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PHASE 2: GROUND INVESTIGATION REPORT

SHED

LITTLE HAVEN HOTEL

RIVER DRIVE

SOUTH SHIELDS

NE33 1LH

Project No: 25-810

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30/04/2026

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30/04/2026

The information and / or advice contained in this Phase 2: Ground Investigation Report is based solely on, and is limited to, the boundaries of the site, the immediate area around the site, and the historical use(s) unless otherwise stated. This 'Report' has been prepared to collate information relating to the physical, environmental, and industrial setting of the site, and to highlight, where possible, the likely problems that might be encountered when considering the future development of this site for the proposed end use. All comments, opinions, diagrams, cross sections and / or sketches contained within the report, and / or any configuration of the findings is conjectural and given for guidance only and confirmation of the anticipated ground conditions should be considered before development proceeds. Agreement for the use or copying of this report by any Third Party must be obtained in writing from Arc Environmental Limited (ARC). If a change in the proposed land use is envisaged, then a reassessment of the site should be carried out.

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APPENDICES

Appendix I	Location Plan, Aerial Photograph, Existing Site Layout Plan, Proposed Development Layout Plan
Appendix II	Exploratory Hole Location Plan, Borehole Record Sheets, Borehole Record
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	Gas Monitoring Sheets & Laboratory Results
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1.0 Introduction

April 2026

As requested by SHED and in conjunction with the Phase 1 Desktop Study Report (Ref. 25-81, February 2026), Phase 2: Ground Investigation works have been carried out at a Little Haven Hotel, River Drive, South Shields, NE33 1LH, where the site where it is proposed to extend the existing buildings, build additional standalone structures, as well as implement areas of soft and hard landscaping.

The intrusive investigation works undertaken comprised 10 no. windowless sampling boreholes (BH01 to BH10), 3 no. manually excavated foundation exposure trial pits (FP01 to FP03), 2 no. machine excavated soakaway pits (SA01 & SA02) as well as the installation on 3 no. monitoring wells (BH02, BH06 & BH09).

The positions of the investigation locations can be seen on the Exploratory Hole Location Plan, a copy of which is attached in Appendix II. It should be noted that this plan is for orientating purposes only, as the plan is not to a standard scale.

2.0 Site Details

Table 2.1

N = north, E = east, S = south & W = west.

Site Name & Address:	Little Haven Hotel, South Shields, NE33 1LH.
National Grid Reference:	436790, 568160 (representative of the central part of the site).
Description of Location:	The site is located near to the mouth of the River Tyne in South Shields. The site is accessed via the B1344 (Sea Road).
Site Boundaries:	N = The South Groyne & the River Tyne, E = Sand dunes & the North Sea, S = Car parking land & W = Water sports centre and the River Tyne.
Site Shape:	The site is irregular in layout, occupying a total area of c.1.28 Hectares (Ha).
General Topography:	The site is generally flat at c.5m AOD.
Site surfacing:	The site surfacing comprises of asphalt and grass surfacing with areas of concrete surfacing and block paving around the building.
Above Ground Structures:	Little Haven Hotel is recorded in the central portion of the site, and shipping containers are recorded on the western border of the site. An outdoor seating gazebo is recorded in the northern portion of the site.
Sub-surface Structures & Services:	Services will be present beneath the site in relation to the current buildings onsite.

3.0 Scope of Works

Table 3.1

Client:	Little Haven Hotel.
Consulting Engineers:	SHED.
Project Type:	Proposed Commercial Development.
Site Location Plan:	See Appendix I.
Aerial Photograph:	See Appendix I.
Existing Site Layout:	See Appendix I.
Intrusive Investigation Works:	10 no. windowless sampling boreholes (BH01 to BH10 inclusive), 3 no. hand excavated foundation exposure trial pits (FP01 to FP03 inclusive), 2 no. machine excavated soakaway pits (SA01 & SA02), 3 no. monitoring wells (BH02, BH06 & BH09).
Laboratory Testing:	Contamination & Geotechnical.
CLEA Classification:	<i>Commercial</i>

4.0 Investigation Rationale

The information contained in this report is limited to the areas of the site, as indicated on the Exploratory Hole Location Plan, and to those areas accessible during the ground investigation. The depths of strata on the record sheets are recorded in m below current ground levels.

