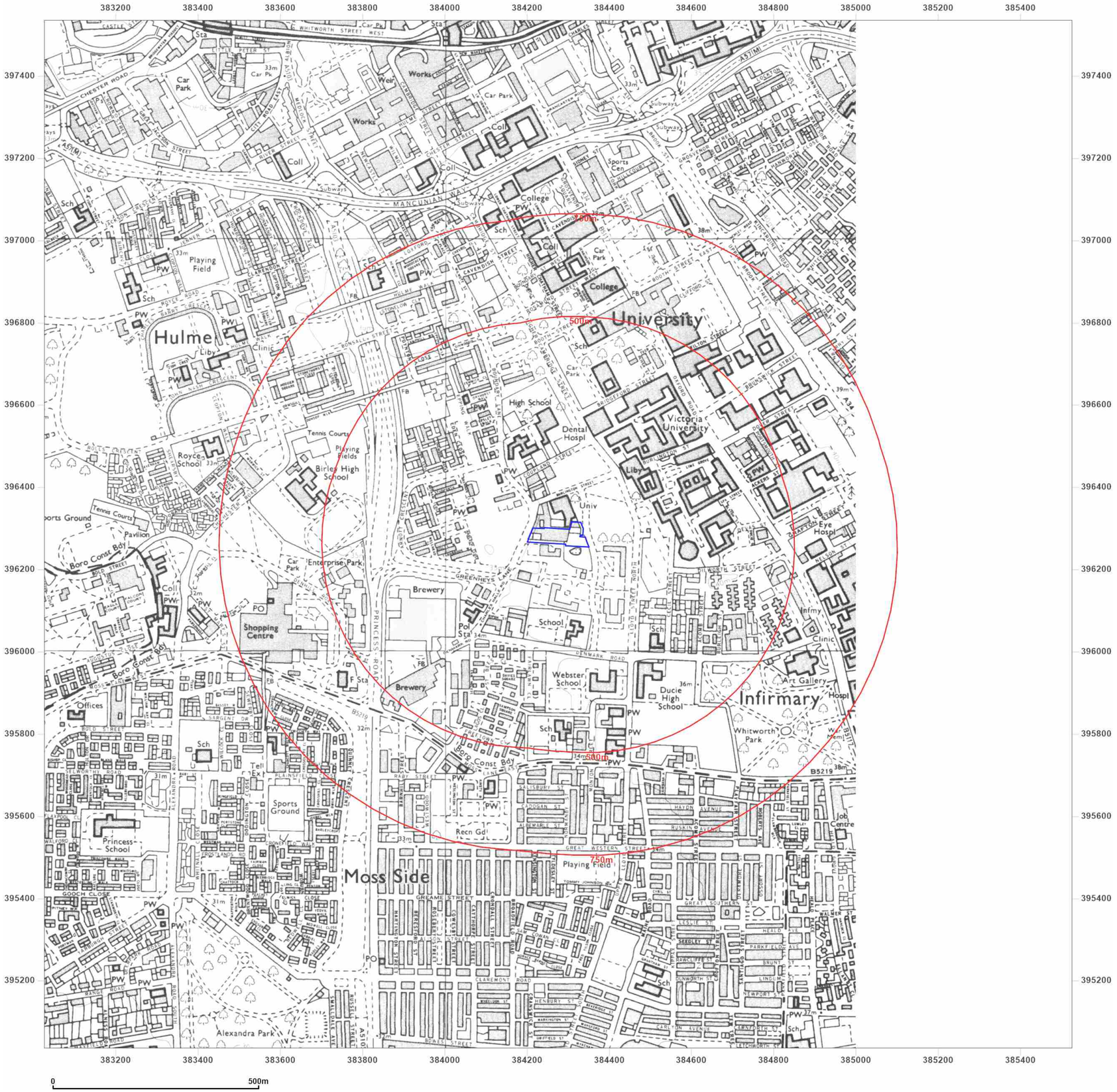
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

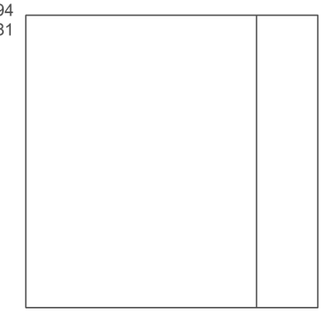
Map date: **1994**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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Surveyed 1986
Revised 1994
Edition N/A
Copyright 1994
Levelled 1981



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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid
Map date: **2001**
Scale: 1:10,000
Printed at: 1:10,000

N W E S

2001

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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

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W E
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2010

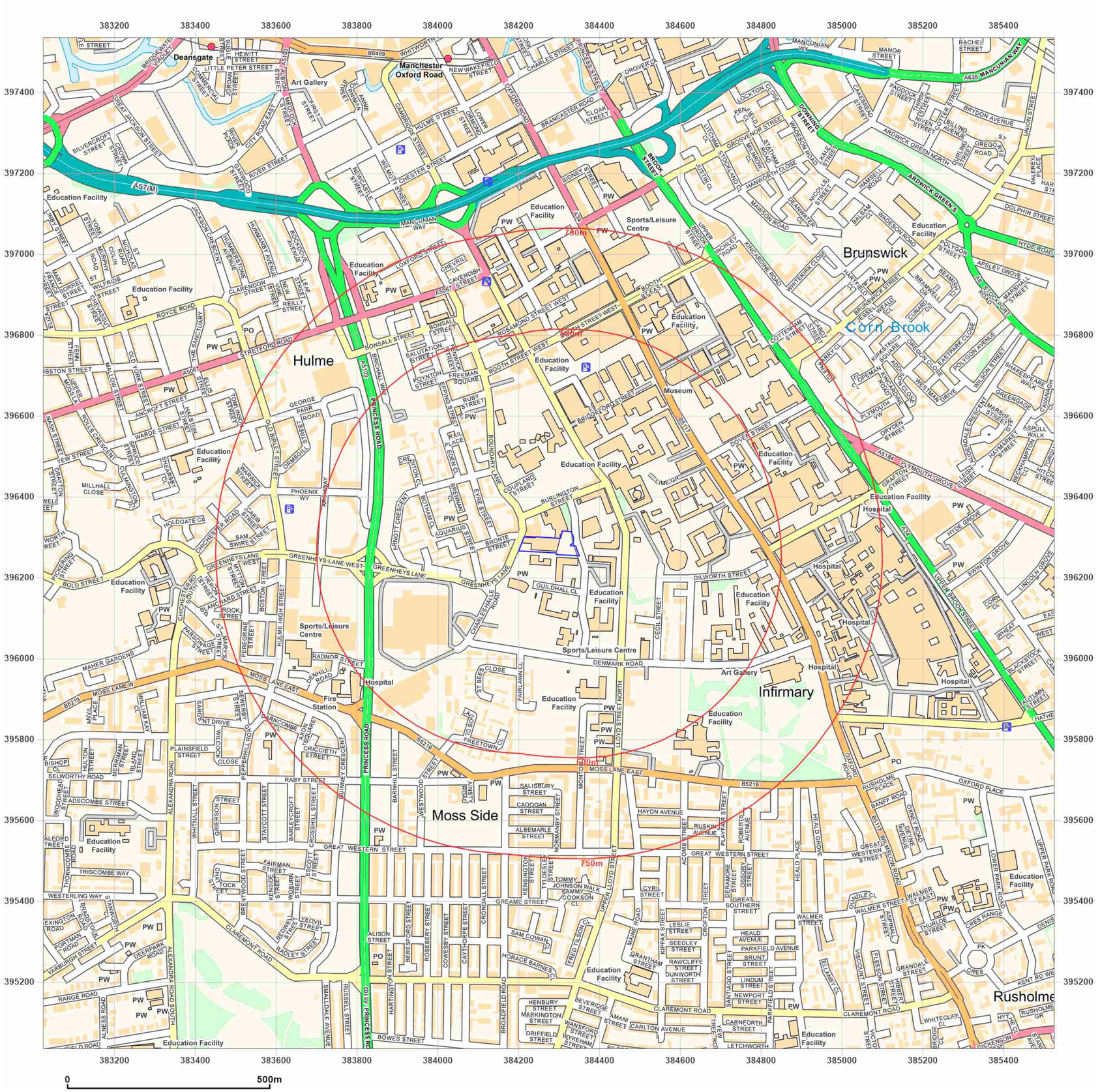
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid
Map date: **2022**
Scale: 1:10,000
Printed at: 1:10,000

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2022

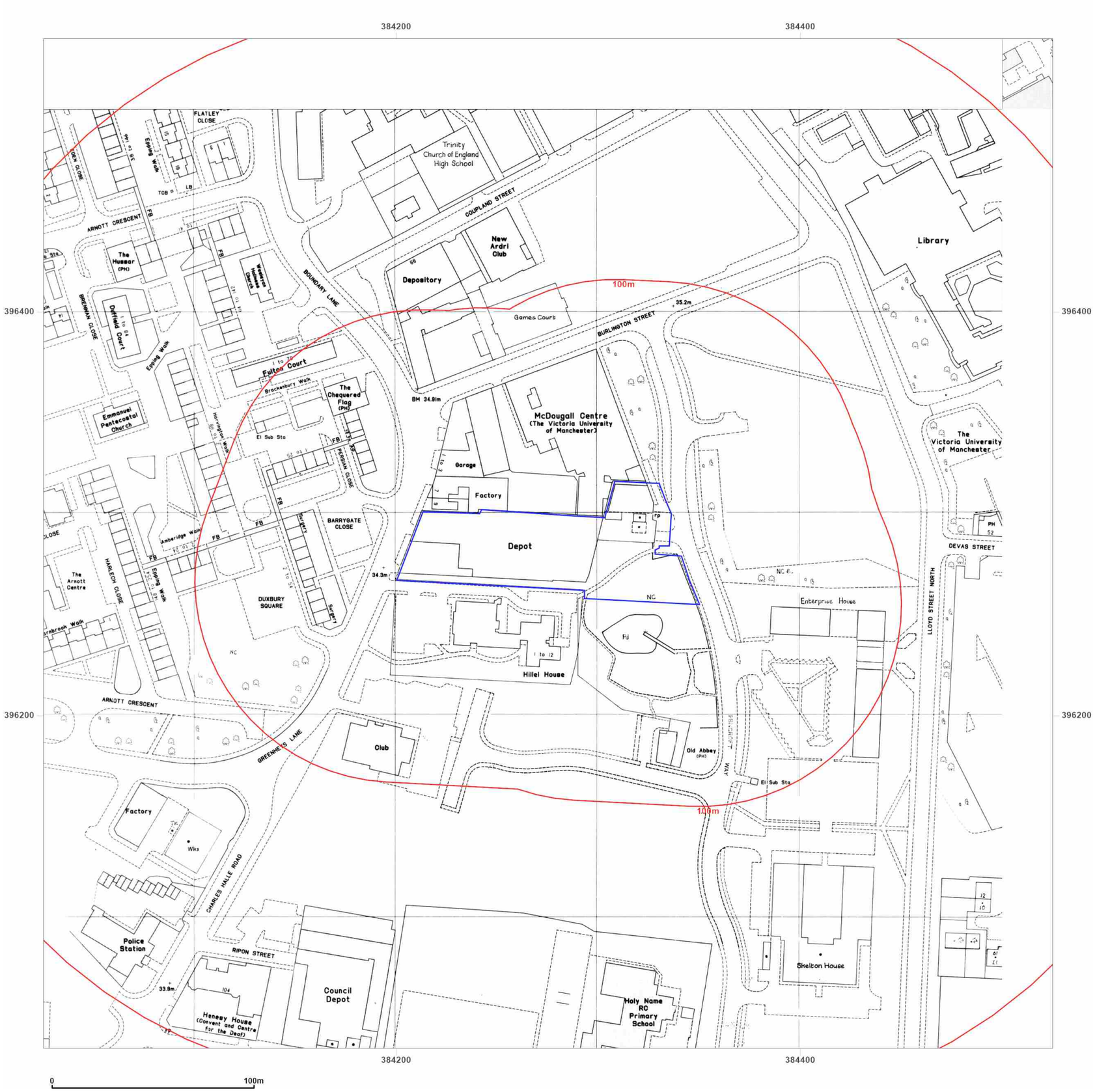
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1985-1989**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
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Surveyed 1948
Revised 1988
Edition N/A
Copyright 1989
Levelled 1963

Surveyed 1948
Revised 1984
Edition N/A
Copyright 1985
Levelled 1963

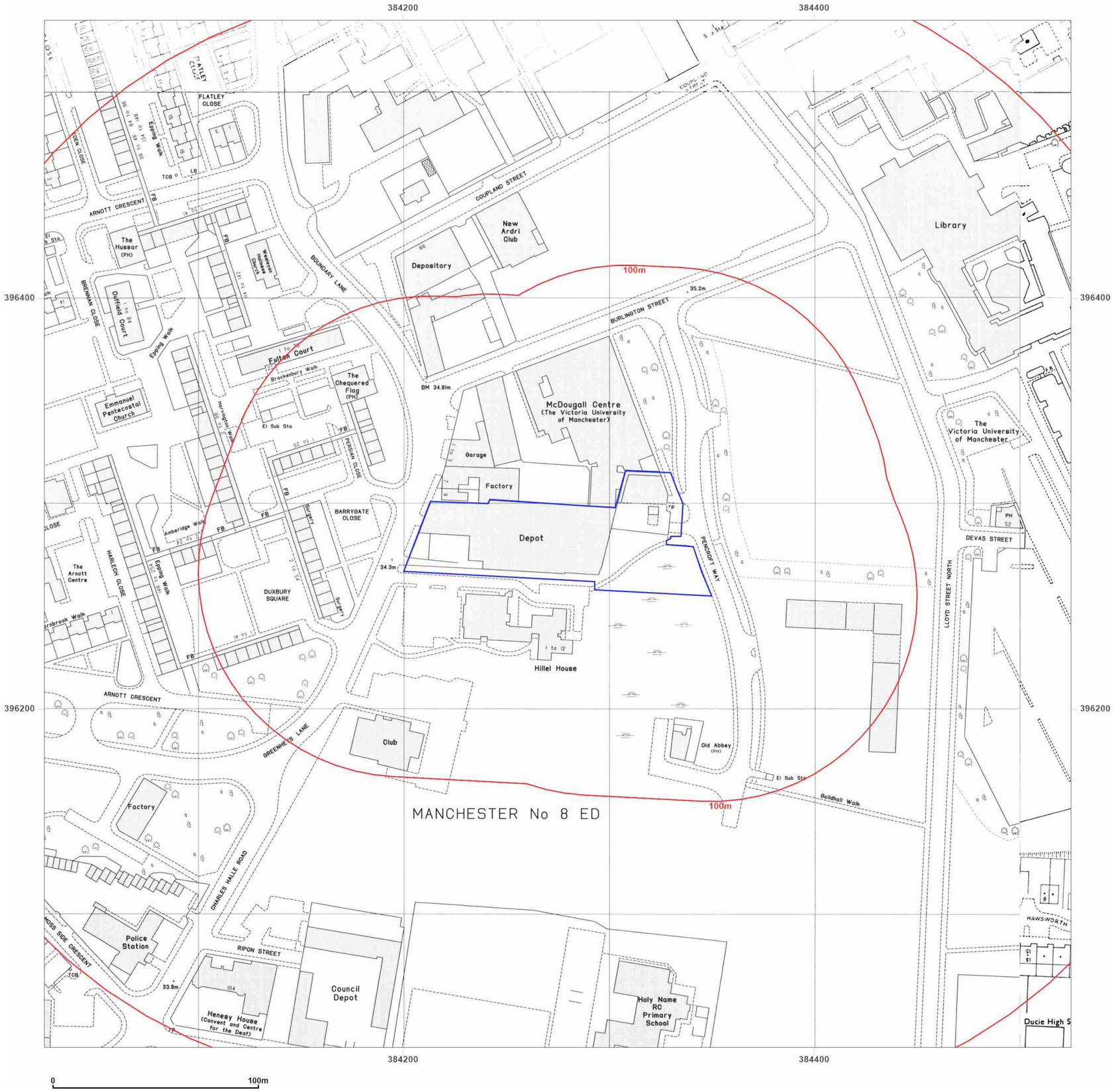
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Groundsure INSIGHTS

Site Details:

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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1985-1990**

Scale: 1:1,250

Printed at: 1:2,000

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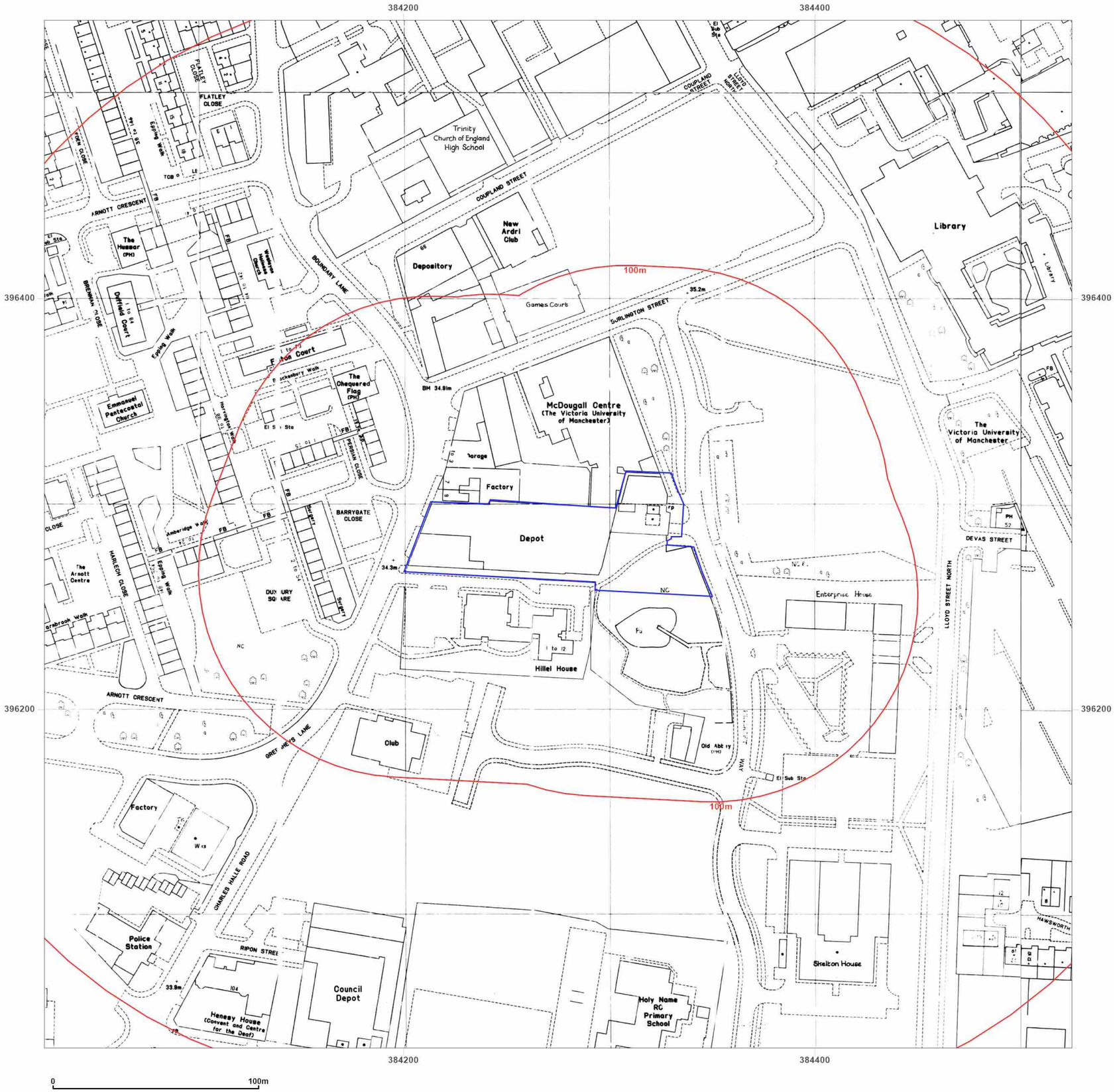
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1990-1992**

Scale: 1:1,250

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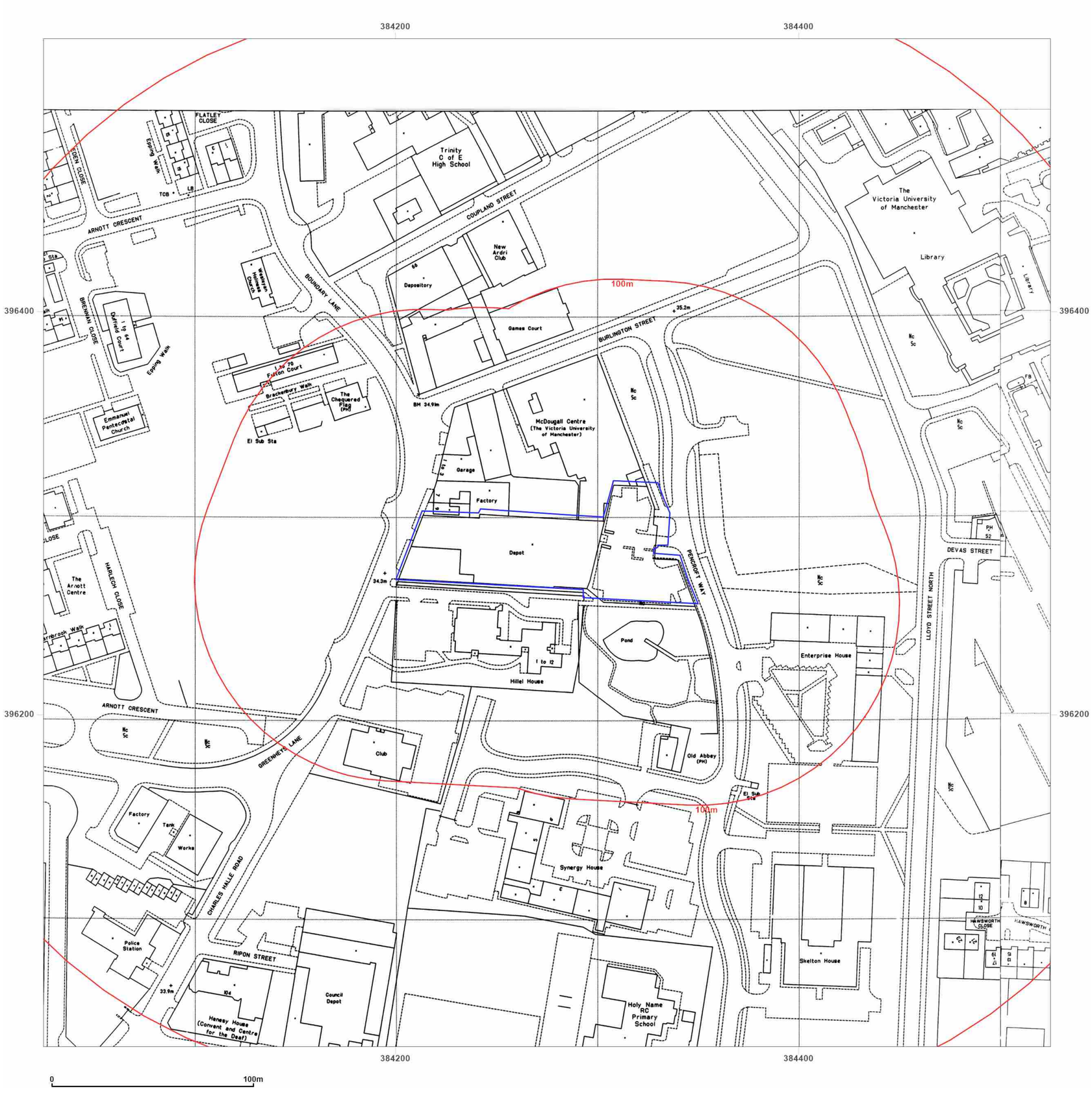
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Groundsure INSIGHTS

Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1993-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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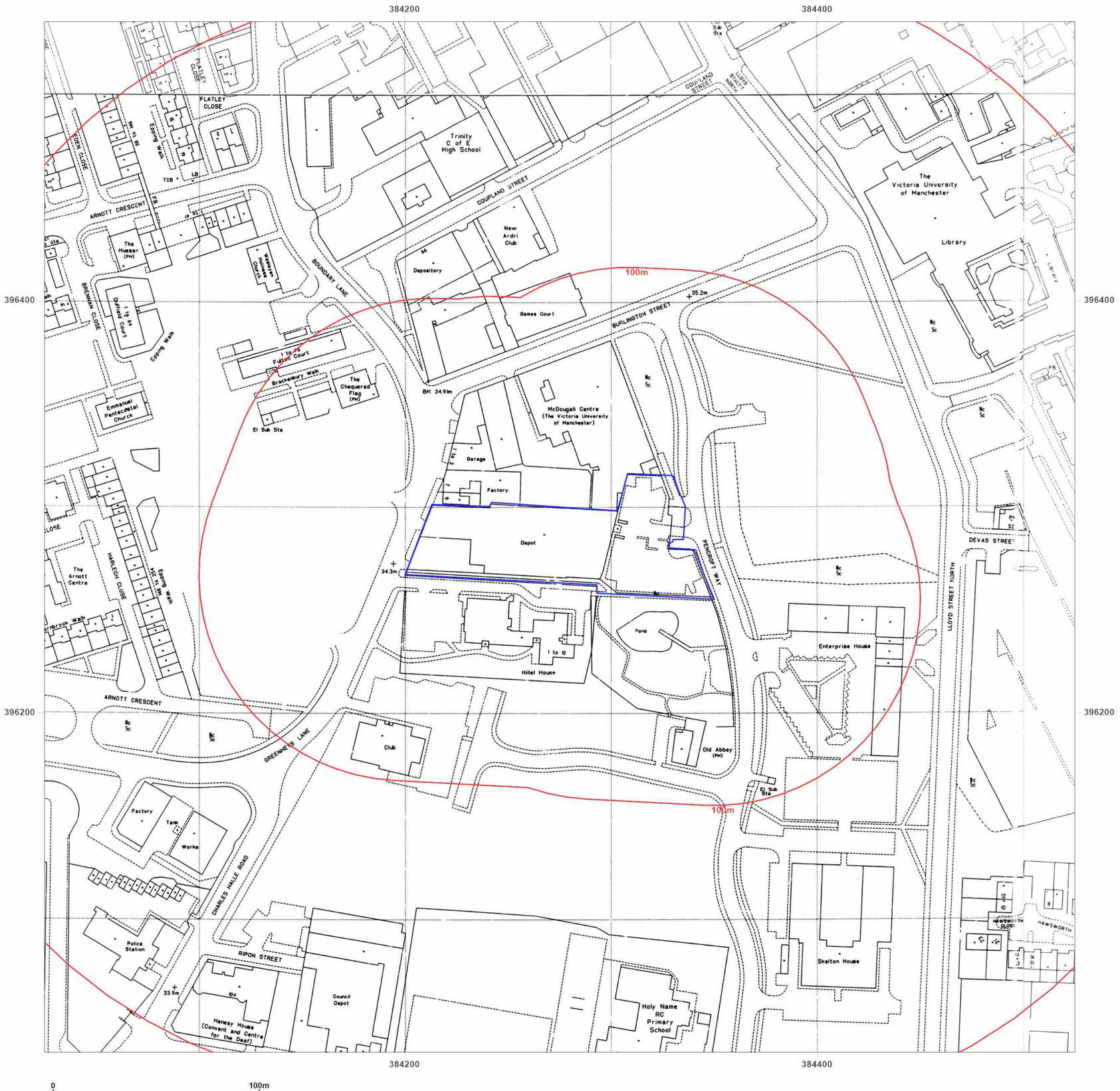
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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1992-1995**

Scale: 1:1,250

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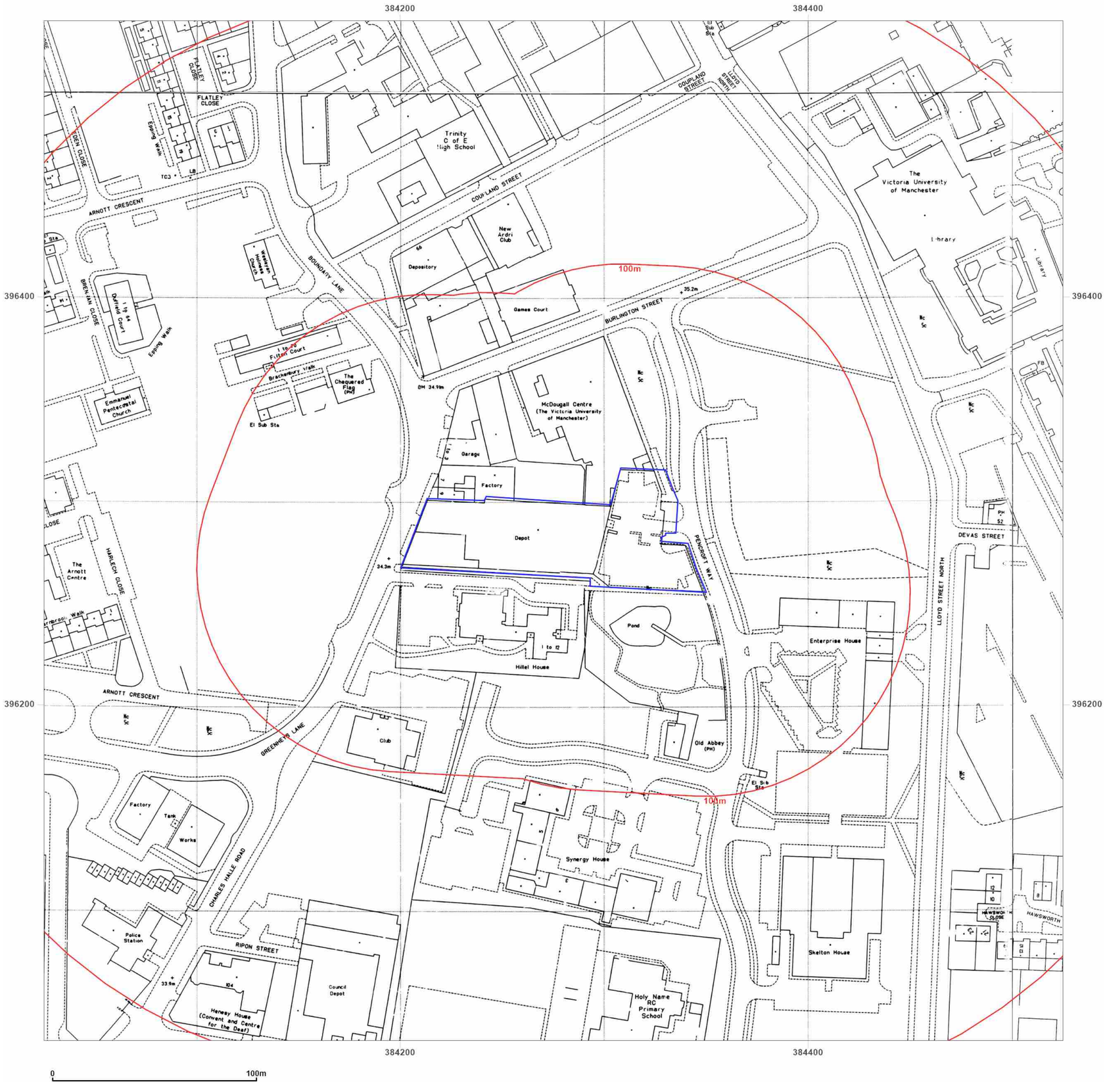
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Groundsure INSIGHTS

Site Details:

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Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1993-1995**

Scale: 1:1,250

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Revised 1993
Edition N/A
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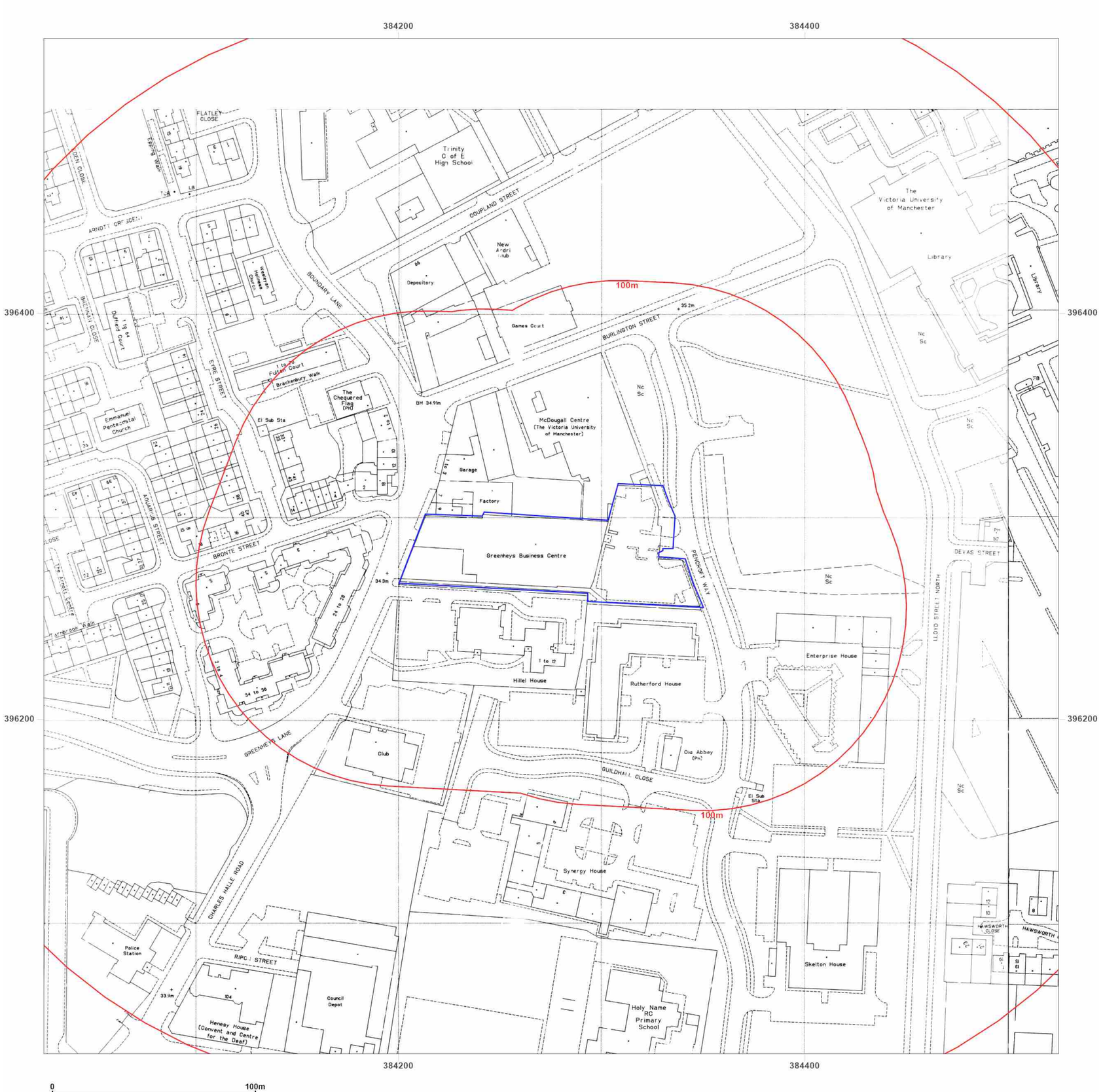
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:1,250

Printed at: 1:2,000

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Revised 1995	Revised 1994
Edition N/A	Edition N/A
Copyright 1995	Copyright 1994
Levelled N/A	Levelled N/A

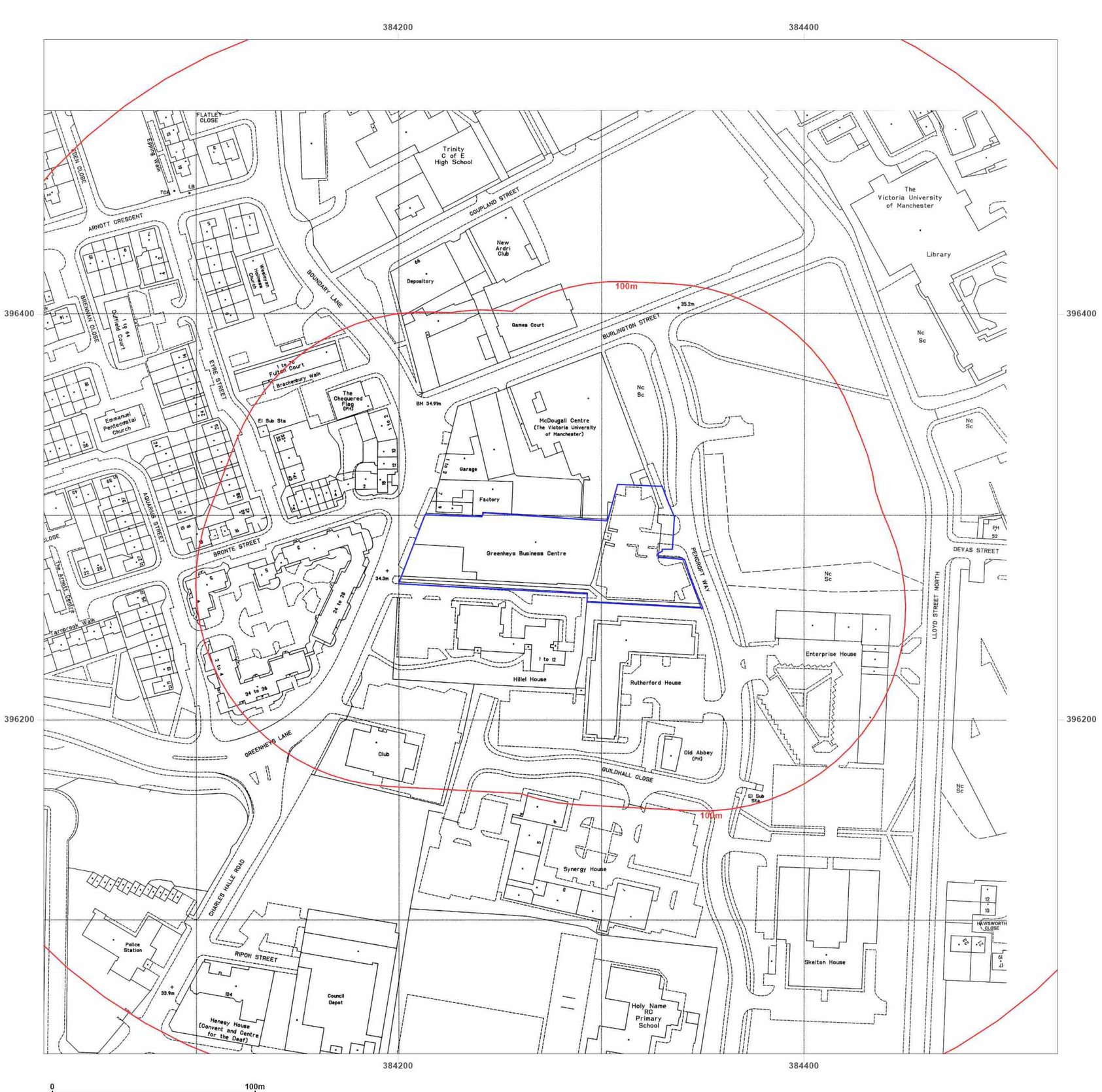
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Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: National Grid

Map date: **1995**

Scale: 1:1,250

Printed at: 1:2,000

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Edition N/A
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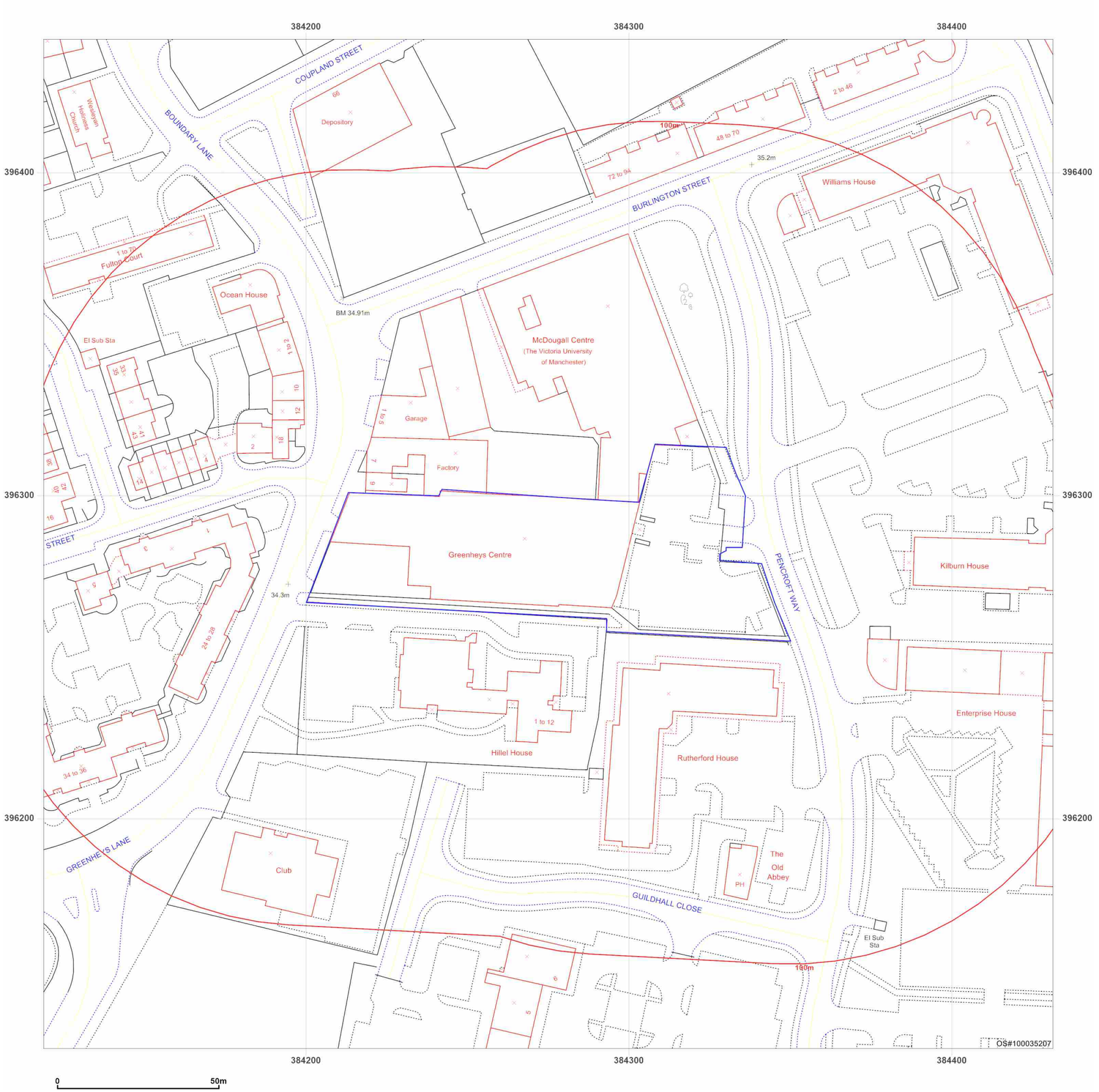
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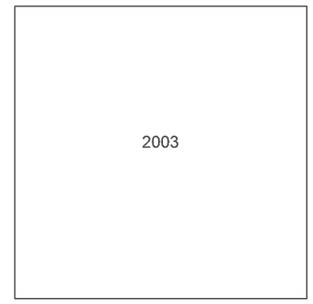
Site Details:

GREENHEYS BUSINESS CENTRE, PENCROFT WAY, MANCHESTER, M15 6JJ

Client Ref: nx534
Report Ref: GS-9022497
Grid Ref: 384275, 396285

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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Appendix C – Exploratory Hole Logs

NX Consulting **ROTARY CORE BOREHOLE LOG**

Project				DRILLHOLE No
Greenheys Business Centre, Manchester Science Park				**RBH01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	12-04-23			
Contractor				Sheet 1 of 2
Taylor Drilling Services				

RUN DETAILS				STRATA				
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION: Discontinuities / Detail / Main	Geology	Instrument/ Backfill
					0.20	MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of tarmacadam.		
					0.35			
					(0.65)			
					1.00	MADE GROUND: Uncompact brown fine to coarse gravelly sand. Gravel is fine to coarse, angular to subrounded of limestone, sandstone and other mixed lithology.		
					(0.70)			
					1.70	Firm brown slightly silty slightly sandy CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology. Very rare gravel of coal and organic material.		
						2.00 ...becoming firm to stiff, locally very stiff.		
						Loose to medium dense light brown fine to coarse slightly clayey slightly gravelly SAND with rare pockets of sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
					(4.30)			
						Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
						5.50 ...becoming very stiff to hard.		
					6.00			
						6.00 ...SPT refusal, borehole continued as open holed.		
						Red/brown SAND AND GRAVEL (Drillers Description).		
					(5.00)			
						10.50 ...becoming reddish brown in colour.		
					11.00			

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing	From	To	Type	Returns	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater not observed during drilling.

All dimensions in metres Scale 1:68.75	Client Bruntwood SciTech	Method/ Plant Used BERETTA	Logged By MT

AGS UK DH.1 NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 2/6/23

NX Consulting ROTARY CORE BOREHOLE LOG

Project				DRILLHOLE No
Greenheys Business Centre, Manchester Science Park				**RBH01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	12-04-23			
Contractor				Sheet 2 of 2
Taylor Drilling Services				

RUN DETAILS						STRATA				
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION			Geology	Instrument/ Backfill
						Discontinuities	Detail	Main		
11.00	65 (50) 0	0			11.00	11.00 - 20.00 ...borehole continued as a Cored Drillhole.		Weak to medium strong reddish brown fine to coarse grained SANDSTONE with rare mineral inclusions and intraclasts. Subhorizontal bedding fractures, thinly spaced, planar, smooth to slightly rough.		
12.00										
13.00	70 (65) 0	0								
14.00	95 (90) 16	0								
15.00	25 (20) 0	0								
16.00	95 (90) 29.4	1			(9.00)					
17.00	100 (98) 71	1								
18.00	0 (0) 0	0				17.00 - 18.00 ...no recovery.				
19.00	100 (95) 48	1				18.50 - 20.00 ...becoming reddish brown banded grey.				
20.00	100 (98) 47.5	1			20.00					
								...borehole ended at 20.00mbgl.		

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater not observed during drilling.

All dimensions in metres Scale 1:68.75	Client Bruntwood SciTech	Method/ Plant Used BERETTA	Logged By MT

AGS UK DH.1 NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 6/6/23

NX Consulting **ROTARY CORE BOREHOLE LOG**

Project				DRILLHOLE No
Greenheys Business Centre, Manchester Science Park				**RBH02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	14-04-23			
Contractor				Sheet 1 of 2
Taylor Drilling Services				

RUN DETAILS				STRATA					
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION: Discontinuities	Detail	Main	Geology	Instrument/ Backfill
					0.15			MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of tarmacadam.		
					0.25					
					0.75			MADE GROUND: Soft to firm dark brown/grey clay with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, clinker and other mixed lithology.		
					(0.75)					
					1.50			MADE GROUND: Uncompact dark brown fine to coarse slightly ashy slightly silty clayey sand with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone, limestone, brick and other mixed lithology.		
					(4.50)	4.00 ...becoming very stiff.		Loose to medium dense light brown fine to coarse slightly clayey slightly gravelly SAND with rare pockets of sandy CLAY. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
						5.20 - 5.50 ...pocket of firm brown clay.		Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
						5.50 ...becoming very stiff to hard.				
					6.00	6.00 ...SPT refusal, borehole continued as open holed.		Red/brown SAND AND GRAVEL (Drillers Description).		
					(5.00)					
					11.00					

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater not observed during drilling.

All dimensions in metres Scale 1:68.75	Client Bruntwood SciTech	Method/ Plant Used BERETTA	Logged By MT

AGS UK DH.1 NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 2/6/23

NX Consulting **ROTARY CORE BOREHOLE LOG**

Project				DRILLHOLE No
Greenheys Business Centre, Manchester Science Park				**RBH02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	14-04-23			
Contractor				Sheet
Taylor Drilling Services				2 of 2

RUN DETAILS						STRATA				
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION			Geology	Instrument/ Backfill
						Discontinuities	Detail	Main		
11.00	50 (35) 0	0			11.00	11.00 - 12.20 ...poor recovery due to poorly cemented rock. 11.00 - 20.00 ...borehole continued as a Cored Drillhole.		Weak to medium strong light brown fine to coarse grained SANDSTONE with rare mineral inclusions and intraclasts. Subhorizontal bedding fractures, thinly spaced, planar, smooth to slightly rough.		
12.00										
13.00	90 (80) 11	0								
14.00	95 (90) 0	0								
15.00	0 (0) 0	0				14.00 - 16.00 ...no recovery.				
16.00	0 (0) 0	0			(9.00)					
17.00	()	0								
18.00	80 (50) 12	0				17.00 ...becoming reddish brown.				
19.00	95 (85) 15	0								
20.00	99 (95) 87	0			20.00					
								...borehole ended at 20.00mbgl.		

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater not observed during drilling.

All dimensions in metres Scale 1:68.75	Client Bruntwood SciTech	Method/ Plant Used BERETTA	Logged By MT

AGS UK DH.1 NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 6/6/23

NX Consulting **ROTARY CORE BOREHOLE LOG**

Project				DRILLHOLE No
Greenheys Business Centre, Manchester Science Park				**RBH03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	18-04-23			
Contractor				Sheet 1 of 2
Taylor Drilling Services				

RUN DETAILS				STRATA					
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION: Discontinuities	Detail	Main	Geology / Instrument/ Backfill
					0.15			MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.	
					0.40				
					0.50			MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.	
					(2.10)			MADE GROUND: Soft to firm brown slightly ashy reworked clay with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, limestone and other mixed lithology.	
					2.60			Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.	
					(4.40)			Stiff to very stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.	
					7.00			Red/brown SAND AND GRAVEL (Drillers Description).	
					(4.00)				
					11.00				

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater not observed during drilling.

All dimensions in metres Scale 1:68.75	Client Bruntwood SciTech	Method/ Plant Used BERETTA	Logged By MT

AGS UK DH.1 NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 2/6/23

NX Consulting ROTARY CORE BOREHOLE LOG

Project				DRILLHOLE No
Greenheys Business Centre, Manchester Science Park				**RBH03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	18-04-23			
Contractor				Sheet
Taylor Drilling Services				2 of 2

RUN DETAILS						STRATA				
Depth / Date	TCR (SCR) RQD	(SPT) Fracture Spacing	Red'cd Level	Legend	Depth (Thick-ness)	DESCRIPTION			Geology	Instrument/ Backfill
						Discontinuities	Detail	Main		
11.00	75 (20) 0	0			11.00	11.00 - 12.00 ...poor recovery. 11.00 - 20.00 ...borehole continued as a Cored Drillhole.		Weak to medium strong light brown fine to coarse grained SANDSTONE with rare mineral inclusions and intraclasts. Subhorizontal bedding fractures, thinly spaced, planar, smooth to slightly rough.		
12.00										
13.00	85 (82) 10	0								
14.00	80 (80) 11	0								
15.00	33 (20) 12	0				14.00 - 15.00 ...poor recovery.				
16.00	75 (72) 35	0			(9.00)					
17.00	85 (80) 60	1								
18.00	0 (0) 0	0				17.00 - 18.00 ...no recovery.				
19.00	90 (90) 11	0								
20.00	95 (95) 80	0			20.00					
								...borehole ended at 20.00mbgl.		

Drilling Progress and Water Observations						
Date	Time	Depth	Casing	Core Dia mm	Water Strike	Water Standing

Rotary Flush			
From	To	Type	Returns

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater not observed during drilling.

All dimensions in metres Scale 1:68.75	Client Bruntwood SciTech	Method/ Plant Used BERETTA	Logged By MT

AGS UK DH.1 NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 6/6/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	12-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(1.05)	MADE GROUND: Compact grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
1.00	SPT	25				1.20			
1.30	ES					(0.30)	MADE GROUND: Medium dense brown slightly ashy slightly clayey sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, limestone, concrete and other mixed lithology.		
1.60	ES					1.50			
2.00	SPT D	7				(0.90)	Medium dense light brown fine to coarse very gravelly SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
						2.40			
2.50	ES						Firm to stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
3.00	SPT D	19				(2.60)			
4.00	SPT D	15							
						5.00			
5.00	SPT D	20					...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.7mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	12-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.25) 0.40	MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
0.40	ES					0.50	MADE GROUND: Soft to firm brown slightly ashy reworked clay with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, limestone, mudstone and other mixed lithology.		
0.60	ES						Loose to medium dense light brown fine to coarse SAND with rare gravel and pockets of sandy clay. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
1.00	SPT	18					1.10 ...rare cobbles of sandstone and mudstone present.		
							1.30 ...becoming medium brown.		
						(2.00)			
2.00	S D ES	5					1.90 ...becoming dark brown slightly silty, with increased gravel content.		
						2.50			
							Firm to stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
3.00	SPT D	18							
						(2.50)			
4.00	SPT D	22					4.00 ...becoming very stiff.		
						5.00			
5.00	SPT D	28					...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.5mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP. MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	12-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.25) 0.40	MADE GROUND: Compact grey/black ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
0.50	ES					(0.50) 0.90	MADE GROUND: Uncompact brown/black fine to coarse ashy slightly clayey gravelly sand. Gravel is fine to coarse, angular to subrounded of brick, ash, sandstone, concrete, limestone, mudstone and other mixed lithology.		
1.00	S D ES	18				(0.30) 1.20	Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone and other mixed lithology.		
1.30	ES					(0.90) 2.10	Loose to medium dense brown slightly clayey gravelly SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
2.00	SPT D	6				(2.90) 5.00	Firm to stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
3.00	SPT D	22					3.70 ...becoming very stiff.		
4.00	SPT D	18							
5.00	SPT D	23					...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.9mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS04**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	13-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.50)	MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
						0.65			
						(0.45)	MADE GROUND: Compact red/orange/brown fine to coarse sandy gravel. Gravel is fine to coarse, angular to subrounded of brick.		
1.00-2.00	B					1.10			
1.00	SPT D	6					Loose dense brown fine to coarse very clayey gravelly SAND. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology. Rare cobbles of sandstone.		
1.20	ES								
1.50	ES					(0.90)			
						2.00			
2.00	SPT D	14					Firm to stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
2.10	ES						2.00 - 2.30 ...slightly sandy.		
3.00	SPT D	13					3.00 ...becoming stiff to very stiff.		
3.30	SV	125				(3.00)			
4.00	SPT D	21							
						5.00			
5.00	SPT	23					...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.7mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP. MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS05**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	13-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						(0.15) 0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.20) 0.35	MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
						(0.10) 0.45	MADE GROUND: Compact ashy gravelly sand. Gravel is fine to coarse, angular to subrounded of tarmac, concrete, ash and other mixed lithology.		
							...borehole ended at 0.45mbgl due to a solid obstruction and redrilled as WS05A.		

Boring Progress and Water Observations						Chiselling			Water Added	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination.
No groundwater observed during drilling.

All dimensions in metres Scale 1:4.375	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS05A**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	13-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						(0.15) 0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.50) 0.65	MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology. 0.60 ...100mm diameter plastic pipe present in western face of hand pit, trending NW-SE.		
						(0.10) 0.75	MADE GROUND: Soft to firm brown slightly ashy reworked clay with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, limestone, mudstone and other mixed lithology.		
							...borehole ended at 0.75mbgl due to a solid obstruction and redrilled as WS0BA.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Water observed at 650mmbgl during hand pit excavation.

All dimensions in metres Scale 1:6.25	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS05B**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	14-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.25) 0.40	MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
						(0.40) 0.80	MADE GROUND: Soft to firm brown slightly ashy reworked clay with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, limestone, mudstone and other mixed lithology.		
						(0.30) 1.10	MADE GROUND: Uncompact black ashy very sandy gravel. Gravel is fine to coarse, angular to subrounded of concrete, tarmacadam, ash and other mixed lithology.		
1.00	SPT D	4							
1.10	ES						Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
						(1.40)	1.70 - 2.50 ...increased gravel content.		
1.90	ES								
2.00	SPT D	5							
2.10-2.50	B					2.50			
							Firm to stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
3.00	SPT D	14					3.10 ...becoming very stiff.		
						(2.50)			
4.00	SPT D	20							
						5.00			
5.00	SPT D	26					...borehole ended at 5.0mbgl		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.8mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS10**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	13-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						0.20			
0.25	ES					(0.45)	MADE GROUND: Uncompact light brown fine to coarse slightly silty sandy gravel. Gravel is fine to coarse, angular to subrounded of sandstone and other mixed lithology.		
						0.65	MADE GROUND: Soft to firm black/grey/brown ashy slightly silty very sandy very gravelly clay. Gravel is fine to coarse, angular to subrounded of brick, concrete, sandstone, clinker, ash, limestone, mudstone and other mixed lithology. Rare cobbles of brick.		
0.70	ES						0.20 - 0.65 ...faint hydrocarbon odour observed.		
1.00-2.00	B						Loose to medium dense light brown fine to coarse SAND with rare gravel and pockets of sandy clay. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology. Very rare angular gravel of coal.		
1.00	SPT	4					1.00 ...becoming very clayey.		
1.10	ES					(1.85)			
2.00	SPT	11							
						2.50			
							Firm to stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology. Very rare angular gravel of coal.		
2.80	SV	130					2.80 ...becoming very stiff.		
3.00	SPT D	20							
						(2.50)			
3.80	SV	125							
4.00	SPT D	19							
						5.00			
5.00	SPT D	24					...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.7mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS11**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	13-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.15	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						(0.25)	MADE GROUND: Compact black/grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
0.40-0.70	B					0.40			
0.50	ES					0.50	MADE GROUND: Soft to firm brown slightly ashy reworked clay with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, limestone and other mixed lithology.		
0.80	ES						Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
1.00	SPT	6							
							1.40 ...becoming gravelly.		
1.50	ES					(2.10)			
2.00	SPT	10							
						2.60			
							Stiff to very stiff dark brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
2.80	SV	130					2.60 - 3.20 ...rare pockets of sandy clay.		
3.00	SPT D	9							
							3.50 ...becoming stiff.		
						(2.40)			
4.00	SPT D	16					4.00 - 5.00 ...becoming firm to stiff.		
4.50	SV	68							
						5.00			
5.00	SPT D	26					...borehole continued with dyanmic probing.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 2.0mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS12**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	16-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.01	MADE GROUND: Laminate floor covering.		
							MADE GROUND: Reinforced concrete.		
							0.05 ...1cm diameter metal rebar present.		
						(0.24)			
						0.25			
							MADE GROUND: Compact dark brown fine to coarse ashy silty sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, concrete, ash, clinker, limestone and other mixed lithology. Rare cobbles of brick.		
							0.25 - 0.70 ...relic insitu brick walls present in west and eastern faces of hand pit, orientated N-S.		
							0.40 ...cobble with rebar present.		
						(0.45)			
						0.70			
							...borehole ended at 0.7mbgl due to a solid obstruction.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. No groundwater observed.

All dimensions in metres Scale 1:5.625	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				WS12A
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	16-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.01	MADE GROUND: Laminate floor covering.		
						(0.24)	MADE GROUND: Reinforced concrete. 0.05 ...1cm diameter metal rebar present.		
						0.25			
						(0.45)	MADE GROUND: Compact dark brown/red fine to coarse ashy silty sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, ash, clinker, limestone and other mixed lithology. Frequent cobbles of brick. 0.25 - 0.70 ...relic insitu brick walls present in west and eastern faces of hand pit, orientated N-S.		
						0.70			
							...borehole ended at 0.7mbgl due to a solid obstruction.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. No groundwater observed.

All dimensions in metres Scale 1:5.625	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS13**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	16-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.01	MADE GROUND: Laminate floor covering.		
						(0.04)	MADE GROUND: Concrete.		
						0.05			
						(0.20)	MADE GROUND: Compact light grey gravel. Gravel is fine to coarse, angular to subrounded of brick, concrete and other mixed lithology.		
						0.25			
						(0.35)	MADE GROUND: Compact brown/grey fine to coarse ashy silty sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, concrete, ash, limestone and other mixed lithology.		
						0.60			
							...borehole ended at 0.6mbgl due to a solid obstruction.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. No groundwater observed.

All dimensions in metres Scale 1:5	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				WS13A
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	16-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.01	MADE GROUND: Laminate floor covering.		
						(0.04) 0.05	MADE GROUND: Concrete.		
						(0.45) 0.50	MADE GROUND: Relic insitu brick wall, recovered as a core.		
							...borehole ended at 0.5mbgl due to a solid obstruction.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. No groundwater observed.

All dimensions in metres Scale 1:4.375	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS14**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	16-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.01	MADE GROUND: Laminate floor covering.		
						0.05	0.00 - 0.20 ...core depth.		
						0.20	MADE GROUND: Screed.		
0.30-0.70	B						MADE GROUND: Compact fine to coarse ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, concrete, ash, limestone and other mixed lithology.		
0.30	ES					(0.50)			
							MADE GROUND: Uncompact black/brown slightly ashy slightly clayey slightly silty sand with gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, ash, clinker, limestone and other mixed lithology.		
						0.70			
							MADE GROUND: Black/dark brown slightly ashy slightly sandy clay.		
						(0.25)			
						0.95			
1.00	ES						Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone and other mixed lithology.		
							1.50 ...becoming dark brown with increased gravel content.		
						(1.55)			
						2.50			
2.60	ES						Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
						(0.50)			
						3.00			
3.00	D						...borehole ended at 3.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.9mbgl.

All dimensions in metres Scale 1:21.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS15**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	16-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA					
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
						0.01	MADE GROUND: Laminate floor covering.		
						0.05	MADE GROUND: Concrete.		
						(0.20)			
						0.25	MADE GROUND: Compact fine to coarse ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, concrete, ash, limestone and other mixed lithology.		
0.30	ES						MADE GROUND: Uncompact dark brown ashy sand with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, ash, clinker, limestone and other mixed lithology. Rare cobble setts present.		
						(0.50)			
						0.75			
0.75-0.90	B						MADE GROUND: Soft black/dark brown slightly ashy slightly sandy clay.		
0.80	ES					0.90			
1.00	ES						Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone and other mixed lithology.		
							1.60 ...becoming dark brown with increased gravel content.		
						(1.60)			
						2.50			
2.60-3.00	B						Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
						(0.50)			
						3.00			
3.00	D						...borehole ended at 3.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.9mbgl.

All dimensions in metres Scale 1:21.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP. MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS16**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	15-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.01	MADE GROUND: Laminate floor covering.		
						0.05	0.00 - 0.30 ...core depth.		
						(0.25)	MADE GROUND: Concrete core.		
						0.30	MADE GROUND: Compact fine to coarse ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, concrete, ash, limestone and other mixed lithology.		
0.30	ES					(0.45)	MADE GROUND: Uncompact black/grey/red/brown ashy slightly clayey gravelly cobblery sand. Gravel is fine to coarse, angular to subrounded of brick, sandstone, ash, limestone and other mixed lithology. Rare full intact bricks and cobble setts.		
						0.75	0.40 - 0.70 ...3no. cobble setts present (250mm x 200mm x 150mm).		
0.80	ES					0.90	MADE GROUND: Soft to firm black/dark brown slightly ashy slightly sandy clay.		
1.00-2.00	B						Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
1.00	ES						1.20 ...becoming slightly clayey.		
1.70	ES					(1.80)	1.70 ...becoming dark brown with increased gravel content.		
						2.70			
2.70	D					(0.30)	Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
						3.00	...borehole ended at 3.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.7mbgl.

All dimensions in metres Scale 1:21.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				WS17
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	15-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.05	MADE GROUND: Concrete core. 0.00 - 0.30 ...core depth.		
						(0.25)	MADE GROUND: Compact fine to coarse ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, ash, limestone and other mixed lithology.		
						0.30			
0.30	ES					(0.30)	MADE GROUND: Uncompact black/grey/red/brown ashy slightly clayey gravelly sand. Gravel is fine to coarse, angular to subrounded of brick, sandstone, ash, limestone and other mixed lithology. Rare cobble setts.		
						0.60			
0.70	ES					0.75	MADE GROUND: Soft black/dark brown slightly ashy slightly sandy clay.		
0.80	ES						Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
							1.20 ...becoming slightly clayey.		
						(1.65)			
1.90	ES						1.90 - 2.50 ...becoming dark grey with hydrocarbon odour.		
						2.40			
2.50-3.00	B						Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
2.50	ES								
						(1.00)			
3.00	B								
						3.40			
							...borehole ended at 3.4mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											Olfactory evidence of hydrocarbon or solvent contamination between 1.9mbgl to 2.5mbgl. Groundwater observed at 2.0mbgl.

All dimensions in metres Scale 1:21.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS18**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	15-04-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA					
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION	Geology	Instrument/ Backfill
						0.02	MADE GROUND: Laminate floor covering.		
						0.05	0.00 - 0.25 ...core depth.		
						(0.20)	MADE GROUND: Concrete core.		
						0.25	MADE GROUND: Compact fine to coarse ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, concrete, ash, limestone and other mixed lithology.		
						(0.25)			
						0.50	MADE GROUND: Uncompact black/grey/red/brown ashy slightly clayey sand with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, ash, limestone and other mixed lithology. Rare cobble setts.		
						(0.25)			
						0.75	MADE GROUND: Soft to firm black/dark brown slightly ashy slightly sandy clay.		
							Loose to medium dense light brown fine to coarse SAND with rare gravel. Gravel is fine to coarse, angular to subrounded of sandstone, mudstone and other mixed lithology.		
						(1.55)			
							2.00 - 2.50 ...becoming dark grey with hydrocarbon odour.		
						2.30			
							Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
						(0.70)			
						3.00			
							...borehole ended at 3.0mbgl.		
							...becoming very stiff.		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

Olfactory evidence of hydrocarbon or solvent contamination between 2.0mbgl to 2.5mbgl.
No groundwater observed during drilling.

All dimensions in metres Scale 1:21.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP. MANCHESTER.GPJ AGS 3_1.GDT 11/5/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS06**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	19-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.10	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						0.20			
0.30	ES					(0.50)	MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
						0.70	MADE GROUND: Uncompact black fine to coarse ashy gravelly sand. Gravel is fine to coarse, angular to subrounded of ash, clinker, brick, limestone and other mixed lithology.		
0.80	ES					(0.40)	MADE GROUND: Dark brown soft to firm slightly silty slightly sandy clay with rare gravel (reworked clay). Gravel is fine to coarse, angular to subrounded of brick, concrete, limestone sandstone, mudstone and other mixed lithology.		
1.00	SPT	12				1.10			
1.20	ES						Loose to medium dense light brown fine to coarse SAND.		
						(1.40)	1.70 ...increased gravel content.		
2.00	SPT D	9					2.20 ...becoming clayey.		
						2.50			
2.60	ES						Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
2.70	SV	82							
3.00	SPT D	19					3.00 ...becoming firm to stiff.		
							3.20 - 3.30 ...sandstone cobble (90mm diameter).		
						(2.50)			
4.00	SPT D	15							
							4.50 ...becoming firm.		
4.70	SV	70							
						5.00			
5.00	SPT D	19					...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.5mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 21/6/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS07**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	19-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.10	MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.		
						0.20			
						(0.30)	MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.		
						0.50			
0.60	ES					(0.60)	MADE GROUND: Uncompact black fine to coarse ashy gravelly sand. Gravel is fine to coarse, angular to subrounded of ash, clinker, brick, limestone and other mixed lithology. Rare cobbles of concrete.		
1.00	SPT					1.10	MADE GROUND: Dark brown soft to firm slightly silty slightly sandy clay with rare gravel (reworked clay). Gravel is fine to coarse, angular to subrounded of brick, concrete, limestone sandstone, mudstone and other mixed lithology.		
1.20	ES						Loose to medium dense light brown fine to coarse SAND.		
						(1.40)			
2.00	SPT						2.00 ...increased gravel content.		
						2.50			
2.70	SV	82					Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.		
3.00	SPT D						3.00 ...becoming stiff to very stiff.		
3.70	SV	130				(2.50)			
4.00	SPT D								
4.70	SV	105							
						5.00			
5.00	SPT D						...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added	
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To

GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 2.1mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 21/6/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS08**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	19-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.10	MADE GROUND: Compact concrete recovered as a core.		
						0.13	MADE GROUND: Screed.		
						(0.77)	MADE GROUND: Dark brown soft to firm slightly silty slightly sandy clay with rare gravel (reworked clay). Gravel is fine to coarse, angular to subrounded of brick, concrete, limestone sandstone, mudstone and other mixed lithology.		
						0.90			
1.00	SPT					(0.80)	Loose to medium dense light brown fine to coarse SAND.		
1.50	ES					1.70			
1.80	ES					(0.40)	Loose to medium dense dark grey brown fine to coarse slightly silty slightly clayey sand with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone, and other mixed lithology.		
2.00	SPT D					2.10	1.70 - 2.10 ...becoming dark grey with faint to moderate hydrocarbon odour.		
2.30	ES					(2.90)	Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone, coal and other mixed lithology.		
2.70	SV	75							
3.00	SPT D								
3.70	SV	82							
4.00	SPT D								
4.70	SV	72							
						5.00			
5.00	SPT D						...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											Olfactory evidence of hydrocarbon or solvent contamination between 1.7mbgl to 2.1mbgl. Groundwater observed at 1.7mbgl.

All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 21/6/23

NX Consulting

WINDOW SAMPLER BOREHOLE LOG

Project				BOREHOLE No
Greenheys Business Centre, Manchester Science Park				**WS09**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	19-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						0.10	MADE GROUND: Compact concrete recovered as a core.		
						0.25	MADE GROUND: Sandstone boulder recovered as a core (cobble sett).		
0.50	ES					(0.75)	Uncompact light brown fine to coarse clayey SAND.		
1.00	SPT					1.00	Loose to medium dense medium brown fine to coarse clayey SAND.		
1.50	ES					(1.10)			
2.00	SPT					2.10	Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone and other mixed lithology.		
2.70	SV	130							
3.00	SPT D					(2.90)	3.50 ...becoming stiff.		
3.70	SV	118							
4.00	SPT D								
4.70	SV	120							
						5.00			
5.00	SPT D						...borehole ended at 5.0mbgl.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 1.7mbgl.

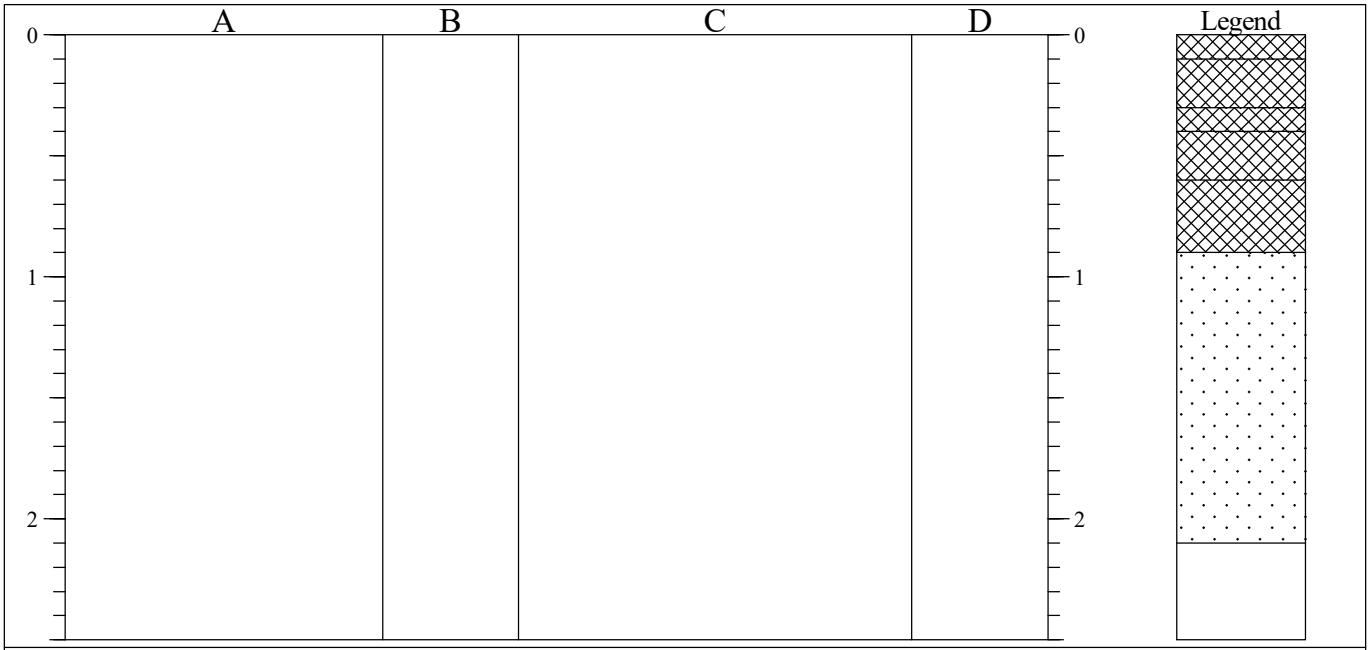
All dimensions in metres Scale 1:31.875	Client Bruntwood SciTech	Method/ Plant Used Tracked Archway Dart	Logged By MT

AGS3 UK WS NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 21/6/23

NX Consulting

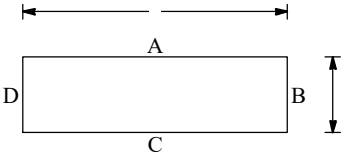
TRIAL PIT LOG

Project				TRIAL PIT No
Greenheys Business Centre, Manchester Science Park				**TP01**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	20-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.			
0.10-0.30		MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.			
0.30-0.40		MADE GROUND: Uncompact light brown/grey fine to coarse sand with rare gravel of sandstone, mudstone and other mixed lithology.			
0.40-0.60		MADE GROUND: Compact light brown ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.			
0.60-0.90		MADE GROUND: Uncompact brown/grey ashy gravelly sand with rare pockets of clay. Gravel is fine to coarse, angular to subrounded of brick, ash, clinker, limestone, concrete, sandstone and other mixed lithology. Rare cobbles of bricks.			
0.90-2.10		Loose to medium dense light brown fine to coarse SAND. 0.90 - 1.10 ...rare cobble setts within base of Made Ground. 1.80 ...becoming dark brown with increased gravel content.			
2.10		...trial pit ended at 2.1mbgl.			

Shoring/Support:
Stability: Poor





GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination.
No groundwater observed.

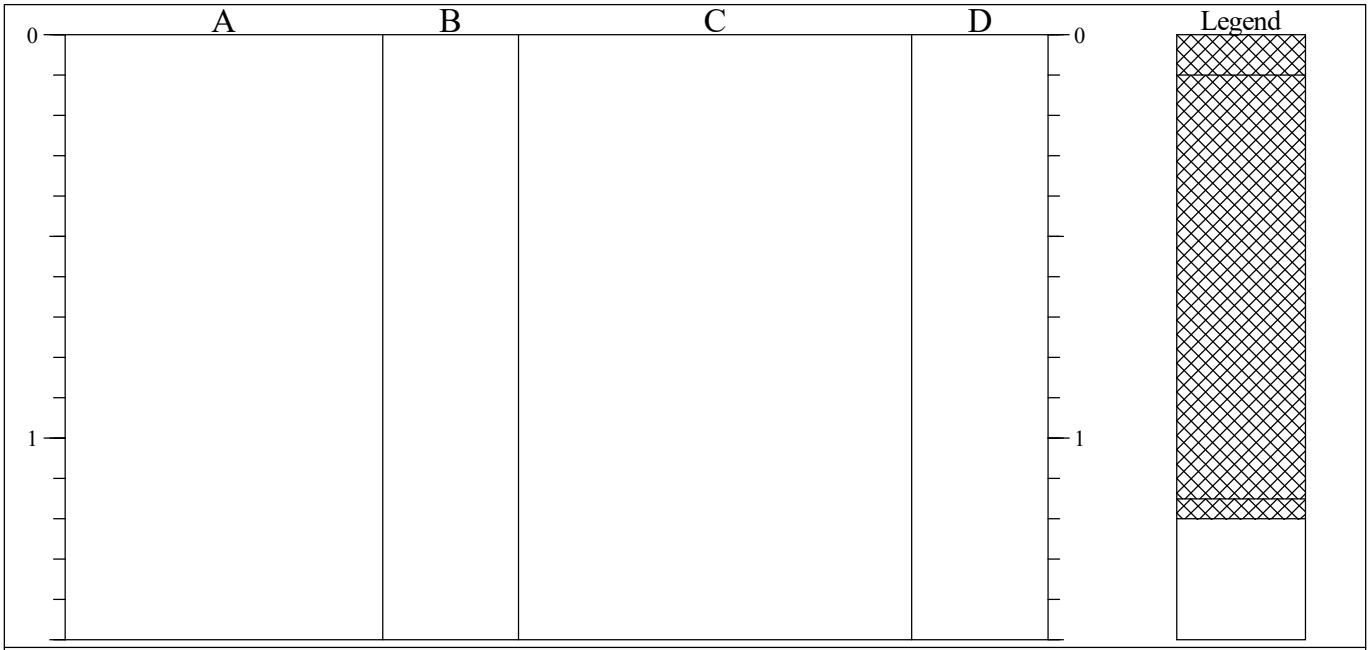
All dimensions in metres Scale 1:31.25	Client Bruntwood SciTech	Method/ Plant Used JCB	Logged By MT

AGS3 UK TP NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 26/7/23

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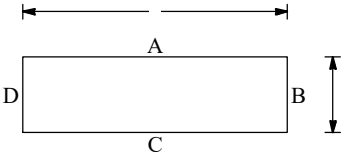
TRIAL PIT LOG

Project				TRIAL PIT No
Greenheys Business Centre, Manchester Science Park				**TP02**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	20-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.			
0.10-1.15		MADE GROUND: Compact grey ashy sandy cobbley gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology (subbase material). Rare cobbles of brick including full intact bricks.			
1.15-1.20		MADE GROUND: Uncompact brown fine to coarse ashy clayey sand with rare gravel. Gravel is fine to coarse, angular to subrounded of brick, sandstone, mudstone and other mixed lithology. Very rare gravel of glass.			
1.20		...trial pit ended at 1.2mbgl due to poor stability and partial collapse.			

Shoring/Support:
Stability: Poor





GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination.
No groundwater observed.

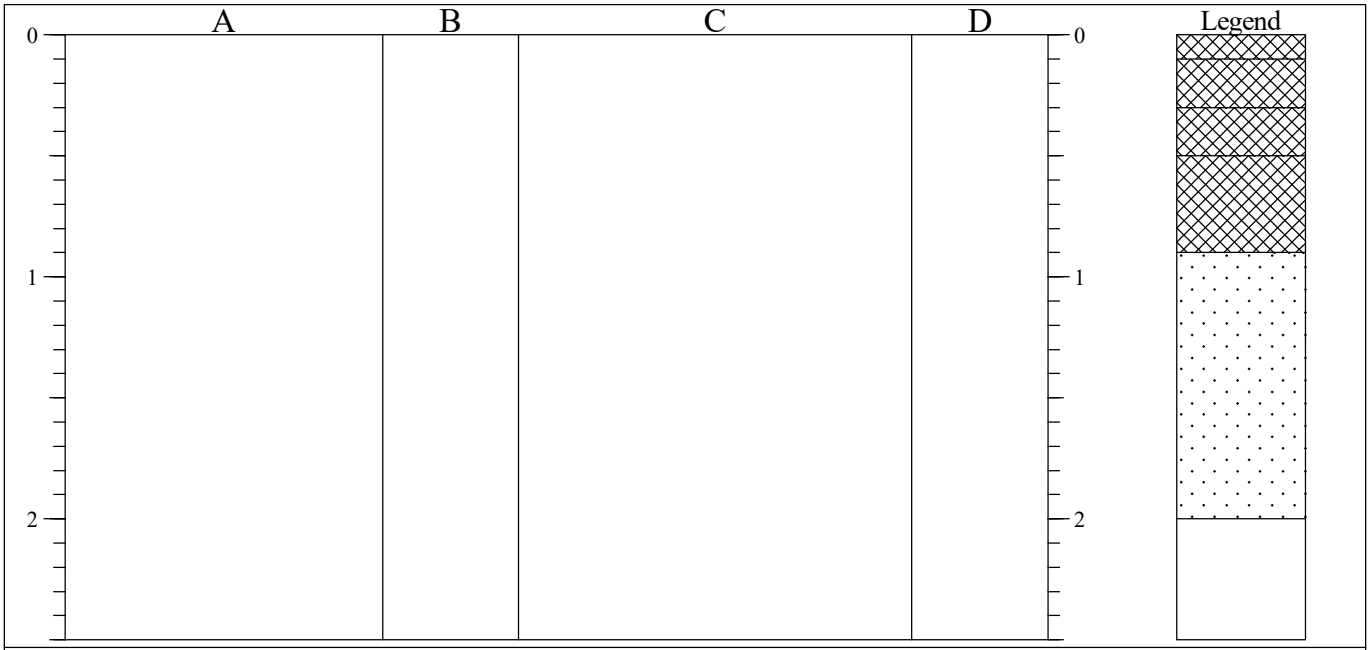
All dimensions in metres Scale 1:18.75	Client Bruntwood SciTech	Method/ Plant Used JCB	Logged By MT

AGS3 UK TP NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 26/7/23

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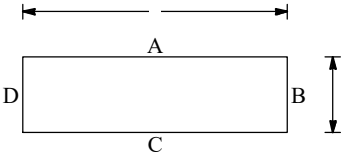
TRIAL PIT LOG

Project				TRIAL PIT No
Greenheys Business Centre, Manchester Science Park				**TP03**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	21-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.			
0.10-0.30		MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.			
0.30-0.50		MADE GROUND: Compact black/dark grey ashy sandy cobbley gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology. Rare cobbles of brick including full intact bricks.			
0.50-0.90		MADE GROUND: Uncompact brown fine to coarse ashy slightly clayey gravelly sand. Gravel is fine to coarse, angular to subrounded of brick, ash, concrete, clinker, limestone and other mixed lithology.			
0.90-2.00		Loose to medium dense light brown fine to coarse SAND.			
		1.70 ...becoming darker in colour with increased gravel content.			
2.00		...trial pit ended at 2.0mbgl.			

Shoring/Support:
Stability: Poor





GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination.
No groundwater observed.

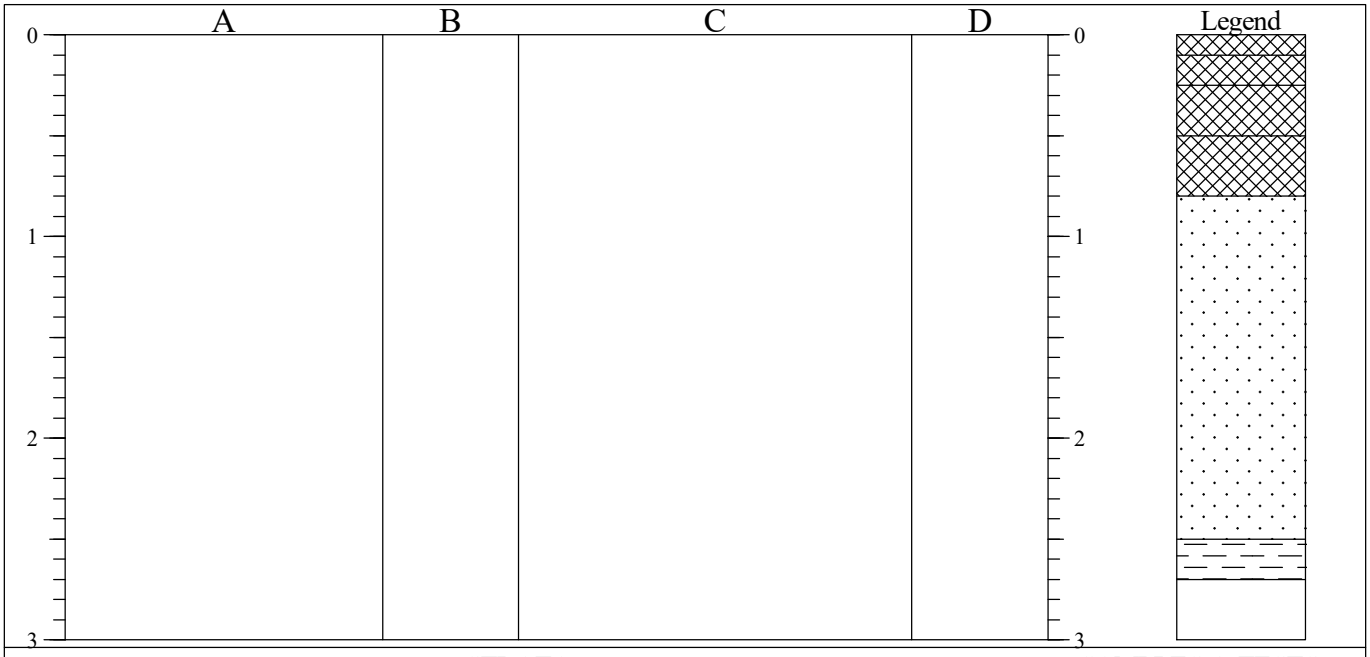
All dimensions in metres Scale 1:31.25	Client Bruntwood SciTech	Method/ Plant Used JCB	Logged By MT

AGS3 UK TP NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 26/7/23

NX Consulting

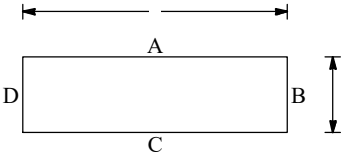
TRIAL PIT LOG

Project				TRIAL PIT No
Greenheys Business Centre, Manchester Science Park				TP04
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	20-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.			
0.10-0.25					
0.25-0.50		MADE GROUND: Compact black ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of tarmacadam, concrete, limestone and other mixed lithology.			
0.50-0.80		MADE GROUND: Uncompact black fine to coarse ashy gravelly sand. Gravel is fine to coarse, angular to subrounded of ash, brick, limestone, concrete, tarmacadam and other mixed lithology. Rare cobbles of brick including full intact bricks.			
0.80-2.50		MADE GROUND: Dark brown soft to firm slightly silty slightly sandy clay with rare gravel (reworked clay). Gravel is fine to coarse, angular to subrounded of brick, concrete, limestone sandstone, mudstone and other mixed lithology.			
		Loose to medium dense light brown fine to coarse SAND.			
		1.70 ...becoming darker in colour with increased gravel content.			
2.50-2.70		Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, coal and other mixed lithology.			
2.70		...trial pit ended at 2.7mbgl.			

Shoring/Support:
Stability: Poor





GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination. Groundwater observed at 2.3mbgl.

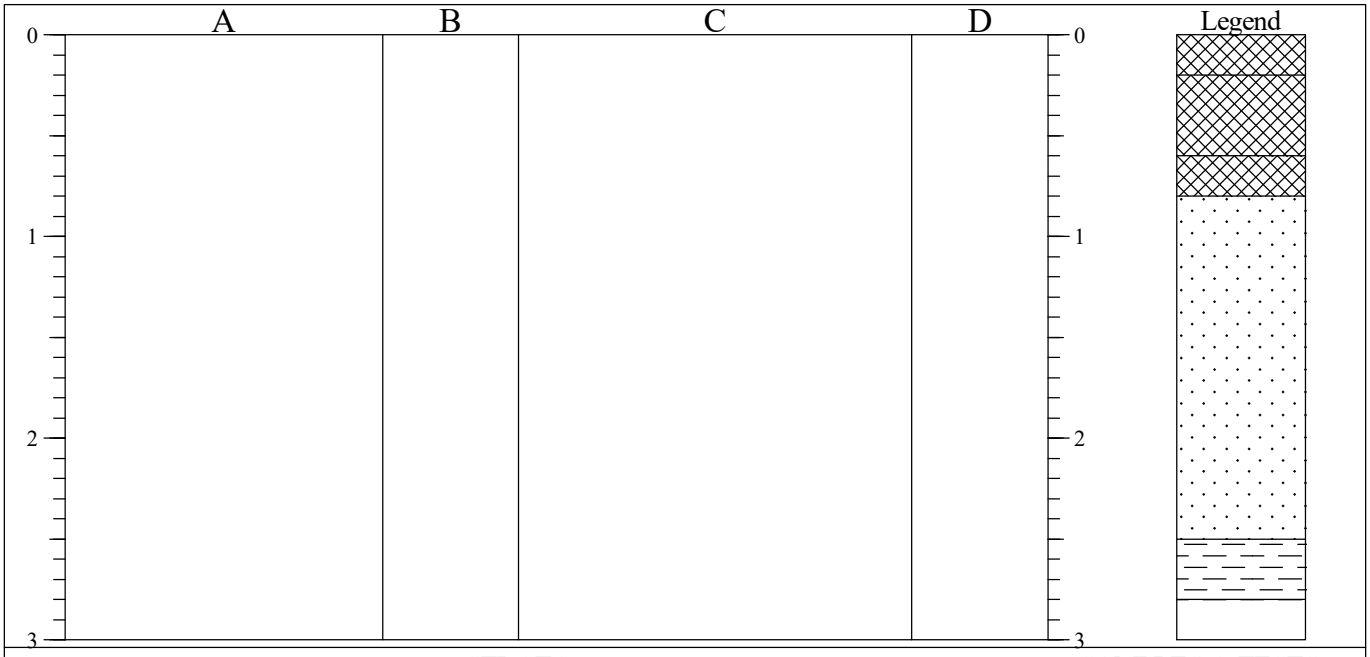
All dimensions in metres Scale 1:37.5	Client Bruntwood SciTech	Method/ Plant Used JCB	Logged By MT

AGS3 UK TP NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 26/7/23

NX Consulting

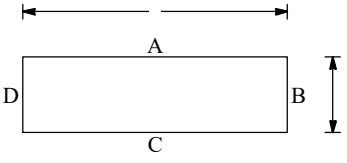
TRIAL PIT LOG

Project				TRIAL PIT No
Greenheys Business Centre, Manchester Science Park				**TP05**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	21-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.20		MADE GROUND: (Moss over) Compact light grey cement bound gravel (former concrete slab).			
0.20-0.60		MADE GROUND: Compact light grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of concrete, brick, limestone sandstone, ash, clinker and other mixed lithology.			
0.60-0.80		MADE GROUND: Dark brown soft to firm slightly silty slightly sandy clay with rare gravel (reworked clay). Gravel is fine to coarse, angular to subrounded of brick, concrete, limestone sandstone, mudstone and other mixed lithology.			
0.80-2.50		Loose to medium dense light brown fine to coarse SAND.	1.60	ES	
		1.90 - 2.50 ...becoming dark grey with moderate hydrocarbon odour.	1.90	PID	9.6ppm
			2.00	ES	
			2.30	PID	17.6ppm
2.50-2.80		Firm to stiff brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, coal and other mixed lithology.			
		2.60 ...iridescent appearance on the surface of the water within base of trial pit.	2.70	ES	
2.80		...trial pit ended at 2.8mbgl.	2.71	PID	0.7ppm

Shoring/Support:
Stability: Poor





GENERAL REMARKS

Olfactory and visual evidence of hydrocarbon or solvent contamination between 1.9mbgl to 2.5mbgl.
Groundwater influx observed at 2.2mbgl.

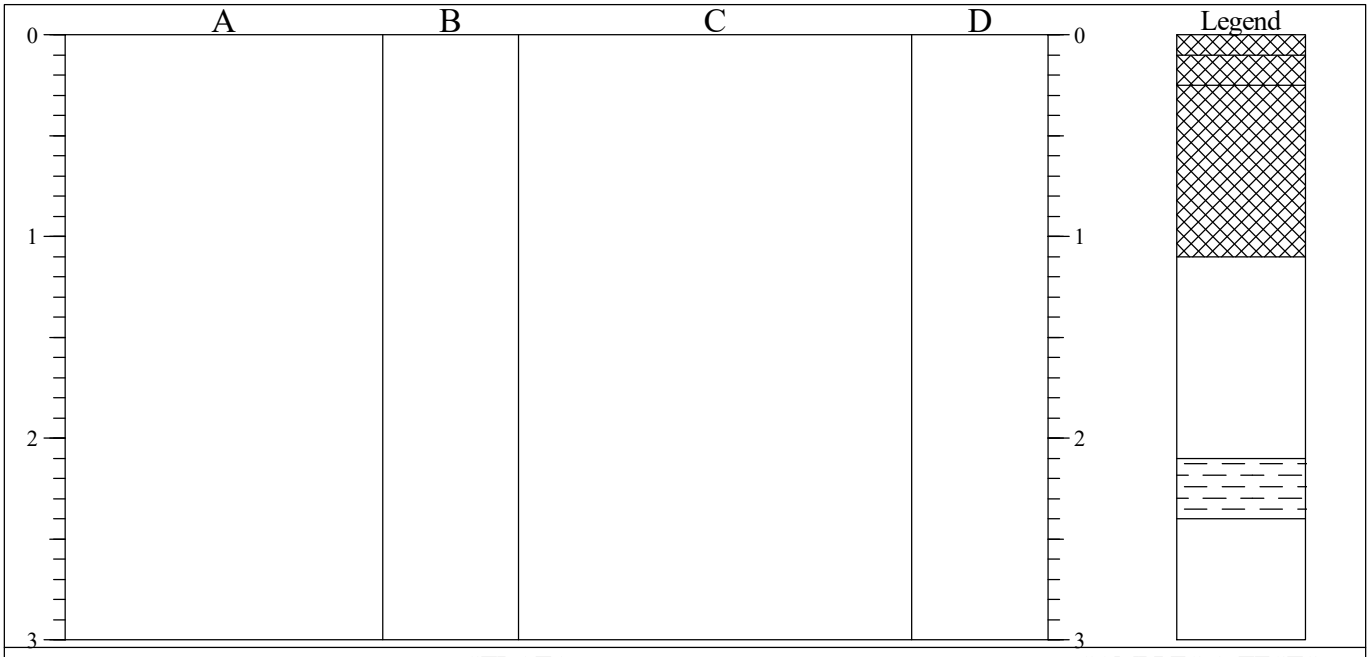
All dimensions in metres Scale 1:37.5	Client Bruntwood SciTech	Method/ Plant Used JCB	Logged By MT

AGS3 UK TP NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 26/7/23

NX Consulting

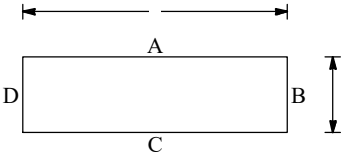
TRIAL PIT LOG

Project				TRIAL PIT No
Greenheys Business Centre, Manchester Science Park				**TP06**
Job No	Date	Ground Level (m)	Co-Ordinates ()	
NX534	20-06-23			
Contractor				Sheet
Taylor Drilling Services				1 of 1



STRATA			SAMPLES & TESTS		
Depth	No	DESCRIPTION	Depth	No	Remarks/Tests
0.00-0.10		MADE GROUND: Compact black ashy fine to coarse slightly sandy angular gravel of tarmacadam.			
0.10-0.25					
0.25-1.10		MADE GROUND: Compact black/dark grey ashy sandy gravel. Gravel is fine to coarse, angular to subrounded of limestone and other mixed lithology.			
		MADE GROUND: Uncompact brown/grey ashy gravelly sand. Gravel is fine to coarse, angular to subrounded of brick, ash, clinker, limestone, concrete, sandstone and other mixed lithology. Frequent cobbles of bricks including full intact bricks. 0.25 - 0.70 ...relic insitu brick wall present in northern face of pit.			
1.10-2.10		Loose to medium dense light brown fine to coarse SAND.			
			1.50	B	
		1.75 ...becoming darker in colour with increased gravel content.			
2.10-2.40		Firm brown CLAY with rare gravel. Gravel is fine to coarse, angular to subrounded of mudstone, sandstone and other mixed lithology.			
2.40		...trial pit ended at 2.4mbgl.			

Shoring/Support:
Stability: Poor





GENERAL REMARKS

No visual or olfactory evidence of hydrocarbon or solvent contamination.
No groundwater observed.