When considering the full scope of the development any features and / or issues not specifically mentioned in this report cannot be assumed to have been covered. This ground investigation has been designed to provide information on the general ground and groundwater conditions where access would allow, within the boundaries of the site. A geotechnical assessment was not completed for this site, as requested by the client.

The rationale behind the location of each exploratory position is summarised in Table 4.1 below.

Table 4.1

<u>Potential issue</u>	<u>Exploratory hole</u>
Determine the nature of the underlying ground conditions, including shallow groundwater.	BH01 to BH10, FP01 to FP03, SA01 to SA02.
Determine the levels of contamination present within the initial deposits with a view to determining the risks posed towards the future site end users.	BH01 to BH10, FP01 to FP03, SA01 to SA02.
Undertake gas monitoring to determine the risk to the proposed development from the potential migration of gas.	BH02, BH06 & BH09

4.1 Contamination Related Sampling & Site Protocols: -

All works associated with this ground contamination assessment and investigations have generally been completed in accordance with BS10175:2011+A2:2017: Investigation of potentially contaminated sites – Code of practice & Land Contamination Risk Management (LCRM: October 2020) with the following precautions specific to this project.

4.1.1 Ground Contamination Sampling: -

Samples were recovered by a representative of ARC Environmental Ltd. during the intrusive investigation works. All samples were stored at approximately c.2-8°C using cool boxes and ice packs prior to delivery to a UKAS / MCERTS accredited laboratory. Sampling was carried out in accordance with 'Technical Policy Statement 63: UKAS Policy on Deviating Samples'.

4.1.2 Onsite Health & Safety Requirements: -

All site representatives wore relevant and appropriate PPE including (where appropriate) safety footwear, high visibility jacket / vest, hard hat, eye protection and overalls. In addition, disposable latex gloves were used when handling any potentially contaminated materials and when rinsing all sampling tools. Each site vehicle contained a suitable First Aid kit with hand wash station / cleansing products (i.e., sanitary wipes).

4.1.3 Avoiding Cross-Contamination between Sample Locations: -

To avoid cross-contamination of materials between soil horizons, drill casing was used to seal off the made ground. In addition, plastic liners were used to collect samples from the windowless sampling boreholes.

With regards to the trial pits, the samples were recovered manually using dedicated disposable plastic gloves replaced between each sample recovery.

5.0 Ground Conditions

For an accurate description of the ground conditions encountered at each investigation position, reference should be made to the Trial Pit and Borehole Record Sheets attached in Appendix II. It should be noted that there is always the possibility of variation in the ground conditions around and between the exploratory hole locations.

5.1 Soil Profile: -

The site comprises made ground of slightly gravelly clayey topsoil with low cobble content from ground level to between c.0.30m to c.0.50m bcgl (below current ground level) with noted anthropogenic fragments of brick, coal, concrete and tiles underlain by a combination of slightly gravelly silty clay and slightly gravelly sand to depths between c.2.00m bcgl to c.3.40m bcgl, with noted anthropogenic fragments of brick, coal and tile. In addition, a hydrocarbon odour was noted within the made ground from BH02 & BH10.

The base of the made ground was not proven in BH02 or BH05 due to obstructions.

Proven to underly the made ground, natural strata comprised of slightly gravelly sand from between c.1.60m bcgl to c.3.40m bcgl to depths of at least c.5.45m bcgl with gravel constituents comprising sandstone, limestone, mudstone and occasional shell fragments.

No solid geology was encountered during the course of the investigation.

5.2 Groundwater & Stability: -

No groundwater ingress was noted throughout the works, as such, shallow water ingress is unlikely, though may be experienced during future construction related excavations.