All dimensions in metres Scale 1:37.5	Client Bruntwood SciTech	Method/ Plant Used JCB	Logged By MT

AGS3 UK TP NX534 GREENHEYS MSP, MANCHESTER.GPJ AGS 3_1.GDT 26/7/23

Appendix D - Geotechnical Laboratory Test Results

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

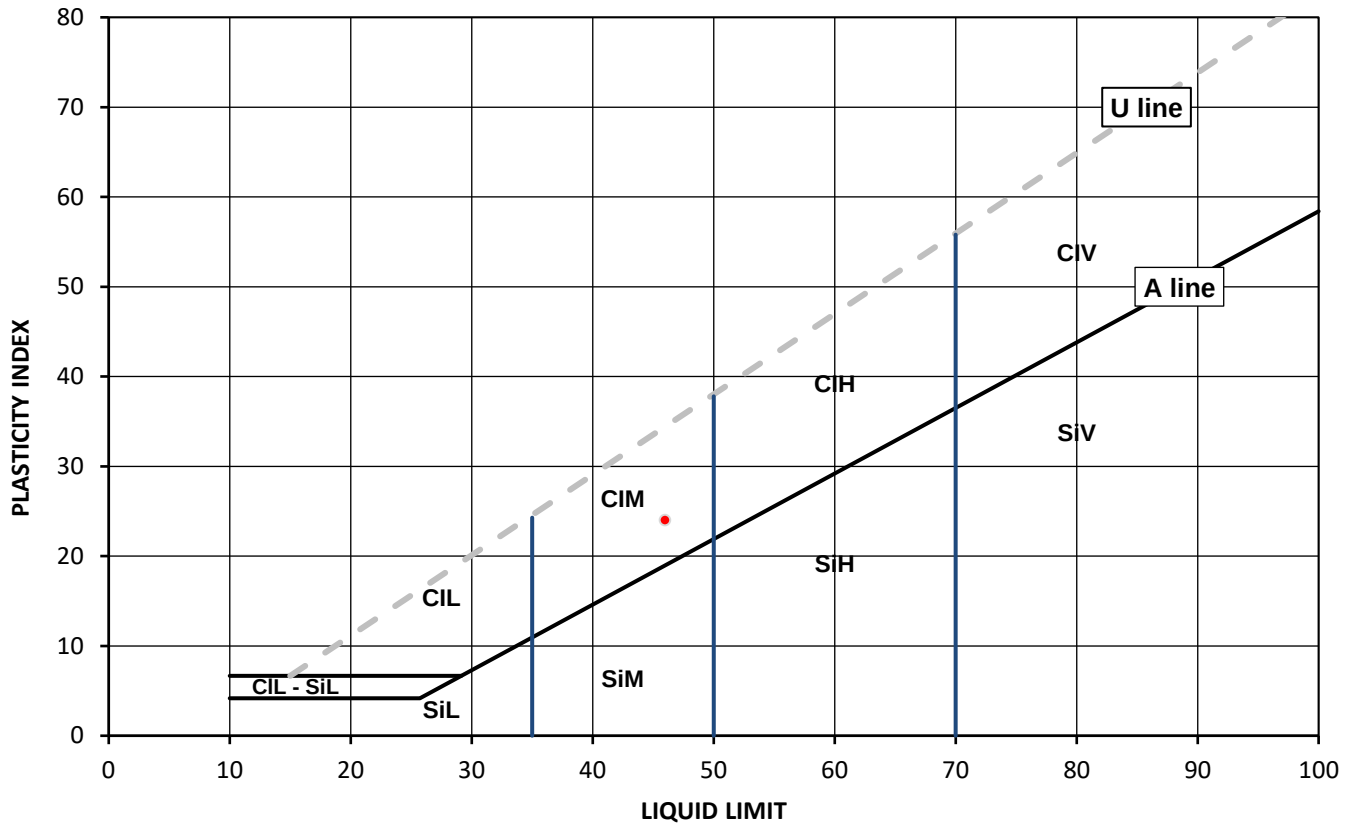
Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655885	Depth Top [m]:	3.00
Hole No.:	WS01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly slightly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
22	46	22	24	97



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 232.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

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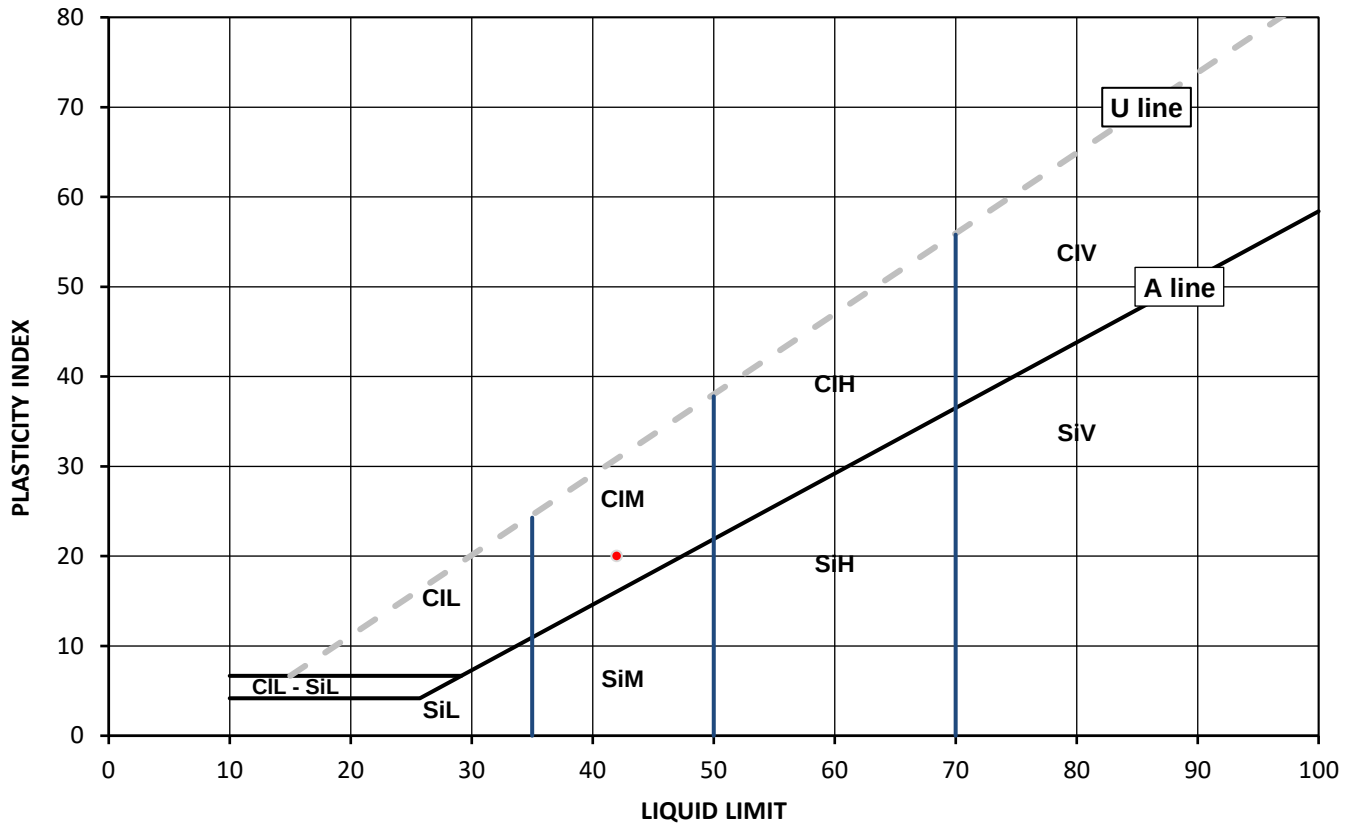
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Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655886	Depth Top [m]:	3.00
Hole No.:	WS02	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown sandy CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
20	42	22	20	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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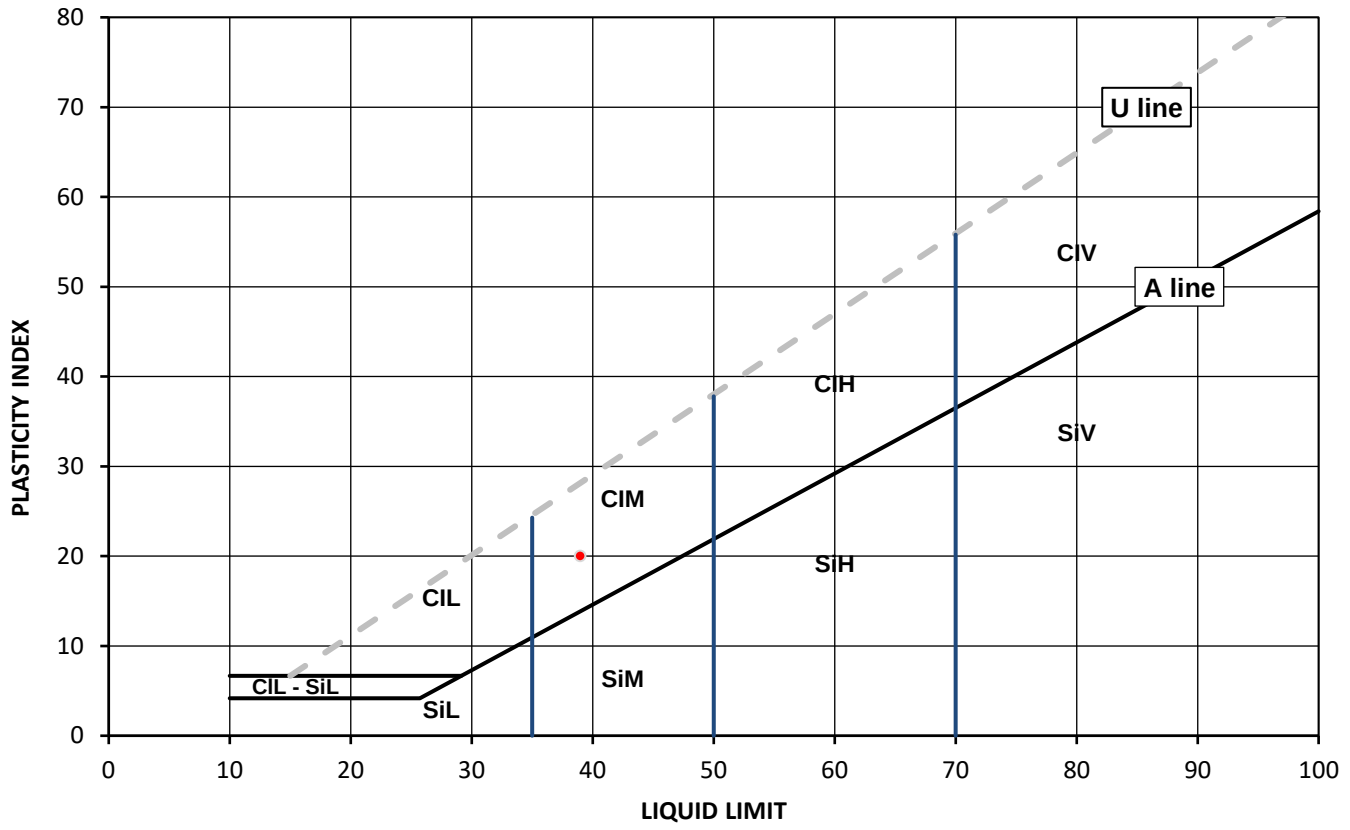
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		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655887	Depth Top [m]:	3.00
Hole No.:	WS03	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
18	39	19	20	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

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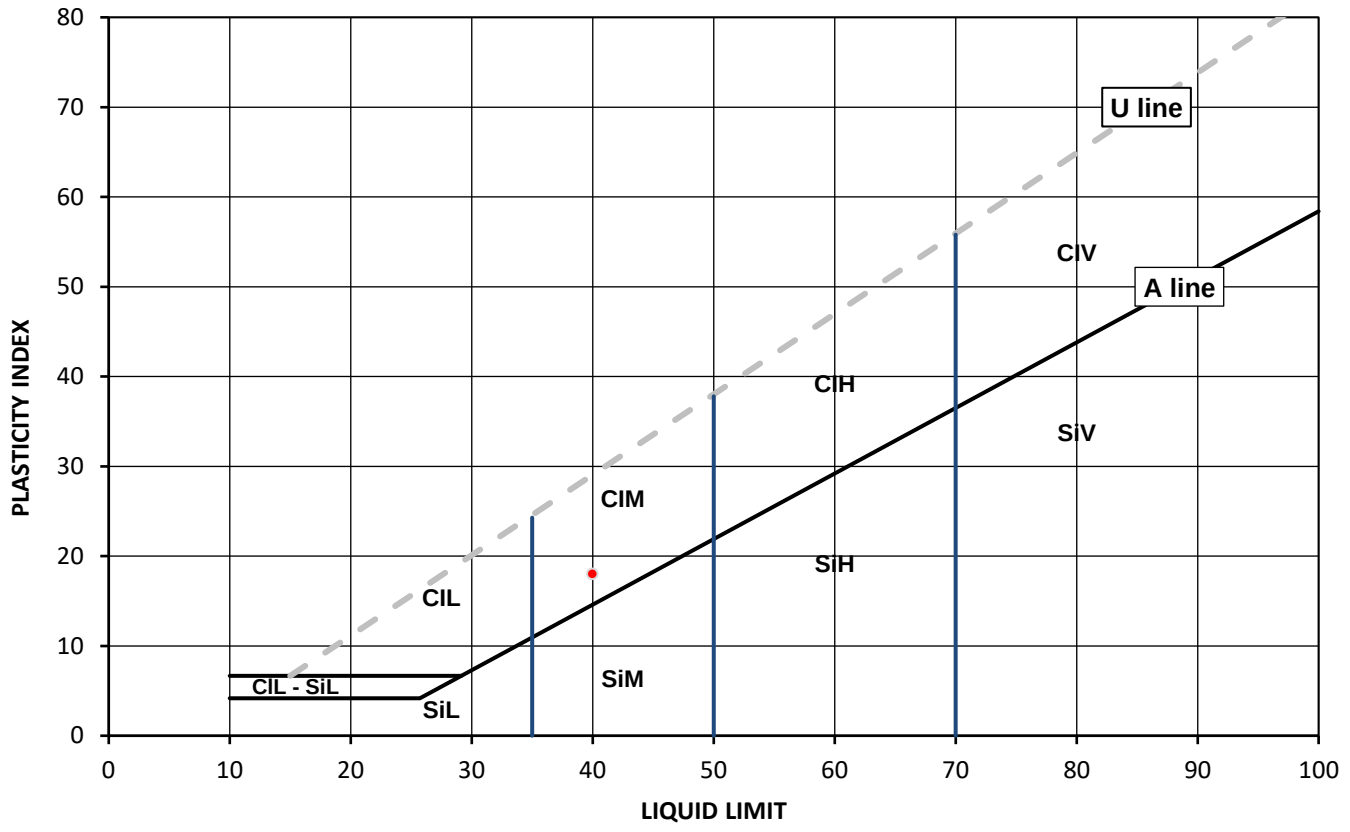
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		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655888	Depth Top [m]:	2.00
Hole No.:	WS04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
24	40	22	18	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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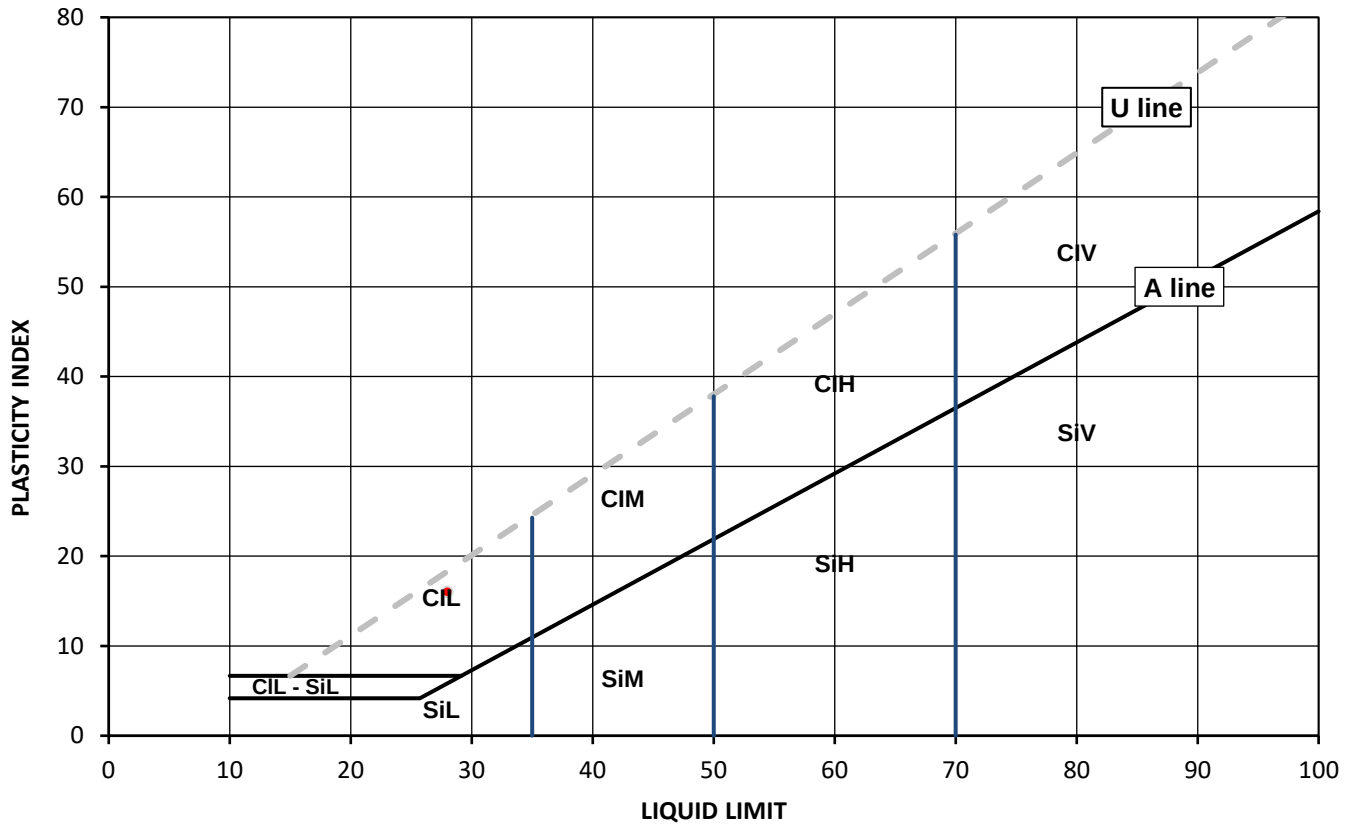
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		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655889	Depth Top [m]:	3.00
Hole No.:	WS05B	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly very sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
15	28	12	16	91



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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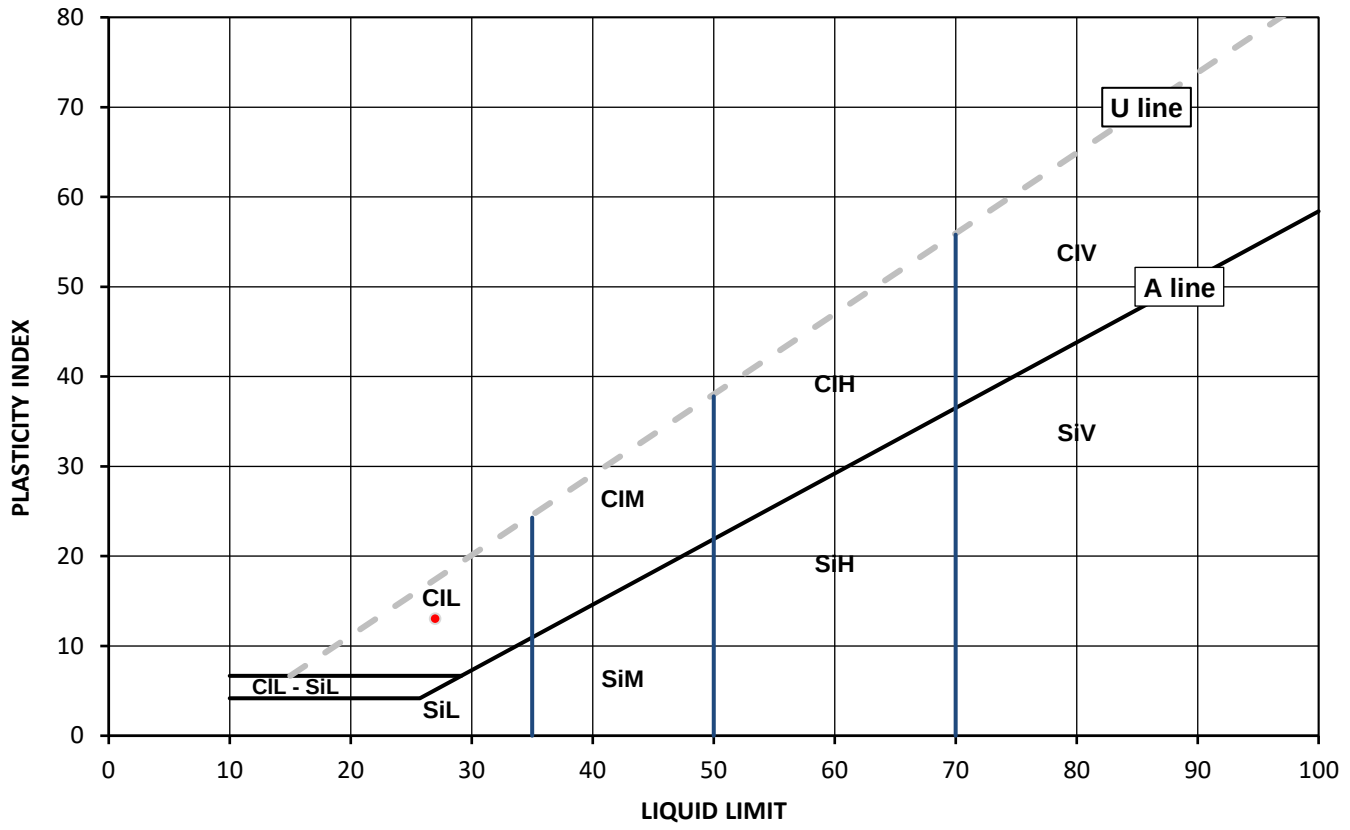
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		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655890	Depth Top [m]:	5.00
Hole No.:	WS11	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey slightly gravelly very sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
13	27	14	13	98



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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Anna Dudzinska
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for and on behalf of i2 Analytical Ltd

 Date Reported: 12/05/2023 **GF 232.12**

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i2 Analytical Ltd
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Brackmills Industrial Estate
Northampton NN4 7EB

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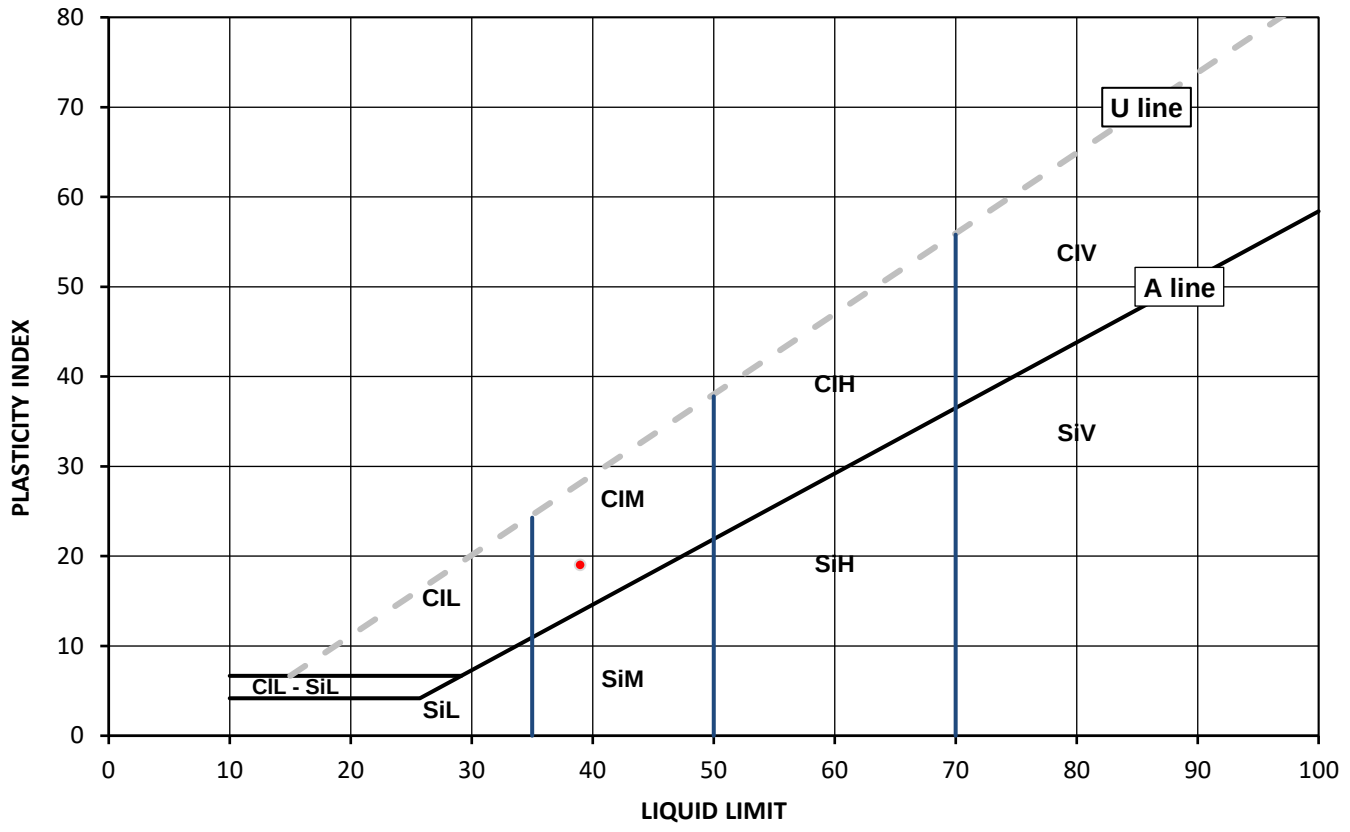
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		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655891	Depth Top [m]:	3.00
Hole No.:	WS14	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	39	20	19	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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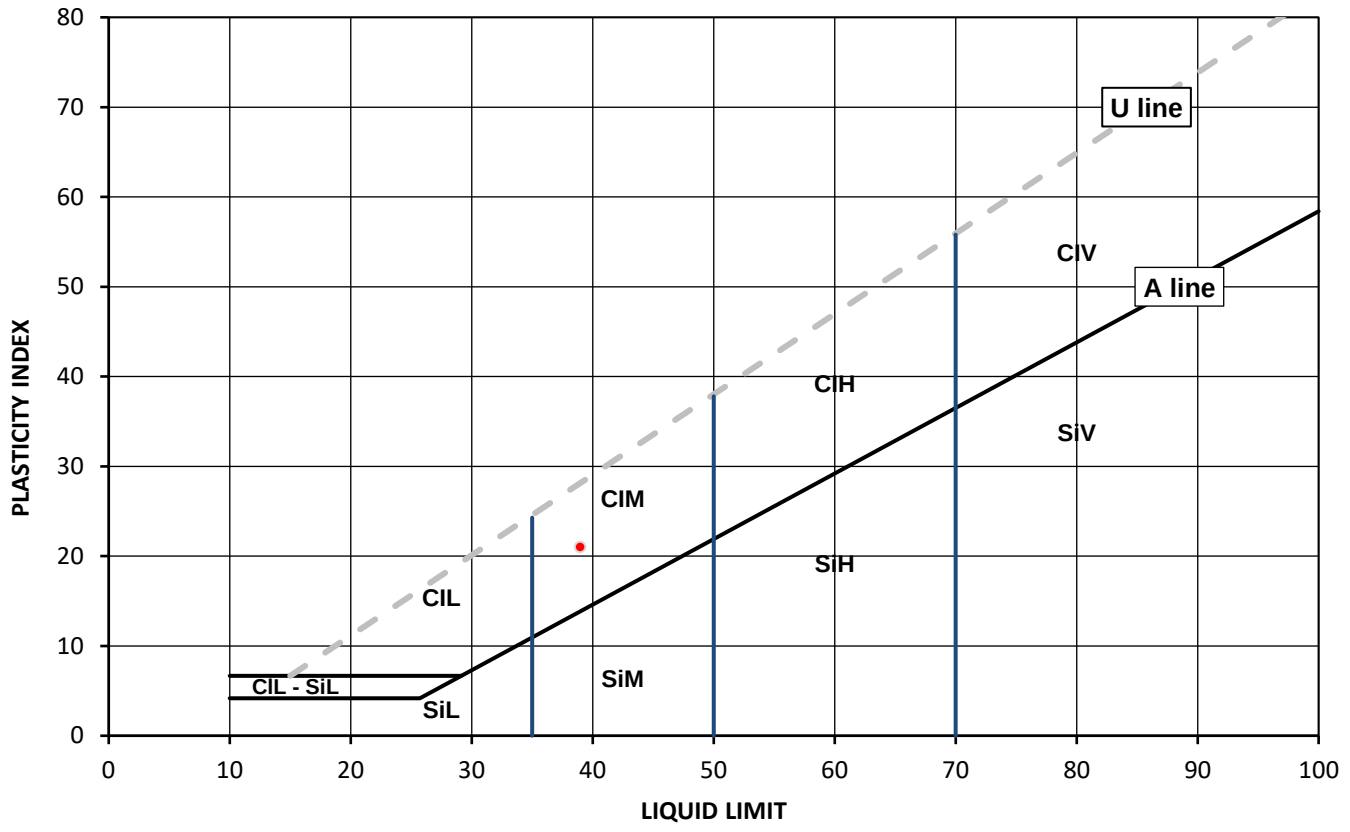
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		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	04/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655892	Depth Top [m]:	2.70
Hole No.:	WS16	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
20	39	18	21	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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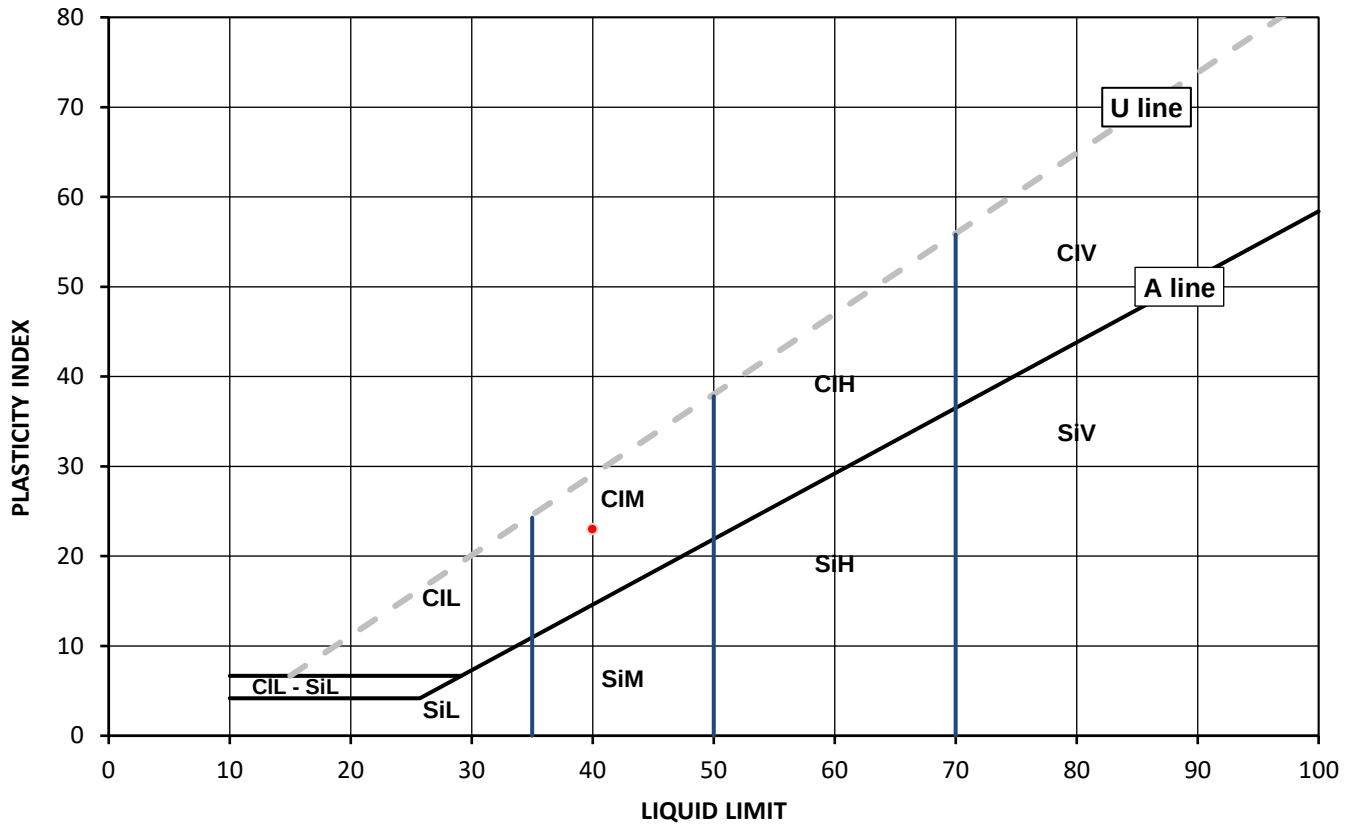
Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	03/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655893	Depth Top [m]:	2.90
Hole No.:	WS18	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
16	40	17	23	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 232.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

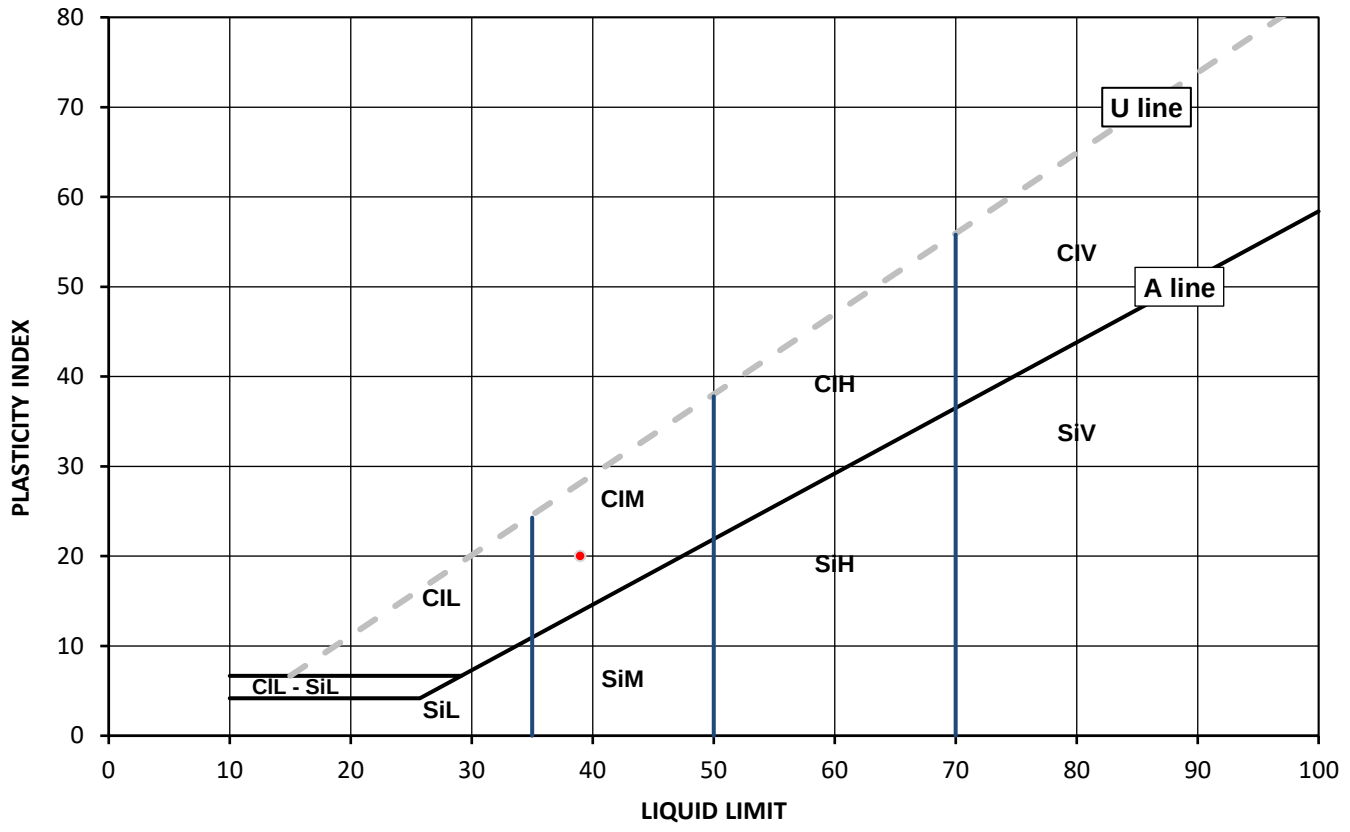
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655901	Depth Top [m]:	2.50
Hole No.:	WS17	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy CLAY		

Sample Preparation: Tested after >425um removed by hand

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
20	39	19	20	93



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

 Date Reported: 12/05/2023 **GF 232.12**

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

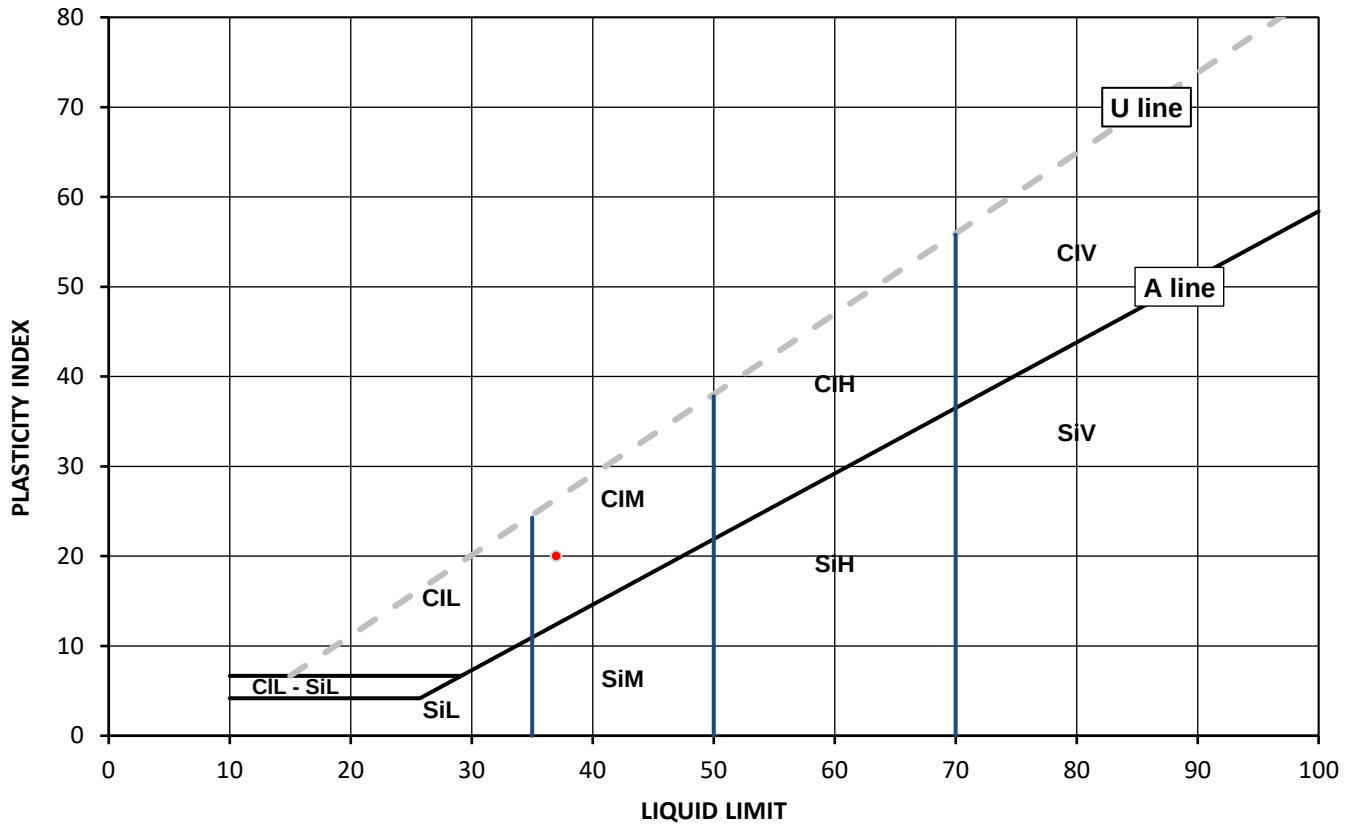
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655904	Depth Top [m]:	2.60
Hole No.:	RBH01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy CLAY		

Sample Preparation: Tested after >425um removed by hand

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
20	37	17	20	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

 Date Reported: 12/05/2023 **GF 232.12**

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

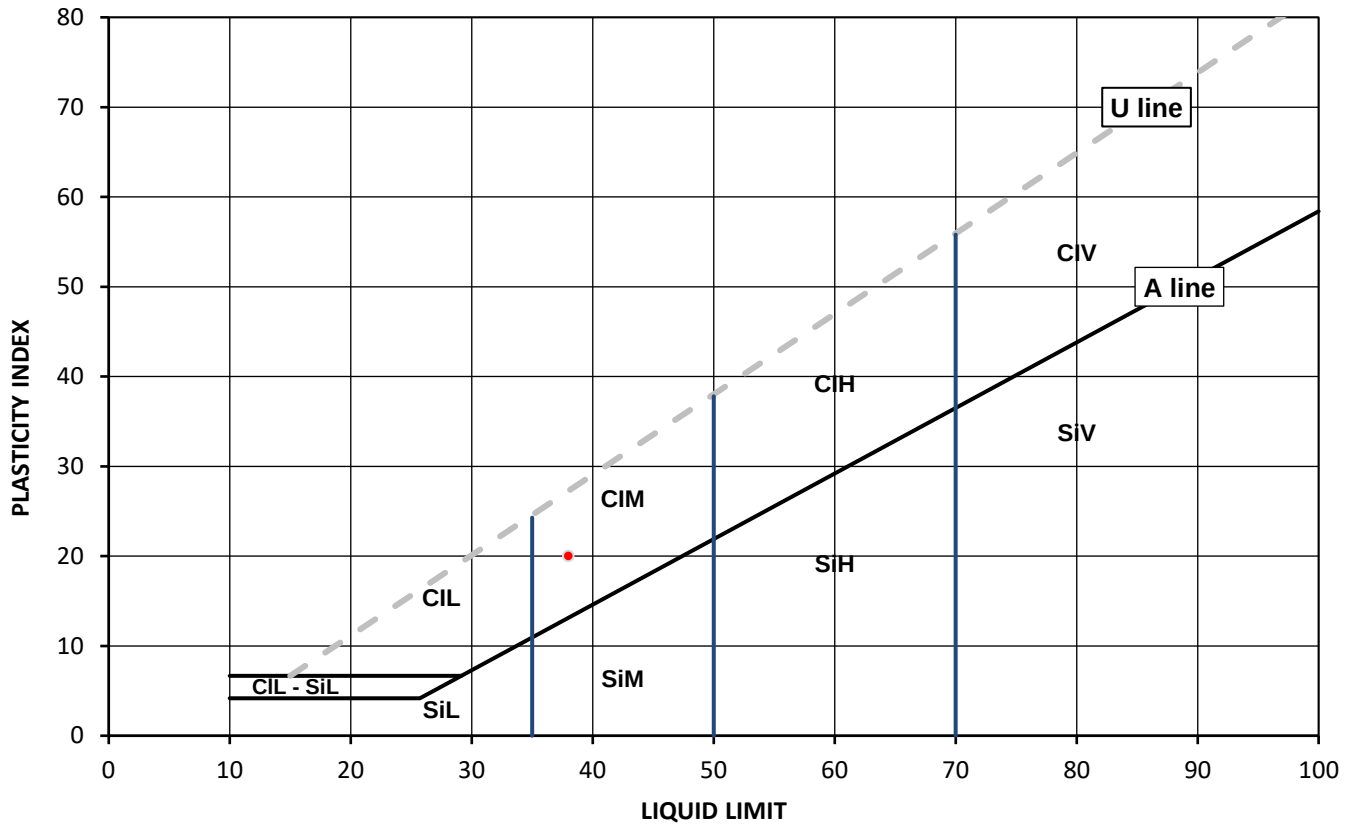
Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	04/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655909	Depth Top [m]:	3.00
Hole No.:	WS04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown sandy CLAY		
Sample Preparation:	Tested in natural condition		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
16	38	18	20	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 232.12

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

Water Content by BS 1377-2:1990: Clause 3.2Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: NX534

Client Reference: Not Given
Job Number: 23-29760-1
Date Sampled: 20/04/2023
Date Received: 20/04/2023
Date Tested: 03/05 - 04/05/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W]	Water Content BS EN ISO 17892-1 [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2655885	WS01	Not Given	3.00	Not Given	D	Brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	22		97	46	22	24						
2655886	WS02	Not Given	3.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	20		100	42	22	20						
2655887	WS03	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	18		99	39	19	20						
2655888	WS04	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	24		98	40	22	18						
2655889	WS05B	Not Given	3.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	15		91	28	12	16						
2655890	WS11	Not Given	5.00	Not Given	D	Brownish grey slightly gravelly very sandy CLAY	Atterberg 1 Point	13		98	27	14	13						
2655891	WS14	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		99	39	20	19						
2655892	WS16	Not Given	2.70	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	20		99	39	18	21						
2655893	WS18	Not Given	2.90	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	16		99	40	17	23						
2655898	WS11	Not Given	0.40	Not Given	B	Dark brown sandy CLAY		22											

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

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Date Reported: 12/05/2023

GF 234.15

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

Water Content by BS 1377-2:1990: Clause 3.2Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: NX534

Client Reference: Not Given
Job Number: 23-29760-1
Date Sampled: 20/04/2023
Date Received: 20/04/2023
Date Tested: 04/05 - 08/05/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W]	Water Content BS EN ISO 17892-1 [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2655901	WS17	Not Given	2.50	Not Given	B	Brown sandy CLAY	Atterberg 1 Point	20		93	39	19	20						
2655904	RBH01	Not Given	2.60	Not Given	B	Brown sandy CLAY	Atterberg 1 Point	20		99	37	17	20						
2655909	WS04	Not Given	3.00	Not Given	D	Brown sandy CLAY	Atterberg 1 Point	16		100	38	18	20						

Note: # Non accredited; NP - Non plastic

Comments:

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Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 234.15

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: NX534

Client Reference: Not Given
Job Number: 23-29760-1
Date Sampled: 20/04/2023
Date Received: 20/04/2023
Date Tested: 03/05 - 08/05/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type			%				
2655885	WS01	Not Given	3.00	Not Given	D	Brown slightly gravelly slightly sandy CLAY		22	Sample was quartered, oven dried at 106.1 °C			
2655886	WS02	Not Given	3.00	Not Given	D	Brown sandy CLAY		20	Sample was quartered, oven dried at 106.1 °C			
2655887	WS03	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY		18	Sample was quartered, oven dried at 106.1 °C			
2655888	WS04	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY		24	Sample was quartered, oven dried at 106.1 °C			
2655889	WS05B	Not Given	3.00	Not Given	D	Brown slightly gravelly very sandy CLAY		15	Sample was quartered, oven dried at 106.1 °C			
2655890	WS11	Not Given	5.00	Not Given	D	Brownish grey slightly gravelly very sandy CLAY		13	Sample was quartered, oven dried at 106.1 °C			
2655891	WS14	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY		19	Sample was quartered, oven dried at 106.1 °C			
2655892	WS16	Not Given	2.70	Not Given	D	Brown slightly gravelly sandy CLAY		20	Sample was quartered, oven dried at 108 °C			
2655893	WS18	Not Given	2.90	Not Given	D	Brown slightly gravelly sandy CLAY		16	Sample was quartered, oven dried at 106.1 °C			
2655898	WS11	Not Given	0.40	Not Given	B	Dark brown sandy CLAY		22	Sample was quartered, oven dried at 106.1 °C			

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

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Date Reported: 12/05/2023

GF 099.16

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: NX534

Client Reference: Not Given
Job Number: 23-29760-1
Date Sampled: 20/04/2023
Date Received: 20/04/2023
Date Tested: 04/05 - 08/05/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type			%				
2655901	WS17	Not Given	2.50	Not Given	B	Brown sandy CLAY		20	Sample was quartered, oven dried at 106 °C			
2655904	RBH01	Not Given	2.60	Not Given	B	Brown sandy CLAY		20	Sample was quartered, oven dried at 106 °C			
2655909	WS04	Not Given	3.00	Not Given	D	Brown sandy CLAY		16	Sample was quartered, oven dried at 108 °C			

Comments:

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

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Date Reported: 12/05/2023

GF 099.16

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

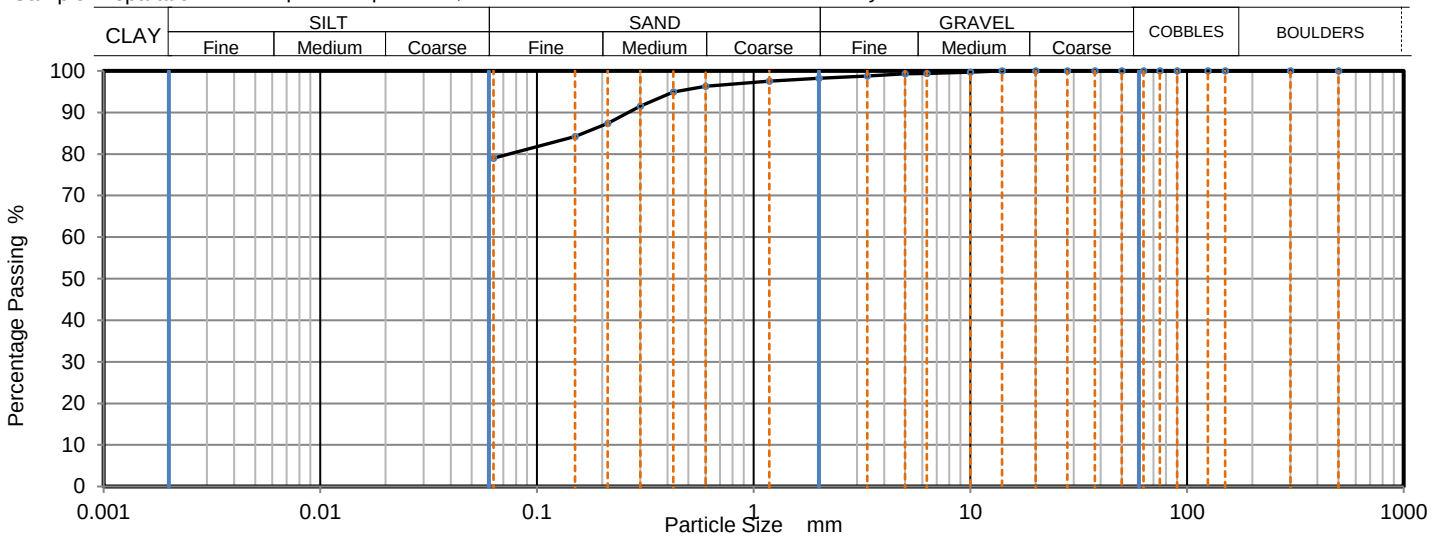
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655894	Depth Top [m]:	2.00
Hole No.:	RBH01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	99		
2	98		
1.18	98		
0.6	96		
0.425	95		
0.3	92		
0.212	87		
0.15	84		
0.063	79		

Sample Proportions	% dry mass
Very coarse	0
Gravel	2
Sand	19
Fines <0.063mm	79

Grading Analysis		
D100	mm	14
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

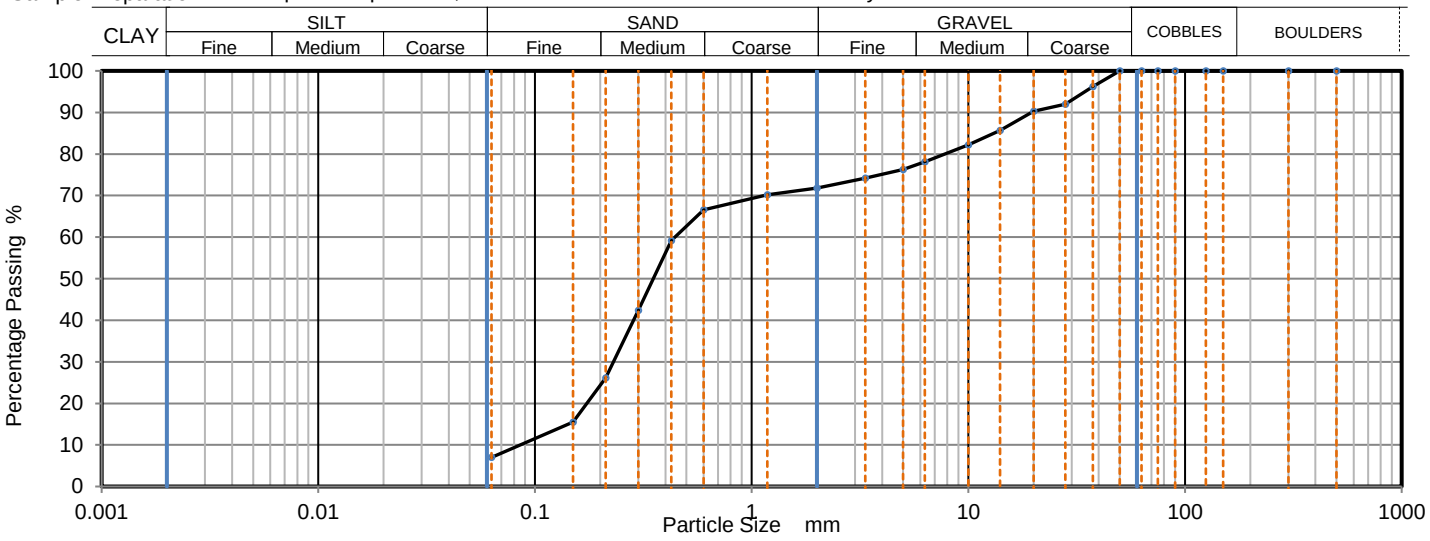
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655895	Depth Top [m]:	1.00
Hole No.:	WS04	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey gravelly SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	96		
28	92		
20	90		
14	86		
10	82		
6.3	78		
5	76		
3.35	74		
2	72		
1.18	70		
0.6	67		
0.425	59		
0.3	42		
0.212	26		
0.15	16		
0.063	8		

Sample Proportions	% dry mass
Very coarse	0
Gravel	28
Sand	64
Fines <0.063mm	8

Grading Analysis		
D100	mm	50
D60	mm	0.441
D30	mm	0.23
D10	mm	0.0809
Uniformity Coefficient		5.5
Curvature Coefficient		1.5

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

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Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

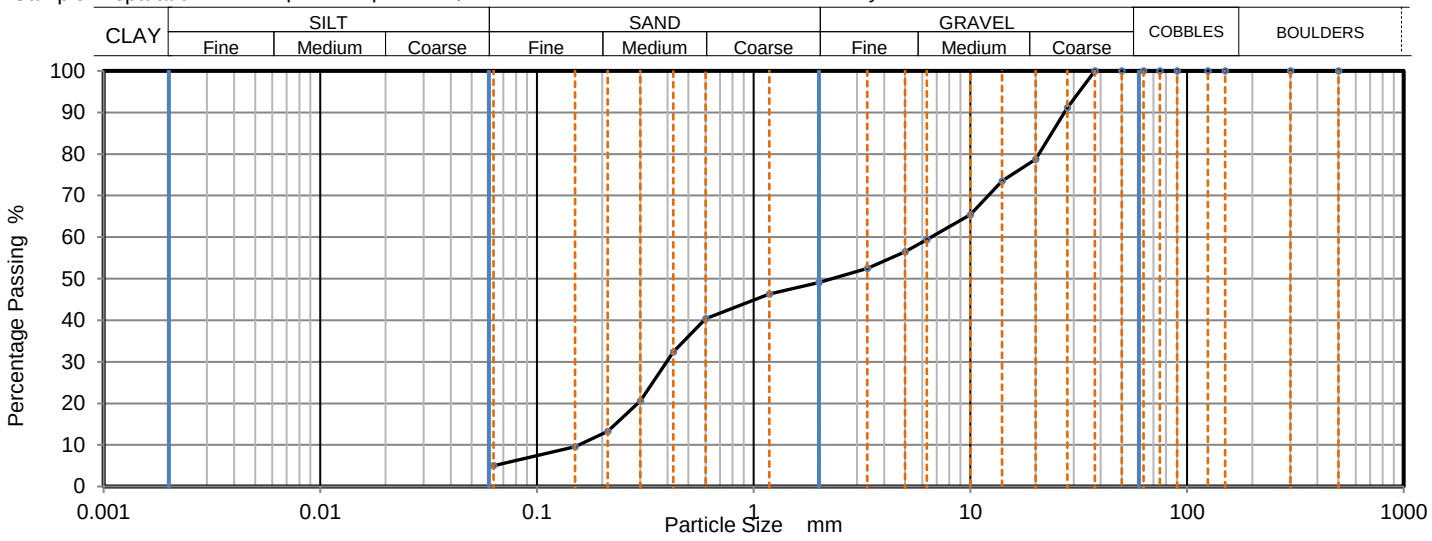
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655896	Depth Top [m]:	2.10
Hole No.:	WS05B	Depth Base [m]:	2.50
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey sandy GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	91		
20	79		
14	74		
10	65		
6.3	59		
5	57		
3.35	53		
2	49		
1.18	46		
0.6	40		
0.425	32		
0.3	21		
0.212	13		
0.15	10		
0.063	6		

Sample Proportions	% dry mass
Very coarse	0
Gravel	51
Sand	43
Fines <0.063mm	6

Grading Analysis		
D100	mm	37.5
D60	mm	6.59
D30	mm	0.396
D10	mm	0.155
Uniformity Coefficient		42
Curvature Coefficient		0.15

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

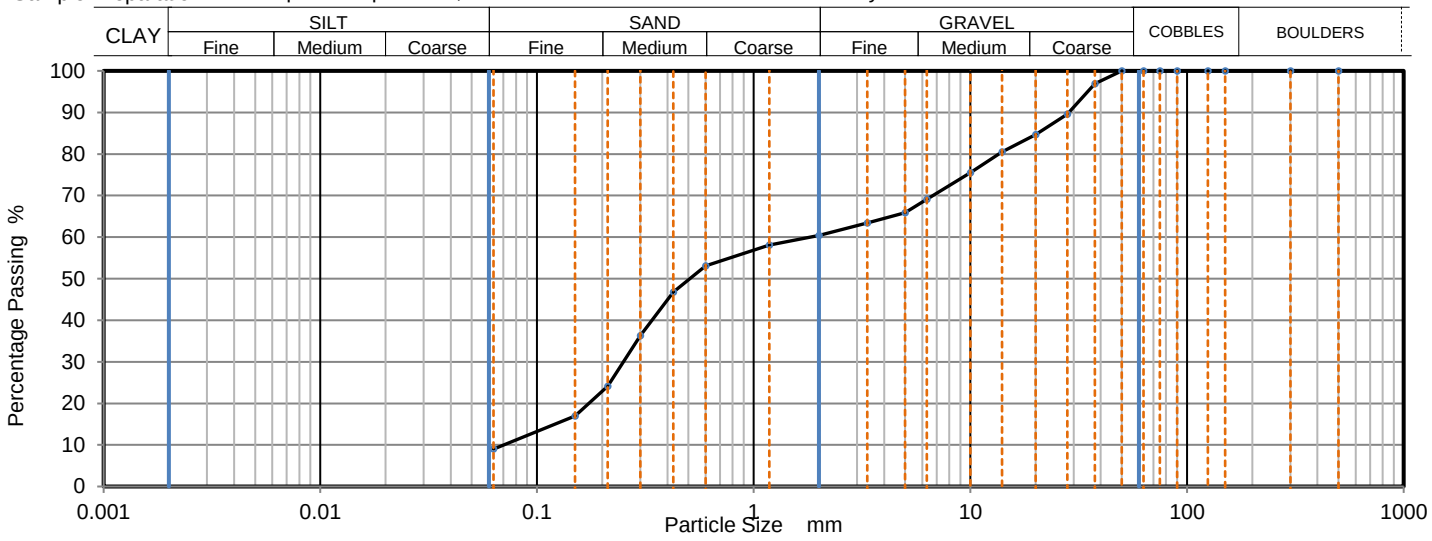
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655897	Depth Top [m]:	1.00
Hole No.:	WS10	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown gravelly SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	97		
28	90		
20	85		
14	81		
10	76		
6.3	69		
5	66		
3.35	63		
2	60		
1.18	58		
0.6	53		
0.425	47		
0.3	36		
0.212	24		
0.15	17		
0.063	10		

Sample Proportions	% dry mass
Very coarse	0
Gravel	40
Sand	51
Fines <0.063mm	10

Grading Analysis		
D100	mm	50
D60	mm	1.83
D30	mm	0.251
D10	mm	0.0642
Uniformity Coefficient		29
Curvature Coefficient		0.53

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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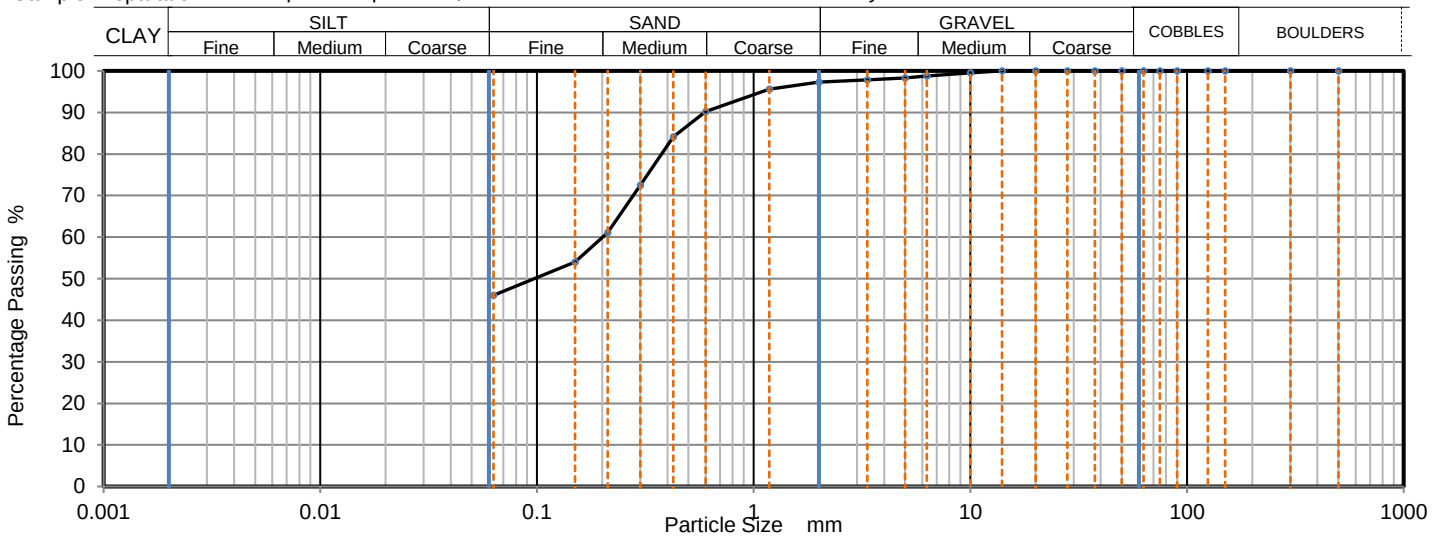
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655898	Depth Top [m]:	0.40
Hole No.:	WS11	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Dark brown sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	98		
3.35	98		
2	97		
1.18	96		
0.6	90		
0.425	84		
0.3	73		
0.212	61		
0.15	54		
0.063	47		

Sample Proportions	% dry mass
Very coarse	0
Gravel	3
Sand	51
Fines <0.063mm	47

Grading Analysis		
D100	mm	14
D60	mm	0.201
D30	mm	
D10	mm	
Uniformity Coefficient		> 3.2
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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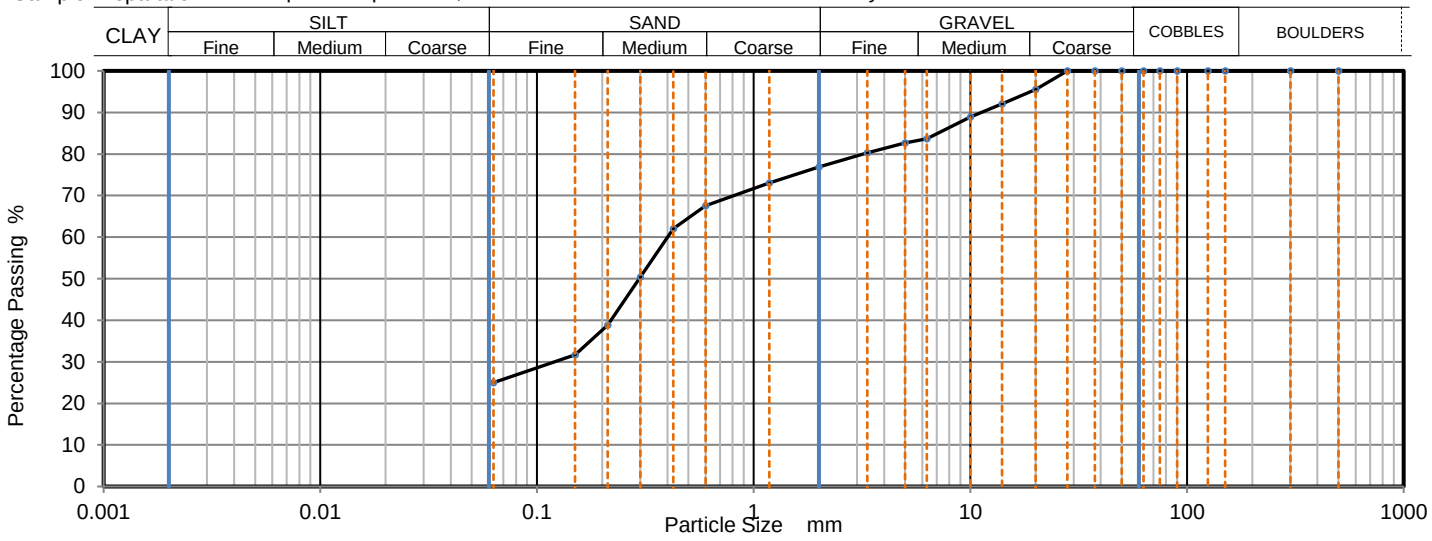
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655899	Depth Top [m]:	0.30
Hole No.:	WS14	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Dark brown gravelly clayey SAND with fragments of brick		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	96		
14	92		
10	89		
6.3	84		
5	83		
3.35	80		
2	77		
1.18	73		
0.6	68		
0.425	62		
0.3	50		
0.212	39		
0.15	32		
0.063	25		

Sample Proportions	% dry mass
Very coarse	0
Gravel	23
Sand	52
Fines <0.063mm	25

Grading Analysis		
D100	mm	28
D60	mm	0.4
D30	mm	0.119
D10	mm	
Uniformity Coefficient		> 6.4
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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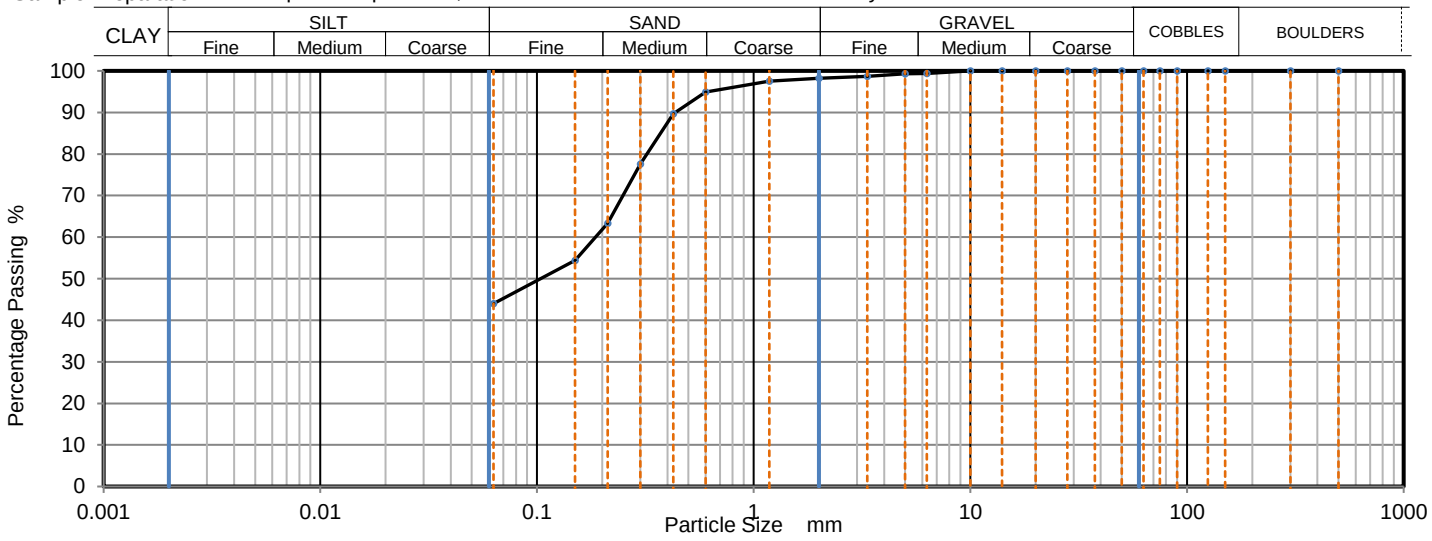
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655900	Depth Top [m]:	0.75
Hole No.:	WS15	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Dark brown sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	99		
2	98		
1.18	98		
0.6	95		
0.425	90		
0.3	78		
0.212	63		
0.15	54		
0.063	45		

Sample Proportions	% dry mass
Very coarse	0
Gravel	2
Sand	53
Fines <0.063mm	45

Grading Analysis		
D100	mm	10
D60	mm	0.186
D30	mm	
D10	mm	
Uniformity Coefficient		> 3
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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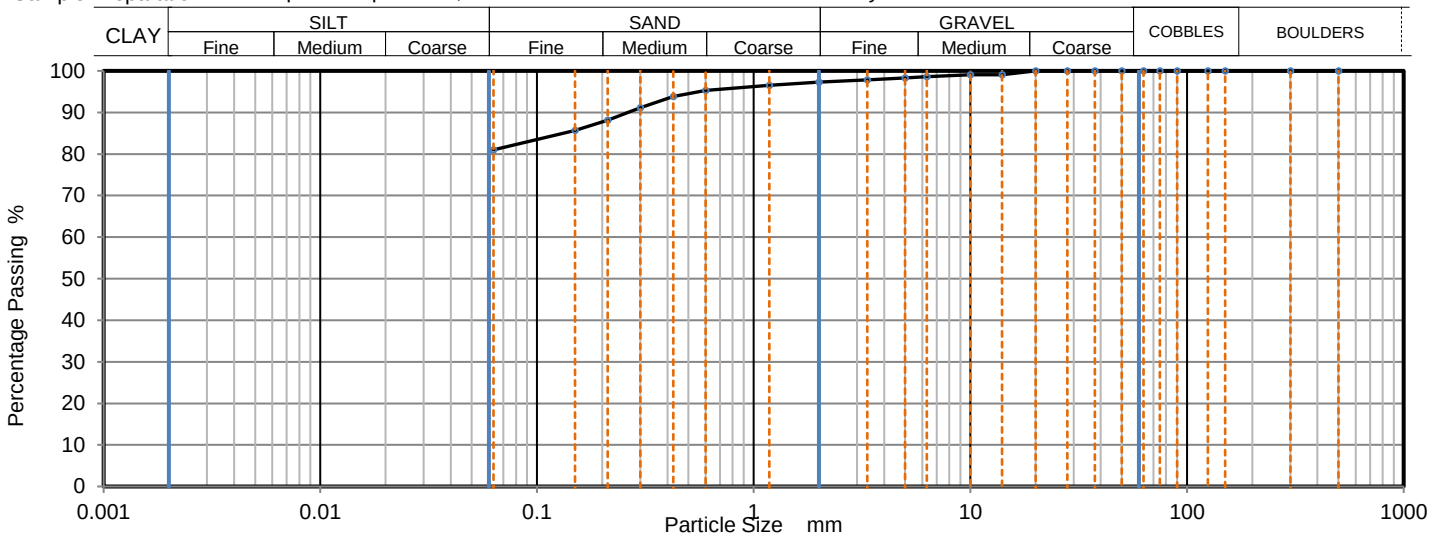
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655901	Depth Top [m]:	2.50
Hole No.:	WS17	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	99		
10	99		
6.3	99		
5	98		
3.35	98		
2	97		
1.18	97		
0.6	95		
0.425	94		
0.3	91		
0.212	88		
0.15	86		
0.063	82		

Sample Proportions	% dry mass
Very coarse	0
Gravel	3
Sand	16
Fines <0.063mm	82

Grading Analysis		
D100	mm	20
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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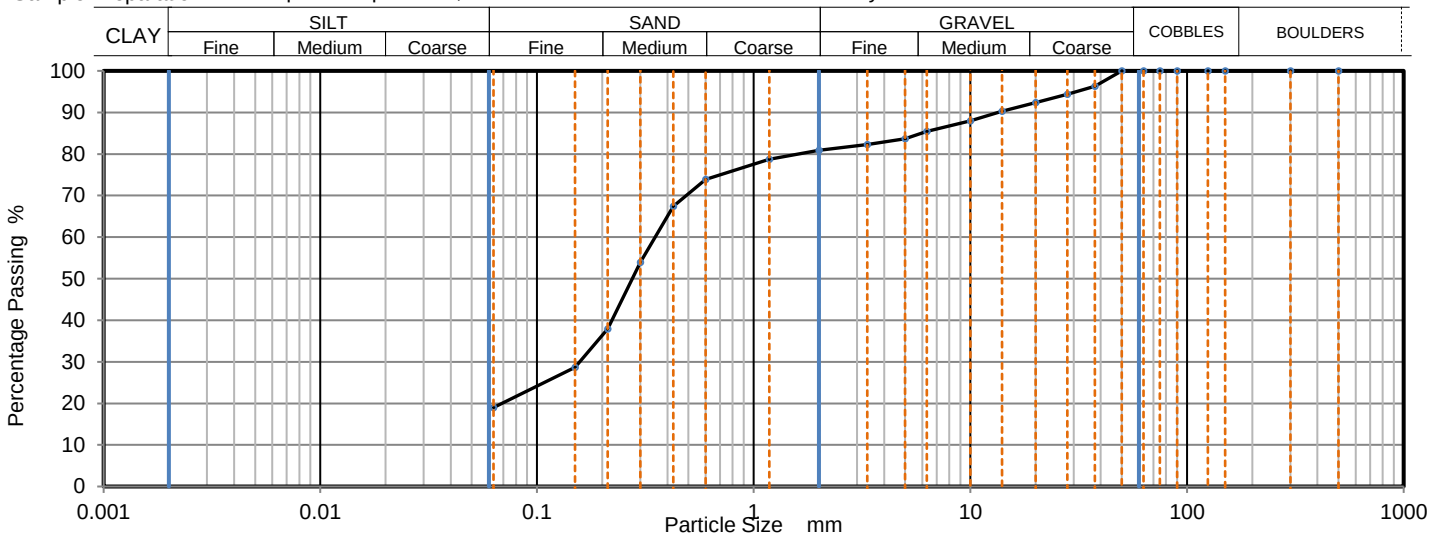
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655902	Depth Top [m]:	0.80
Hole No.:	WS18	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	96		
28	94		
20	92		
14	90		
10	88		
6.3	85		
5	84		
3.35	82		
2	81		
1.18	79		
0.6	74		
0.425	67		
0.3	54		
0.212	38		
0.15	29		
0.063	20		

Sample Proportions	% dry mass
Very coarse	0
Gravel	19
Sand	61
Fines <0.063mm	20

Grading Analysis		
D100	mm	50
D60	mm	0.351
D30	mm	0.157
D10	mm	
Uniformity Coefficient		> 5.6
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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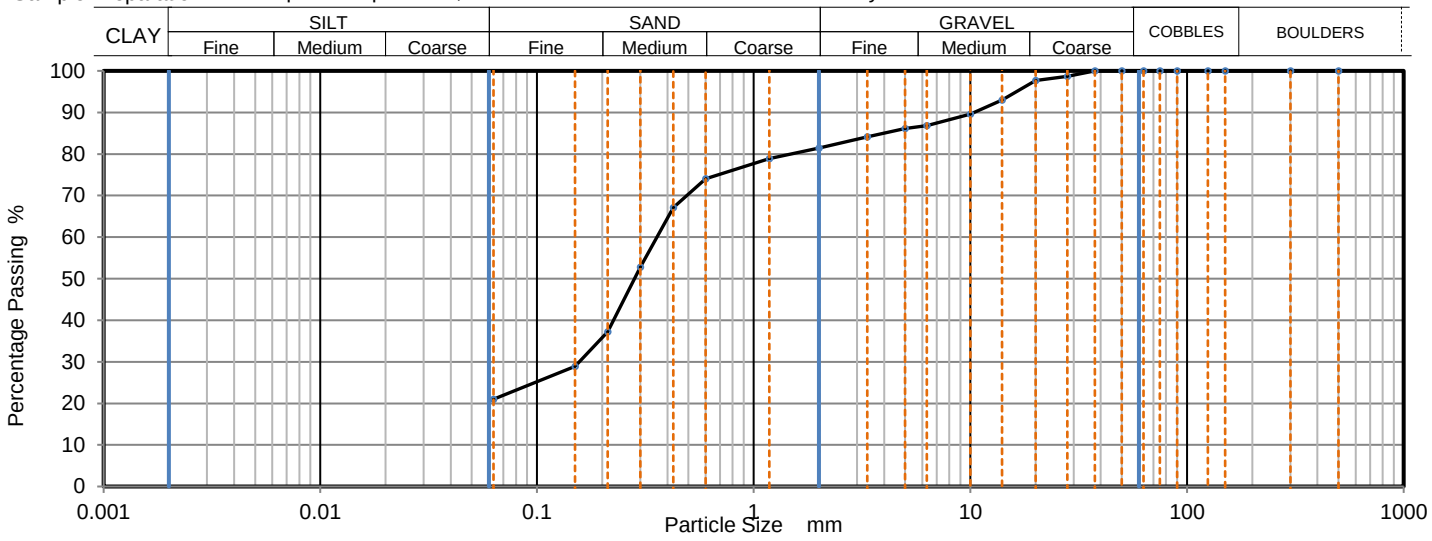
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655903	Depth Top [m]:	0.50
Hole No.:	RBH01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Bluish grey clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	99		
20	98		
14	93		
10	90		
6.3	87		
5	86		
3.35	84		
2	81		
1.18	79		
0.6	74		
0.425	67		
0.3	53		
0.212	37		
0.15	29		
0.063	21		

Sample Proportions	% dry mass
Very coarse	0
Gravel	19
Sand	60
Fines <0.063mm	21

Grading Analysis		
D100	mm	37.5
D60	mm	0.357
D30	mm	0.157
D10	mm	
Uniformity Coefficient		> 5.7
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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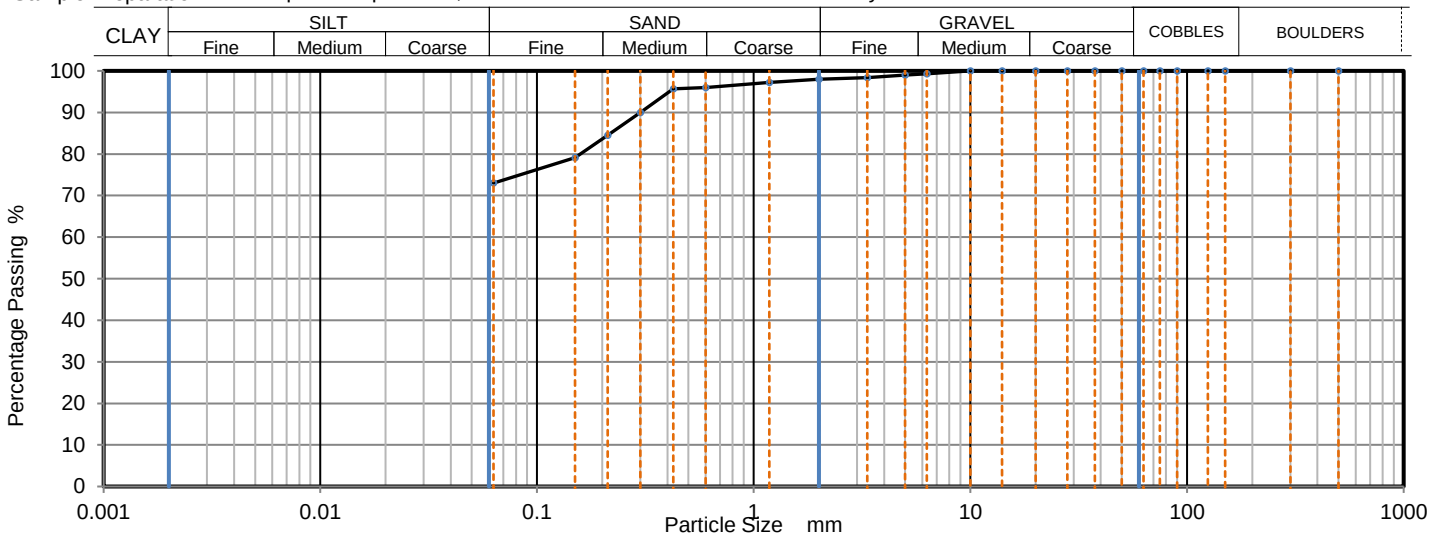
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655904	Depth Top [m]:	2.60
Hole No.:	RBH01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy CLAY		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	97		
0.6	96		
0.425	96		
0.3	90		
0.212	85		
0.15	79		
0.063	73		

Sample Proportions	% dry mass
Very coarse	0
Gravel	2
Sand	25
Fines <0.063mm	73

Grading Analysis		
D100	mm	10
D60	mm	
D30	mm	
D10	mm	
Uniformity Coefficient		N/A
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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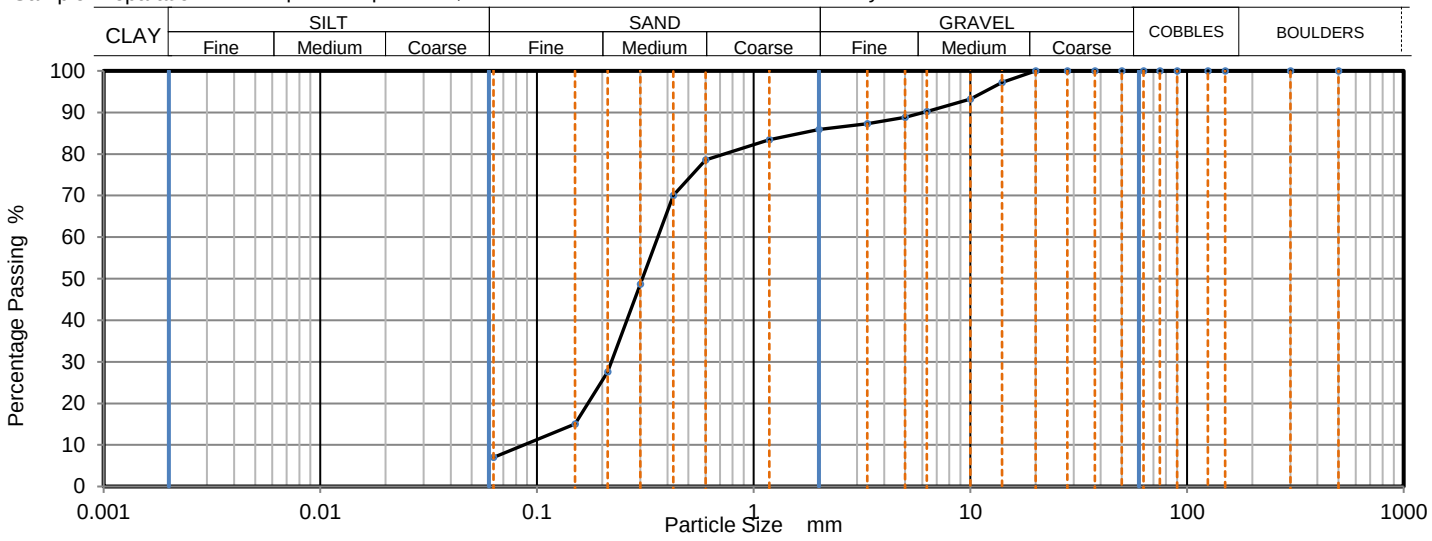
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655905	Depth Top [m]:	0.70
Hole No.:	RBH02	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	93		
6.3	90		
5	89		
3.35	87		
2	86		
1.18	83		
0.6	79		
0.425	70		
0.3	49		
0.212	28		
0.15	15		
0.063	8		

Sample Proportions	% dry mass
Very coarse	0
Gravel	14
Sand	78
Fines <0.063mm	8

Grading Analysis		
D100	mm	20
D60	mm	0.361
D30	mm	0.221
D10	mm	0.0826
Uniformity Coefficient		4.4
Curvature Coefficient		1.6

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

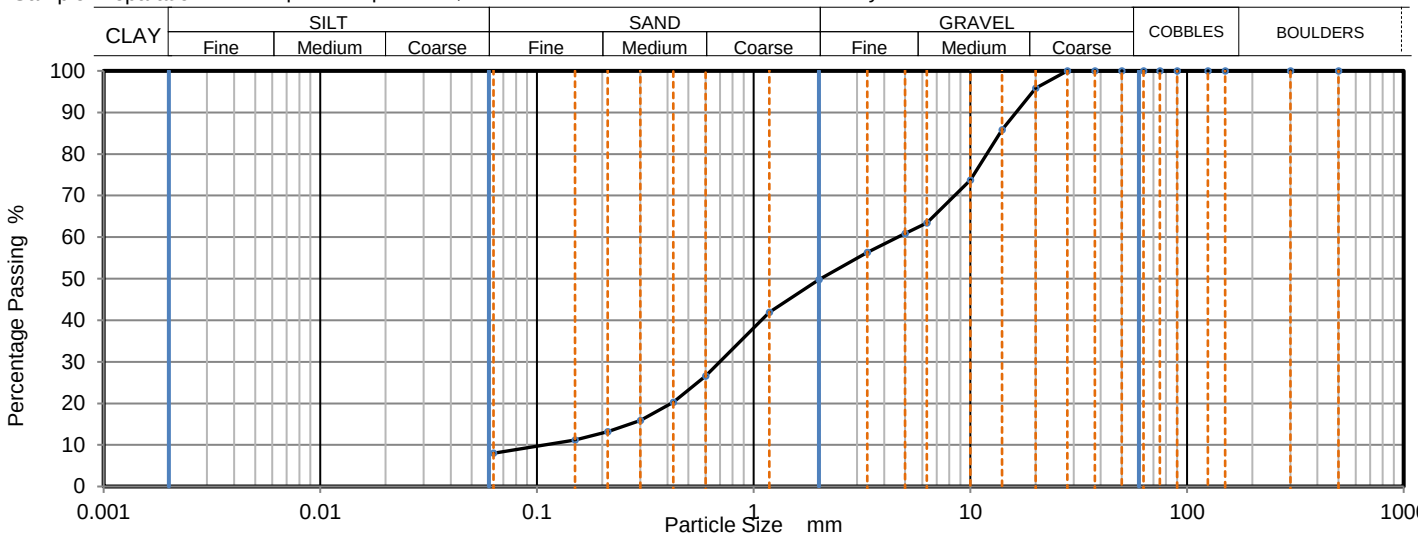
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655906	Depth Top [m]:	6.50
Hole No.:	RH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey sandy GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	96		
14	86		
10	74		
6.3	63		
5	61		
3.35	56		
2	50		
1.18	42		
0.6	27		
0.425	20		
0.3	16		
0.212	13		
0.15	11		
0.063	9		

Sample Proportions	% dry mass
Very coarse	0
Gravel	50
Sand	41
Fines <0.063mm	8

Grading Analysis		
D100	mm	28
D60	mm	4.63
D30	mm	0.696
D10	mm	0.103
Uniformity Coefficient		45
Curvature Coefficient		1

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

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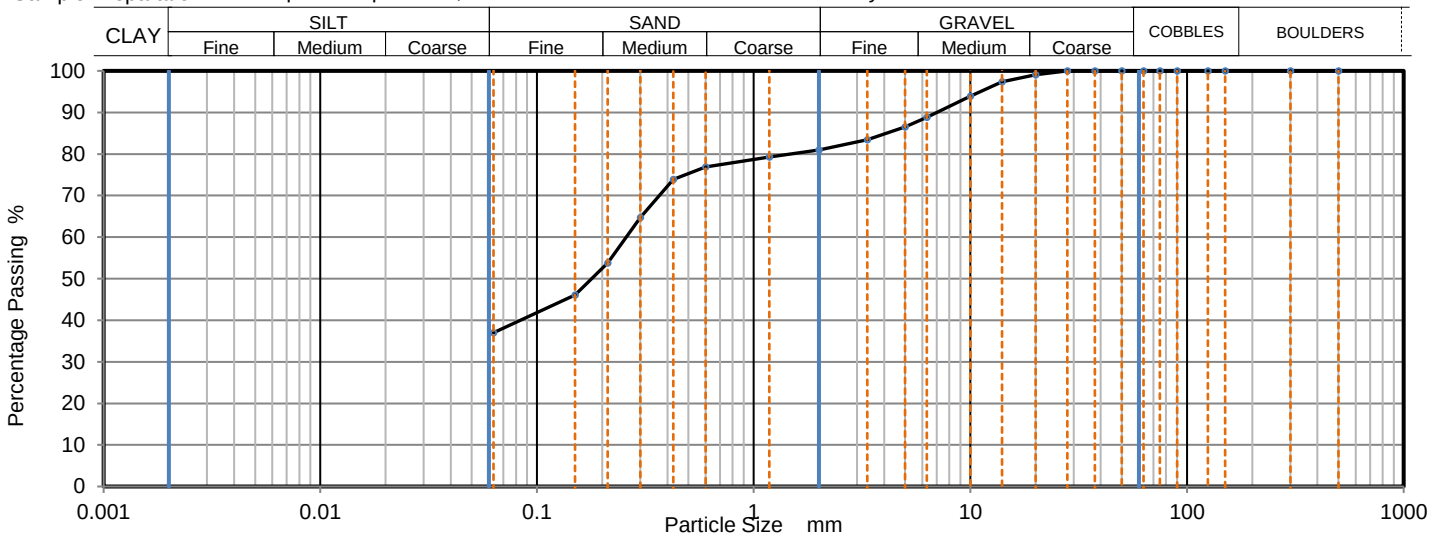
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655907	Depth Top [m]:	7.50
Hole No.:	RH3	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey clayey SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	99		
14	97		
10	94		
6.3	89		
5	87		
3.35	83		
2	81		
1.18	79		
0.6	77		
0.425	74		
0.3	65		
0.212	54		
0.15	46		
0.063	38		

Sample Proportions	% dry mass
Very coarse	0
Gravel	19
Sand	43
Fines <0.063mm	38

Grading Analysis		
D100	mm	28
D60	mm	0.258
D30	mm	
D10	mm	
Uniformity Coefficient		> 4.1
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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Northampton NN4 7EB

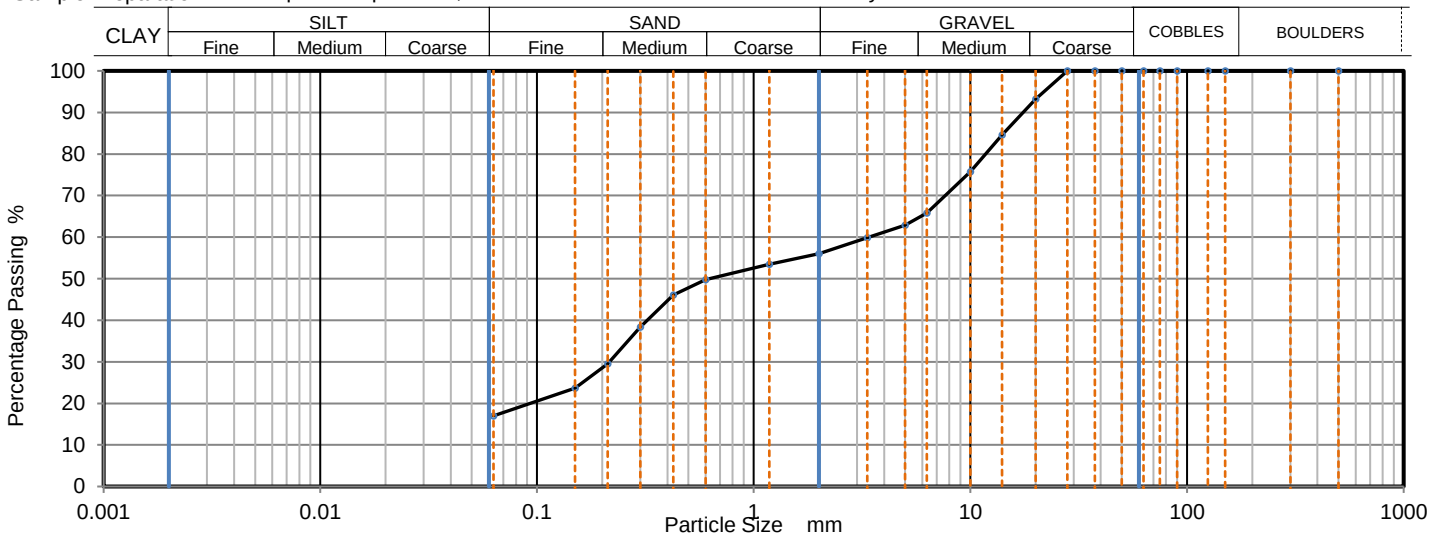
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Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	08/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655908	Depth Top [m]:	9.50
Hole No.:	RH3	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy clayey GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	93		
14	85		
10	76		
6.3	66		
5	63		
3.35	60		
2	56		
1.18	54		
0.6	50		
0.425	46		
0.3	38		
0.212	30		
0.15	24		
0.063	17		

Sample Proportions	% dry mass
Very coarse	0
Gravel	44
Sand	39
Fines <0.063mm	17

Grading Analysis		
D100	mm	28
D60	mm	3.4
D30	mm	0.216
D10	mm	
Uniformity Coefficient		> 54
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

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Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 100.22

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

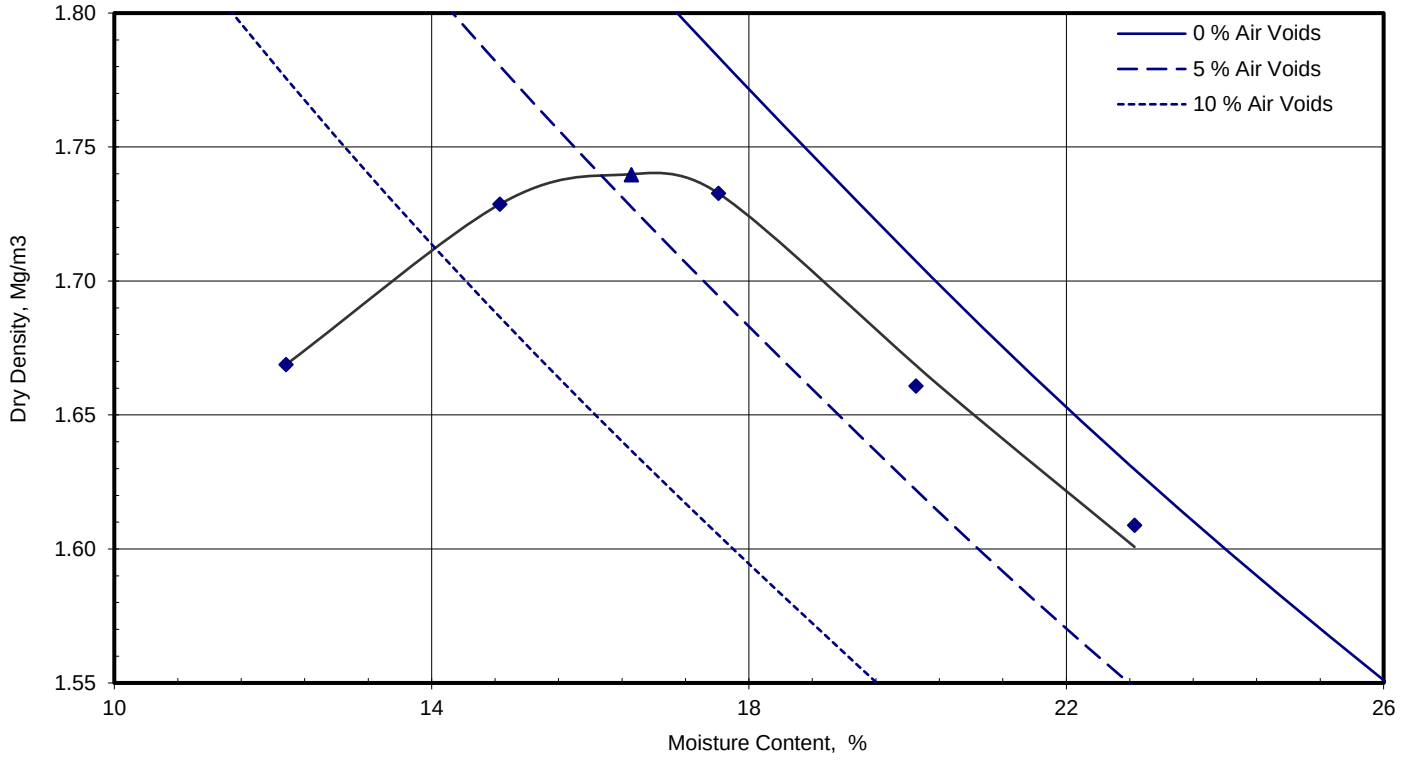
Environmental Science

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	11/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655900	Depth Top [m]:	0.75
Hole No.:	WS15	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Dark brown sandy CLAY		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	12	15	18	20	23
Dry Density	Mg/m³	1.67	1.73	1.73	1.66	1.61

Mould Type		CBR
Samples Used		Single sample tested
Dry Mass Retained on 37.5 mm Sieve	%	0
Dry Mass Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.60
As received Moisture Content	%	22
Maximum Dry Density	Mg/m³	**1.74**

Optimum Moisture Content	%	**17**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.4 using 2.5kg [light] Rammer

Remarks:

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Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 109.23

TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

i2 Analytical Ltd
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UKAS TESTING 4041