When considering the results of the groundwater monitoring, all three monitoring wells remained dry.

When considering the results of the groundwater monitoring, all three monitoring wells remained dry. However, consideration should be taken to allow for the introduction of groundwater control measures (i.e., sump pumping equipment), to take care of any localised ingresses of groundwater which may occur during the construction period, especially during the wetter periods of the year.

5.3 Existing Foundations -

Three manually excavated trial pits (FP01 to FP03) were completed to expose and record the geometry of existing foundations. The locations, findings, and foundation cross-sections are shown in detail on the Exploratory Hole Location Plan and Foundation Detail Record Sheet in Appendix II and are also summarised in Table 5.1 on the following page.

Table 5.1

<u>Trial Pit Location</u>	<u>Description & General Comments</u>
FP01	The existing building wall extended to c.0.30m bgl on a concrete footing projecting from the wall c.0.30m with a thickness of c.0.60m, observed to be founded within cohesive made ground. (Total depth of foundations c.0.90m)
FP02	The existing building wall extended to c.0.30m bgl on a concrete footing projecting from the wall c.0.70m with a thickness of c.0.40m, observed to be founded within cohesive made ground. (Total depth of foundations c.0.70m)
FP03	The existing building wall extended to c.0.30m bgl on a concrete footing projecting from the wall c.0.30m with a thickness of c.0.70m, observed to be founded within cohesive made ground. (Total depth of foundations c.1.00m)

6.0 In-situ Testing

6.1 In-situ Standard Penetration Tests: -

Standard penetration tests (SPT's) were carried out with the use of a normal split spoon sampler on the made ground and natural deposits (suspected limestone bedrock) noted within the boreholes to determine the relative density / strength of the materials tested. The results are shown as uncorrected 'N' values on the borehole record sheets. A summary of the results of the tests undertaken can be seen in Table 6.1 below.

Where the full penetration depth, including seating blows (450mm), could not be achieved, the bottom sampling depth is indicated as less than 0.45m from the top (start of test), with the actual depth of penetration and number of blows undertaken also being recorded.

Table 6.1

Type of Strata	Range of SPT 'N' Values	Result details
Made Ground – Slightly sandy slightly gravelly silty Clay	13 to 36 and 75 blows for limited penetration	Indicates medium to high strength deposits with likely cobble content.
Natural Strata - Slightly gravelly Sand	1	Very loose.
Natural Strata – Beach Deposits (Sands and Gravels)	9 to 49	Indicative of medium dense becoming dense and very dense.

6.2 In-situ Gas & Water Monitoring: -

Due to the site being underlain by coal measures, ground gas / vapor & water monitoring standpipes were installed within the boreholes (BH02, BH06 & BH09), primarily to check for the possible presence of hazardous ground gases, monitor any shallow water levels, and take samples of groundwater for testing if required.

A standard 50mm diameter HDPE standpipe, with gravel and geo-wrap surround, bentonite seal, gas valve cap and security cover, was installed within each borehole to depths of between c.2.70m and c.4.00m bgl, and ground gas and water levels were allowed to reach equilibrium, prior to the first monitoring visit.

Monitoring was undertaken using a Gas Data GFM series soil gas analyser, with integral flow meter, and a Geotechnical Instruments electronic dip meter. The response zones were designed to target any ground gas from both on and off-site sources. Based on the findings of the intrusive investigation works, in accordance with CIRIA Report C665, November 2007, Report Edition No. 04, March 2007 and BS8485:2015+A1 2019 – Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings, it is felt that an adequate risk assessment can be undertaken based on the following limiting factors:

- The development has been considered as high sensitivity i.e., worst case - residential (Tables 5.5a & 5.5b – Typical / Idealised frequency and period of monitoring, after Wilson et al, 2005).
- The risk associated for future site use can be classified as very low / low.
- Monitoring over a minimum of three months with a minimum of six recorded readings (Tables 5.5a & 5.5b – Typical / idealised frequency and period of monitoring after Wilson et al, 2005).
- Negligible flow rates are recorded during the monitoring period (Table 8.5 – Modified Wilson & Card classification).
- A targeted and phased programme of gas monitoring has been completed, which obtained gas monitoring readings during varying atmospheric conditions, which covers the 'worst case' scenario for ground gas emissions to occur, particularly during rapid falls in atmospheric pressure (i.e. from c.1020mb and c.1010mb), and during low atmospheric pressure events (i.e. c.1000mb and below).