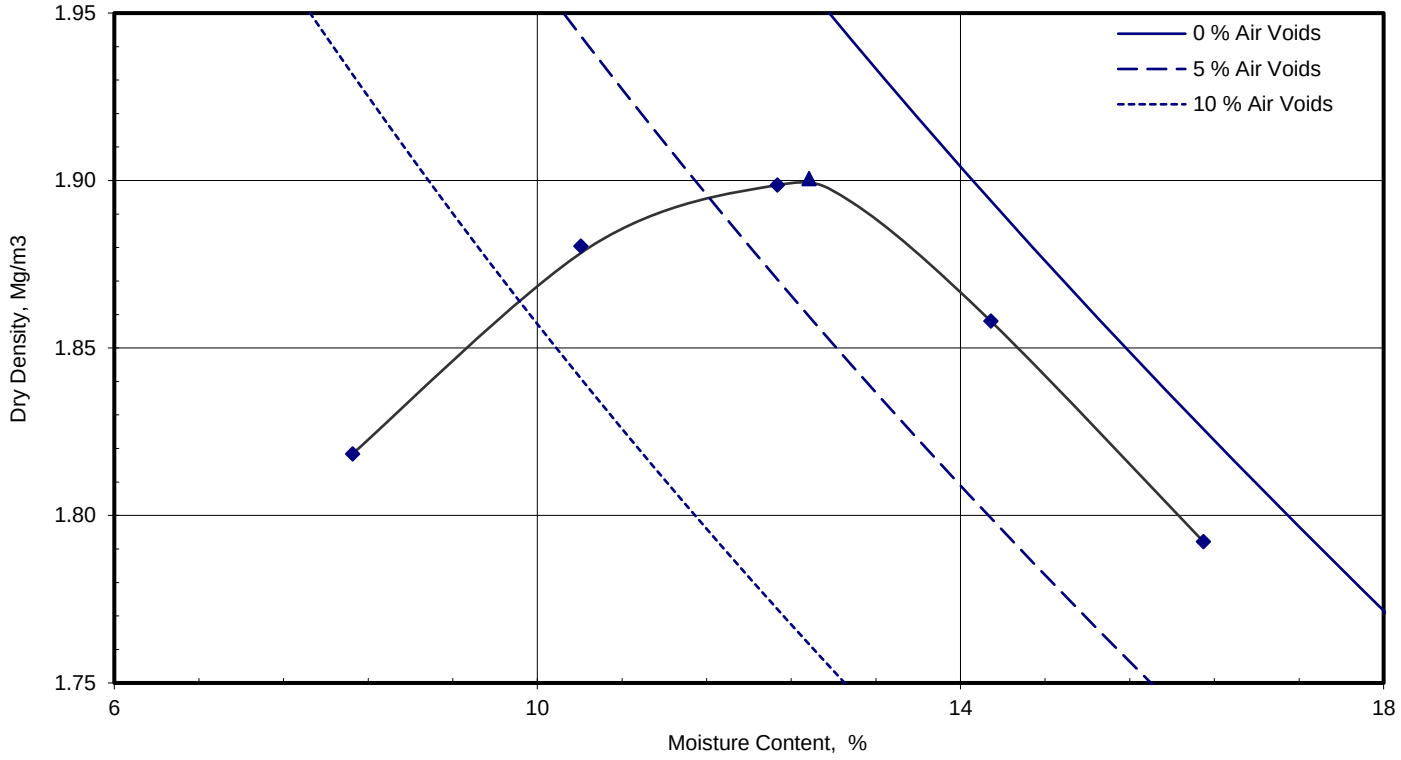
Environmental Science

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	11/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655903	Depth Top [m]:	0.50
Hole No.:	RBH01	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Bluish grey clayey SAND		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	8.3	10	12	14	16
Dry Density	Mg/m³	1.82	1.88	1.90	1.86	1.79

Mould Type		1 Litre
Samples Used		Single sample tested
Dry Mass Retained on 37.5 mm Sieve	%	0
Dry Mass Retained on 20.0 mm Sieve	%	2
Particle Density - Assumed	Mg/m³	2.60
As received Moisture Content	%	18
Maximum Dry Density	Mg/m³	**1.90**

Optimum Moisture Content	%	**13**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

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Date Reported: 12/05/2023

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TEST CERTIFICATE

DETERMINATION OF DRY DENSITY/MOISTURE CONTENT RELATIONSHIP METHOD USING 2.5 KG RAMMER

Tested in Accordance with: BS 1377-4: 1990

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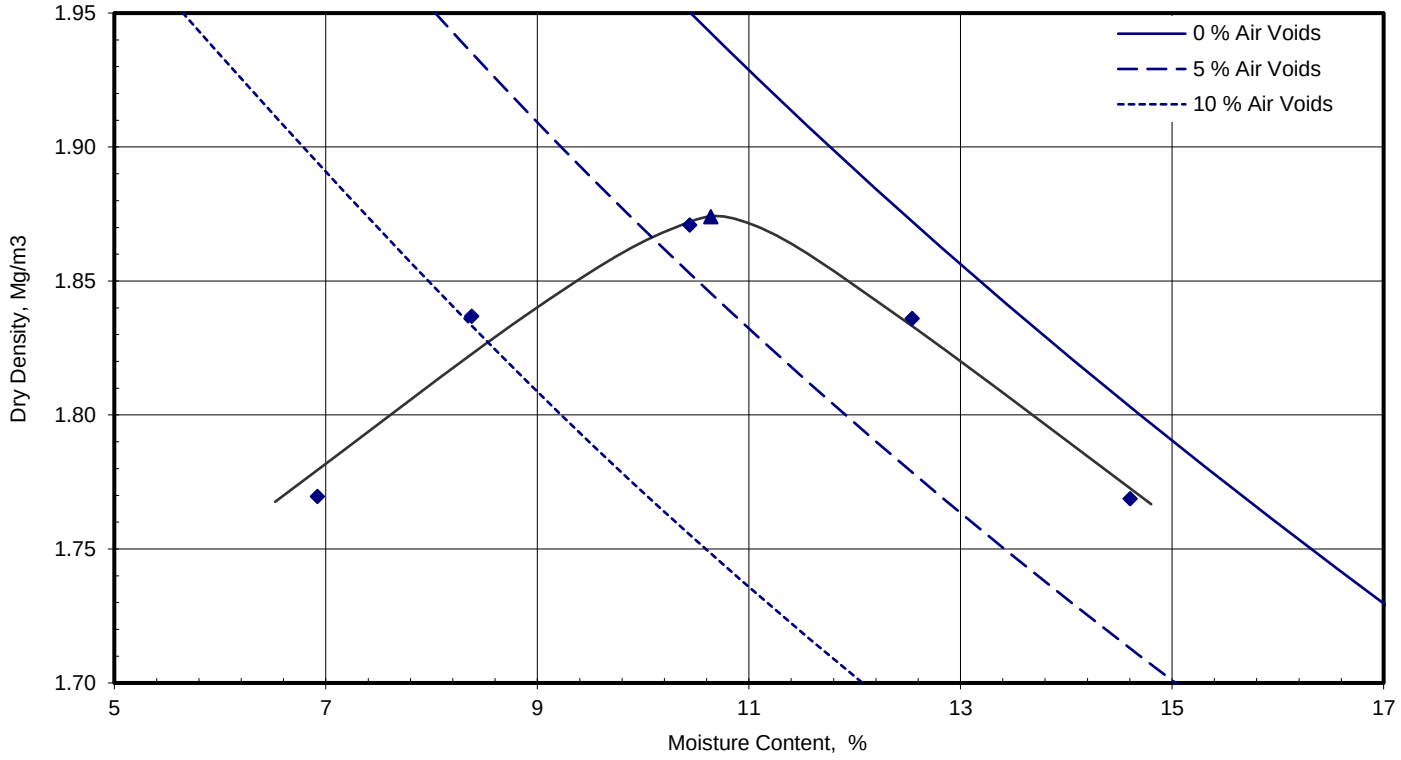
4041

Client:	NX Consulting	Client Reference:	Not Given
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-29760-1
		Date Sampled:	20/04/2023
		Date Received:	20/04/2023
Contact:	Mark Newton	Date Tested:	11/05/2023
Site Address:	NX534	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2655905	Depth Top [m]:	0.70
Hole No.:	RBH02	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey SAND		
Sample Preparation:	Sample was quartered and broken down by hand. Material used was natural.		



Compaction Point No.		1	2	3	4	5
Moisture Content	%	6.9	8.4	10	13	15
Dry Density	Mg/m³	1.77	1.84	1.87	1.84	1.77

Mould Type		1 Litre
Samples Used		Single sample tested
Dry Mass Retained on 37.5 mm Sieve	%	0
Dry Mass Retained on 20.0 mm Sieve	%	0
Particle Density - Assumed	Mg/m³	2.45
As received Moisture Content	%	14
Maximum Dry Density	Mg/m³	**1.87**

Optimum Moisture Content	%	**11**

Note: Tested in Accordance with BS 1377-4: 1990: Clause 3.3 using 2.5kg [light] Rammer

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for and on behalf of i2 Analytical Ltd

Date Reported: 12/05/2023

GF 109.23

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

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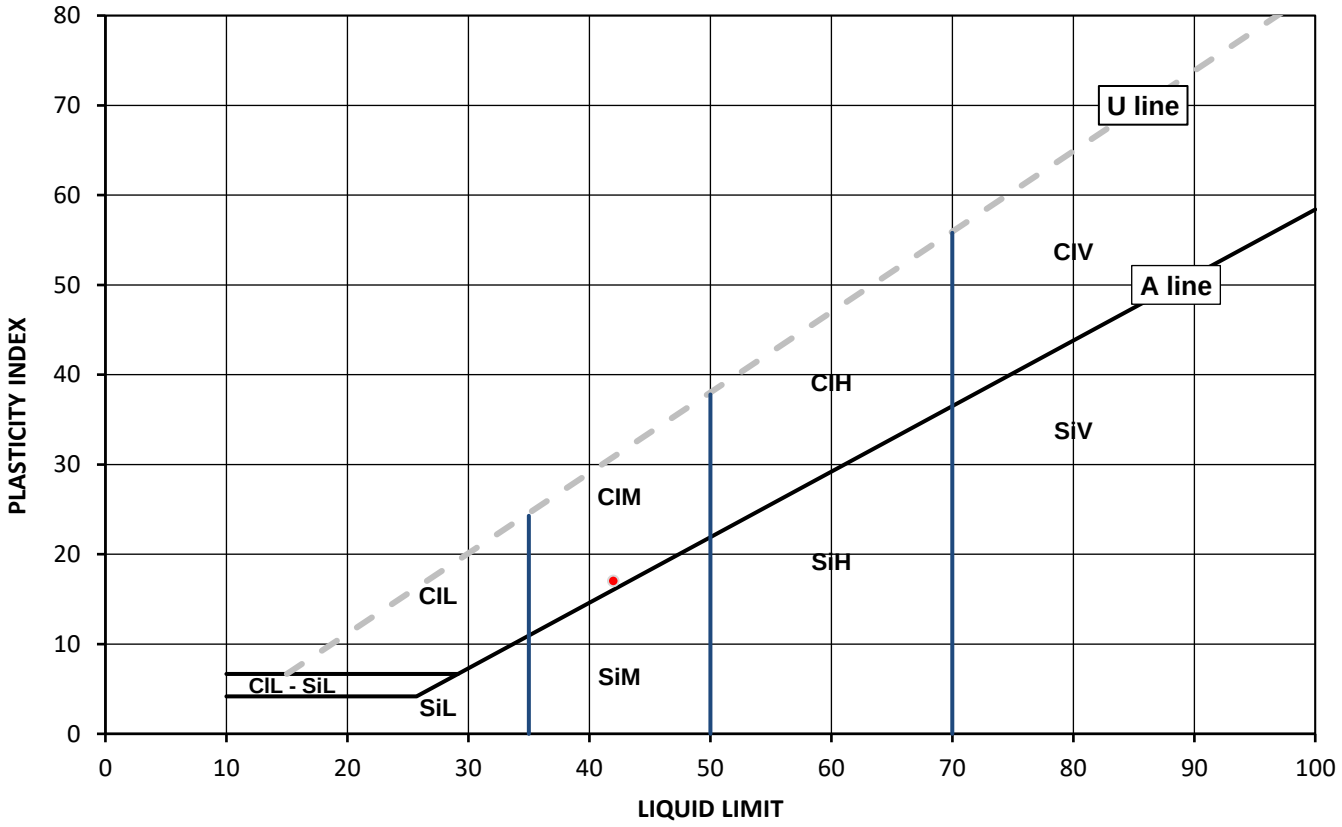
Client:	NX Consulting	Client Reference:	NX534
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-41799-1
		Date Sampled:	Not Given
		Date Received:	26/06/2023
Contact:	Mark Newton	Date Tested:	06/07/2023
Site Address:	Greenleys	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2729015	Depth Top [m]:	5.00
Hole No.:	WS06	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425 µm removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
24	42	25	17	91



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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Signed: Monika Siewior
Reporting Specialist

for and on behalf of i2 Analytical Ltd

Date Reported: 18/07/2023

GF 232.13

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
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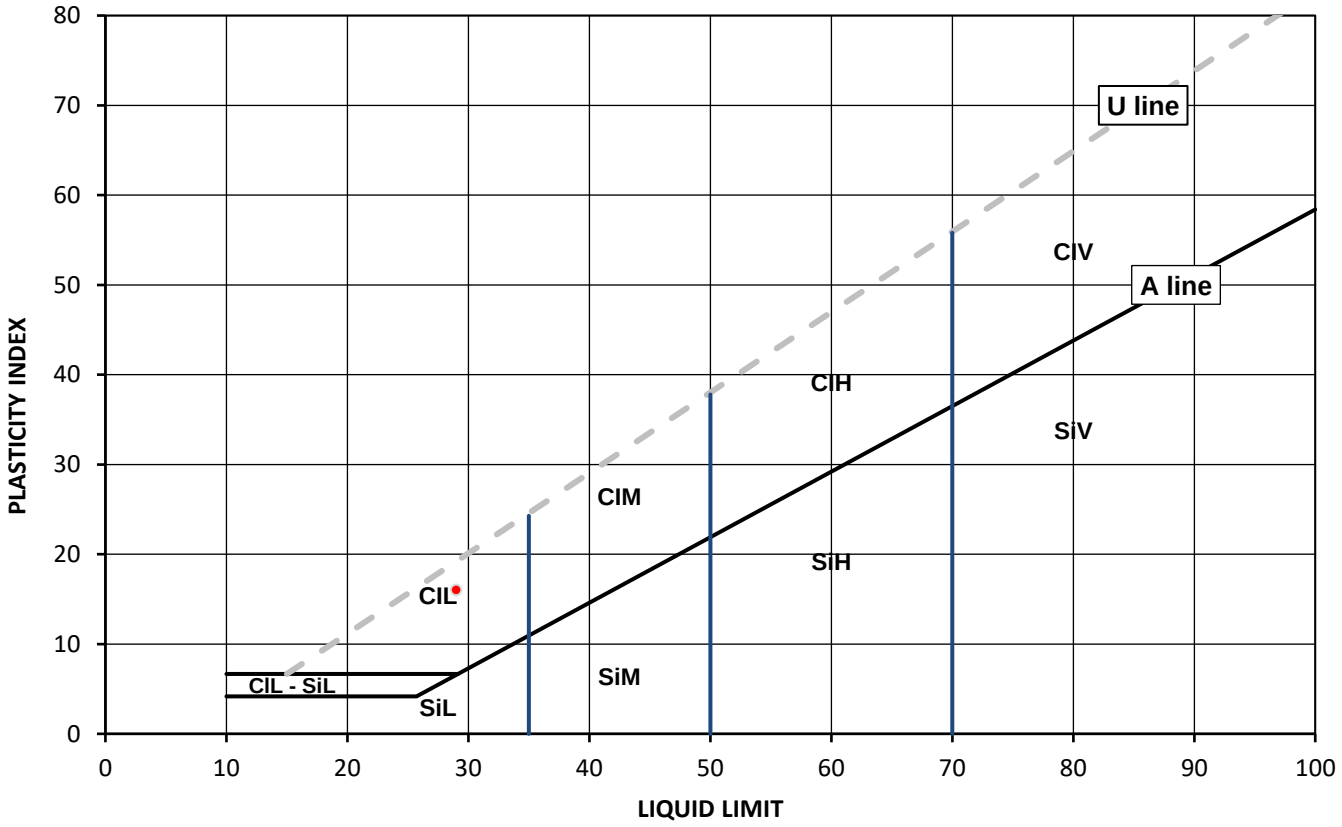
Client:	NX Consulting	Client Reference:	NX534
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-41799-1
		Date Sampled:	Not Given
		Date Received:	26/06/2023
Contact:	Mark Newton	Date Tested:	06/07/2023
Site Address:	Greenleys	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2729016	Depth Top [m]:	4.00
Hole No.:	WS07	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly very sandy CLAY		
Sample Preparation:	Tested after >425 µm removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	29	13	16	96



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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for and on behalf of i2 Analytical Ltd

Date Reported: 18/07/2023

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

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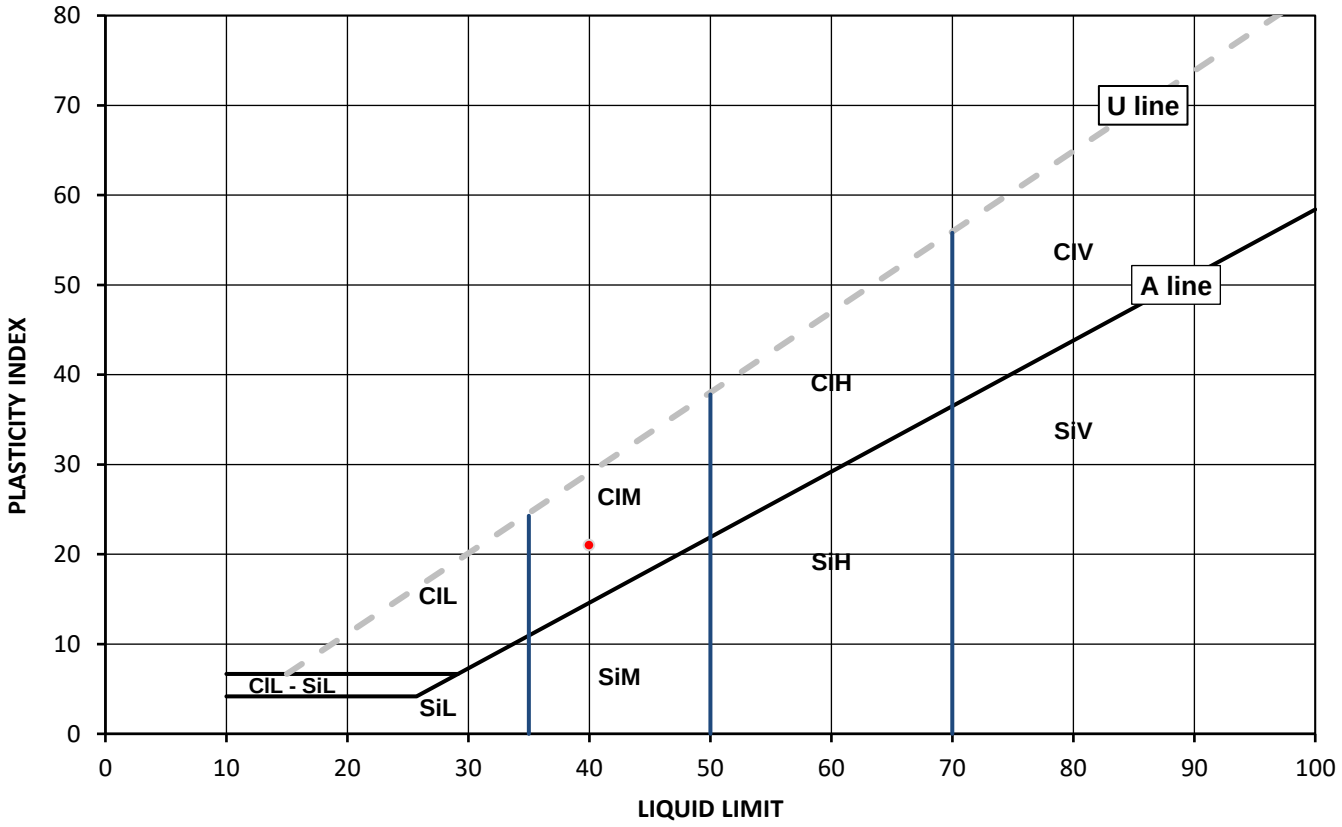
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Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-41799-1
		Date Sampled:	Not Given
		Date Received:	26/06/2023
Contact:	Mark Newton	Date Tested:	06/07/2023
Site Address:	Greenleys	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2729017	Depth Top [m]:	2.00
Hole No.:	WS08	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425 µm removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	40	19	21	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

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for and on behalf of i2 Analytical Ltd

Date Reported: 18/07/2023

GF 232.13

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

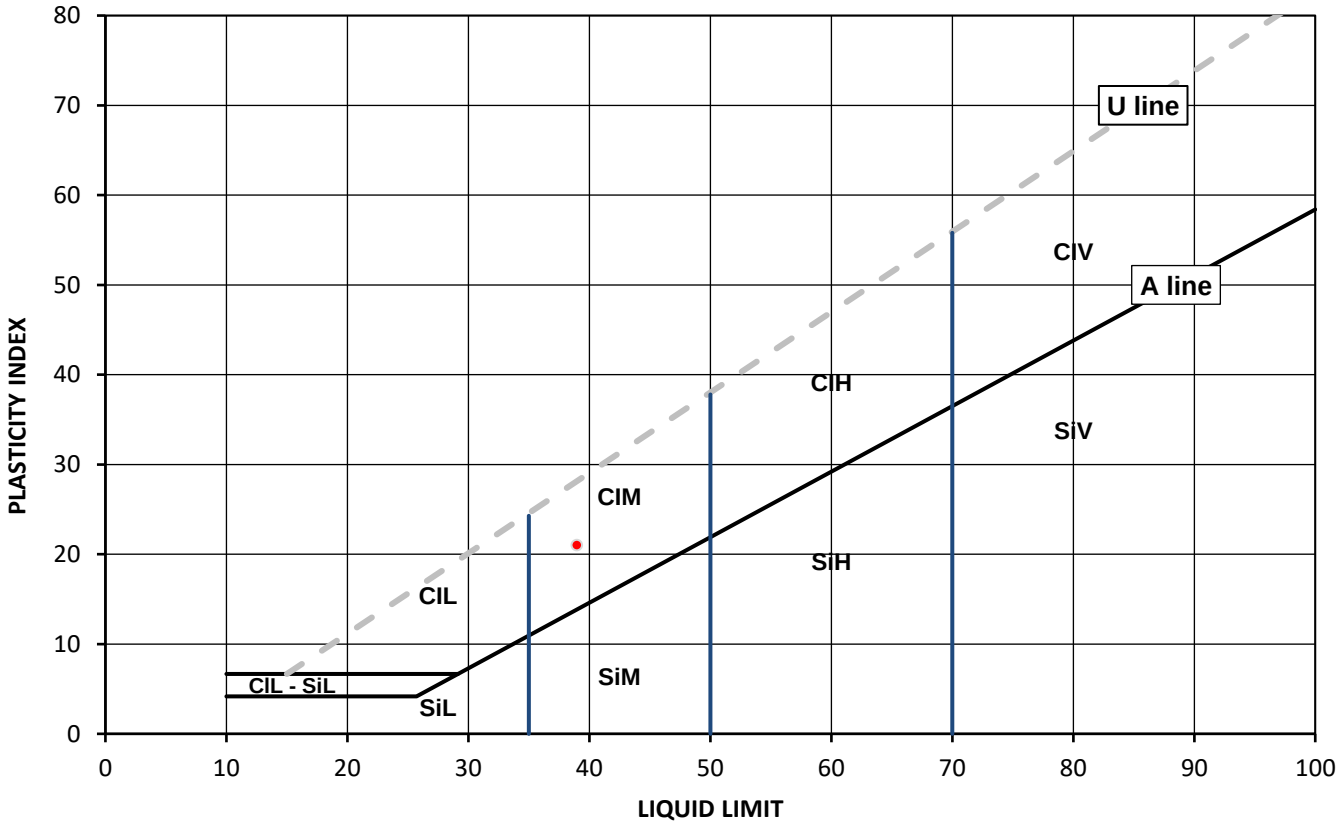
Client:	NX Consulting	Client Reference:	NX534
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-41799-1
		Date Sampled:	Not Given
		Date Received:	26/06/2023
Contact:	Mark Newton	Date Tested:	06/07/2023
Site Address:	Greenleys	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2729018	Depth Top [m]:	5.00
Hole No.:	WS09	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425 µm removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
17	39	18	21	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

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Reporting Specialist

for and on behalf of i2 Analytical Ltd

Date Reported: 18/07/2023

GF 232.13

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

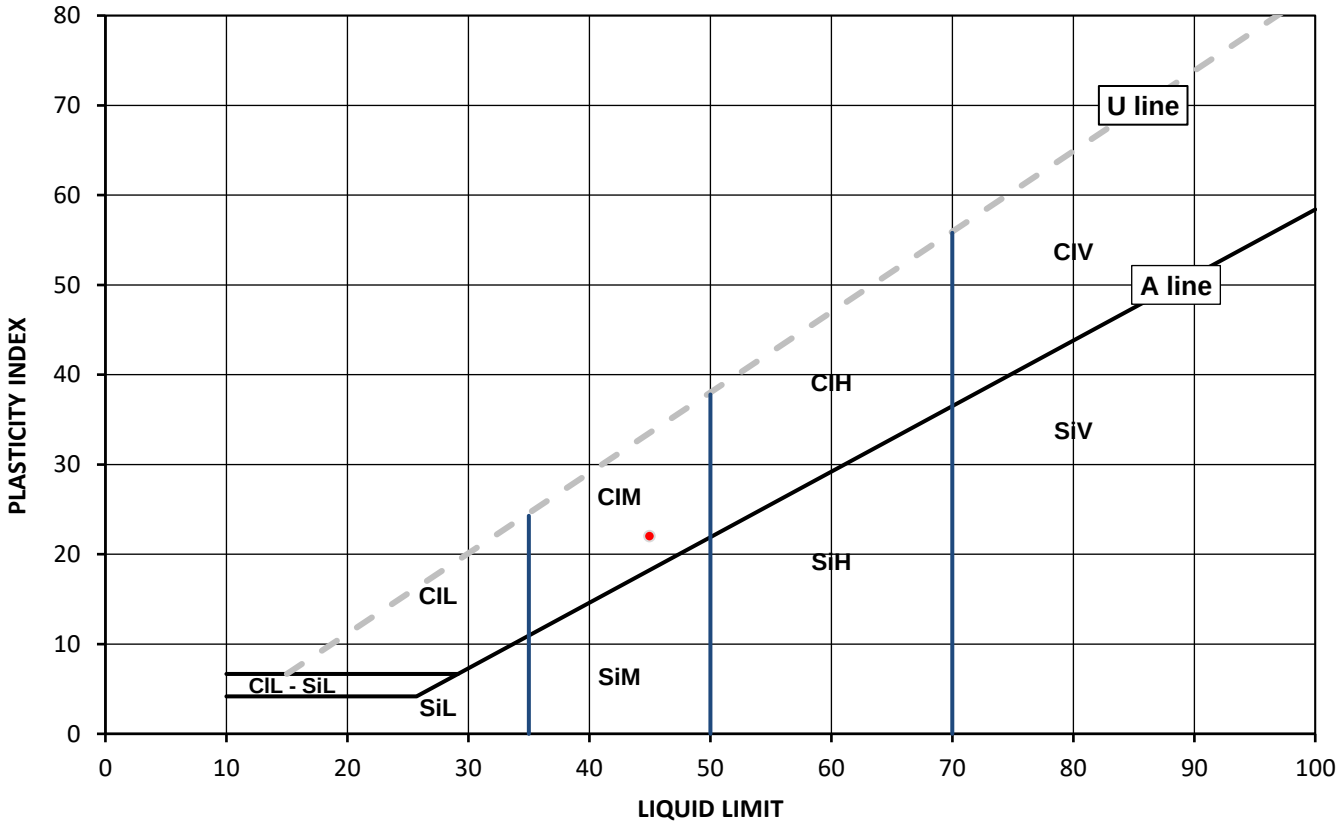
Client:	NX Consulting	Client Reference:	NX534
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-41799-1
		Date Sampled:	Not Given
		Date Received:	26/06/2023
Contact:	Mark Newton	Date Tested:	06/07/2023
Site Address:	Greenleys	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2729019	Depth Top [m]:	3.00
Hole No.:	WS20	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425 µm removed by hand		

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
15	45	23	22	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: Monika Siewior
Reporting Specialist

for and on behalf of i2 Analytical Ltd

Date Reported: 18/07/2023

GF 232.13

4041

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: Greenleys

Water Content by BS 1377-2:1990: Clause 3.2Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5

Client Reference: NX534
Job Number: 23-41799-1
Date Sampled: Not Given
Date Received: 26/06/2023
Date Tested: 06/07/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W]	Water Content BS EN ISO 17892-1 [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2729015	WS06	Not Given	5.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	24		91	42	25	17						
2729016	WS07	Not Given	4.00	Not Given	D	Brown slightly gravelly very sandy CLAY	Atterberg 1 Point	19		96	29	13	16						
2729017	WS08	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		99	40	19	21						
2729018	WS09	Not Given	5.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	17		99	39	18	21						
2729019	WS20	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY	Atterberg 1 Point	15		99	45	23	22						

Note: # Non accredited; NP - Non plastic

Comments:

Signed: Monika Siewior

Monika Siewior
Reporting Specialist

for and on behalf of i2 Analytical Ltd

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Date Reported: 18/07/2023

GF 234.16

4041

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

Environmental Science

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: Greenleys

Client Reference: NX534
Job Number: 23-41799-1
Date Sampled: Not Given
Date Received: 26/06/2023
Date Tested: 06/07/2023
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type			%				
2729015	WS06	Not Given	5.00	Not Given	D	Brown slightly gravelly sandy CLAY		24	Sample was quartered, oven dried at 106 °C			
2729016	WS07	Not Given	4.00	Not Given	D	Brown slightly gravelly very sandy CLAY		19	Sample was quartered, oven dried at 106 °C			
2729017	WS08	Not Given	2.00	Not Given	D	Brown slightly gravelly sandy CLAY		19	Sample was quartered, oven dried at 106 °C			
2729018	WS09	Not Given	5.00	Not Given	D	Brown slightly gravelly sandy CLAY		17	Sample was quartered, oven dried at 106 °C			
2729019	WS20	Not Given	3.00	Not Given	D	Brown slightly gravelly sandy CLAY		15	Sample was quartered, oven dried at 106 °C			

Comments:

Signed: Monika Siewior

Monika Siewior
Reporting Specialist

for and on behalf of i2 Analytical Ltd

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Date Reported: 18/07/2023

GF 099.17

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

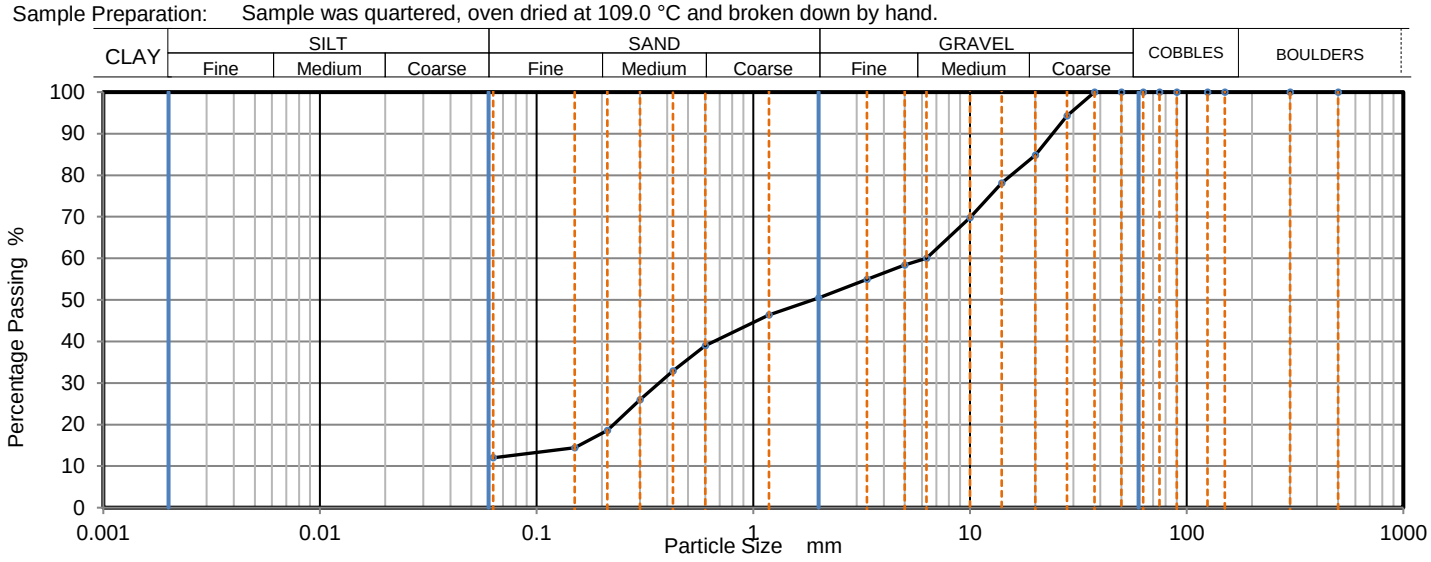
4041

Client:	NX Consulting	Client Reference:	NX534
Client Address:	Station House, Stamford New Road, Altrincham, WA14 1EP	Job Number:	23-41799-1
		Date Sampled:	Not Given
		Date Received:	26/06/2023
Contact:	Mark Newton	Date Tested:	04/07/2023
Site Address:	Greenleys	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2729014	Depth Top [m]:	1.50
Hole No.:	TP06	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown sandy GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 109.0 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	94		
20	85		
14	78		
10	70		
6.3	60		
5	58		
3.35	55		
2	51		
1.18	46		
0.6	39		
0.425	33		
0.3	26		
0.212	19		
0.15	14		
0.063	12		

Sample Proportions	% dry mass
Very coarse	0
Gravel	49
Sand	38
Fines <0.063mm	12

Grading Analysis		
D100	mm	37.5
D60	mm	6.31
D30	mm	0.368
D10	mm	
Uniformity Coefficient		> 100
Curvature Coefficient		

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

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Signed: Monika Siewior

Monika Siewior
Reporting Specialist

for and on behalf of i2 Analytical Ltd

Date Reported: 18/07/2023

GF 100.23

SUMMARY REPORT

DETERMINATION OF POINT LOAD STRENGTH

Tested in Accordance with: ISRM: 2007, pages 125-132

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: Greenheys, Manchester Science Park

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: NX534
Job Number: 23-29865-2
Date Sampled: 19/04/2023
Date Received: 21/04/2023
Date Tested: 05/05 - 09/05/2023
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks # (including water content if measured)	Specimen Reference	Test Type see ISRM		Failure Valid (Y/N)	Dimensions				Force P	Equivalent diameter, De	Point Load Strength Index	
		Reference	Depth Top m	Depth Base m	Type				Type (D, A, I, B)	Direction (L, P or U)		Lne mm	W mm	Dps mm	Dps' mm	kN	mm	Is MPa	Is(50) MPa
2656549	RBH1	Not Given	11.60	Not Given	C	Brown SANDSTONE	WC = 14.5%	1	A	U	YES	-	80.6	66.0	62.0	1.5	79.8	0.23	0.28
2656550	RBH1	Not Given	13.85	Not Given	C	Brown SANDSTONE	WC = 11.5%	1	A	U	YES	-	85.8	63.0	56.0	1.6	78.2	0.26	0.32
2656551	RBH1	Not Given	15.05	Not Given	C	Brown SANDSTONE	WC = 14.2%	1	A	U	YES	-	86.1	58.0	50.0	1.3	74.0	0.24	0.28
2656552	RBH1	Not Given	16.00	Not Given	C	Brown SANDSTONE	WC = 13.7%	1	A	U	YES	-	85.4	61.0	57.0	1.2	78.7	0.19	0.24
2656553	RBH1	Not Given	16.85	Not Given	C	Brown SANDSTONE	WC = 10.0%	1	A	U	YES	-	86.4	61.0	57.0	1.1	79.2	0.17	0.21
2656554	RBH1	Not Given	19.20	Not Given	C	Brown SANDSTONE	WC = 14.0%	1	A	U	YES	-	86.2	52.0	48.0	1.3	72.6	0.25	0.29
2656555	RBH1	Not Given	19.40	Not Given	C	Brown SANDSTONE	WC = 14.0%	1	A	U	YES	-	86.0	59.0	55.0	1.4	77.6	0.22	0.27
2656556	RBH02	Not Given	11.70	Not Given	C	Brown SANDSTONE	WC = 12.7%	1	A	U	YES	-	84.9	63.0	59.0	1.0	79.9	0.15	0.18
2656557	RBH02	Not Given	12.60	Not Given	C	Brown SANDSTONE	WC = 10.4%	1	A	U	YES	-	85.1	48.0	46.0	2.1	70.6	0.42	0.49
2656558	RBH02	Not Given	12.70	Not Given	C	Brown SANDSTONE	WC = 11.2%	1	A	U	YES	-	85.8	70.0	46.0	2.1	70.9	0.41	0.48

Note: # non accredited; Test Type: D - Diametral, A - Axial, I - Irregular Lump, B - Block; Direction: L - parallel to planes of weakness, P - perpendicular to planes of weakness, U - unknown or random;
Dimensions: Dps - Distance between platens (platen separation), Dps' - at failure (see ISRM note 6), Lne - Length from platens to nearest free end W - Width of shortest dimension perpendicular to load, P;
Detailed legend for test and dimensions, based on ISRM, is shown above; Size factor, F = (De/50)0.45 for all tests

Comments: Replaces Analytical Report Number 23-29865, issue no. 1; Additional results of Point Load (samples 2656550, 2656552, 2656554, 2656556, 2656558)

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

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Date Reported: 11/05/2023

GF 134.13

SUMMARY REPORT

DETERMINATION OF POINT LOAD STRENGTH

Tested in Accordance with: ISRM: 2007, pages 125-132

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: Greenheys, Manchester Science Park

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: NX534
Job Number: 23-29865-2
Date Sampled: 19/04/2023
Date Received: 21/04/2023
Date Tested: 05/05 - 09/05/2023
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks # (including water content if measured)	Specimen Reference	Test Type see ISRM		Failure Valid (Y/N)	Dimensions				Force P	Equivalent diameter, De	Point Load Strength Index	
		Reference	Depth Top	Depth Base	Type				Type (D, A, I, B)	Direction (L, P or U)		Lne	W	Dps	Dps'			Is	Is(50)
			m	m								mm	mm	mm	mm	kN	mm	MPa	MPa
2656559	RBH02	Not Given	17.40	Not Given	C	Brown SANDSTONE	WC = 14.3%	1	A	U	YES	-	86.4	76.0	69.0	1.4	87.1	0.18	0.24
2656560	RBH02	Not Given	18.50	Not Given	C	Brown SANDSTONE	WC = 13.6%	1	A	U	YES	-	86.2	65.0	61.0	1.6	81.8	0.23	0.29
2656561	RBH02	Not Given	19.10	Not Given	C	Brown SANDSTONE	WC = 12.0%	1	A	U	YES	-	86.4	65.0	58.0	1.6	79.9	0.25	0.31
2656562	RBH02	Not Given	19.30	Not Given	C	Brown SANDSTONE	WC = 10.4%	1	I	U	YES	71.6	86.7	83.0	79.0	1.5	93.4	0.17	0.22
2656563	RB02	Not Given	19.70	Not Given	C	Brown SANDSTONE	WC = 12.8%	1	A	U	YES	-	86.6	69.0	64.0	1.8	84.0	0.26	0.32
2656564	RBH03	Not Given	12.00	Not Given	C	Brown SANDSTONE	WC = 13.1%	1	A	U	YES	-	85.6	67.0	63.0	1.5	82.9	0.22	0.27
2656565	RBH03	Not Given	13.00	Not Given	C	Brown SANDSTONE	WC = 11.0%	1	A	U	YES	-	84.9	53.0	45.0	1.4	69.7	0.28	0.32
2656566	RBH03	Not Given	13.60	Not Given	C	Brown SANDSTONE	WC = 12.9%	1	A	U	YES	-	85.1	80.0	76.0	1.0	90.8	0.12	0.15
2656567	RBH03	Not Given	13.80	Not Given	C	Brown SANDSTONE	WC = 13.7%	1	A	U	YES	-	84.4	49.0	44.0	1.0	68.8	0.21	0.24
2656568	RBH03	Not Given	15.50	Not Given	C	Brown SANDSTONE	WC = 10.8%	1	A	U	YES	-	86.5	68.0	61.0	2.3	82.0	0.33	0.42

Note: # non accredited; Test Type: D - Diametral, A - Axial, I - Irregular Lump, B - Block; Direction: L - parallel to planes of weakness, P - perpendicular to planes of weakness, U - unknown or random;
Dimensions: Dps - Distance between platens (platen separation), Dps' - at failure (see ISRM note 6), Lne - Length from platens to nearest free end W - Width of shortest dimension perpendicular to load, P;
Detailed legend for test and dimensions, based on ISRM, is shown above; Size factor, F = (De/50)0.45 for all tests

Comments: Replaces Analytical Report Number 23-29865, issue no. 1; Additional results of Point Load (samples 2656560, 2656562, 2656566, 2656568)

Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

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Date Reported: 11/05/2023

GF 134.13

SUMMARY REPORT

DETERMINATION OF POINT LOAD STRENGTH

Tested in Accordance with: ISRM: 2007, pages 125-132

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: NX Consulting

Client Address: Station House, Stamford New Road, Altrincham, WA14 1EP

Contact: Mark Newton

Site Address: Greenheys, Manchester Science Park

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Client Reference: NX534
Job Number: 23-29865-2
Date Sampled: 19/04/2023
Date Received: 21/04/2023
Date Tested: 05/05 - 09/05/2023
Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks # (including water content if measured)	Specimen Reference	Test Type see ISRM		Failure Valid (Y/N)	Dimensions				Force P	Equivalent diameter, De	Point Load Strength Index	
		Reference	Depth Top m	Depth Base m	Type				Type (D, A, I, B)	Direction (L, P or U)		Lne mm	W mm	Dps mm	Dps' mm	kN	mm	Is MPa	Is(50) MPa
2656569	RBH03	Not Given	16.70	Not Given	C	Brown SANDSTONE	WC = 11.7%	1	A	U	YES	-	86.8	66.0	63.0	2.1	83.4	0.30	0.38
2656570	RBH03	Not Given	18.90	Not Given	C	Brown SANDSTONE	WC = 11.3%	1	A	U	YES	-	85.2	57.0	54.0	1.7	76.6	0.29	0.35
2656571	RBH03	Not Given	19.20	Not Given	C	Brown SANDSTONE	WC = 12.7%	1	A	U	YES	-	85.7	67.0	63.0	1.2	82.9	0.17	0.22
2656572	RBH03	Not Given	19.50	Not Given	C	Brown SANDSTONE	WC = 10.6%	1	A	U	YES	-	86.1	64.0	60.0	1.9	81.1	0.28	0.35

Note: # non accredited; Test Type: D - Diametral, A - Axial, I - Irregular Lump, B - Block; Direction: L - parallel to planes of weakness, P - perpendicular to planes of weakness, U - unknown or random;
Dimensions: Dps - Distance between platens (platen separation), Dps' - at failure (see ISRM note 6), Lne - Length from platens to nearest free end W - Width of shortest dimension perpendicular to load, P;
Detailed legend for test and dimensions, based on ISRM, is shown above; Size factor, F = (De/50)0.45 for all tests

Comments: Replaces Analytical Report Number 23-29865, issue no. 1; Additional results of Point Load (sample 2656571)

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Signed:

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 11/05/2023

GF 134.13

Appendix E – Chemical Test Results & HazOnline Classification Report

Mark Newton
NX Consulting☐
Station House
Stamford New Road
Altrincham
WA14 1EP

e: marknewton@nxconsulting.org.uk

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

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

Analytical Report Number : 23-30189

Project / Site name:	Greenheys Manchester Science Park	**Samples received on:**	20/04/2023
Your job number:	NX534	**Samples instructed on/ Analysis started on:**	24/04/2023
Your order number:	NX534	**Analysis completed by:**	05/05/2023
Report Issue Number:	1	**Report issued on:**	05/05/2023
Samples Analysed:	24 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658264	2658265	2658266	2658267	2658268
Sample Reference				WS1	WS1	WS2	WS3	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.30	2.50	0.60	0.50	1.20
Date Sampled				12/04/2023	12/04/2023	12/04/2023	12/04/2023	13/04/2023
Time Taken				0935	1000	1120	1140	0900
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	18	12	13	16
Total mass of sample received	kg	0.001	NONE	1.1	1.1	1.1	1.1	0.7
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	N/A	PDO	PDO	PDO

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.8	8	7.6	7.8	7.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	110	-	84	190	61
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.047	-	-	0.0043
Sulphide	mg/kg	1	MCERTS	1.5	-	6.4	< 1.0	< 1.0
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.3	-	0.3	0.9	0.4

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	0.16	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	0.15	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	0.19	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	0.07	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	0.08	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	-	< 0.05	0.09	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	-	< 0.05	0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	0.07	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	-	< 0.80	0.86	< 0.80

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.7	-	6.2	12	1.6
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	-	0.2	< 0.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	-	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11	-	10	22	7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	-	5.3	23	9.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	48	-	6.8	45	6.1
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	-	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	-	8.3	21	7.2
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	47	-	19	52	13

Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	< 5.0

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658264	2658265	2658266	2658267	2658268
Sample Reference				WS1	WS1	WS2	WS3	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.30	2.50	0.60	0.50	1.20
Date Sampled				12/04/2023	12/04/2023	12/04/2023	12/04/2023	13/04/2023
Time Taken				0935	1000	1120	1140	0900
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	-	-	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	0.08
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	-	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	-	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	-	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	-	-	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	-	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	-	-	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	-	-	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	< 10	-	-	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658269	2658270	2658271	2658272	2658273
Sample Reference				WS5B	WS5B	WS10	WS10	WS11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	1.90	0.70	1.10	0.80
Date Sampled				14/04/2023	14/04/2023	13/04/2023	13/04/2023	13/04/2023
Time Taken				0930	0940	1041	1055	1142
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	-	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	-	17	14	12	9.9
Total mass of sample received	kg	0.001	NONE	-	0.7	0.7	1	0.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	PDO	N/A	IZJ	N/A	IZJ
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	7.1	7.7	-	7.7
Total Cyanide	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	-	78	120	-	91
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.027	-	-	-
Sulphide	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	0.2	0.3	-	0.2
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	< 0.05	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	< 0.05	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	< 0.80	< 0.80	-	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	7.7	8.9	-	5.2
Boron (water soluble)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	-	< 1.8	< 1.8	-	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	12	12	-	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	8	9.3	-	3.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	6.3	60	-	6.4
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	13	12	-	8.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	23	32	-	16
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	< 5.0	< 5.0

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658269	2658270	2658271	2658272	2658273
Sample Reference				WS5B	WS5B	WS10	WS10	WS11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	1.90	0.70	1.10	0.80
Date Sampled				14/04/2023	14/04/2023	13/04/2023	13/04/2023	13/04/2023
Time Taken				0930	0940	1041	1055	1142
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Toluene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	-	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	-	< 1.0	1.7	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	-	< 2.0	16	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	-	< 8.0	45	17	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	-	< 8.0	34	19	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	-	< 10	97	36	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	-	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	-	< 2.0	2.5	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	-	< 10	18	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	-	< 10	16	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	-	< 10	37	12	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658274	2658275	2658276	2658277	2658278
Sample Reference				WS11	WS14	WS15	WS15	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.50	1.00	0.30	0.80	0.80
Date Sampled				13/04/2023	16/04/2023	16/04/2023	16/04/2023	15/04/2023
Time Taken				1155	0853	0856	0950	0830
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	7.8	12	17	18	18
Total mass of sample received	kg	0.001	NONE	1	1	1	2	0.5
Asbestos in Soil	Type	N/A	ISO 17025	-	-	Not-detected	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	IZJ	N/A	IZJ
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8	7.4	8.5	7.2	7
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	2.4	-	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	70	530	11000	-	800
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.011	0.16	-	0.21	-
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	4.7	-	1.5
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.4	0.7	2.9	-	1.6
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	-	0.12
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.18	-	0.12
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.2	-	0.1
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.06	1.5	-	1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.36	-	0.22
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.3	-	1.3
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.5	-	1.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.56	-	0.69
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.65	-	0.78
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.58	-	0.92
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.3	-	0.47
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.51	-	0.88
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.34	-	0.58
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.08	-	0.2
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.41	-	0.73
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	8.66	-	9.64
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4	6.3	24	-	8.8
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.5	1.5	-	1.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	-	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	8.9	14	15	-	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.8	5.7	120	-	21
Lead (aqua regia extractable)	mg/kg	1	MCERTS	7.3	13	290	-	31
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.7	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	9.4	21	-	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	24	21	140	-	43
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-	-

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658274	2658275	2658276	2658277	2658278
Sample Reference				WS11	WS14	WS15	WS15	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.50	1.00	0.30	0.80	0.80
Date Sampled				13/04/2023	16/04/2023	16/04/2023	16/04/2023	15/04/2023
Time Taken				1155	0853	0856	0950	0830
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-	-
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-	-
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	-	-
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	-	-
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	-	-
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	-	-
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	-	-
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	-	-
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	< 10	14	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658279	2658280	2658281	2658282	2658283
Sample Reference				WS17	WS17	WS17	WS18	WS18
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70-0.80	1.90	2.50	0.80	2.10
Date Sampled				15/04/2023	15/04/2023	15/04/2023	15/04/2023	15/04/2023
Time Taken				0847	0905	0915	0935	0951
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	11	16	14	12
Total mass of sample received	kg	0.001	NONE	1	0.8	0.6	0.5	0.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	IZJ	N/A	N/A	JBH	N/A
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	6.8	7.5	7.9	7.5	8.1
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	640	710	280	460	230
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	0.051	-	0.072
Sulphide	mg/kg	1	MCERTS	< 1.0	33	13	1.9	7
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1	0.8	0.8	0.6	0.6
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.91	1.2	< 0.05	0.31	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.66	2.2	0.06	1.2	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.56	2.4	0.07	0.79	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	4.4	10	0.36	5.4	< 0.05
Anthracene	mg/kg	0.05	MCERTS	1.1	2.4	0.08	1.5	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	3.7	8.7	0.24	4.6	< 0.05
Pyrene	mg/kg	0.05	MCERTS	3.4	8.2	0.24	4.3	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	3	0.09	2.3	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.6	3.4	0.09	2.2	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.8	3.5	0.08	2.8	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.58	1.1	< 0.05	0.87	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.5	2.8	< 0.05	2.9	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.74	1.3	< 0.05	1.7	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.28	0.4	< 0.05	0.52	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1	1.6	< 0.05	2.2	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	23.9	52.4	1.31	33.7	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.4	8.3	4.6	9.2	5.8
Boron (water soluble)	mg/kg	0.2	MCERTS	1	0.4	0.5	1.2	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	19	27	17	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	14	19	19	15
Lead (aqua regia extractable)	mg/kg	1	MCERTS	23	40	11	20	10
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	23	32	21	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	47	55	58	67	50
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658279	2658280	2658281	2658282	2658283
Sample Reference				WS17	WS17	WS17	WS18	WS18
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.70-0.80	1.90	2.50	0.80	2.10
Date Sampled				15/04/2023	15/04/2023	15/04/2023	15/04/2023	15/04/2023
Time Taken				0847	0905	0915	0935	0951
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	3.1	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	25	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	290	< 2.0	< 2.0	41
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	410	< 8.0	< 8.0	79
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	110	< 8.0	< 8.0	18
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	840	< 10	< 10	140
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	5.6	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	120	< 2.0	2.5	13
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	220	< 10	< 10	37
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	54	< 10	< 10	16
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	13	410	< 10	12	67

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658284	2658285	2658286	2658287
Sample Reference				WS18	RBH01	RBH01	RBH02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.60	0.50	1.10	0.80
Date Sampled				15/04/2023	12/04/2023	12/04/2023	14/04/2023
Time Taken				1012	1120	1140	1040
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	16	17	13
Total mass of sample received	kg	0.001	NONE	1	1	1	1
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	N/A	JBH	N/A	JBH
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	8.2	7.4	7.7	8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	240	220	-	66
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	0.0058	-
Sulphide	mg/kg	1	MCERTS	18	1.6	-	< 1.0
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.8	0.7	-	0.5
Total Phenols							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.18
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.98
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.18
Fluoranthene	mg/kg	0.05	MCERTS	0.08	< 0.05	-	1.4
Pyrene	mg/kg	0.05	MCERTS	0.08	0.08	-	1.2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.54
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.51
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	-	0.53
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	-	0.13
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.38
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.21
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	0.25
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	-	6.53
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.9	5.3	-	4.2
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.3	-	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	-	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	27	17	-	8.8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	12	-	9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11	26	-	9.8
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	33	13	-	7.4
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	57	27	-	19
Monoaromatics & Oxygenates							
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0

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Analytical Report Number: 23-30189
Project / Site name: Greenheys Manchester Science Park
Your Order No: NX534

Lab Sample Number				2658284	2658285	2658286	2658287
Sample Reference				WS18	RBH01	RBH01	RBH02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.60	0.50	1.10	0.80
Date Sampled				15/04/2023	12/04/2023	12/04/2023	14/04/2023
Time Taken				1012	1120	1140	1040
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	-	< 5.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	-	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	-	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	-	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	< 10	< 10	-	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number : 23-30189
Project / Site name: Greenheys Manchester Science Park

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2658264	WS1	None Supplied	1.3	Brown sand with gravel.
2658265	WS1	None Supplied	2.5	Brown clay.
2658266	WS2	None Supplied	0.6	Brown sand with gravel.
2658267	WS3	None Supplied	0.5	Brown clay and sand with gravel.
2658268	WS4	None Supplied	1.2	Brown sand with gravel.
2658270	WS5B	None Supplied	1.9	Brown clay and sand with gravel.
2658271	WS10	None Supplied	0.7	Brown clay and sand with gravel.
2658272	WS10	None Supplied	1.1	Brown clay and sand with gravel.
2658273	WS11	None Supplied	0.8	Brown sand with gravel.
2658274	WS11	None Supplied	1.5	Brown sand with gravel.
2658275	WS14	None Supplied	1	Brown loam and sand with vegetation.
2658276	WS15	None Supplied	0.3	Brown loam and sand with vegetation.
2658277	WS15	None Supplied	0.8	Brown clay and sand with gravel.
2658278	WS16	None Supplied	0.8	Brown clay and sand with gravel.
2658279	WS17	None Supplied	0.70-0.80	Brown loam and clay with vegetation.
2658280	WS17	None Supplied	1.9	Brown clay and sand with gravel.
2658281	WS17	None Supplied	2.5	Brown clay.
2658282	WS18	None Supplied	0.8	Brown sand with gravel.
2658283	WS18	None Supplied	2.1	Brown clay and sand with gravel.
2658284	WS18	None Supplied	2.6	Brown clay and sand with gravel.
2658285	RBH01	None Supplied	0.5	Brown clay and sand with gravel.
2658286	RBH01	None Supplied	1.1	Brown clay and sand with gravel.
2658287	RBH02	None Supplied	0.8	Brown clay and sand with gravel.

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Analytical Report Number : 23-30189
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

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Analytical Report Number : 23-30189
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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Analytical Report Number : 23-30189
Project / Site name: Greenheys Manchester Science Park

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

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

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
RBH01	None Supplied	S	2658285	c	Sulphide in soil	L010-PL	c
RBH01	None Supplied	S	2658285	c	Total cyanide in soil	L080-PL	c
RBH02	None Supplied	S	2658287	c	Sulphide in soil	L010-PL	c
RBH02	None Supplied	S	2658287	c	Total cyanide in soil	L080-PL	c
WS1	None Supplied	S	2658264	c	Sulphide in soil	L010-PL	c
WS1	None Supplied	S	2658264	c	Total cyanide in soil	L080-PL	c
WS10	None Supplied	S	2658271	c	Sulphide in soil	L010-PL	c
WS10	None Supplied	S	2658271	c	Total cyanide in soil	L080-PL	c
WS11	None Supplied	S	2658273	c	Sulphide in soil	L010-PL	c
WS11	None Supplied	S	2658273	c	Total cyanide in soil	L080-PL	c
WS11	None Supplied	S	2658274	c	Sulphide in soil	L010-PL	c
WS11	None Supplied	S	2658274	c	Total cyanide in soil	L080-PL	c
WS14	None Supplied	S	2658275	c	Sulphide in soil	L010-PL	c
WS14	None Supplied	S	2658275	c	Total cyanide in soil	L080-PL	c
WS15	None Supplied	S	2658276	c	Sulphide in soil	L010-PL	c
WS15	None Supplied	S	2658276	c	Total cyanide in soil	L080-PL	c
WS16	None Supplied	S	2658278	c	Sulphide in soil	L010-PL	c
WS16	None Supplied	S	2658278	c	Total cyanide in soil	L080-PL	c
WS17	None Supplied	S	2658279	c	Sulphide in soil	L010-PL	c
WS17	None Supplied	S	2658279	c	Total cyanide in soil	L080-PL	c
WS17	None Supplied	S	2658280	c	Sulphide in soil	L010-PL	c
WS17	None Supplied	S	2658280	c	Total cyanide in soil	L080-PL	c
WS17	None Supplied	S	2658281	c	Sulphide in soil	L010-PL	c
WS17	None Supplied	S	2658281	c	Total cyanide in soil	L080-PL	c
WS18	None Supplied	S	2658282	c	Sulphide in soil	L010-PL	c
WS18	None Supplied	S	2658282	c	Total cyanide in soil	L080-PL	c
WS18	None Supplied	S	2658283	c	Sulphide in soil	L010-PL	c
WS18	None Supplied	S	2658283	c	Total cyanide in soil	L080-PL	c
WS18	None Supplied	S	2658284	c	Sulphide in soil	L010-PL	c
WS18	None Supplied	S	2658284	c	Total cyanide in soil	L080-PL	c
WS2	None Supplied	S	2658266	c	Sulphide in soil	L010-PL	c
WS2	None Supplied	S	2658266	c	Total cyanide in soil	L080-PL	c
WS3	None Supplied	S	2658267	c	Sulphide in soil	L010-PL	c
WS3	None Supplied	S	2658267	c	Total cyanide in soil	L080-PL	c
WS4	None Supplied	S	2658268	c	Sulphide in soil	L010-PL	c
WS4	None Supplied	S	2658268	c	Total cyanide in soil	L080-PL	c
WS5B	None Supplied	S	2658270	c	Sulphide in soil	L010-PL	c
WS5B	None Supplied	S	2658270	c	Total cyanide in soil	L080-PL	c

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Mark Newton
NX Consulting
Station House
Stamford New Road
Altrincham
WA14 1EP

e: marknewton@nxconsulting.org.uk

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

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

Analytical Report Number : 23-30191

Project / Site name:	Greenheys Manchester Science Park	**Samples received on:**	20/04/2023
Your job number:	NX534	**Samples instructed on/ Analysis started on:**	24/04/2023
Your order number:	NX534	**Analysis completed by:**	02/05/2023
Report Issue Number:	1	**Report issued on:**	02/05/2023
Samples Analysed:	3 10:1 WAC samples		

Izabela Wójcik
Signed:

Izabela Wójcik
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**23-30191**						
					Client: NXCONSULTI		
Location	**Greenheys Manchester Science Park**						
Lab Reference (Sample Number)	2658297 / 2658298				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	12/04/2023				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS3						
Depth (m)	0.50						
Solid Waste Analysis							
TOC (%)**	0.9				3%	5%	6%
Loss on Ignition (%) **	3.1				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	7.5				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	4.1				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0010			< 0.0100	0.5	2	25
Barium *	0.0275			0.217	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0023			0.018	0.5	10	70
Copper *	0.0064			0.051	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0065			0.0515	0.5	10	30
Nickel *	0.0005			0.0039	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0085			0.067	4	50	200
Chloride *	7.3			57	800	15000	25000
Fluoride*	0.65			5.1	10	150	500
Sulphate *	2.9			23	1000	20000	50000
TDS*	60			470	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	9.04			71.3	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.1						
Dry Matter (%)	87						
Moisture (%)	13						

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

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

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

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

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**23-30191**						
					Client: NXCONSULTI		
Location	**Greenheys Manchester Science Park**						
Lab Reference (Sample Number)	2658299 / 2658300				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	13/04/2023				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS10						
Depth (m)	0.25						
Solid Waste Analysis							
TOC (%)**	1.1				3%	5%	6%
Loss on Ignition (%) **	2.8				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	800				500	--	--
Total PAH (WAC-17) (mg/kg)	16.8				100	--	--
pH (units)**	7.6				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	6.1				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0010			< 0.0100	0.5	2	25
Barium *	0.0585			0.490	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0007			0.0055	0.5	10	70
Copper *	0.011			0.093	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0141			0.118	0.5	10	30
Nickel *	0.0004			0.0037	0.4	10	40
Lead *	0.0036			0.030	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0078			0.066	4	50	200
Chloride *	0.74			6.2	800	15000	25000
Fluoride*	0.42			3.5	10	150	500
Sulphate *	23			200	1000	20000	50000
TDS*	99			830	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	8.44			70.7	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.50						
Dry Matter (%)	88						
Moisture (%)	12						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.					*= UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation					** = MCERTS accredited		

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

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

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Results

Report No:	**23-30191**						
					Client: NXCONSULTI		
Location	**Greenheys Manchester Science Park**						
Lab Reference (Sample Number)	2658301 / 2658302				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	15/04/2023				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS17						
Depth (m)	1.90						
Solid Waste Analysis							
TOC (%)**	0.8				3%	5%	6%
Loss on Ignition (%) **	1.7				--	--	10%
BTEX (µg/kg) **	< 5.0				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg) EH_1D_CU_AL	830				500	--	--
Total PAH (WAC-17) (mg/kg)	45.3				100	--	--
pH (units)**	6.7				--	>6	--
Acid Neutralisation Capacity (mmol / kg)	-1.4				--	To be evaluated	To be evaluated
Eluate Analysis (BS EN 12457 - 2 preparation utilising end over end leaching procedure)	10:1 mg/l			10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0019			0.0164	0.5	2	25
Barium *	0.0288			0.251	20	100	300
Cadmium *	0.0001			0.0012	0.04	1	5
Chromium *	< 0.0004			< 0.0040	0.5	10	70
Copper *	0.0057			0.050	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0044			0.0387	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.013			0.11	4	50	200
Chloride *	2.4			21	800	15000	25000
Fluoride*	0.093			0.81	10	150	500
Sulphate *	38			330	1000	20000	50000
TDS*	84			740	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	6.34			55.3	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	0.60						
Dry Matter (%)	89						
Moisture (%)	11						
Results are expressed on a dry weight basis, after correction for moisture content where applicable.					*= UKAS accredited (liquid eluate analysis only)		
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation					** = MCERTS accredited		

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

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Analytical Report Number : 23-30191
Project / Site name: Greenheys Manchester Science Park

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2658297	WS3	None Supplied	0.5	Brown clay and sand with gravel.
2658299	WS10	None Supplied	0.25	Brown sand with gravel and brick.
2658301	WS17	None Supplied	1.9	Brown clay and sand with gravel.

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Analytical Report Number : 23-30191
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance""	L046-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270.	L064-PL	D	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073-PL	W	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by EC probe using a factor of 0.6.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L031	W	ISO 17025

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Analytical Report Number : 23-30191
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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The results included within the report relate only to the sample(s) submitted for testing.

UKAS TESTING
4041

Mark Newton
NX Consulting
Station House
Stamford New Road
Altrincham
WA14 1EP

e: marknewton@nxconsulting.org.uk

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

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

Analytical Report Number : 23-32316

Project / Site name:	Greenheys Manchester Science Park	**Samples received on:**	20/04/2023
Your job number:	NX534	**Samples instructed on/ Analysis started on:**	05/05/2023
Your order number:	NX534	**Analysis completed by:**	15/05/2023
Report Issue Number:	1	**Report issued on:**	15/05/2023
Samples Analysed:	9 leachate samples		

Izabela Wójcik
Signed:

Izabela Wójcik
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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Analytical Report Number: 23-32316
Project / Site name: Greenheys Manchester Science Park

Your Order No: NX534

Lab Sample Number				2670792	2670793	2670794	2670795	2670796
Sample Reference				WS1	WS3	WS4	WS5B	WS11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.30	0.50	1.20	1.10	1.50
Date Sampled				12/04/2023	12/04/2023	13/04/2023	14/04/2023	13/04/2023
Time Taken				0935	1140	0900	0930	1155
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (automated)	pH Units	N/A	ISO 17025	7.5	7.4	7	7.1	7
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO_4	mg/l	0.1	ISO 17025	2.9	7.4	1.6	2.8	1.8
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Organic Carbon (TOC)	mg/l	0.1	NONE	8.68	9.37	11.3	11	14.9
Total Phenols								
Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1	ISO 17025	< 1.0	< 1.0	1.4	< 1.0	< 1.0
Boron (dissolved)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	0.8	< 0.4	< 0.4	< 0.4	< 0.4
Copper (dissolved)	µg/l	0.7	ISO 17025	9.7	3.9	3.1	1.8	2
Lead (dissolved)	µg/l	1	ISO 17025	4.1	< 1.0	< 1.0	< 1.0	2.3
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	1.3	< 0.3	< 0.3	1.1	0.5
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	7.2	3.9	5.8	3.6	3.6
Monoaromatics & Oxygenates								
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 23-32316

Project / Site name: Greenheys Manchester Science Park

Your Order No: NX534

Lab Sample Number				2670792	2670793	2670794	2670795	2670796
Sample Reference				WS1	WS3	WS4	WS5B	WS11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.30	0.50	1.20	1.10	1.50
Date Sampled				12/04/2023	12/04/2023	13/04/2023	14/04/2023	13/04/2023
Time Taken				0935	1140	0900	0930	1155
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic# >C5 - C6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic# >C6 - C8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic# >C8 - C10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic# >C5 - C7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic# >C7 - C8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic# >C8 - C10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number: 23-32316
Project / Site name: Greenheys Manchester Science Park

Your Order No: NX534

Lab Sample Number				2670797	2670798	2670799	2670800
Sample Reference				WS10	WS17	WS18	WS14
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	2.50	2.10	1.00
Date Sampled				13/04/2023	15/04/2023	15/04/2023	16/04/2023
Time Taken				1055	0915	0951	0835
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
General Inorganics							
pH (automated)	pH Units	N/A	ISO 17025	6.9	7.2	7.2	6.5
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Sulphate as SO_4	mg/l	0.1	ISO 17025	2.5	11.9	19.9	28.1
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Total Organic Carbon (TOC)	mg/l	0.1	NONE	12.1	8.83	10	4.81
Total Phenols							
Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10
Speciated PAHs							
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH							
Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2
Heavy Metals / Metalloids							
Arsenic (dissolved)	µg/l	1	ISO 17025	< 1.0	< 1.0	1.3	< 1.0
Boron (dissolved)	µg/l	10	ISO 17025	< 10	< 10	< 10	22
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (dissolved)	µg/l	0.4	ISO 17025	6.4	< 0.4	0.5	0.4
Copper (dissolved)	µg/l	0.7	ISO 17025	12	3.6	4.7	12
Lead (dissolved)	µg/l	1	ISO 17025	3	1.4	1.4	1.2
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	4.4	2.2	0.8	0.7
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	17	5.3	3.1	15
Monoaromatics & Oxygenates							
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10

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Analytical Report Number: 23-32316
Project / Site name: Greenheys Manchester Science Park

Your Order No: NX534

Lab Sample Number				2670797	2670798	2670799	2670800
Sample Reference				WS10	WS17	WS18	WS14
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10	2.50	2.10	1.00
Date Sampled				13/04/2023	15/04/2023	15/04/2023	16/04/2023
Time Taken				1055	0915	0951	0835
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**				
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic# >C5 - C6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic# >C6 - C8 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic# >C8 - C10 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 $_{EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) $_{HS+EH_1D_AL_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic# >C5 - C7 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic# >C7 - C8 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic# >C8 - C10 $_{HS_1D_AR}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 $_{EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) $_{HS+EH_1D_AR_MS}$	µg/l	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-32316
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
NRA Leachate Prep	10:1 extract with de-ionised water shaken for 24 hours then filtered.	In-house method based on National Rivers Authority	L020-PL	W	NONE
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Boron in leachate	Determination of boron in leachate. Sample acidified and followed by ICP-OES.	In-house method based on MEWAM	L039-PL	W	ISO 17025
Monohydric phenols in leachate	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
pH at 20oC in leachate (automated)	Determination of pH in leachate by electrometric measurement.	In house method.	L099B	W	ISO 17025
Sulphide in leachate	Determination of sulphide in leachate by ion selective electrode.	In-house method	L010-PL	W	NONE
TPHCWG (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	ISO 17025
Total cyanide in leachate	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon in leachate	Determination of dissolved organic carbon in leachate by TOC/DOC NDIR analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
BTEX and MTBE in leachates (Monoaromatics)	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 23-32316
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

- Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and may be compromised.

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Mark Newton
NX Consulting
Station House
Stamford New Road
Altrincham
WA14 1EP

e: marknewton@nxconsulting.org.uk

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

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

Analytical Report Number : 23-32523-2

Replaces Analytical Report Number: 23-32523, issue no. 1
Client references/information amended.
Sample Reference amended for sample 2671869 as per client's request

Project / Site name:	Greenheys Manchester Science Park	**Samples received on:**	05/05/2023
Your job number:	NX534	**Samples instructed on/ Analysis started on:**	05/05/2023
Your order number:	NX534	**Analysis completed by:**	16/05/2023
Report Issue Number:	2	**Report issued on:**	17/05/2023
Samples Analysed:	5 water samples		

Signed:
Elżbieta Suchy
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report relate only to the sample(s) submitted for testing.

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Analytical Report Number: 23-32523
Project / Site name: Greenheys Manchester Science Park

Your Order No: NX534

Lab Sample Number				2671867	2671868	2671869	2671870	2671871
Sample Reference				RBH02	WS04	WS05B	WS10	WS11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.00	2.00	2.00	2.00	2.00
Date Sampled				04/05/2023	04/05/2023	04/05/2023	04/05/2023	04/05/2023
Time Taken				1035	1047	1108	1145	1155
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
General Inorganics								
pH (L005B)	pH Units	N/A	ISO 17025	7.2	7.3	7.1	7.4	7.5
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Sulphate as SO4	mg/l	0.045	ISO 17025	21.3	65.2	17.6	63.7	441
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	3.36	4.62	3.31	1.91	7.91
Total Phenols								
Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	8.4	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.14	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	1.99	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	1.32	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	0.28	3.44	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.82	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.48	2.64	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.52	2.46	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	0.18	0.86	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	0.19	0.86	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.23	0.95	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.09	0.44	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	0.19	0.88	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.48	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	0.59	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	2.16	26.3	< 0.16	< 0.16
Heavy Metals / Metalloids								
Boron (dissolved)	µg/l	10	ISO 17025	49	40	65	58	63
Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.54	0.74	1.52	0.24	0.45
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.28	0.09	0.07	0.29	0.12
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.2	< 0.2	< 0.2	0.3	< 0.2
Copper (dissolved)	µg/l	0.5	ISO 17025	2.9	1.7	1.1	1.5	1.7
Lead (dissolved)	µg/l	0.2	ISO 17025	0.2	< 0.2	< 0.2	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.8	3.1	3.1	2.2	5.4
Selenium (dissolved)	µg/l	0.6	ISO 17025	1.7	1.1	< 0.6	5.7	1.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	4	4.6	8.4	2.8	4.7
Monoaromatics & Oxygenates								
Benzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Toluene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Ethylbenzene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
p & m-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
o-xylene	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	3	ISO 17025	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >C5 - C6 $_{HS_1D_AL}$	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

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The results included within the report relate only to the sample(s) submitted for testing.

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Analytical Report Number: 23-32523
Project / Site name: Greenheys Manchester Science Park

Your Order No: NX534

Lab Sample Number				2671867	2671868	2671869	2671870	2671871
Sample Reference				RBH02	WS04	WS05B	WS10	WS11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.00	2.00	2.00	2.00	2.00
Date Sampled				04/05/2023	04/05/2023	04/05/2023	04/05/2023	04/05/2023
Time Taken				1035	1047	1108	1145	1155
Analytical Parameter (Water Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
TPH-CWG - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 EH_1D_AL_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 EH_1D_AL_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 EH_1D_AL_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 EH_1D_AL_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) HS+EH_1D_AL_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7 HS_1D_AR	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 HS_1D_AR	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 HS_1D_AR	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	23	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	40	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	26	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) HS+EH_1D_AR_MS	µg/l	10	NONE	< 10	< 10	89	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number : 23-32523
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR analyser. Accredited matrices: SW PW GW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025

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4041

Analytical Report Number : 23-32523
Project / Site name: Greenheys Manchester Science Park

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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The results included within the report relate only to the sample(s) submitted for testing.

Analytical Report Number : 23-32523
Project / Site name: Greenheys Manchester Science Park

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

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

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
RBH02	None Supplied	W	2671867	c	pH at 20oC in water (automated)	L099-PL	c
WS04	None Supplied	W	2671868	c	pH at 20oC in water (automated)	L099-PL	c
WS05B	None Supplied	W	2671869	c	pH at 20oC in water (automated)	L099-PL	c
WS10	None Supplied	W	2671870	c	pH at 20oC in water (automated)	L099-PL	c
WS11	None Supplied	W	2671871	c	pH at 20oC in water (automated)	L099-PL	c

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report relate only to the sample(s) submitted for testing.

Certificate of Analysis

Certificate Number 23-15796 *Issued:* 13-Jul-23

Client NX Consulting Ltd
Station House
Stamford New Road
Altricham
WA14 1EP

Our Reference 23-15796

Client Reference NX534

Order No NX534

Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchest

Description 15 Soil samples, 1 Leachate sample.

Date Received 04-Jul-23

Date Started 04-Jul-23

Date Completed 13-Jul-23

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

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

Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196756	2196757	2196758	2196759	2196760	2196761
			.Sample ID	WS19	WS20	WS20	WS20	WS21	WS22
			Depth	2.40	1.90	2.10	2.60	1.80	2.20
			Other ID						
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	20/06/2023	22/06/2023	22/06/2023	22/06/2023	20/06/2023	20/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg						
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg						
Cadmium	DETSC 2301#	0.1	mg/kg						
Chromium	DETSC 2301#	0.15	mg/kg						
Copper	DETSC 2301#	0.2	mg/kg						
Lead	DETSC 2301#	0.3	mg/kg						
Mercury	DETSC 2325#	0.05	mg/kg						
Nickel	DETSC 2301#	1	mg/kg						
Selenium	DETSC 2301#	0.5	mg/kg						
Zinc	DETSC 2301#	1	mg/kg						
Inorganics									
pH	DETSC 2008#		pH						
Cyanide, Total	DETSC 2130#	0.1	mg/kg						
Total Organic Carbon	DETSC 2084#	0.5	%	1.6	0.9	< 0.5	1.1	< 0.5	< 0.5
Sulphide	DETSC 2024*	10	mg/kg						
Sulphate as SO4, Total	DETSC 2321#	100	mg/kg						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	4.1	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	170	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	300	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	110	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	590	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	31	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	310	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	3.4	340	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	4.1	110	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	790	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	1400	< 10	< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3321	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg						

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

Summary of Chemical Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196756	2196757	2196758	2196759	2196760	2196761
			.Sample ID	WS19	WS20	WS20	WS20	WS21	WS22
			Depth	2.40	1.90	2.10	2.60	1.80	2.20
			Other ID						
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	20/06/2023	22/06/2023	22/06/2023	22/06/2023	20/06/2023	20/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Acenaphthylene	DETSC 3303#	0.03	mg/kg						
Acenaphthene	DETSC 3303#	0.03	mg/kg						
Fluorene	DETSC 3303	0.03	mg/kg						
Phenanthrene	DETSC 3303#	0.03	mg/kg						
Anthracene	DETSC 3303	0.03	mg/kg						
Fluoranthene	DETSC 3303#	0.03	mg/kg						
Pyrene	DETSC 3303#	0.03	mg/kg						
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg						
Chrysene	DETSC 3303	0.03	mg/kg						
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg						
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg						
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg						
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg						
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg						
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1	< 0.1	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	11	< 0.1	< 0.1	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	0.3	< 0.1	< 0.1	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	0.5	< 0.1	< 0.1	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	0.9	< 0.1	< 0.1	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	0.8	< 0.1	< 0.1	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg						
PAH 16 Total	DETSC 3301	1.6	mg/kg	< 1.6	< 1.6	14	< 1.6	< 1.6	< 1.6
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg						

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

Summary of Chemical Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Pa

	Lab No	2196762	2196763	2196764	2196765	2196767	2196768
	.Sample ID	TP05	TP05	TP05	WS7	WS9	WS8
	Depth	1.60	2.00	2.70	0.60	0.50	1.50
	Other ID						
	Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampling Date	21/06/2023	21/06/2023	21/06/2023	19/06/2023	19/06/2023	19/06/2023
	Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Metals							
Arsenic	DETSC 2301#	0.2	mg/kg				4.5	5.2	
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg				0.6	0.5	
Cadmium	DETSC 2301#	0.1	mg/kg				< 0.1	< 0.1	
Chromium	DETSC 2301#	0.15	mg/kg				13	15	
Copper	DETSC 2301#	0.2	mg/kg				9.7	17	
Lead	DETSC 2301#	0.3	mg/kg				9.9	15	
Mercury	DETSC 2325#	0.05	mg/kg				1.2	0.09	
Nickel	DETSC 2301#	1	mg/kg				10	17	
Selenium	DETSC 2301#	0.5	mg/kg				< 0.5	< 0.5	
Zinc	DETSC 2301#	1	mg/kg				22	52	
Inorganics									
pH	DETSC 2008#		pH				7.8	7.8	
Cyanide, Total	DETSC 2130#	0.1	mg/kg				1.1	0.4	
Total Organic Carbon	DETSC 2084#	0.5	%	< 0.5	0.5	1.1			< 0.5
Sulphide	DETSC 2024*	10	mg/kg				28	16	
Sulphate as SO4, Total	DETSC 2321#	100	mg/kg				322	224	
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	0.04	< 0.01			< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5			< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	21	< 1.2			< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	39	< 1.5			< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	14	< 3.4			< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	74	< 10			< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	0.10	< 0.01			< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9			< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	5.5	< 0.5			< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	23	< 0.6			< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	9.5	< 1.4			< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	39	< 10			< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	110	< 10			< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
MTBE	DETSC 3321	0.01	mg/kg	< 0.01	< 0.01	< 0.01			< 0.01
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	

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Summary of Chemical Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Pa

				Lab No	2196762	2196763	2196764	2196765	2196767	2196768
				.Sample ID	TP05	TP05	TP05	WS7	WS9	WS8
				Depth	1.60	2.00	2.70	0.60	0.50	1.50
				Other ID						
				Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
				Sampling Date	21/06/2023	21/06/2023	21/06/2023	19/06/2023	19/06/2023	19/06/2023
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Acenaphthylene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Acenaphthene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Fluorene	DETSC 3303	0.03	mg/kg				< 0.03	< 0.03	
Phenanthrene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Anthracene	DETSC 3303	0.03	mg/kg				< 0.03	< 0.03	
Fluoranthene	DETSC 3303#	0.03	mg/kg				0.04	< 0.03	
Pyrene	DETSC 3303#	0.03	mg/kg				0.06	< 0.03	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Chrysene	DETSC 3303	0.03	mg/kg				0.03	< 0.03	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg				0.03	< 0.03	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg				< 0.03	< 0.03	
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	0.5	< 0.1			< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			< 0.1
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg				0.10	< 0.10	
PAH 16 Total	DETSC 3301	1.6	mg/kg	< 1.6	< 1.6	< 1.6			< 1.6
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg				0.5	0.9	

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Summary of Chemical Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Pa

Lab No	2196769	2196770
.Sample ID	WS8	WS8
Depth	1.80	2.30
Other ID		
Sample Type	SOIL	SOIL
Sampling Date	19/06/2023	19/06/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Metals					
Arsenic	DETSC 2301#	0.2	mg/kg		
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg		
Cadmium	DETSC 2301#	0.1	mg/kg		
Chromium	DETSC 2301#	0.15	mg/kg		
Copper	DETSC 2301#	0.2	mg/kg		
Lead	DETSC 2301#	0.3	mg/kg		
Mercury	DETSC 2325#	0.05	mg/kg		
Nickel	DETSC 2301#	1	mg/kg		
Selenium	DETSC 2301#	0.5	mg/kg		
Zinc	DETSC 2301#	1	mg/kg		
Inorganics					
pH	DETSC 2008#		pH		
Cyanide, Total	DETSC 2130#	0.1	mg/kg		
Total Organic Carbon	DETSC 2084#	0.5	%	0.6	1.1
Sulphide	DETSC 2024*	10	mg/kg		
Sulphate as SO4, Total	DETSC 2321#	100	mg/kg		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.11	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	85	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	850	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	860	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	230	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	2000	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.20	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	16	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	440	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	730	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	230	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	1400	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	3400	< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01
MTBE	DETSC 3321	0.01	mg/kg	< 0.01	< 0.01
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg		

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Summary of Chemical Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Pa

Lab No	2196769	2196770
.Sample ID	WS8	WS8
Depth	1.80	2.30
Other ID		
Sample Type	SOIL	SOIL
Sampling Date	19/06/2023	19/06/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Acenaphthylene	DETSC 3303#	0.03	mg/kg		
Acenaphthene	DETSC 3303#	0.03	mg/kg		
Fluorene	DETSC 3303	0.03	mg/kg		
Phenanthrene	DETSC 3303#	0.03	mg/kg		
Anthracene	DETSC 3303	0.03	mg/kg		
Fluoranthene	DETSC 3303#	0.03	mg/kg		
Pyrene	DETSC 3303#	0.03	mg/kg		
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		
Chrysene	DETSC 3303	0.03	mg/kg		
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		
Naphthalene	DETSC 3301	0.1	mg/kg	1.7	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	46	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	1.1	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	1.7	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	1.5	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	4.0	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		
PAH 16 Total	DETSC 3301	1.6	mg/kg	56	< 1.6
Phenols					
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg		

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

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

	Lab No	2196756	2196758	2196760	2196763	2196769
	.Sample ID	WS19	WS20	WS21	TP05	WS8
	Depth	2.40	2.10	1.80	2.00	1.80
	Other ID					
	Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampling Date	20/06/2023	22/06/2023	20/06/2023	21/06/2023	19/06/2023
	Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
VOCs						
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196756	2196758	2196760	2196763	2196769
			.Sample ID	WS19	WS20	WS21	TP05	WS8
			Depth	2.40	2.10	1.80	2.00	1.80
			Other ID					
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	20/06/2023	22/06/2023	20/06/2023	21/06/2023	19/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
SVOCs								
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196756	2196758	2196760	2196763	2196769
			.Sample ID	WS19	WS20	WS21	TP05	WS8
			Depth	2.40	2.10	1.80	2.00	1.80
			Other ID					
			Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL
			Sampling Date	20/06/2023	22/06/2023	20/06/2023	21/06/2023	19/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Key: * -not accredited. n/s -not supplied.

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester, M15 6AY *Sample Numbers* 2196766 2196771
Sample Id WS7 1.20 *Date Analysed* 13/07/2023

Test Results On Waste

Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	< 0.5
DETSC 2003# Loss On Ignition	%	1.5
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	< 10
DETSC 3301 PAHs	mg/kg	< 1.6
DETSC 2008# pH	pH Units	8.1
DETSC 2073* Acid Neutralisation Capacity (pH4)	mol/kg	< 1.0
DETSC 2073* Acid Neutralisation Capacity (pH7)	mol/kg	< 1.0

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate

Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	1	0.01
DETSC 2306 Barium as Ba	5.3	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	0.26	< 0.1
DETSC 2306 Copper as Cu	0.82	< 0.02
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	1.4	< 0.1
DETSC 2306 Nickel as Ni	< 0.50	< 0.1
DETSC 2306 Lead as Pb	0.45	< 0.05
DETSC 2306 Antimony as Sb	< 0.17	< 0.05
DETSC 2306 Selenium as Se	0.29	< 0.03
DETSC 2306 Zinc as Zn	2.5	0.025
DETSC 2055 Chloride as Cl	10000	100
DETSC 2055* Fluoride as F	130	1.3
DETSC 2055 Sulphate as SO4	2400	< 100
DETSC 2009* Total Dissolved Solids	37000	370
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	< 2000	< 50

WAC Limit Values Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive Hazardous Waste

Additional Information

DETSC 2008 pH	6.8
DETSC 2009 Conductivity uS/cm	53.4
* Temperature*	19.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.100

Stage 1

Volume of Leachant L2*	0.987
Volume of Eluate VE1*	0.93

Disclaimer: *The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.*

V.2.06 ** DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.*

Summary of Asbestos Analysis
Soil Samples

Our Ref 23-15796
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2196765	WS7 0.60	SOIL	NAD	none	Robertas Ciparis
2196767	WS9 0.50	SOIL	NAD	none	Robertas Ciparis

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 23-15796
Client Ref NX534
Contract Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2196756	WS19 2.40 SOIL	20/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	VOC (7 days)	
2196757	WS20 1.90 SOIL	22/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L		
2196758	WS20 2.10 SOIL	22/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	VOC (7 days)	
2196759	WS20 2.60 SOIL	22/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L		
2196760	WS21 1.80 SOIL	20/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	VOC (7 days)	
2196761	WS22 2.20 SOIL	20/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L		
2196762	TP05 1.60 SOIL	21/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L		
2196763	TP05 2.00 SOIL	21/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	VOC (7 days)	
2196764	TP05 2.70 SOIL	21/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L		
2196765	WS7 0.60 SOIL	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L x2	Naphthalene (14 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (14 days)	
2196766	WS7 1.20 SOIL	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	BTEX/PRO (14 days), Naphthalene (14 days), PAH FID (14 days), pH + Conductivity (7 days), EPH/TPH (14 days)	
2196767	WS9 0.50 SOIL	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	Naphthalene (14 days), PAH MS (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (14 days)	
2196768	WS8 1.50 SOIL	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	Aliphatics/Aromatics (14 days), BTEX/PRO (14 days), Naphthalene (14 days), PAH FID (14 days)	
2196769	WS8 1.80 SOIL	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	Aliphatics/Aromatics (14 days), BTEX/PRO (14 days), Naphthalene (14 days), PAH FID (14 days), SVOC (14 days)	
2196770	WS8 2.30 SOIL	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L	Aliphatics/Aromatics (14 days), BTEX/PRO (14 days), Naphthalene (14 days), PAH FID (14 days)	
2196771	WS7 1.20 LEACHATE	19/06/23	GJ 250ml x2, GJ 60ml x2, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

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

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Information in Support of the Analytical Results

Our Ref 23-15796
Client Ref NX534
Contract Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

End of Report

Certificate of Analysis

Certificate Number	23-15764	*Issued:*	13-Jul-23

Client NX Consulting Ltd
Station House
Stamford New Road
Altricham
WA14 1EP

Our Reference	23-15764
Client Reference	NX534
Order No	NX534
Contract Title	Greenheys Buisness Centre, Manchester Science Park, Manchest
Description	7 Water samples.
Date Received	03-Jul-23
Date Started	03-Jul-23
Date Completed	13-Jul-23
Test Procedures	Identified by prefix DETSn (details on request).
Notes	Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196510	2196511	2196512	2196513	2196514	2196515
			.Sample ID	WS08	WS09	WS17a	WS18a	WS19	WS20
			Depth	1.70	1.80	2.00	2.00	2.00	2.15
			Other ID						
			Sample Type	WATER	WATER	WATER	WATER	WATER	WATER
			Sampling Date	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Inorganics									
Total Organic Carbon	DETSC 2085	1	mg/l	21	6.1	12	12	3.9	6.4
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	85	< 0.1	160	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	17000	63	9100	1200	< 1.0	220
Aliphatic C12-C16	DETSC 3072*	1	ug/l	92000	6.2	40000	9300	< 1.0	1100
Aliphatic C16-C21	DETSC 3072*	1	ug/l	87000	5.5	37000	9300	< 1.0	1000
Aliphatic C21-C35	DETSC 3072*	1	ug/l	22000	< 1.0	9600	2600	< 1.0	310
Aliphatic C5-C35	DETSC 3072*	10	ug/l	220000	75	96000	22000	< 10	2700
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	98	< 0.1	120	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	4500	< 1.0	2400	360	< 1.0	38
Aromatic C12-C16	DETSC 3072*	1	ug/l	49000	< 1.0	25000	5400	< 1.0	610
Aromatic C16-C21	DETSC 3072*	1	ug/l	63000	< 1.0	31000	7400	< 1.0	840
Aromatic C21-C35	DETSC 3072*	1	ug/l	19000	< 1.0	8700	2300	< 1.0	270
Aromatic C5-C35	DETSC 3072*	10	ug/l	130000	< 10	67000	15000	< 10	1800
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l	350000	75	160000	38000	< 10	4400
Benzene	DETSC 3322	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	DETSC 3322	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	DETSC 3322	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene	DETSC 3322	1	ug/l	9.5	< 1.0	14	< 1.0	< 1.0	< 1.0
MTBE	DETSC 3322	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PAHs									
Naphthalene	DETSC 3304	0.05	ug/l	10	< 0.50	8.6	< 0.50	< 0.50	1.4
Acenaphthylene	DETSC 3304	0.01	ug/l	1.1	< 0.10	5.9	0.33	0.20	1.7
Acenaphthene	DETSC 3304	0.01	ug/l	3.0	< 0.10	4.6	0.90	0.19	1.1
Fluorene	DETSC 3304	0.01	ug/l	12	< 0.10	17	3.1	0.55	2.2
Phenanthrene	DETSC 3304	0.01	ug/l	2.2	0.10	< 0.10	1.4	0.79	< 1.00
Anthracene	DETSC 3304	0.01	ug/l	4.0	< 0.10	6.0	1.3	1.1	< 1.00
Fluoranthene	DETSC 3304	0.01	ug/l	4.4	< 0.10	2.8	1.1	1.4	5.7
Pyrene	DETSC 3304	0.01	ug/l	2.0	< 0.10	2.0	1.3	3.4	< 1.00
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	1.2	< 0.10	8.4	0.28	0.31	4.3
Chrysene	DETSC 3304	0.01	ug/l	< 0.10	< 0.10	< 0.10	0.27	0.59	3.3
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.10	< 0.10	< 1.00	0.29	0.38	4.7
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	3.7	< 0.10	3.8	< 0.10	0.38	1.9
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 1.00	< 0.10	< 1.00	0.26	0.20	4.4
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	11	< 0.10	6.0	0.22	0.16	2.7
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	1.9	< 0.10	1.5	< 0.10	< 0.10	0.50
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	9.8	< 0.10	5.5	0.28	0.44	2.5
PAH Total	DETSC 3304	0.2	ug/l	66	< 2.00	72	11	10	36

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196510	2196511	2196512	2196513	2196514	2196515
			.Sample ID	WS08	WS09	WS17a	WS18a	WS19	WS20
			Depth	1.70	1.80	2.00	2.00	2.00	2.15
			Other ID						
			Sample Type	WATER	WATER	WATER	WATER	WATER	WATER
			Sampling Date	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
VOCs									
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4	< 4	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	3	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	3	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	1	< 1	2	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	38	< 1	< 1	< 1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

			Lab No	2196510	2196511	2196512	2196513	2196514	2196515
			.Sample ID	WS08	WS09	WS17a	WS18a	WS19	WS20
			Depth	1.70	1.80	2.00	2.00	2.00	2.15
			Other ID						
			Sample Type	WATER	WATER	WATER	WATER	WATER	WATER
			Sampling Date	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1	< 1	< 1	< 1
SVOCs									
Phenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Aniline	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Bis(2-chloroisopropyl)ether	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4-Dimethylphenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4-Dichlorophenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Chloro-3-methylphenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4,6-Trichlorophenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 10.0	< 10.0	15	< 10.0	< 10.0	< 10.0
3-Nitroaniline	DETSC 3434*	1	ug/l	17	< 10.0	24	< 10.0	< 10.0	< 10.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

				Lab No	2196510	2196511	2196512	2196513	2196514	2196515
				.Sample ID	WS08	WS09	WS17a	WS18a	WS19	WS20
				Depth	1.70	1.80	2.00	2.00	2.00	2.15
				Other ID						
				Sample Type	WATER	WATER	WATER	WATER	WATER	WATER
				Sampling Date	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023	29/06/2023
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Dibenzofuran	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Diethylphthalate	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Nitroaniline	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Diphenylamine	DETSC 3434*	1	ug/l		< 10.0	< 10.0	92	< 10.0	< 10.0	< 10.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Hexachlorobenzene	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Pentachlorophenol	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l		< 10.0	< 10.0	15	< 10.0	< 10.0	< 10.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l		21	< 10.0	15	< 10.0	< 10.0	< 10.0
Dimethylphthalate	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Azobenzene	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Carbazole	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l		< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Scie

Lab No	2196516
.Sample ID	WS22
Depth	2.00
Other ID	
Sample Type	WATER
Sampling Date	29/06/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Inorganics				
Total Organic Carbon	DETSC 2085	1	mg/l	4.7
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	7.1
Aliphatic C12-C16	DETSC 3072*	1	ug/l	23
Aliphatic C16-C21	DETSC 3072*	1	ug/l	23
Aliphatic C21-C35	DETSC 3072*	1	ug/l	4.5
Aliphatic C5-C35	DETSC 3072*	10	ug/l	58
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	14
Aromatic C16-C21	DETSC 3072*	1	ug/l	14
Aromatic C21-C35	DETSC 3072*	1	ug/l	1.5
Aromatic C5-C35	DETSC 3072*	10	ug/l	30
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	ug/l	88
Benzene	DETSC 3322	1	ug/l	< 1.0
Toluene	DETSC 3322	1	ug/l	< 1.0
Ethylbenzene	DETSC 3322	1	ug/l	< 1.0
Xylene	DETSC 3322	1	ug/l	< 1.0
MTBE	DETSC 3322	1	ug/l	< 1.0
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	< 0.50
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.10
Acenaphthene	DETSC 3304	0.01	ug/l	0.12
Fluorene	DETSC 3304	0.01	ug/l	0.14
Phenanthrene	DETSC 3304	0.01	ug/l	0.24
Anthracene	DETSC 3304	0.01	ug/l	< 0.10
Fluoranthene	DETSC 3304	0.01	ug/l	0.29
Pyrene	DETSC 3304	0.01	ug/l	0.32
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.13
Chrysene	DETSC 3304	0.01	ug/l	0.15
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.21
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.17
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.12
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.18
PAH Total	DETSC 3304	0.2	ug/l	2.1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Scie

Lab No	2196516
.Sample ID	WS22
Depth	2.00
Other ID	
Sample Type	WATER
Sampling Date	29/06/2023
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4
Chloroform	DETSC 3432	1	ug/l	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1
Benzene	DETSC 3432	1	ug/l	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1
Toluene	DETSC 3432	1	ug/l	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1
Styrene	DETSC 3432	1	ug/l	< 1
Bromoform	DETSC 3432	1	ug/l	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Scie

Lab No	2196516
.Sample ID	WS22
Depth	2.00
Other ID	
Sample Type	WATER
Sampling Date	29/06/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Bromobenzene	DETSC 3432	1	ug/l	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1
MTBE	DETSC 3432*	1	ug/l	< 1
SVOCs				
Phenol	DETSC 3434*	1	ug/l	< 10.0
Aniline	DETSC 3434*	1	ug/l	< 10.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 10.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 10.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 10.0
Bis(2-chloroisopropyl)ether	DETSC 3434*	1	ug/l	< 10.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 10.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 10.0
2,4-Dimethylphenol	DETSC 3434*	1	ug/l	< 10.0
2,4-Dichlorophenol	DETSC 3434*	1	ug/l	< 10.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 10.0
4-Chloro-3-methylphenol	DETSC 3434*	1	ug/l	< 10.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 10.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 10.0
2,4,6-Trichlorophenol	DETSC 3434*	1	ug/l	< 10.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 10.0
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 10.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 10.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 10.0
3-Nitroaniline	DETSC 3434*	1	ug/l	< 10.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 10.0

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 23-15764
Client Ref NX534
Contract Title Greenheys Buisness Centre, Manchester Scie

Lab No	2196516
.Sample ID	WS22
Depth	2.00
Other ID	
Sample Type	WATER
Sampling Date	29/06/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzofuran	DETSC 3434*	1	ug/l	< 10.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l	< 10.0
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 10.0
Diethylphthalate	DETSC 3434*	1	ug/l	< 10.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l	< 10.0
4-Nitroaniline	DETSC 3434*	1	ug/l	< 10.0
Diphenylamine	DETSC 3434*	1	ug/l	< 10.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l	< 10.0
Hexachlorobenzene	DETSC 3434*	1	ug/l	< 10.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l	< 10.0
Pentachlorophenol	DETSC 3434*	1	ug/l	< 10.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l	< 10.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l	< 10.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l	< 10.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l	< 10.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l	< 10.0
Dimethylphthalate	DETSC 3434*	1	ug/l	< 10.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l	< 10.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 10.0
Azobenzene	DETSC 3434*	1	ug/l	< 10.0
Carbazole	DETSC 3434*	1	ug/l	< 10.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l	< 10.0

Key: * -not accredited. n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 23-15764
Client Ref NX534
Contract Greenheys Buisness Centre, Manchester Science Park, Manchester M15 6AY

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2196510	WS08 1.70 WATER	29/06/23	GV, PB 1L		
2196511	WS09 1.80 WATER	29/06/23	GV, PB 1L		
2196512	WS17a 2.00 WATER	29/06/23	PB 1L		
2196513	WS18a 2.00 WATER	29/06/23	GB 1L, PB 1L		
2196514	WS19 2.00 WATER	29/06/23	GB 1L, PB 1L		
2196515	WS20 2.15 WATER	29/06/23	GB 1L, PB 1L		
2196516	WS22 2.00 WATER	29/06/23	GB 1L, PB 1L		

Key: G-Glass P-Plastic B-Bottle V-Vial

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

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

a) understand the origin of the waste
b) select the correct List of Waste code(s)
c) confirm that the list of determinands, results and sampling plan are fit for purpose
d) select and justify the chosen metal species (Appendix B)
e) correctly apply moisture correction and other available corrections
f) add the meta data for their user-defined substances (Appendix A)
g) check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

H5K80-5PZS7-AOGAA

Job name

NX534

Description/Comments

Manchester Science Park

Project

NX534

Site

Greenheys Business Centre

Classified by

Name:
Alicia Becker
Date:
20 Jul 2023 13:53 GMT
Telephone:
07388153226

Company:
ERGO Environmental
Hoults Yard
Walker Road
Newcastle upon Tyne
NE6 2HL

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification: **CERTIFIED**

Course	Date
Hazardous Waste Classification	10 Feb 2022

Next 3 year Refresher due by Feb 2025

Purpose of classification

2 - Material Characterisation

Address of the waste

Manchester Science Centre **Post Code** N/A

SIC for the process giving rise to the waste

Description of industry/producer giving rise to the waste

construction proposed

Description of the specific process, sub-process and/or activity that created the waste

samples from site investigation

Description of the waste

made ground cohesive and granular materials

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	WS19/2.40/2023-06-20		Non Hazardous		3
2	WS20/1.90/2023-06-22		Non Hazardous		8
3	WS20/2.10/2023-06-22		Hazardous	HP 7, HP 11	10
4	WS20/2.60/2023-06-22		Non Hazardous		15
5	WS21/1.80/2023-06-20		Non Hazardous		17
6	WS22/2.20/2023-06-20		Non Hazardous		22
7	TP05/1.60/2023-06-21		Non Hazardous		24
8	TP05/2.00/2023-06-21		Non Hazardous		26
9	TP05/2.70/2023-06-21		Non Hazardous		31
10	WS7/0.60/2023-06-19		Non Hazardous		33
11	WS9/0.50/2023-06-19		Non Hazardous		35
12	WS8/1.50/2023-06-19		Non Hazardous		37
13	WS8/1.80/2023-06-19		Hazardous	HP 7, HP 11	39
14	WS8/2.30/2023-06-19		Non Hazardous		44
15	WS1	1.30	Non Hazardous		46
16	WS1[2]	2.50	Non Hazardous		48
17	WS2	0.60	Non Hazardous		49
18	WS3	0.50	Non Hazardous		51
19	WS4	1.20	Non Hazardous		53
20	WS5B[2]	1.90	Non Hazardous		55
21	WS10	0.70	Non Hazardous		57
22	WS10[2]	1.10	Non Hazardous		60
23	WS11	0.80	Non Hazardous		62
24	WS11[2]	1.50	Non Hazardous		64
25	WS14	1.00	Non Hazardous		66
26	WS15	0.30	Non Hazardous		68
27	WS15[2]	0.80	Non Hazardous		71
28	WS16	0.80	Non Hazardous		72
29	WS17	0.70-0.80	Non Hazardous		74
30	WS17[2]	1.90	Hazardous	HP 7, HP 11	77
31	WS17[3]	2.50	Non Hazardous		80
32	WS18	0.80	Non Hazardous		82
33	WS18[2]	2.10	Non Hazardous		85
34	WS18[3]	2.60	Non Hazardous		88
35	RBH01	0.50	Non Hazardous		90
36	RBH01[2]	1.10	Non Hazardous		92
37	RBH02	0.80	Non Hazardous		93

Related documents

#	Name	Description
1	23-15796.hwol	DETS North .hwol file used to populate the Job
2	NX Template	waste stream template used to create this Job

Report

Created by: Alicia Becker

Created date: 20 Jul 2023 13:53 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	95
Appendix B: Rationale for selection of metal species	99
Appendix C: Version	99

Classification of sample: WS19/2.40/2023-06-20

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS19/2.40/2023-06-20

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
17		chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9							
18		benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2							
19		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9							
20		benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8							
21		indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5							
22		dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
23		benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2							
24		phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-001-00-2	203-632-7	108-95-2							
25		aniline				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		612-008-00-7	200-539-3	62-53-3							
26		benzyl alcohol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		603-057-00-5	202-859-9	100-51-6							
27		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]							
28		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]							
29		bis(2-chloroethoxy)methane				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			203-920-2	111-91-1							
30		2,4-dichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-011-00-7	204-429-6	120-83-2							
31		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-014-00-3	200-431-6	59-50-7							
32		2-methyl naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6							
33		hexachlorocyclopentadiene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		602-078-00-7	201-029-3	77-47-4							
34		2,4,6-trichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2							
35		2,4,5-trichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-017-00-X	202-467-8	95-95-4							
36		2-chloronaphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			202-079-9	91-58-7							
37		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
38		4-nitrophenol; p-nitrophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-015-00-2	202-811-7	100-02-7							
39		dibenzofuran				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-071-3	132-64-9							
40		2,6-dinitrotoluene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		2,3,4,6-tetrachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-013-00-8	200-402-8	58-90-2									
42		diethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-550-6	84-66-2									
43		4-chlorophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			230-281-7	7005-72-3									
44		DNOC (ISO); 4,6-dinitro-o-cresol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-020-00-X	208-601-1	534-52-1									
45		diphenylamine				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-026-00-5	204-539-4	122-39-4									
46		4-bromophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-952-4	101-55-3									
47		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
48		pentachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-002-00-8	201-778-6	87-86-5									
49		dibutyl phthalate; DBP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
50		BBP; benzyl butyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
51		bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-317-00-9	204-211-0	117-81-7									
52		di-n-octyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-214-7	117-84-0									
53		dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3									
54		azobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
55		carbazole				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-696-0	86-74-8									
56		vinyl chloride; chloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
57		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
58		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
59		bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									
60		chloroform; trichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
61		1,1,1-trichloroethane; methyl chloroform				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
62		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
63		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
64		trichloroethylene; trichloroethene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
65		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
66		dibromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
67		bromodichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-856-7	75-27-4									
68		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
69		trans-1,3-dichloropropene				0.01	mg/kg		0.01	mg/kg	0.000001 %	✓	
			431-460-4	10061-02-6									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
70		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
71		tetrachloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
72		1,3-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-531-3	142-28-9									
73		dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
74		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
75		chlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
76		1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
77		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
78		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
79		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
80		1,2,3-trichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
81		mesitylene; 1,3,5-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
82		tert-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-632-4	98-06-6									
83		1,2,4-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
84		sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
85		4-isopropyltoluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-796-7	99-87-6									
86		1,3-dichlorbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
87		1,4-dichlorobenzene; p-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
88		n-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			203-209-7	104-51-8									
89		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
90		1,2-dibromo-3-chloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
91		1,2,4-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
92		hexachlorobutadiene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-765-5	87-68-3									
93		1,2,3-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-757-1	87-61-6									
94		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]									
95		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
96		dinitrobenzene; [1] 1,4-dinitrobenzene; [2] 1,3-dinitrobenzene; [3] 1,2-dinitrobenzene [4]				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
		609-004-00-2	246-673-6 [1] 202-833-7 [2] 202-776-8 [3] 208-431-8 [4]	25154-54-5 [1] 100-25-4 [2] 99-65-0 [3] 528-29-0 [4]							
97		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							
98	●	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3							
99		cumene; [1] propylbenzene [2]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]							
100		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]							
								Total:	0.0016 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

trans-1,3-dichloropropene: (conc.: 1.0e-06%)

Classification of sample: WS20/1.90/2023-06-22

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS20/1.90/2023-06-22

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
21	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
23	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS20/2.10/2023-06-22

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS20/2.10/2023-06-22

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.14%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.14%)

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
1		TPH (C6 to C40) petroleum group		TPH		1400	mg/kg		1400	mg/kg	0.14 %	✓	
2		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
3		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
4		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
5		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
6		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
7		naphthalene				0.2	mg/kg		0.2	mg/kg	0.00002 %	✓	
		601-052-00-2	202-049-5	91-20-3									
8		acenaphthylene				11	mg/kg		11	mg/kg	0.0011 %	✓	
			205-917-1	208-96-8									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
9	●	acenaphthene				0.3	mg/kg		0.3	mg/kg	0.00003 %	✓	
			201-469-6	83-32-9									
10	●	fluorene				0.5	mg/kg		0.5	mg/kg	0.00005 %	✓	
			201-695-5	86-73-7									
11	●	phenanthrene				0.9	mg/kg		0.9	mg/kg	0.00009 %	✓	
			201-581-5	85-01-8									
12	●	anthracene				0.8	mg/kg		0.8	mg/kg	0.00008 %	✓	
			204-371-1	120-12-7									
13	●	fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-912-4	206-44-0									
14	●	pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			204-927-3	129-00-0									
15		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
16		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
17		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
18		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
19		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
20	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
22	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
23		phenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-001-00-2	203-632-7	108-95-2									
24		aniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		612-008-00-7	200-539-3	62-53-3									
25		benzyl alcohol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		603-057-00-5	202-859-9	100-51-6									
26		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]									
27		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]									
28	●	bis(2-chloroethoxy)methane				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			203-920-2	111-91-1									
29		2,4-dichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-011-00-7	204-429-6	120-83-2									
30		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-014-00-3	200-431-6	59-50-7									
31	●	2-methyl naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			202-078-3	91-57-6									
32		hexachlorocyclopentadiene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		602-078-00-7	201-029-3	77-47-4									
33		2,4,6-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		604-018-00-5	201-795-9	88-06-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
34		2,4,5-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-017-00-X	202-467-8	95-95-4									
35	●	2-chloronaphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-079-9	91-58-7									
36		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]									
37		4-nitrophenol; p-nitrophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-015-00-2	202-811-7	100-02-7									
38	●	dibenzofuran				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-071-3	132-64-9									
39		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									
40		2,3,4,6-tetrachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-013-00-8	200-402-8	58-90-2									
41	●	diethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-550-6	84-66-2									
42	●	4-chlorophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			230-281-7	7005-72-3									
43		DNOC (ISO); 4,6-dinitro-o-cresol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-020-00-X	208-601-1	534-52-1									
44		diphenylamine				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-026-00-5	204-539-4	122-39-4									
45	●	4-bromophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-952-4	101-55-3									
46		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
47		pentachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-002-00-8	201-778-6	87-86-5									
48		dibutyl phthalate; DBP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
49		BBP; benzyl butyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
50		bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				0.1	mg/kg		0.1	mg/kg	0.00001 %	✓	
		607-317-00-9	204-211-0	117-81-7									
51	●	di-n-octyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-214-7	117-84-0									
52	●	dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3									
53		azobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
54	●	carbazole				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-696-0	86-74-8									
55		vinyl chloride; chloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
56		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
57	●	2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
58	●	bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									
59		chloroform; trichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
60		1,1,1-trichloroethane; methyl chloroform				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
61		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
62		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
63		trichloroethylene; trichloroethene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
64		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
65		dibromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
66	●	bromodichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-856-7	75-27-4									
67		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
68	●	trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6									
69		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
70		tetrachloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
71	●	1,3-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-531-3	142-28-9									
72	●	dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
73		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
74		chlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
75	●	1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
76		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
77		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
78		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
79		1,2,3-trichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
80		mesitylene; 1,3,5-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
81	●	tert-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-632-4	98-06-6									
82		1,2,4-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
83	●	sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
84	●	4-isopropyltoluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-796-7	99-87-6									
85		1,3-dichlorbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
86		1,4-dichlorobenzene; p-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
87	●	n-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			203-209-7	104-51-8									
88		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
89		1,2-dibromo-3-chloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
90		1,2,4-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
91	●	hexachlorobutadiene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-765-5	87-68-3									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
92		1,2,3-trichlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			201-757-1	87-61-6							
93		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.2 mg/kg		<0.2 mg/kg	<0.00002 %		<LOD
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]							
94		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]							
95		dinitrobenzene; [1] 1,4-dinitrobenzene; [2] 1,3-dinitrobenzene; [3] 1,2-dinitrobenzene [4]				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<LOD
		609-004-00-2	246-673-6 [1] 202-833-7 [2] 202-776-8 [3] 208-431-8 [4]	25154-54-5 [1] 100-25-4 [2] 99-65-0 [3] 528-29-0 [4]							
96		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							
97		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
			203-458-1, 200-863-5	107-06-2, 75-34-3							
98		cumene; [1] propylbenzene [2]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]							
99		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<LOD
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]							
								Total:	0.142 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.14%)

Classification of sample: WS20/2.60/2023-06-22

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS20/2.60/2023-06-22

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
21	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
23	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS21/1.80/2023-06-20

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS21/1.80/2023-06-20

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
17		chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9							
18		benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2							
19		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9							
20		benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8							
21		indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5							
22		dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
23		benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2							
24		phenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-001-00-2	203-632-7	108-95-2							
25		aniline				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		612-008-00-7	200-539-3	62-53-3							
26		benzyl alcohol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		603-057-00-5	202-859-9	100-51-6							
27		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]							
28		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]							
29		bis(2-chloroethoxy)methane				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			203-920-2	111-91-1							
30		2,4-dichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-011-00-7	204-429-6	120-83-2							
31		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-014-00-3	200-431-6	59-50-7							
32		2-methyl naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6							
33		hexachlorocyclopentadiene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		602-078-00-7	201-029-3	77-47-4							
34		2,4,6-trichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2							
35		2,4,5-trichlorophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		604-017-00-X	202-467-8	95-95-4							
36		2-chloronaphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			202-079-9	91-58-7							
37		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]							
38		4-nitrophenol; p-nitrophenol				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-015-00-2	202-811-7	100-02-7							
39		dibenzofuran				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
			205-071-3	132-64-9							
40		2,6-dinitrotoluene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		2,3,4,6-tetrachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-013-00-8	200-402-8	58-90-2									
42		diethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-550-6	84-66-2									
43		4-chlorophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			230-281-7	7005-72-3									
44		DNOC (ISO); 4,6-dinitro-o-cresol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-020-00-X	208-601-1	534-52-1									
45		diphenylamine				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-026-00-5	204-539-4	122-39-4									
46		4-bromophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-952-4	101-55-3									
47		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
48		pentachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-002-00-8	201-778-6	87-86-5									
49		dibutyl phthalate; DBP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
50		BBP; benzyl butyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
51		bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-317-00-9	204-211-0	117-81-7									
52		di-n-octyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-214-7	117-84-0									
53		dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3									
54		azobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
55		carbazole				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-696-0	86-74-8									
56		vinyl chloride; chloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
57		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
58		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
59		bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									
60		chloroform; trichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
61		1,1,1-trichloroethane; methyl chloroform				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
62		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
63		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
64		trichloroethylene; trichloroethene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
65		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
66		dibromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
67		bromodichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-856-7	75-27-4									
68		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
69		trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
70		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
71		tetrachloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
72		1,3-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-531-3	142-28-9									
73		dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
74		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
75		chlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
76		1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
77		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
78		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
79		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
80		1,2,3-trichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
81		mesitylene; 1,3,5-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
82		tert-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-632-4	98-06-6									
83		1,2,4-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
84		sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
85		4-isopropyltoluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-796-7	99-87-6									
86		1,3-dichlorbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
87		1,4-dichlorobenzene; p-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
88		n-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			203-209-7	104-51-8									
89		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
90		1,2-dibromo-3-chloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
91		1,2,4-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
92		hexachlorobutadiene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-765-5	87-68-3									
93		1,2,3-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-757-1	87-61-6									
94		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]									
95		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
96		dinitrobenzene; [1] 1,4-dinitrobenzene; [2] 1,3-dinitrobenzene; [3] 1,2-dinitrobenzene [4]				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		**<LOD**
		609-004-00-2	246-673-6 [1] 202-833-7 [2] 202-776-8 [3] 208-431-8 [4]	25154-54-5 [1] 100-25-4 [2] 99-65-0 [3] 528-29-0 [4]							
97		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							
98		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3							
99		cumene; [1] propylbenzene [2]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]							
100		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		**<LOD**
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]							
								Total:	0.0016 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS22/2.20/2023-06-20

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS22/2.20/2023-06-20

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
21	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
23	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: TP05/1.60/2023-06-21

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP05/1.60/2023-06-21

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<LOD
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
21	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
23	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: TP05/2.00/2023-06-21

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP05/2.00/2023-06-21

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		TPH (C6 to C40) petroleum group			TPH		110	mg/kg		110	mg/kg	0.011 %	✓	
2		confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
5		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
9		acenaphthylene		205-917-1	208-96-8		0.5	mg/kg		0.5	mg/kg	0.00005 %	✓	
10		acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
11		fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
12		phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
13		anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
14		fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
15		pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
21		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
23		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
24		phenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
25		aniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-008-00-7	200-539-3	62-53-3									
26		benzyl alcohol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		603-057-00-5	202-859-9	100-51-6									
27		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]									
28		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]									
29		bis(2-chloroethoxy)methane				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			203-920-2	111-91-1									
30		2,4-dichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-011-00-7	204-429-6	120-83-2									
31		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-014-00-3	200-431-6	59-50-7									
32		2-methyl naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6									
33		hexachlorocyclopentadiene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-078-00-7	201-029-3	77-47-4									
34		2,4,6-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2									
35		2,4,5-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-017-00-X	202-467-8	95-95-4									
36		2-chloronaphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-079-9	91-58-7									
37		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]									
38		4-nitrophenol; p-nitrophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-015-00-2	202-811-7	100-02-7									
39		dibenzofuran				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-071-3	132-64-9									
40		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
41		2,3,4,6-tetrachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-013-00-8	200-402-8	58-90-2									
42	●	diethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-550-6	84-66-2									
43	●	4-chlorophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			230-281-7	7005-72-3									
44		DNOC (ISO); 4,6-dinitro-o-cresol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-020-00-X	208-601-1	534-52-1									
45		diphenylamine				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-026-00-5	204-539-4	122-39-4									
46	●	4-bromophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-952-4	101-55-3									
47		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
48		pentachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-002-00-8	201-778-6	87-86-5									
49		dibutyl phthalate; DBP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
50		BBP; benzyl butyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
51		bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-317-00-9	204-211-0	117-81-7									
52	●	di-n-octyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-214-7	117-84-0									
53	●	dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3									
54		azobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
55	●	carbazole				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-696-0	86-74-8									
56		vinyl chloride; chloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
57		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
58	●	2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
59	●	bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									
60		chloroform; trichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
61		1,1,1-trichloroethane; methyl chloroform				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
62		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
63		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									
64		trichloroethylene; trichloroethene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6									
65		1,2-dichloropropane; propylene dichloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5									
66		dibromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-003-00-8	200-824-2	74-95-3									
67	●	bromodichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-856-7	75-27-4									
68		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]									
69	●	trans-1,3-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
70		1,1,2-trichloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5									
71		tetrachloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4									
72	●	1,3-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-531-3	142-28-9									
73	●	dibromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1									
74		1,2-dibromoethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4									
75		chlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-033-00-1	203-628-5	108-90-7									
76	●	1,1,1,2-tetrachloroethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6									
77		styrene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5									
78		bromoform; tribromomethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2									
79		bromobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1									
80		1,2,3-trichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-062-00-X	202-486-1	96-18-4									
81		mesitylene; 1,3,5-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-025-00-5	203-604-4	108-67-8									
82	●	tert-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-632-4	98-06-6									
83		1,2,4-trimethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		601-043-00-3	202-436-9	95-63-6									
84	●	sec-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8									
85	●	4-isopropyltoluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			202-796-7	99-87-6									
86		1,3-dichlorbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-067-00-7	208-792-1	541-73-1									
87		1,4-dichlorobenzene; p-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-035-00-2	203-400-5	106-46-7									
88	●	n-butylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			203-209-7	104-51-8									
89		1,2-dichlorobenzene; o-dichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1									
90		1,2-dibromo-3-chloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-021-00-6	202-479-3	96-12-8									
91		1,2,4-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-087-00-6	204-428-0	120-82-1									
92	●	hexachlorobutadiene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-765-5	87-68-3									
93	●	1,2,3-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			201-757-1	87-61-6									
94		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<LOD
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]									
95		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<LOD
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
96		dinitrobenzene; [1] 1,4-dinitrobenzene; [2] 1,3-dinitrobenzene; [3] 1,2-dinitrobenzene [4]				<0.3 mg/kg		<0.3 mg/kg	<0.00003 %		<**LOD**
		609-004-00-2	246-673-6 [1] 202-833-7 [2] 202-776-8 [3] 208-431-8 [4]	25154-54-5 [1] 100-25-4 [2] 99-65-0 [3] 528-29-0 [4]							
97		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]							
98		1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3							
99		cumene; [1] propylbenzene [2]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]							
100		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02 mg/kg		<0.02 mg/kg	<0.000002 %		<**LOD**
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]							
								Total:	0.0116 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.011%)

Classification of sample: TP05/2.70/2023-06-21

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
TP05/2.70/2023-06-21

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10	mg/kg		<10	mg/kg	<0.001 %		<**LOD**
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
9	●	acenaphthylene		205-917-1	208-96-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
10	●	acenaphthene		201-469-6	83-32-9		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
11	●	fluorene		201-695-5	86-73-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
12	●	phenanthrene		201-581-5	85-01-8		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
13	●	anthracene		204-371-1	120-12-7		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
14	●	fluoranthene		205-912-4	206-44-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
15	●	pyrene		204-927-3	129-00-0		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
17		chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9							
18		benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2							
19		benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9							
20		benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8							
21	●	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5							
22		dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3							
23	●	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2							
								Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS7/0.60/2023-06-19

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS7/0.60/2023-06-19

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.5	mg/kg	1.32	5.941	mg/kg	0.000594 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.1	mg/kg	1.142	<0.114	mg/kg	<0.0000114 %		<**LOD**
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		13	mg/kg	1.462	19	mg/kg	0.0019 %	✓	
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.7	mg/kg	1.126	10.921	mg/kg	0.00109 %	✓	
5	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	9.9	mg/kg		9.9	mg/kg	0.00099 %	✓	
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		1.2	mg/kg	1.353	1.624	mg/kg	0.000162 %	✓	
7	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		10	mg/kg	2.637	26.367	mg/kg	0.00264 %	✓	
8	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5	mg/kg	2.554	<1.277	mg/kg	<0.000128 %		<**LOD**
9	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		22	mg/kg	4.398	96.754	mg/kg	0.00968 %	✓	
10	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				1.1	mg/kg	1.884	2.072	mg/kg	0.000207 %	✓	
11	pH			PH		7.8	pH		7.8	pH	7.8 pH		
12	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
13	acenaphthylene		205-917-1	208-96-8		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**
14	acenaphthene		201-469-6	83-32-9		<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		fluorene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-695-5	86-73-7									
16		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
17		anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			204-371-1	120-12-7									
18		fluoranthene				0.04	mg/kg		0.04	mg/kg	0.000004 %	✓	
			205-912-4	206-44-0									
19		pyrene				0.06	mg/kg		0.06	mg/kg	0.000006 %	✓	
			204-927-3	129-00-0									
20		benzo[a]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
21		chrysene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
		601-048-00-0	205-923-4	218-01-9									
22		benzo[b]fluoranthene				0.03	mg/kg		0.03	mg/kg	0.000003 %	✓	
		601-034-00-4	205-911-9	205-99-2									
23		benzo[k]fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
24		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
25		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
26		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
27		benzo[ghi]perylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-883-8	191-24-2									
28		boron { boron trichloride }				0.6	mg/kg	10.838	6.503	mg/kg	0.00065 %	✓	
		005-002-00-5	233-658-4	10294-34-5									
29		monohydric phenols				0.5	mg/kg		0.5	mg/kg	0.00005 %	✓	
				P1186									
										Total:	0.0181 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS9/0.50/2023-06-19

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS9/0.50/2023-06-19

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.2 mg/kg	1.32	6.866 mg/kg	0.000687 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.1 mg/kg	1.142	<0.114 mg/kg	<0.0000114 %		<**LOD**
3	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	21.923 mg/kg	0.00219 %	✓	
4	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17 mg/kg	1.126	19.14 mg/kg	0.00191 %	✓	
5	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	15 mg/kg		15 mg/kg	0.0015 %	✓	
6	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.09 mg/kg	1.353	0.122 mg/kg	0.0000122 %	✓	
7	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		17 mg/kg	2.637	44.824 mg/kg	0.00448 %	✓	
8	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<0.5 mg/kg	2.554	<1.277 mg/kg	<0.000128 %		<**LOD**
9	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		52 mg/kg	4.398	228.692 mg/kg	0.0229 %	✓	
10	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				0.4 mg/kg	1.884	0.754 mg/kg	0.0000754 %	✓	
11	pH			PH		7.8 pH		7.8 pH	7.8 pH		
12	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
13	acenaphthylene		205-917-1	208-96-8		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**
14	acenaphthene		201-469-6	83-32-9		<0.03 mg/kg		<0.03 mg/kg	<0.000003 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		fluorene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-695-5	86-73-7									
16		phenanthrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			201-581-5	85-01-8									
17		anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			204-371-1	120-12-7									
18		fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-912-4	206-44-0									
19		pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			204-927-3	129-00-0									
20		benzo[a]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
21		chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
22		benzo[b]fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
23		benzo[k]fluoranthene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
24		benzo[a]pyrene; benzo[def]chrysene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
25		indeno[123-cd]pyrene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-893-2	193-39-5									
26		dibenz[a,h]anthracene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
27		benzo[ghi]perylene				<0.03	mg/kg		<0.03	mg/kg	<0.000003 %		<LOD
			205-883-8	191-24-2									
28		boron { boron trichloride }				0.5	mg/kg	10.838	5.419	mg/kg	0.000542 %	✓	
		005-002-00-5	233-658-4	10294-34-5									
29		monohydric phenols				0.9	mg/kg		0.9	mg/kg	0.00009 %	✓	
				P1186									
										Total:	0.0346 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS8/1.50/2023-06-19

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS8/1.50/2023-06-19

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<**LOD**
2	●	confirm TPH has NOT arisen from diesel or petrol					☑					
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<**LOD**
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
9	●	acenaphthylene		205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
10	●	acenaphthene		201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
11	●	fluorene		201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
12	●	phenanthrene		201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
13	●	anthracene		204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
14	●	fluoranthene		205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
15	●	pyrene		204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
21	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
23	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS8/1.80/2023-06-19

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS8/1.80/2023-06-19

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.34%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.34%)

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
1		TPH (C6 to C40) petroleum group		TPH		3400	mg/kg		3400	mg/kg	0.34 %	✓	
2		benzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-020-00-8	200-753-7	71-43-2									
3		toluene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-021-00-3	203-625-9	108-88-3									
4		ethylbenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
5		xylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
6		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
7		naphthalene				1.7	mg/kg		1.7	mg/kg	0.00017 %	✓	
		601-052-00-2	202-049-5	91-20-3									
8		acenaphthylene				46	mg/kg		46	mg/kg	0.0046 %	✓	
			205-917-1	208-96-8									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
9		acenaphthene				1.1	mg/kg		1.1	mg/kg	0.00011 %	✓	
			201-469-6	83-32-9									
10		fluorene				1.7	mg/kg		1.7	mg/kg	0.00017 %	✓	
			201-695-5	86-73-7									
11		phenanthrene				1.5	mg/kg		1.5	mg/kg	0.00015 %	✓	
			201-581-5	85-01-8									
12		anthracene				4	mg/kg		4	mg/kg	0.0004 %	✓	
			204-371-1	120-12-7									
13		fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-912-4	206-44-0									
14		pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-927-3	129-00-0									
15		benzo[a]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
16		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
17		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
18		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
19		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
20		indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-893-2	193-39-5									
21		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
22		benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-883-8	191-24-2									
23		phenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-001-00-2	203-632-7	108-95-2									
24		aniline				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-008-00-7	200-539-3	62-53-3									
25		benzyl alcohol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		603-057-00-5	202-859-9	100-51-6									
26		m-cresol; [1] o-cresol; [2] p-cresol; [3] mix-cresol [4]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-004-00-9	203-577-9 [1] 202-423-8 [2] 203-398-6 [3] 215-293-2 [4]	108-39-4 [1] 95-48-7 [2] 106-44-5 [3] 1319-77-3 [4]									
27		3,4-xylenol; [1] 2,5-xylenol; [2] 2,4-xylenol; [3] 2,3-xylenol; [4] 2,6-xylenol; [5] xylenol; [6] 2,4(or 2,5)-xylenol [7]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-006-00-X	202-439-5 [1] 202-461-5 [2] 203-321-6 [3] 208-395-3 [4] 209-400-1 [5] 215-089-3 [6] 276-245-4 [7]	95-65-8 [1] 95-87-4 [2] 105-67-9 [3] 526-75-0 [4] 576-26-1 [5] 1300-71-6 [6] 71975-58-1 [7]									
28		bis(2-chloroethoxy)methane				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			203-920-2	111-91-1									
29		2,4-dichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-011-00-7	204-429-6	120-83-2									
30		chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-014-00-3	200-431-6	59-50-7									
31		2-methyl naphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-078-3	91-57-6									
32		hexachlorocyclopentadiene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-078-00-7	201-029-3	77-47-4									
33		2,4,6-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-018-00-5	201-795-9	88-06-2									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
34		2,4,5-trichlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-017-00-X	202-467-8	95-95-4									
35		2-chloronaphthalene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-079-9	91-58-7									
36		2,4-dinitrotoluene; [1] dinitrotoluene [2]				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]									
37		4-nitrophenol; p-nitrophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-015-00-2	202-811-7	100-02-7									
38		dibenzofuran				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-071-3	132-64-9									
39		2,6-dinitrotoluene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-049-00-8	210-106-0	606-20-2									
40		2,3,4,6-tetrachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-013-00-8	200-402-8	58-90-2									
41		diethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-550-6	84-66-2									
42		4-chlorophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			230-281-7	7005-72-3									
43		DNOC (ISO); 4,6-dinitro-o-cresol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		609-020-00-X	208-601-1	534-52-1									
44		diphenylamine				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		612-026-00-5	204-539-4	122-39-4									
45		4-bromophenylphenylether				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			202-952-4	101-55-3									
46		hexachlorobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		602-065-00-6	204-273-9	118-74-1									
47		pentachlorophenol				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		604-002-00-8	201-778-6	87-86-5									
48		dibutyl phthalate; DBP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-318-00-4	201-557-4	84-74-2									
49		BBP; benzyl butyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-430-00-3	201-622-7	85-68-7									
50		bis(2-ethylhexyl) phthalate; di-(2-ethylhexyl) phthalate; DEHP				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		607-317-00-9	204-211-0	117-81-7									
51		di-n-octyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			204-214-7	117-84-0									
52		dimethyl phthalate				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			205-011-6	131-11-3									
53		azobenzene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
		611-001-00-6	203-102-5	103-33-3									
54		carbazole				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<LOD
			201-696-0	86-74-8									
55		vinyl chloride; chloroethylene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-023-00-7	200-831-0	75-01-4									
56		1,1-dichloroethylene; vinylidene chloride				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-025-00-8	200-864-0	75-35-4									
57		2,2-dichloropropane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			209-832-0	594-20-7									
58		bromochloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
			200-826-3	74-97-5									
59		chloroform; trichloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-006-00-4	200-663-8	67-66-3									
60		1,1,1-trichloroethane; methyl chloroform				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-013-00-2	200-756-3	71-55-6									
61		1,1-dichloropropene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-031-00-0	209-253-3	563-58-6									
62		carbon tetrachloride; tetrachloromethane				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<LOD
		602-008-00-5	200-262-8	56-23-5									

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
63		trichloroethylene; trichloroethene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-027-00-9	201-167-4	79-01-6							
64		1,2-dichloropropane; propylene dichloride				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-020-00-0	201-152-2	78-87-5							
65		dibromomethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-003-00-8	200-824-2	74-95-3							
66		bromodichloromethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			200-856-7	75-27-4							
67		1,3-dichloropropene; [1] (Z)-1,3-dichloropropene [2]				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-030-00-5	208-826-5 [1] 233-195-8 [2]	542-75-6 [1] 10061-01-5 [2]							
68		trans-1,3-dichloropropene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			431-460-4	10061-02-6							
69		1,1,2-trichloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-014-00-8	201-166-9	79-00-5							
70		tetrachloroethylene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-028-00-4	204-825-9	127-18-4							
71		1,3-dichloropropane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			205-531-3	142-28-9							
72		dibromochloromethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			204-704-0	124-48-1							
73		1,2-dibromoethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-010-00-6	203-444-5	106-93-4							
74		chlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-033-00-1	203-628-5	108-90-7							
75		1,1,1,2-tetrachloroethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			211-135-1	630-20-6							
76		styrene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-026-00-0	202-851-5	100-42-5							
77		bromoform; tribromomethane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-007-00-X	200-854-6	75-25-2							
78		bromobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-060-00-9	203-623-8	108-86-1							
79		1,2,3-trichloropropane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-062-00-X	202-486-1	96-18-4							
80		mesitylene; 1,3,5-trimethylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-025-00-5	203-604-4	108-67-8							
81		tert-butylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			202-632-4	98-06-6							
82		1,2,4-trimethylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		601-043-00-3	202-436-9	95-63-6							
83		sec-butylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			205-227-0	135-98-8							
84		4-isopropyltoluene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			202-796-7	99-87-6							
85		1,3-dichlorbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-067-00-7	208-792-1	541-73-1							
86		1,4-dichlorobenzene; p-dichlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-035-00-2	203-400-5	106-46-7							
87		n-butylbenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			203-209-7	104-51-8							
88		1,2-dichlorobenzene; o-dichlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-034-00-7	202-425-9	95-50-1							
89		1,2-dibromo-3-chloropropane				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-021-00-6	202-479-3	96-12-8							
90		1,2,4-trichlorobenzene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
		602-087-00-6	204-428-0	120-82-1							
91		hexachlorobutadiene				<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
			201-765-5	87-68-3							

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
92	●	1,2,3-trichlorobenzene				<0.01	mg/kg		<0.01	mg/kg	<0.000001 %		<**LOD**
			201-757-1	87-61-6									
93		2-chlorophenol; [1] 4-chlorophenol; [2] 3-chlorophenol; [3] chlorophenol [4]				<0.2	mg/kg		<0.2	mg/kg	<0.00002 %		<**LOD**
		604-008-00-0	202-433-2 [1] 203-402-6 [2] 203-582-6 [3] 246-691-4 [4]	95-57-8 [1] 106-48-9 [2] 108-43-0 [3] 25167-80-0 [4]									
94		o-nitroaniline; [1] m-nitroaniline; [2] p-nitroaniline [3]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
		612-012-00-9	201-855-4 [1] 202-729-1 [2] 202-810-1 [3]	88-74-4 [1] 99-09-2 [2] 100-01-6 [3]									
95		dinitrobenzene; [1] 1,4-dinitrobenzene; [2] 1,3-dinitrobenzene; [3] 1,2-dinitrobenzene [4]				<0.3	mg/kg		<0.3	mg/kg	<0.00003 %		<**LOD**
		609-004-00-2	246-673-6 [1] 202-833-7 [2] 202-776-8 [3] 208-431-8 [4]	25154-54-5 [1] 100-25-4 [2] 99-65-0 [3] 528-29-0 [4]									
96		1,2-dichloroethylene; [1] cis-dichloroethylene; [2] trans-dichloroethylene [3]				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		602-026-00-3	208-750-2 [1] 205-859-7 [2] 205-860-2 [3]	540-59-0 [1] 156-59-2 [2] 156-60-5 [3]									
97	●	1,1-dichloroethane and 1,2-dichloroethane (combined)				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
			203-458-1, 200-863-5	107-06-2, 75-34-3									
98		cumene; [1] propylbenzene [2]				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		601-024-00-X	202-704-5 [1] 203-132-9 [2]	98-82-8 [1] 103-65-1 [2]									
99		2-chlorotoluene; [1] 3-chlorotoluene; [2] 4-chlorotoluene; [3] chlorotoluene [4]				<0.02	mg/kg		<0.02	mg/kg	<0.000002 %		<**LOD**
		602-040-00-X	202-424-3 [1] 203-580-5 [2] 203-397-0 [3] 246-698-2 [4]	95-49-8 [1] 108-41-8 [2] 106-43-4 [3] 25168-05-2 [4]									
										Total:	0.346 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.34%)

Classification of sample: WS8/2.30/2023-06-19

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS8/2.30/2023-06-19

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 0% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<10 mg/kg		<10 mg/kg	<0.001 %		<LOD
2	●	confirm TPH has NOT arisen from diesel or petrol					☑					
3		benzene	601-020-00-8	200-753-7	71-43-2		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
4		toluene	601-021-00-3	203-625-9	108-88-3		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<0.01 mg/kg		<0.01 mg/kg	<0.000001 %		<LOD
8		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
9	●	acenaphthylene		205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
10	●	acenaphthene		201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
11	●	fluorene		201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
12	●	phenanthrene		201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
13	●	anthracene		204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
14	●	fluoranthene		205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
15	●	pyrene		204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
16		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
17		chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
18		benzo[b]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
19		benzo[k]fluoranthene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
20		benzo[a]pyrene; benzo[def]chrysene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
21	●	indeno[123-cd]pyrene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-893-2	193-39-5									
22		dibenz[a,h]anthracene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
23	●	benzo[ghi]perylene				<0.1	mg/kg		<0.1	mg/kg	<0.00001 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.00117 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS1

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS1
Sample Depth:
1.30 m
Moisture content:
16%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.7 mg/kg	1.32	5.213 mg/kg	0.000521 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	13.505 mg/kg	0.00135 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	14.186 mg/kg	0.00142 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	48 mg/kg		40.32 mg/kg	0.00403 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.4 mg/kg	1.353	0.455 mg/kg	0.0000455 %	✓	
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		11 mg/kg	2.637	24.363 mg/kg	0.00244 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		47 mg/kg	4.398	173.63 mg/kg	0.0174 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
16		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
19		pH			PH		7.8	pH		7.8	pH	7.8 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
											Total:	0.0326 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS1[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS1[2]
Sample Depth:
2.50 m
Moisture content:
18%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<**LOD**
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
8	●	pH			PH		8	pH		8	pH	8pH		
											Total:	0.0045 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Classification of sample: WS2

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS2
Sample Depth:
0.60 m
Moisture content:
12%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.2	mg/kg	1.32	7.204	mg/kg	0.00072 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		10	mg/kg	1.462	12.862	mg/kg	0.00129 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5.3	mg/kg	1.126	5.251	mg/kg	0.000525 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	6.8	mg/kg		5.984	mg/kg	0.000598 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		8.3	mg/kg	2.637	19.258	mg/kg	0.00193 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		19	mg/kg	4.398	73.533	mg/kg	0.00735 %	✓	
11	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
12	pH			PH		7.6	pH		7.6	pH	7.6 pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
14		acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8							
15		acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9							
16		fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7							
17		phenanthrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8							
18		anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7							
19		fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0							
20		pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0							
21		benzo[a]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3							
22		chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9							
23		benzo[b]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2							
24		benzo[k]fluoranthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9							
25		benzo[a]pyrene; benzo[def]chrysene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8							
26		indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5							
27		dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
28		benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2							
								Total:	0.0134 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS3

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS3
Sample Depth:
0.50 m
Moisture content:
13%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		12 mg/kg	1.32	13.784 mg/kg	0.00138 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		22 mg/kg	1.462	27.974 mg/kg	0.0028 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		23 mg/kg	1.126	22.529 mg/kg	0.00225 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	45 mg/kg		39.15 mg/kg	0.00392 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		21 mg/kg	2.637	48.172 mg/kg	0.00482 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		52 mg/kg	4.398	198.962 mg/kg	0.0199 %	✓	
11	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<**LOD**
12	pH			PH		7.8 pH		7.8 pH	7.8 pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<**LOD**

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
14	•	acenaphthylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8							
15	•	acenaphthene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9							
16	•	fluorene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7							
17	•	phenanthrene				0.16 mg/kg		0.139 mg/kg	0.0000139 %	✓	
			201-581-5	85-01-8							
18	•	anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7							
19	•	fluoranthene				0.15 mg/kg		0.13 mg/kg	0.000013 %	✓	
			205-912-4	206-44-0							
20	•	pyrene				0.19 mg/kg		0.165 mg/kg	0.0000165 %	✓	
			204-927-3	129-00-0							
21		benzo[a]anthracene				0.07 mg/kg		0.0609 mg/kg	0.00000609 %	✓	
		601-033-00-9	200-280-6	56-55-3							
22		chrysene				0.08 mg/kg		0.0696 mg/kg	0.00000696 %	✓	
		601-048-00-0	205-923-4	218-01-9							
23		benzo[b]fluoranthene				0.09 mg/kg		0.0783 mg/kg	0.00000783 %	✓	
		601-034-00-4	205-911-9	205-99-2							
24		benzo[k]fluoranthene				0.05 mg/kg		0.0435 mg/kg	0.00000435 %	✓	
		601-036-00-5	205-916-6	207-08-9							
25		benzo[a]pyrene; benzo[def]chrysene				0.07 mg/kg		0.0609 mg/kg	0.00000609 %	✓	
		601-032-00-3	200-028-5	50-32-8							
26	•	indeno[123-cd]pyrene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5							
27		dibenz[a,h]anthracene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3							
28	•	benzo[ghi]perylene				<0.05 mg/kg		<0.05 mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2							
								Total:	0.0361 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
•	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS4

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS4
Sample Depth:
1.20 m
Moisture content:
16%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		1.6 mg/kg	1.32	1.775 mg/kg	0.000177 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		7 mg/kg	1.462	8.594 mg/kg	0.000859 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.8 mg/kg	1.126	9.268 mg/kg	0.000927 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	6.1 mg/kg		5.124 mg/kg	0.000512 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		7.2 mg/kg	2.637	15.947 mg/kg	0.00159 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		13 mg/kg	4.398	48.025 mg/kg	0.0048 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<**LOD**
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				7.9	pH		7.9	pH	7.9 pH		
				PH									
20		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0144 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS5B[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS5B[2]
Sample Depth:
1.90 m
Moisture content:
17%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		7.7 mg/kg	1.32	8.438 mg/kg	0.000844 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	14.557 mg/kg	0.00146 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		8 mg/kg	1.126	7.476 mg/kg	0.000748 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	6.3 mg/kg		5.229 mg/kg	0.000523 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		13 mg/kg	2.637	28.45 mg/kg	0.00284 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		23 mg/kg	4.398	83.956 mg/kg	0.0084 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<**LOD**
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				7.1	pH		7.1	pH	7.1 pH		
				PH									
20		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0203 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS10

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS10
Sample Depth:
0.70 m
Moisture content:
14%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.9 mg/kg	1.32	10.106 mg/kg	0.00101 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		12 mg/kg	1.462	15.083 mg/kg	0.00151 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9.3 mg/kg	1.126	9.005 mg/kg	0.0009 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	60 mg/kg		51.6 mg/kg	0.00516 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		12 mg/kg	2.637	27.211 mg/kg	0.00272 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		32 mg/kg	4.398	121.031 mg/kg	0.0121 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		134 mg/kg		115.24 mg/kg	0.0115 %	✓	
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				7.7	pH		7.7	pH	7.7 pH		
				PH									
20		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0384 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0115%)

Classification of sample: WS10[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS10[2]
Sample Depth:
1.10 m
Moisture content:
12%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1	●	TPH (C6 to C40) petroleum group			TPH		48	mg/kg		42.24	mg/kg	0.00422 %	✓	
2	●	confirm TPH has NOT arisen from diesel or petrol					☑							
3		benzene	601-020-00-8	200-753-7	71-43-2		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
4		toluene	601-021-00-3	203-625-9	108-88-3		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
5	●	ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
6		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
7		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
											Total:	0.00672 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
●	Determinand defined or amended by HazWasteOnline (see Appendix A)
<LOD	Below limit of detection

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"
Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00422%)

Classification of sample: WS11

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS11
Sample Depth:
0.80 m
Moisture content:
9.9%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 9.9% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.2 mg/kg	1.32	6.186 mg/kg	0.000619 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		11 mg/kg	1.462	14.485 mg/kg	0.00145 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		3.8 mg/kg	1.126	3.855 mg/kg	0.000385 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	6.4 mg/kg		5.766 mg/kg	0.000577 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		8.4 mg/kg	2.637	19.955 mg/kg	0.002 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		16 mg/kg	4.398	63.401 mg/kg	0.00634 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
16		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
19		pH			PH		7.7	pH		7.7	pH	7.7 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
											Total:	0.0169 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS11[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS11[2]
Sample Depth:
1.50 m
Moisture content:
7.8%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 7.8% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4 mg/kg	1.32	4.869 mg/kg	0.000487 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8.9 mg/kg	1.462	11.993 mg/kg	0.0012 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		7.8 mg/kg	1.126	8.097 mg/kg	0.00081 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	7.3 mg/kg		6.731 mg/kg	0.000673 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		13 mg/kg	2.637	31.603 mg/kg	0.00316 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		24 mg/kg	4.398	97.317 mg/kg	0.00973 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
16		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH			PH		8	pH		8	pH	8pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
21		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
22		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
23		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
24		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
25		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
26		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
27		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
											Total:	0.0216 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS14

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS14
Sample Depth:
1.00 m
Moisture content:
12%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		6.3 mg/kg	1.32	7.32 mg/kg	0.000732 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		14 mg/kg	1.462	18.006 mg/kg	0.0018 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		5.7 mg/kg	1.126	5.647 mg/kg	0.000565 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	13 mg/kg		11.44 mg/kg	0.00114 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		9.4 mg/kg	2.637	21.811 mg/kg	0.00218 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		21 mg/kg	4.398	81.274 mg/kg	0.00813 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
16		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH			PH		7.4	pH		7.4	pH	7.4 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
21		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
22		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
23		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
24		phenanthrene		201-581-5	85-01-8		0.06	mg/kg		0.0528	mg/kg	0.00000528 %	✓	
25		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
26		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
27		pyrene		204-927-3	129-00-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
											Total:	0.02 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS15

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS15
Sample Depth:
0.30 m
Moisture content:
17%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		24 mg/kg	1.32	26.301 mg/kg	0.00263 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		15 mg/kg	1.462	18.196 mg/kg	0.00182 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		120 mg/kg	1.126	112.138 mg/kg	0.0112 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	290 mg/kg		240.7 mg/kg	0.0241 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		0.7 mg/kg	1.353	0.786 mg/kg	0.0000786 %	✓	
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		21 mg/kg	2.637	45.957 mg/kg	0.0046 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		140 mg/kg	4.398	511.039 mg/kg	0.0511 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		14 mg/kg		11.62 mg/kg	0.00116 %	✓	
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				2.4	mg/kg	1.884	3.753	mg/kg	0.000375 %	✓	
		006-007-00-5											
19		pH				8.5	pH		8.5	pH	8.5 pH		
				PH									
20		naphthalene				0.17	mg/kg		0.141	mg/kg	0.0000141 %	✓	
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				0.18	mg/kg		0.149	mg/kg	0.0000149 %	✓	
			201-469-6	83-32-9									
23		fluorene				0.2	mg/kg		0.166	mg/kg	0.0000166 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				1.5	mg/kg		1.245	mg/kg	0.000125 %	✓	
			201-581-5	85-01-8									
25		anthracene				0.36	mg/kg		0.299	mg/kg	0.0000299 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				1.3	mg/kg		1.079	mg/kg	0.000108 %	✓	
			205-912-4	206-44-0									
27		pyrene				1.5	mg/kg		1.245	mg/kg	0.000125 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.56	mg/kg		0.465	mg/kg	0.0000465 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.65	mg/kg		0.54	mg/kg	0.000054 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.58	mg/kg		0.481	mg/kg	0.0000481 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.3	mg/kg		0.249	mg/kg	0.0000249 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.51	mg/kg		0.423	mg/kg	0.0000423 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.34	mg/kg		0.282	mg/kg	0.0000282 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				0.08	mg/kg		0.0664	mg/kg	0.00000664 %	✓	
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.41	mg/kg		0.34	mg/kg	0.000034 %	✓	
			205-883-8	191-24-2									
										Total:	0.101 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00116%)

Classification of sample: WS15[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS15[2]
Sample Depth:
0.80 m
Moisture content:
18%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	●	pH		PH		7.2 pH		7.2 pH	7.2 pH		
								Total:	0%		

Key

	User supplied data
●	Determinand defined or amended by HazWasteOnline (see Appendix A)

Classification of sample: WS16

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS16
Sample Depth:
0.80 m
Moisture content:
18%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 18% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.8 mg/kg	1.32	9.527 mg/kg	0.000953 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		18 mg/kg	1.462	21.573 mg/kg	0.00216 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		21 mg/kg	1.126	19.388 mg/kg	0.00194 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	31 mg/kg		25.42 mg/kg	0.00254 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		20 mg/kg	2.637	43.242 mg/kg	0.00432 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		43 mg/kg	4.398	155.071 mg/kg	0.0155 %	✓	
11	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
12	pH			PH		7 pH		7 pH	7pH		
13	naphthalene	601-052-00-2	202-049-5	91-20-3		0.12 mg/kg		0.0984 mg/kg	0.00000984 %	✓	

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
14		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		**<LOD**
			205-917-1	208-96-8									
15		acenaphthene				0.12	mg/kg		0.0984	mg/kg	0.00000984 %	✓	
			201-469-6	83-32-9									
16		fluorene				0.1	mg/kg		0.082	mg/kg	0.0000082 %	✓	
			201-695-5	86-73-7									
17		phenanthrene				1	mg/kg		0.82	mg/kg	0.000082 %	✓	
			201-581-5	85-01-8									
18		anthracene				0.22	mg/kg		0.18	mg/kg	0.000018 %	✓	
			204-371-1	120-12-7									
19		fluoranthene				1.3	mg/kg		1.066	mg/kg	0.000107 %	✓	
			205-912-4	206-44-0									
20		pyrene				1.5	mg/kg		1.23	mg/kg	0.000123 %	✓	
			204-927-3	129-00-0									
21		benzo[a]anthracene				0.69	mg/kg		0.566	mg/kg	0.0000566 %	✓	
		601-033-00-9	200-280-6	56-55-3									
22		chrysene				0.78	mg/kg		0.64	mg/kg	0.000064 %	✓	
		601-048-00-0	205-923-4	218-01-9									
23		benzo[b]fluoranthene				0.92	mg/kg		0.754	mg/kg	0.0000754 %	✓	
		601-034-00-4	205-911-9	205-99-2									
24		benzo[k]fluoranthene				0.47	mg/kg		0.385	mg/kg	0.0000385 %	✓	
		601-036-00-5	205-916-6	207-08-9									
25		benzo[a]pyrene; benzo[def]chrysene				0.88	mg/kg		0.722	mg/kg	0.0000722 %	✓	
		601-032-00-3	200-028-5	50-32-8									
26		indeno[123-cd]pyrene				0.58	mg/kg		0.476	mg/kg	0.0000476 %	✓	
			205-893-2	193-39-5									
27		dibenz[a,h]anthracene				0.2	mg/kg		0.164	mg/kg	0.0000164 %	✓	
		601-041-00-2	200-181-8	53-70-3									
28		benzo[ghi]perylene				0.73	mg/kg		0.599	mg/kg	0.0000599 %	✓	
			205-883-8	191-24-2									
										Total:	0.0291 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS17

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS17
Sample Depth:
0.70-0.80 m
Moisture content:
14%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.4 mg/kg	1.32	9.538 mg/kg	0.000954 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		24 mg/kg	1.462	30.167 mg/kg	0.00302 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		17 mg/kg	1.126	16.46 mg/kg	0.00165 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	23 mg/kg		19.78 mg/kg	0.00198 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		23 mg/kg	2.637	52.154 mg/kg	0.00522 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		47 mg/kg	4.398	177.764 mg/kg	0.0178 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		13 mg/kg		11.18 mg/kg	0.00112 %	✓	
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				6.8	pH		6.8	pH	6.8 pH		
				PH									
20		naphthalene				0.91	mg/kg		0.783	mg/kg	0.0000783 %	✓	
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				0.66	mg/kg		0.568	mg/kg	0.0000568 %	✓	
			201-469-6	83-32-9									
23		fluorene				0.56	mg/kg		0.482	mg/kg	0.0000482 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				4.4	mg/kg		3.784	mg/kg	0.000378 %	✓	
			201-581-5	85-01-8									
25		anthracene				1.1	mg/kg		0.946	mg/kg	0.0000946 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				3.7	mg/kg		3.182	mg/kg	0.000318 %	✓	
			205-912-4	206-44-0									
27		pyrene				3.4	mg/kg		2.924	mg/kg	0.000292 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				1.5	mg/kg		1.29	mg/kg	0.000129 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				1.6	mg/kg		1.376	mg/kg	0.000138 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				1.8	mg/kg		1.548	mg/kg	0.000155 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.58	mg/kg		0.499	mg/kg	0.0000499 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				1.5	mg/kg		1.29	mg/kg	0.000129 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.74	mg/kg		0.636	mg/kg	0.0000636 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				0.28	mg/kg		0.241	mg/kg	0.0000241 %	✓	
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				1	mg/kg		0.86	mg/kg	0.000086 %	✓	
			205-883-8	191-24-2									
										Total:	0.0372 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00112%)

Classification of sample: WS17[2]

Hazardous Waste
Classified as **17 05 03 ***
in the List of Waste

Sample details

Sample name:
WS17[2]
Sample Depth:
1.90 m
Moisture content:
11%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 03 * (Soil and stones containing hazardous substances)

Hazard properties

HP 7: Carcinogenic "waste which induces cancer or increases its incidence"

Hazard Statements hit:

Carc. 1B; H350 "May cause cancer [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.111%)

HP 11: Mutagenic "waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell"

Hazard Statements hit:

Muta. 1B; H340 "May cause genetic defects [state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard]."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.111%)

Determinands

Moisture content: 11% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		8.3 mg/kg	1.32	9.753 mg/kg	0.000975 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		19 mg/kg	1.462	24.715 mg/kg	0.00247 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		14 mg/kg	1.126	14.029 mg/kg	0.0014 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	40 mg/kg		35.6 mg/kg	0.00356 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
8		nickel { nickel sulfate }				23	mg/kg	2.637	53.973	mg/kg	0.0054 %	✓	
		028-009-00-5	232-104-9	7786-81-4									
9		selenium { nickel selenate }				<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
10		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }				55	mg/kg	4.398	215.278	mg/kg	0.0215 %	✓	
		030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]									
11		TPH (C6 to C40) petroleum group				1250	mg/kg		1112.5	mg/kg	0.111 %	✓	
				TPH									
12		confirm TPH has NOT arisen from diesel or petrol				☑							
13		benzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-020-00-8	200-753-7	71-43-2									
14		toluene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-021-00-3	203-625-9	108-88-3									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				7.5	pH		7.5	pH	7.5 pH		
				PH									
20		naphthalene				1.2	mg/kg		1.068	mg/kg	0.000107 %	✓	
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				2.2	mg/kg		1.958	mg/kg	0.000196 %	✓	
			201-469-6	83-32-9									
23		fluorene				2.4	mg/kg		2.136	mg/kg	0.000214 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				10	mg/kg		8.9	mg/kg	0.00089 %	✓	
			201-581-5	85-01-8									
25		anthracene				2.4	mg/kg		2.136	mg/kg	0.000214 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				8.7	mg/kg		7.743	mg/kg	0.000774 %	✓	
			205-912-4	206-44-0									
27		pyrene				8.2	mg/kg		7.298	mg/kg	0.00073 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				3	mg/kg		2.67	mg/kg	0.000267 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				3.4	mg/kg		3.026	mg/kg	0.000303 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				3.5	mg/kg		3.115	mg/kg	0.000312 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				1.1	mg/kg		0.979	mg/kg	0.0000979 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				2.8	mg/kg		2.492	mg/kg	0.000249 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				1.3	mg/kg		1.157	mg/kg	0.000116 %	✓	
			205-893-2	193-39-5									

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
34		dibenz[a,h]anthracene				0.4	mg/kg		0.356	mg/kg	0.0000356 %	✓	
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				1.6	mg/kg		1.424	mg/kg	0.000142 %	✓	
			205-883-8	191-24-2									
										Total:	0.155 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Hazardous result
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.111%)

Classification of sample: WS17[3]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS17[3]
Sample Depth:
2.50 m
Moisture content:
16%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.6 mg/kg	1.32	5.102 mg/kg	0.00051 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		27 mg/kg	1.462	33.148 mg/kg	0.00331 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19 mg/kg	1.126	17.969 mg/kg	0.0018 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	11 mg/kg		9.24 mg/kg	0.000924 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		32 mg/kg	2.637	70.874 mg/kg	0.00709 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		58 mg/kg	4.398	214.267 mg/kg	0.0214 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
16		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
19		pH			PH		7.9	pH		7.9	pH	7.9 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
21		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
22		acenaphthene		201-469-6	83-32-9		0.06	mg/kg		0.0504	mg/kg	0.00000504 %	✓	
23		fluorene		201-695-5	86-73-7		0.07	mg/kg		0.0588	mg/kg	0.00000588 %	✓	
24		phenanthrene		201-581-5	85-01-8		0.36	mg/kg		0.302	mg/kg	0.0000302 %	✓	
25		anthracene		204-371-1	120-12-7		0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
26		fluoranthene		205-912-4	206-44-0		0.24	mg/kg		0.202	mg/kg	0.0000202 %	✓	
27		pyrene		204-927-3	129-00-0		0.24	mg/kg		0.202	mg/kg	0.0000202 %	✓	
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		0.09	mg/kg		0.0756	mg/kg	0.00000756 %	✓	
29		chrysene	601-048-00-0	205-923-4	218-01-9		0.09	mg/kg		0.0756	mg/kg	0.00000756 %	✓	
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
											Total:	0.0406 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: WS18

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS18
Sample Depth:
0.80 m
Moisture content:
14%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		9.2 mg/kg	1.32	10.446 mg/kg	0.00104 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	21.368 mg/kg	0.00214 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19 mg/kg	1.126	18.397 mg/kg	0.00184 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	20 mg/kg		17.2 mg/kg	0.00172 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		21 mg/kg	2.637	47.619 mg/kg	0.00476 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		67 mg/kg	4.398	253.408 mg/kg	0.0253 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		12 mg/kg		10.32 mg/kg	0.00103 %	✓	
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				7.5	pH		7.5	pH	7.5 pH		
				PH									
20		naphthalene				0.31	mg/kg		0.267	mg/kg	0.0000267 %	✓	
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				1.2	mg/kg		1.032	mg/kg	0.000103 %	✓	
			201-469-6	83-32-9									
23		fluorene				0.79	mg/kg		0.679	mg/kg	0.0000679 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				5.4	mg/kg		4.644	mg/kg	0.000464 %	✓	
			201-581-5	85-01-8									
25		anthracene				1.5	mg/kg		1.29	mg/kg	0.000129 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				4.6	mg/kg		3.956	mg/kg	0.000396 %	✓	
			205-912-4	206-44-0									
27		pyrene				4.3	mg/kg		3.698	mg/kg	0.00037 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				2.3	mg/kg		1.978	mg/kg	0.000198 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				2.2	mg/kg		1.892	mg/kg	0.000189 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				2.8	mg/kg		2.408	mg/kg	0.000241 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.87	mg/kg		0.748	mg/kg	0.0000748 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				2.9	mg/kg		2.494	mg/kg	0.000249 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				1.7	mg/kg		1.462	mg/kg	0.000146 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				0.52	mg/kg		0.447	mg/kg	0.0000447 %	✓	
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				2.2	mg/kg		1.892	mg/kg	0.000189 %	✓	
			205-883-8	191-24-2									
										Total:	0.0442 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.00103%)

Classification of sample: WS18[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS18[2]
Sample Depth:
2.10 m
Moisture content:
12%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 12% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.8 mg/kg	1.32	6.739 mg/kg	0.000674 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		20 mg/kg	1.462	25.723 mg/kg	0.00257 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		15 mg/kg	1.126	14.862 mg/kg	0.00149 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	10 mg/kg		8.8 mg/kg	0.00088 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		24 mg/kg	2.637	55.687 mg/kg	0.00557 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		50 mg/kg	4.398	193.509 mg/kg	0.0194 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		207 mg/kg		182.16 mg/kg	0.0182 %	✓	
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				8.1	pH		8.1	pH	8.1 pH		
				PH									
20		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-469-6	83-32-9									
23		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-695-5	86-73-7									
24		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-371-1	120-12-7									
26		fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-912-4	206-44-0									
27		pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-883-8	191-24-2									
										Total:	0.0522 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Supplementary Hazardous Property Information

HP 3(i): Flammable "flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and <= 75°C"

Force this Hazardous property to non hazardous because samples are not considered flammable at identified concentrations.

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group: (conc.: 0.0182%)

Classification of sample: WS18[3]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
WS18[3]
Sample Depth:
2.60 m
Moisture content:
14%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14% Wet Weight Moisture Correction applied (MC)

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
1		arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.9	mg/kg	1.32	6.699	mg/kg	0.00067 %	✓	
2		cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2	mg/kg	1.142	<0.228	mg/kg	<0.0000228 %		<**LOD**
3		chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8	mg/kg	2.27	<4.086	mg/kg	<0.000409 %		<**LOD**
4		chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		27	mg/kg	1.462	33.937	mg/kg	0.00339 %	✓	
5		copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		19	mg/kg	1.126	18.397	mg/kg	0.00184 %	✓	
6		lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	11	mg/kg		9.46	mg/kg	0.000946 %	✓	
7		mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3	mg/kg	1.353	<0.406	mg/kg	<0.0000406 %		<**LOD**
8		nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		33	mg/kg	2.637	74.829	mg/kg	0.00748 %	✓	
9		selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1	mg/kg	2.554	<2.554	mg/kg	<0.000255 %		<**LOD**
10		zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		57	mg/kg	4.398	215.586	mg/kg	0.0216 %	✓	
11		TPH (C6 to C40) petroleum group			TPH		<20	mg/kg		<20	mg/kg	<0.002 %		<**LOD**
12		confirm TPH has NOT arisen from diesel or petrol					☑							
13		benzene	601-020-00-8	200-753-7	71-43-2		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
14		toluene	601-021-00-3	203-625-9	108-88-3		<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<**LOD**
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<**LOD**
		006-007-00-5											
19		pH				8.2	pH		8.2	pH	8.2 pH		
				PH									
20		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-917-1	208-96-8									
22		acenaphthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-469-6	83-32-9									
23		fluorene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-695-5	86-73-7									
24		phenanthrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			201-581-5	85-01-8									
25		anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			204-371-1	120-12-7									
26		fluoranthene				0.08	mg/kg		0.0688	mg/kg	0.00000688 %	✓	
			205-912-4	206-44-0									
27		pyrene				0.08	mg/kg		0.0688	mg/kg	0.00000688 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<**LOD**
			205-883-8	191-24-2									
										Total:	0.0414 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: RBH01

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
RBH01
Sample Depth:
0.50 m
Moisture content:
16%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 16% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		5.3 mg/kg	1.32	5.878 mg/kg	0.000588 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<LOD
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<LOD
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		17 mg/kg	1.462	20.871 mg/kg	0.00209 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		12 mg/kg	1.126	11.349 mg/kg	0.00113 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	26 mg/kg		21.84 mg/kg	0.00218 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<LOD
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		13 mg/kg	2.637	28.793 mg/kg	0.00288 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<LOD
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		27 mg/kg	4.398	99.745 mg/kg	0.00997 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<LOD
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<LOD

#		Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
15		ethylbenzene	601-023-00-4	202-849-4	100-41-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
16		xylene	601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane	603-181-00-X	216-653-1	1634-04-4		<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }	006-007-00-5				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
19		pH			PH		7.4	pH		7.4	pH	7.4 pH		
20		naphthalene	601-052-00-2	202-049-5	91-20-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
21		acenaphthylene		205-917-1	208-96-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
22		acenaphthene		201-469-6	83-32-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
23		fluorene		201-695-5	86-73-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
24		phenanthrene		201-581-5	85-01-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
25		anthracene		204-371-1	120-12-7		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
26		fluoranthene		205-912-4	206-44-0		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
27		pyrene		204-927-3	129-00-0		0.08	mg/kg		0.0672	mg/kg	0.00000672 %	✓	
28		benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
29		chrysene	601-048-00-0	205-923-4	218-01-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
30		benzo[b]fluoranthene	601-034-00-4	205-911-9	205-99-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
31		benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
32		benzo[a]pyrene; benzo[def]chrysene	601-032-00-3	200-028-5	50-32-8		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
33		indeno[123-cd]pyrene		205-893-2	193-39-5		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
34		dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
35		benzo[ghi]perylene		205-883-8	191-24-2		<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
											Total:	0.0243 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Classification of sample: RBH01[2]

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
RBH01[2]
Sample Depth:
1.10 m
Moisture content:
17%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 17% Wet Weight Moisture Correction applied (MC)

#		Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number							
1	•	pH				7.7 pH		7.7 pH	7.7 pH		
				PH							
								Total:	0%		

Key

	User supplied data
•	Determinand defined or amended by HazWasteOnline (see Appendix A)

Classification of sample: RBH02

Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:
RBH02
Sample Depth:
0.80 m
Moisture content:
13%
(wet weight correction)

LoW Code:
Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13% Wet Weight Moisture Correction applied (MC)

#	Determinand	EU CLP index number	EC Number	CAS Number	CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
1	arsenic { arsenic trioxide }	033-003-00-0	215-481-4	1327-53-3		4.2 mg/kg	1.32	4.824 mg/kg	0.000482 %	✓	
2	cadmium { cadmium oxide }	048-002-00-0	215-146-2	1306-19-0		<0.2 mg/kg	1.142	<0.228 mg/kg	<0.0000228 %		<**LOD**
3	chromium in chromium(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }	024-017-00-8				<1.8 mg/kg	2.27	<4.086 mg/kg	<0.000409 %		<**LOD**
4	chromium in chromium(III) compounds { chromium(III) oxide (worst case) }		215-160-9	1308-38-9		8.8 mg/kg	1.462	11.19 mg/kg	0.00112 %	✓	
5	copper { dicopper oxide; copper (I) oxide }	029-002-00-X	215-270-7	1317-39-1		9 mg/kg	1.126	8.816 mg/kg	0.000882 %	✓	
6	lead { lead compounds with the exception of those specified elsewhere in this Annex (worst case) }	082-001-00-6			1	9.8 mg/kg		8.526 mg/kg	0.000853 %	✓	
7	mercury { mercury dichloride }	080-010-00-X	231-299-8	7487-94-7		<0.3 mg/kg	1.353	<0.406 mg/kg	<0.0000406 %		<**LOD**
8	nickel { nickel sulfate }	028-009-00-5	232-104-9	7786-81-4		7.4 mg/kg	2.637	16.975 mg/kg	0.0017 %	✓	
9	selenium { nickel selenate }	028-031-00-5	239-125-2	15060-62-5		<1 mg/kg	2.554	<2.554 mg/kg	<0.000255 %		<**LOD**
10	zinc { zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2] }	030-006-00-9	231-793-3 [1] 231-793-3 [2]	7446-19-7 [1] 7733-02-0 [2]		19 mg/kg	4.398	72.698 mg/kg	0.00727 %	✓	
11	TPH (C6 to C40) petroleum group			TPH		<20 mg/kg		<20 mg/kg	<0.002 %		<**LOD**
12	confirm TPH has NOT arisen from diesel or petrol					☑					
13	benzene	601-020-00-8	200-753-7	71-43-2		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**
14	toluene	601-021-00-3	203-625-9	108-88-3		<5 mg/kg		<5 mg/kg	<0.0005 %		<**LOD**

#		Determinand			CLP Note	User entered data		Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
		EU CLP index number	EC Number	CAS Number									
15		ethylbenzene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-023-00-4	202-849-4	100-41-4									
16		xylene				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]									
17		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<5	mg/kg		<5	mg/kg	<0.0005 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
18		cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1	mg/kg	1.884	<1.884	mg/kg	<0.000188 %		<LOD
		006-007-00-5											
19		pH				8	pH		8	pH	8pH		
				PH									
20		naphthalene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-052-00-2	202-049-5	91-20-3									
21		acenaphthylene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
			205-917-1	208-96-8									
22		acenaphthene				0.18	mg/kg		0.157	mg/kg	0.0000157 %	✓	
			201-469-6	83-32-9									
23		fluorene				0.05	mg/kg		0.0435	mg/kg	0.00000435 %	✓	
			201-695-5	86-73-7									
24		phenanthrene				0.98	mg/kg		0.853	mg/kg	0.0000853 %	✓	
			201-581-5	85-01-8									
25		anthracene				0.18	mg/kg		0.157	mg/kg	0.0000157 %	✓	
			204-371-1	120-12-7									
26		fluoranthene				1.4	mg/kg		1.218	mg/kg	0.000122 %	✓	
			205-912-4	206-44-0									
27		pyrene				1.2	mg/kg		1.044	mg/kg	0.000104 %	✓	
			204-927-3	129-00-0									
28		benzo[a]anthracene				0.54	mg/kg		0.47	mg/kg	0.000047 %	✓	
		601-033-00-9	200-280-6	56-55-3									
29		chrysene				0.51	mg/kg		0.444	mg/kg	0.0000444 %	✓	
		601-048-00-0	205-923-4	218-01-9									
30		benzo[b]fluoranthene				0.53	mg/kg		0.461	mg/kg	0.0000461 %	✓	
		601-034-00-4	205-911-9	205-99-2									
31		benzo[k]fluoranthene				0.13	mg/kg		0.113	mg/kg	0.0000113 %	✓	
		601-036-00-5	205-916-6	207-08-9									
32		benzo[a]pyrene; benzo[def]chrysene				0.38	mg/kg		0.331	mg/kg	0.0000331 %	✓	
		601-032-00-3	200-028-5	50-32-8									
33		indeno[123-cd]pyrene				0.21	mg/kg		0.183	mg/kg	0.0000183 %	✓	
			205-893-2	193-39-5									
34		dibenz[a,h]anthracene				<0.05	mg/kg		<0.05	mg/kg	<0.000005 %		<LOD
		601-041-00-2	200-181-8	53-70-3									
35		benzo[ghi]perylene				0.25	mg/kg		0.218	mg/kg	0.0000218 %	✓	
			205-883-8	191-24-2									
										Total:	0.0183 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Deteminand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

Appendix A: Classifier defined and non GB MCL determinands

TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Hazard statements taken from WM3 1st Edition 2015; Risk phrases: WM2 3rd Edition 2013
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

confirm TPH has NOT arisen from diesel or petrol

Description/Comments: Chapter 3, section 4b requires a positive confirmation for benzo[a]pyrene to be used as a marker in evaluating Carc. 1B; H350 (HP 7) and Muta. 1B; H340 (HP 11)
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
Description/Comments:
Additional Hazard Statement(s): Carc. 2; H351
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

anthracene (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 17 Jul 2015
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

fluoranthene (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Acute Tox. 4; H302 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

pyrene (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 21 Aug 2015
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 06 Aug 2015
Hazard Statements: Carc. 2; H351

- **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015
Data source: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 23 Jul 2015
Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **bis(2-chloroethoxy)methane** (EC Number: 203-920-2, CAS Number: 111-91-1)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 4; H312 , Acute Tox. 1; H330 , Acute Tox. 2; H330 , STOT SE 1; H370 , STOT RE 2; H373

- **2-methyl naphthalene** (EC Number: 202-078-3, CAS Number: 91-57-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **2-chloronaphthalene** (EC Number: 202-079-9, CAS Number: 91-58-7)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

- **dibenzofuran** (EC Number: 205-071-3, CAS Number: 132-64-9)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Acute Tox. 4; H332 , Aquatic Chronic 2; H411

- **diethyl phthalate** (EC Number: 201-550-6, CAS Number: 84-66-2)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Skin Irrit. 2; H315 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , STOT SE 3; H335 , STOT RE 2; H373 , Repr. 2; H361 , Acute Tox. 4; H302 , STOT SE 3; H336 , Skin Sens. 1; H317 , Aquatic Chronic 1; H410

- **4-chlorophenylphenylether** (EC Number: 230-281-7, CAS Number: 7005-72-3)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **4-bromophenylphenylether** (EC Number: 202-952-4, CAS Number: 101-55-3)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

- **di-n-octyl phthalate** (EC Number: 204-214-7, CAS Number: 117-84-0)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Repr. 2; H361 , Skin Sens. 1; H317 , Resp. Sens. 1; H334 , Eye Irrit. 2; H319 , Aquatic Chronic 4; H413

dimethyl phthalate (EC Number: 205-011-6, CAS Number: 131-11-3)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , STOT SE 3; H335 , STOT SE 3; H336 , Repr. 2; H361 , Aquatic Chronic 3; H412

carbazole (EC Number: 201-696-0, CAS Number: 86-74-8)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 2; H341 , Carc. 2; H351 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301

2,2-dichloropropane (EC Number: 209-832-0, CAS Number: 594-20-7)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Acute Tox. 4; H312 , Eye Irrit. 2; H319

bromochloromethane (EC Number: 200-826-3, CAS Number: 74-97-5)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H312 , Skin Corr. 1B; H314 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Ozone 1; H420

bromodichloromethane (EC Number: 200-856-7, CAS Number: 75-27-4)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Dam. 1; H318 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 1A; H360

trans-1,3-dichloropropene (EC Number: 431-460-4, CAS Number: 10061-02-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Acute Tox. 3; H301 , Asp. Tox. 1; H304 , Acute Tox. 3; H311 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , Aquatic Chronic 1; H410

1,3-dichloropropane (EC Number: 205-531-3, CAS Number: 142-28-9)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H332 , Flam. Liq. 2; H225 , Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335

dibromochloromethane (EC Number: 204-704-0, CAS Number: 124-48-1)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 4; H312 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 4; H332 , STOT SE 3; H335 , STOT SE 3; H336 , Muta. 2; H341 , Aquatic Chronic 2; H411

1,1,1,2-tetrachloroethane (EC Number: 211-135-1, CAS Number: 630-20-6)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 2B;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Eye Dam. 1; H318 , Acute Tox. 4; H332 , Carc. 2; H351 , Acute Tox. 4; H312 , Aquatic Chronic 3; H412 , Skin Irrit. 2; H315

tert-butylbenzene (EC Number: 202-632-4, CAS Number: 98-06-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Acute Tox. 3; H331 , Acute Tox. 4; H332 , STOT SE 3; H335 , Asp. Tox. 1; H304 , Aquatic Chronic 2; H411

sec-butylbenzene (EC Number: 205-227-0, CAS Number: 135-98-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Chronic 2; H411

4-isopropyltoluene (EC Number: 202-796-7, CAS Number: 99-87-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Aquatic Chronic 2; H411

n-butylbenzene (EC Number: 203-209-7, CAS Number: 104-51-8)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Flam. Liq. 3; H226 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

hexachlorobutadiene (EC Number: 201-765-5, CAS Number: 87-68-3)

Description/Comments: VOC; Data from C&L Inventory Database; IARC considers substance Group 3;
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 3; H301 , Acute Tox. 2; H310 , Skin Irrit. 2; H315 , Skin Sens. 1; H317 , Eye Irrit. 2; H319 , Acute Tox. 2; H330 , Carc. 2; H351 , Repr. 2; H361 , STOT SE 2; H371 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

1,2,3-trichlorobenzene (EC Number: 201-757-1, CAS Number: 87-61-6)

Description/Comments: VOC; Data from C&L Inventory Database
Data source: https://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database
Data source date: 02 Mar 2017
Hazard Statements: Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , STOT SE 3; H336 , Aquatic Acute 1; H400 , Aquatic Chronic 3; H410

1,1-dichloroethane and 1,2-dichloroethane (combined) (EC Number: 203-458-1, 200-863-5, CAS Number: 107-06-2, 75-34-3)

Description/Comments: Combines the hazard statements and risk phrases for 1,1-dichloroethane and 1,2-dichloroethane
Data source: N/a
Data source date: 14 Oct 2016
Hazard Statements: Flam. Liq. 2; H225 , Acute Tox. 4; H302 , Skin Irrit. 2; H315 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 1B; H350 , Aquatic Chronic 3; H412

chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
Data source: https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806
Data source date: 17 Jul 2015
Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

lead compounds with the exception of those specified elsewhere in this Annex (worst case)

GB MCL index number: 082-001-00-6
Description/Comments: Worst Case: IARC considers lead compounds Group 2A; Probably carcinogenic to humans; Lead REACH Consortium, following MCL protocols, considers lead compounds from smelting industries, flue dust and similar to be Carcinogenic category 1A
Additional Hazard Statement(s): Carc. 1A; H350
Reason for additional Hazards Statement(s):
20 Nov 2021 - Carc. 1A; H350 hazard statement sourced from: IARC Group 2A (Sup 7, 87) 2006; Lead REACH Consortium www.reach-lead.eu/substanceinformation.html (worst case lead compounds). Review date 29/09/2015

salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
Additional Hazard Statement(s): EUH032 >= 0.2 %
Reason for additional Hazards Statement(s):
20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

pH (CAS Number: PH)

Description/Comments: Appendix C4
Data source: WM3 1st Edition 2015
Data source date: 25 May 2015
Hazard Statements: None.

monohydric phenols (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)
Data source: CLP combined data
Data source date: 26 Mar 2019
Hazard Statements: Muta. 2; H341 , Acute Tox. 3; H331 , Acute Tox. 3; H311 , Acute Tox. 3; H301 , STOT RE 2; H373 , Skin Corr. 1B; H314 , Skin Corr. 1B; H314 >= 3 % , Skin Irrit. 2; H315 1 £ conc. < 3 % , Eye Irrit. 2; H319 1 £ conc. < 3 % , Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic trioxide}

Reasonable case CLP species based on hazard statements/molecular weight and most common (stable) oxide of arsenic. Industrial sources include: smelting; main precursor to other arsenic compounds

cadmium {cadmium oxide}

Reasonable case CLP species based on hazard statements/molecular weight, very low solubility in water. Industrial sources include: electroplating baths, electrodes for storage batteries, catalysts, ceramic glazes, phosphors, pigments and nematocides. Worst case compounds in CLP: cadmium sulphate, chloride, fluoride & iodide not expected as either very soluble and/or compound's industrial usage not related to site history

chromium in chromium(VI) compounds {chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight.

chromium in chromium(III) compounds {chromium(III) oxide (worst case)}

Reasonable case species based on hazard statements/molecular weight.

copper {dicopper oxide; copper (I) oxide}

Reasonable case CLP species based on hazard statements/molecular weight and insolubility in water. Industrial sources include: oxidised copper metal, brake pads, pigments, antifouling paints, fungicide. Worse case copper sulphate is very soluble and likely to have been leached away if ever present and/or not enough soluble sulphate detected.

lead {lead compounds with the exception of those specified elsewhere in this Annex (worst case)}

Reasonable case species based on hazard statements/molecular weight.

mercury {mercury dichloride}

Worst case CLP species based on hazard statements/molecular weight

nickel {nickel sulfate}

Reasonable case species based on hazard statements/molecular weight.

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight

zinc {zinc sulphate (hydrous) (mono-, hexa- and hepta hydrate); [1] zinc sulphate (anhydrous) [2]}

Worst case CLP species based on hazard statements/molecular weight.

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide]

boron {boron trichloride}

most likely form on site

Appendix C: Version

HazWasteOnline Classification Engine: WM3 1st Edition v1.2.GB - Oct 2021
HazWasteOnline Classification Engine Version: 2023.199.5686.10472 (18 Jul 2023)
HazWasteOnline Database: 2023.199.5686.10472 (18 Jul 2023)

This classification utilises the following guidance and legislation:
WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021
CLP Regulation - Regulation 1272/2008/EC of 16 December 2008
1st ATP - Regulation 790/2009/EC of 10 August 2009
2nd ATP - Regulation 286/2011/EC of 10 March 2011
3rd ATP - Regulation 618/2012/EU of 10 July 2012
4th ATP - Regulation 487/2013/EU of 8 May 2013
Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013
5th ATP - Regulation 944/2013/EU of 2 October 2013
6th ATP - Regulation 605/2014/EU of 5 June 2014
WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014
Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014
7th ATP - Regulation 2015/1221/EU of 24 July 2015
8th ATP - Regulation (EU) 2016/918 of 19 May 2016
9th ATP - Regulation (EU) 2016/1179 of 19 July 2016
10th ATP - Regulation (EU) 2017/776 of 4 May 2017
HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017
13th ATP - Regulation (EU) 2018/1480 of 4 October 2018
14th ATP - Regulation (EU) 2020/217 of 4 October 2019
15th ATP - Regulation (EU) 2020/1182 of 19 May 2020
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020
The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020
GB MCL List - version 1.1 of 09 June 2021

Appendix F – Conceptual Models & Risk Assessments

West

East

Hardstand & Building Cover – breaking the source-pathway-receptor linkage, in addition to limiting infiltration of contaminants. Options appraisal & vapour monitoring required to establish if vapour membrane required

Suitable capping system in landscaped areas breaking identified source-pathway-receptor linkage

Proposed Greenheys Biohub

Landscaped areas with 600mm clean cover & Geotextile Marker Layer or 100mm Capillary Break Layer

Source of Hydrocarbons not Established. Probable related to former garage or factory in northwest. Further intrusive works required once existing building demolished and slab lifted

Boundary

Boundary

Pencroft Way

150mm Topsoil

Hydrocarbons

MADE GROUND

SAND/SAND & GRAVEL

c. 2.5m

Cornbrook in Culvert restricting migration of hydrocarbon contaminated groundwater

Shaft friction/ impermeable clay will limit pathways to Major Aquifer

Firm to stiff to very Stiff Glacial Clay

c. 3.0m to 6.00m

Landscaped areas with 600mm clean cover & Geotextile Marker Layer or 100mm Capillary Break Layer

SAND/SAND & GRAVEL

c. 6.0m To 11.00m

Piled Foundation

Principal Aquifer

SANDSTONE

KEY

- Capping System
- GeoTextile Membrane
- Groundwater
- Possible CS2/Vapour Ground gas Protection Measures

NOT TO SCALE

nxconsulting Next Generation Engineering Consultancy Services	**Site Conceptual Model**	Project No: NX534
	Project Title: Greenheys Biohub, Manchester Science Park	Date: 26.07.2023

PRINCIPLES OF RISK ASSESSMENT

MONITORING AND ASSESSMENT CRITERIA

C 1.0 GENERAL

C 1.1 The purpose of this appendix is to describe in detail the concepts underlying the risk-based approach to assessing potentially contaminated land, introduce the roles of key legislation and describe the qualitative methodology adopted for evaluating and characterising risk.

C 1.2 Current best practice in the UK promotes a risk-based approach to dealing with both soil and groundwater contamination. The principal aim of the approach is to ensure protection of human health and the environment in a thorough, transparent and cost-effective manner.

C 1.3 Fundamental to the risk-based approach is the concept that for 'Contaminated Land' to be designated, as a consequence of historic activities, a pathway for contamination must be shown to exist between a source of contamination and a receptor. The combined presence of a source, pathway and a receptor is described as a 'pollutant linkage'.

C 1.4 The concepts associated with a contaminant source, pathway and receptor are defined in DETR Circular 02/2000 'Contaminated Land Environmental Protection Act 1990: Part II A'. A ***source*** of contamination may be considered as a 'substance which is in, on or under land that has the potential to cause harm or to cause pollution of controlled waters'. A ***receptor*** can be considered as either 'a living organism, a group of living organisms, an ecological system or a piece of property which is being, or could be harmed, by a contaminant or controlled waters which are being, or could be, polluted by a contaminant'. A ***pathway*** may be considered as one or more routes by, or through, which a receptor is being, or could be, exposed to or affected by a contaminant. Typical pathways may include migration in groundwater, surface water run-off or infiltration, inhalation, dermal contact and ingestion.

C 1.5 The risks posed by an identified pollutant linkage can often be mitigated by removing the source of contamination, treating the source of contamination, blocking the relevant pathway(s) or by protecting the receptor.

C 2.0 PRINCIPLES OF RISK EVALUATION

C 2.1 The risk evaluation methodology presented below is qualitative in nature, and is therefore a subjective method. It is based upon guidance presented in CIRIA publication referenced C552, 'Contaminated land risk assessment ~ A guide to good practice', 2001 and involves the classification of the following.

C 2.2 The magnitude of the potential **consequence** (severity) of risk occurring (Table C 1).

C 2.3 The magnitude of the **probability** (likelihood) of the risk occurring (Table C 2).

C 2.4 These are then considered in conjunction to give a risk matrix (Table C 3)

Classification	Definition	Examples
Severe	Short-term (acute) risk to human health likely to result in 'significant harm' as defined by the Environmental Protection Act 1990, Part II A. Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem (note the definitions of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short-term human health risk if buildings are occupied).
Medium	Chronic damage to Human Health ('significant harm' as defined in DETR, 2000). Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem, or organism forming part of such ecosystem. (Note: the definitions of ecological systems within Draft Circular on Contaminated Land, DETR, 2000).	Concentrations of a contaminant from site exceed the generic, or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer. Death of a species within a designated nature reserve.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in the *Draft Circular on Contaminated Land,* DETR, 2000). Damage to sensitive buildings/structures/ services or the environment.	Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

Table C 1: Classification of Consequence

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

Table C 2: Classification of Probability

		Consequence			
		Severe	*Medium*	*Mild*	*Minor*
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate/Low Risk
	Likely	High Risk	Moderate Risk	Moderate/Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate/Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate/Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table C 3: Comparison of Consequence Against Probability

Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Table C 4: Description of the classified risks and likely action required

Conceptual Site Model (CSM) and Refined Risk Assessment
Table 2.0 (Phase 2)

Table and Summary of Potential Risks, Sheet 1

SOURCE – PATHWAY -RECEPTOR LINKAGE				QUANTITATIVE RISK ASSESSMENT		
Contaminant	**Location**	**Receptors**	**Pathways to Receptors**	**Associated Hazard (Potential Severity)**	**Likelihood of Occurrence**	**Risk***
Potential contaminants may be present within Made Ground and natural strata beneath the site associated with historical past usage. - Ash, cinder and clinker used for levelling / drainage: heavy metals, sulphates and PAHs. - Hydrocarbons. - Asbestos Containing Material (ACM). - VOCs, SVOCs Asbestos Containing Materials may also present within existing structures	Possibly within sub surface strata.	Ground water (Undifferentiated Aquifer & Principal Aquifer & Zone 3 SPZ)	Vertical percolation to groundwater	Groundwater (Medium – pollution of sensitive water resource)	Elevated concentrations of hydrocarbons in soils and groundwater in northwest. Source also not establish yet. Further intrusive works & remedial options appraisal and possible remediation required to minimise risks to controlled water receptors.	**Low/moderate reassessed as Low post construction**
		Surface Water 5m west - Corn Brook (Hidden River) in culvert	Lateral percolation to surface water	Surface Water (Medium – pollution of Sensitive water resource)	Unlikely due to culverted nature of watercourse. Site groundwater unlikely to be in hydraulic continuity with Corn Brook in locality.	**Low/moderate reassessed as Low**
		End user of site (Staff and patrons)	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium)	Elevated concentrations of hydrocarbons in soils and groundwater in northwest. Further intrusive works & remedial options appraisal and possible remediation required to minimise risks to human health. 600mm cover system required in new landscaped areas & possible vapour membrane within building floorslab construction..	**Low/Moderate reassessed as low post construction**
		Construction workers if applicable	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Groundwater (Medium – pollution of sensitive water resource)	Possible in soil samples retrieved within Made Ground. Appropriate PPE required & asbestos control measures	**Low/Moderate reassessed as low post construction**

** Where risk is evaluated as **moderate** or greater) either; a) remedial action is recommended to address this residual risk (Section 8.0 in the main body of the report) or, b) further investigation is recommended to better inform the risk classification and/or to enable a more detailed, quantitative risk assessment to be undertaken.*

Table and Summary of Potential Risks, Sheet 2

SOURCE – PATHWAY -RECEPTOR LINKAGE				QUANTITATIVE RISK ASSESSMENT		
Contaminant	**Location**	**Receptors**	**Pathways to Receptors**	**Associated Hazard (Potential Severity)**	**Likelihood of Occurrence**	**Risk***
Off site contaminants from surrounding land use	Possibly within made-ground surrounding site.	End user of site (Staff and patrons)	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Medium)	Unlikely. Based upon soil and groundwater concentrations. Hydrocarbon contaminated soils appear to be contained on site in northwest.	**Low/Moderate reassessed as low post construction**
		Construction workers if applicable	Direct contact, Ingestion, Inhalation (Dust and Vapours)	Human Health (Minor – Providing suitable PPE equipment is worn)	Possible in soil samples retrieved within Made Ground. Appropriate PPE required & asbestos control measures	**Low/Moderate reassessed as low post construction**
Gas associated with Made Ground	Possibly within strata beneath the site.	End user of site (Staff and patrons)	Migration through strata and accumulation under buildings of explosive and asphyxiating gases.	Human Health (Severe)	Possible – CS2 measures required or post remediation ground gas monitoring to confirm low risk. No nearby landfills. Also marginal exceedance/flows during gas monitoring) Vapour membrane may be required as part of the options appraisal.	**Low/Moderate reassessed as low post construction**

** Where risk is evaluated as **moderate** or greater) either; a) remedial action is recommended to address this residual risk (Section 8.0 in the main body of the report) or, b) further investigation is recommended to better inform the risk classification and/or to enable a more detailed, quantitative risk assessment to be undertaken.*

Appendix G – Gas Monitoring Results

Job No:	NX534	**Site:**	Greenheys Business Centre, MSP
Date:	26/04/2023	**Client:**	Bruntwood
Engineer:		**Equipment:**	GA5000 / GFM435

Next Generation Engineering Consultancy Services

*Groundwater bailed before gas measured.

RBH01	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
Date			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.02	N/A	0.0	16.0	N/A	0/425	N/A	0.0	16.0	N/A	0/425	1.88	4.04				
04/05/2023	Unable to monitor - installation blocked by vehicle.																	
09/05/2023	0.0	0.00	0.0	0.0	14.6	0.0	0/0	0.0	0.0	14.6	0.0	0/0	1.80	4.04				
23/05/2023	0.0	0.00	0.0	0.9	15.3	0.0	0/0	0.0	0.9	15.3	0.0	0/0	1.61	4.05				
01/06/2023	0.0	0.00	0.0	2.2	13.5	0.0	0/0	0.0	2.2	13.5	0.0	0/0	1.67	4.04				
18/07/2023	0.0	0.00	0.1	6.4	9.2	2.0	0/0	0.1	6.4	9.2	2.0	0/0	1.62	4.04				

RBH02	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
Date			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.00	N/A	1.7	15.8	N/A	0/27	N/A	1.7	15.8	N/A	0/27	1.72	4.58				
04/05/2023	0.0	N/A	0.0	0.7	19.5	0.0	0/0	0.0	0.7	19.5	0.0	0/0	1.72	4.58				
09/05/2023	0.0	0.00	0.0	2.6	16.7	0.0	0/0	0.0	2.6	16.7	0.0	0/0	1.70	4.58				
23/05/2023	0.0	0.09	0.0	3.7	16.5	0.0	0/1	0.0	3.7	16.5	0.0	0/1	1.63	4.55				
01/06/2023	0.0	0.00	0.0	4.1	16.6	0.0	0/0	0.0	4.1	16.6	0.0	0/0	1.70	4.55				
18/07/2023	0.0	0.12	0.1	2.4	18.3	2.0	0/1	0.1	2.4	18.3	2.0	0/1	1.59	4.55				

WS04	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	Unable to monitor - installation blocked by vehicle.																	
04/05/2023	0.0	N/A	0.0	0.4	19.6	0.0	0/0	0.0	0.4	19.6	0.0	0/0	2.00	2.50				
09/05/2023	0.0	0.00	0.0	0.4	19.4	0.0	0/0	0.0	0.4	19.4	0.0	0/0	2.00	2.50				
23/05/2023	0.0	0.04	0.0	0.1	20.2	0.0	0/0	0.0	0.1	20.2	0.0	0/0	1.57	2.04				
01/06/2023	Unable to monitor - installation blocked by vehicle.																	
18/07/2023	Unable to monitor - installation blocked by vehicle.																	

WS05B	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.12	N/A	0.4	20.2	N/A	0/7	N/A	0.4	20.2	N/A	0/7	1.90	4.87				
04/05/2023	0.0	N/A	0.0	0.6	20.1	0.0	0/0	0.0	0.6	20.1	0.0	0/0	1.90	4.87				
09/05/2023	0.0	0.00	0.0	1.4	19.2	0.0	0/0	0.0	1.4	19.2	0.0	0/0	1.90	4.87				
23/05/2023	0.0	0.09	0.0	0.8	19.2	0.0	0/0	0.0	0.8	19.2	0.0	0/0	1.85	4.58				
01/06/2023	Unable to monitor - installation blocked by vehicle.																	
18/07/2023	Unable to monitor - installation blocked by vehicle.																	

WS10	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.02	N/A	1.7	16.6	N/A	0/1	N/A	1.7	16.6	N/A	0/1	1.81	4.77				
04/05/2023	0.0	N/A	0.1	2.0	17.0	2.0	0/0	0.1	2.0	17.0	2.0	0/0	1.81	4.77				
09/05/2023	0.0	0.00	0.0	1.8	17.7	0.0	0/0	0.0	1.8	17.7	0.0	0/0	1.81	4.77				
23/05/2023	0.0	0.00	0.0	2.8	16.1	0.0	0/0	0.0	2.8	16.1	0.0	0/0	1.83	4.70				
01/06/2023	0.0	0.05	0.0	0.5	19.8	0.0	0/0	0.0	0.5	19.8	0.0	0/0	1.86	4.71				
18/07/2023	0.0	0.02	0.1	0.4	20.5	2.0	0/0	0.1	0.4	20.5	2.0	0/0	1.82	4.70				

WS11	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.05	N/A	0.1	19.2	N/A	1 / 516	N/A	0.1	19.2	N/A	1 / 516	1.95	3.47				
04/05/2023	0.0	N/A	0.0	0.0	18.9	0.0	0/0	0.0	0.0	18.9	0.0	0/0	1.95	3.47				
09/05/2023	0.0	0.00	0.0	0.0	20.7	0.0	0/0	0.0	0.0	20.7	0.0	0/0	1.95	3.47				
23/05/2023	0.0	0.04	0.0	0.0	20.4	0.0	0/0	0.0	0.0	20.4	0.0	0/0	1.97	3.32				
01/06/2023	0.0	0.05	0.0	0.1	20.3	0.0	0/1	0.0	0.1	20.3	0.0	0/1	1.99	3.32				
18/07/2023	0.0	0.02	0.1	0.4	19.7	2.0	0/0	0.1	0.4	19.7	2.0	0/0	1.94	3.33				

WS14	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2	O_2	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.04	N/A	2.5	17.5	N/A	0/9	N/A	2.5	17.5	N/A	0/9						1016
	0.0	N/A	0.1	2.2	18.8	2.0	0/0	0.1	2.2	18.8	2.0	0/0						1012
	0.0	0.00	0.0	2.3	18.3	0.0	0/0	0.0	2.3	18.3	0.0	0/0						1006
	0.0	0.00	0.0	2.3	17.9	0.0	0/0	0.0	2.3	17.9	0.0	0/0						1024
	0.0	0.00	0.0	1.5	19.4	0.0	0/0	0.0	1.5	19.4	0.0	0/0						1025
	0.0	0.02	0.1	0.4	19.7	0.0	0/0	0.1	0.4	19.7	0.0	0/0						1014

WS16	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.04	N/A	1.1	19.0	N/A	0/7	N/A	1.1	19.0	N/A	0/7	Dry	2.07		1016		1016
04/05/2023	0.0	N/A	0.1	1.0	19.6	2.0	0/0	0.1	1.0	19.6	2.0	0/0	Dry	2.07		1012		1012
09/05/2023	0.0	0.00	0.0	1.2	18.9	0.0	0/0	0.0	1.2	18.9	0.0	0/0	Dry	2.07		1006		1006
23/05/2023	0.0	0.00	0.0	1.2	18.9	0.0	0/3	0.0	1.2	18.9	0.0	0/3	1.98	2.04		1024		1024
01/06/2023	0.0	0.04	0.0	1.0	18.7	0.0	0/0	0.0	1.0	18.7	0.0	0/0	1.97	2.04		1025		1025
18/07/2023	0.0	0.07	0.0	1.8	19.1	0.0	0/0	0.0	1.8	19.1	0.0	0/0	Dry	2.04		1014		1014

WS17	Flow Rate (l/h)	Pressure Differential	Gas Concentration										Water		Start		Finish	
			Peak					Steady										
			CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	CH_4 %	CO_2 %	O_2 %	LEL %	H2S/ CO (ppm)	Depth to Water	Depth to Base		Barometric Pressure		Barometric Pressure
26/04/2023	0.0	0.07	N/A	0.3	20.4	N/A	0/77	N/A	0.3	20.4	N/A	0/16	Dry	2.47		1016		1016
04/05/2023	0.0	N/A	0.0	0.2	20.7	0.0	0/0	0.0	0.2	20.7	0.0	0/0	Dry	2.47		1012		1012
09/05/2023	0.0	0.00	0.0	0.0	20.5	0.0	0/0	0.0	0.0	20.5	0.0	0/0	Dry	2.47		1006		1006
23/05/2023	0.0	0.02	0.0	0.1	20.5	0.0	0/0	0.0	0.1	20.5	0.0	0/0	2.03	2.34		1024		1024
01/06/2023	Unable to monitor - unable to access installation.															1025		1025
18/07/2023	0.0	0.07	0.0	0.5	20.6	0.0	0/1	0.0	0.5	20.6	0.0	0/1	Dry	2.34		1014		1014

CH_4	Above the **1.0%** v/v guideline value in Waste Management Paper no 27 (WMP27).	CO_2	Above the **1.5%** v/v guideline value given in WMP27.

Date	Weather	Pressure Trend	Ground Conditions
26/04/2023	**Sunny**	**High and steady**	**Dry**
04/05/2023	**Sunny**	**High and steady**	**Dry**
09/05/2023	**Sunny, overcast. Raining by the end of the visit.**	**High and steady**	**Dry, becoming damp.**
23/05/2023	**Sunny and warm**	**High and steady**	**Dry**
01/06/2023	**Sunny and warm**	**High and steady**	**Dry**
18/07/2023	**Rainy and warm**	**High and steady**	**Damp**