6.0 In-situ Testing (Cont'd)

6.2 In-situ Gas & Water Monitoring (Cont'd): -

Monitoring of the weather conditions and predicated atmospheric pressures (Met Office Surface Pressure Charts) are carried out up to 72 hours in advance of proposed monitoring visits, in order that a reasonable period of data is obtained to determine atmospheric trends, and to target the 'worst case' scenario. The monitoring visits completed correlate with falling and steady atmospheric pressure trends and represent worst case conditions including falling atmospheric pressure trends, and atmospheric pressures below 1000mb.

A summary of the results for the visits undertaken, compared with the 'inert' background gas levels is presented in Table 6.2 on the next page, with the monitoring certificate attached in Appendix II.

Table 6.2

*Taken from (South Shields)

Position	Date	Atmospheric Pressure (mbar)	Water (m bgl)	CH ₄ (%v/v)	LEL (%v/v)	CO ₂ (%v/v)	O ₂ (%v/v)	Flow Rate (l/hr)
Background		~	~	0	0	0	21.0	<0.1
BH02	02/02/2026	1002 (Rising)*	Dry	0.0	0.0	2.2	17.3	<0.1
BH06			Dry	0.0	0.0	0.0	20.1	<0.1
BH09			Dry	0.0	0.0	0.1	19.8	<0.1
BH02	16/02/2026	988-989 (Falling)*	Dry	0.0	0.0	0.3	19.8	<0.1
BH06			Dry	0.0	0.0	0.0	19.9	<0.1
BH09			Dry	0.0	0.0	0.1	19.8	<0.1
BH02	03/03/2026	1021-1022 (Rising)*	Dry	0.0	0.0	0.4	17.7	<0.1
BH06			Dry	0.0	0.0	0.0	20.2	<0.1
BH09			Dry	0.0	0.0	0.2	19.9	<0.1
BH02	17/03/2026	1006-1007 (Falling)*	Dry	0.0	0.0	0.2	20.2	<0.1
BH06			Dry	0.0	0.0	1.1	18.6	<0.1
BH09			Dry	0.0	0.0	0.0	20.1	<0.1
BH02	30/03/2026	1018 (Falling)*	Dry	0.0	0.0	3.6	15.7	<0.1
BH06			Dry	0.0	0.0	0.4	19.9	<0.1
BH09			Dry	0.0	0.0	0.3	20.2	<0.1
BH02	15/04/2026	1009 (Rising)*	Dry	0.0	0.0	2.8	18.5	<0.1
BH06			Dry	0.0	0.0	0.5	19.5	<0.1
BH09			Dry	0.0	0.0	0.5	20.3	<0.1

As can be seen from the results undertaken to date, detectable levels of Carbon Dioxide (CO₂) (up to 3.6%) have been recorded, with minorly depleted Oxygen (O₂) concentrations (minimum 15.7% v/v). Detectable levels of CH₄ have not been recorded. Negligible flow rates of <0.1l/hr have been recorded.

Based on the results of the monitoring undertaken, in accordance with CIRIA Report C665, a risk assessment has been completed for this site, by converting the results in Table 6.2 above to a Gas Screening Value (GSV), calculated by multiplying the typical maximum gas concentrations with the recorded maximum positive flow rates (after Wilson & Card). The GSV for CO₂ have been calculated, using the maximum recorded values, with a maximum flow rate of <0.1l/hr. The GSV can be calculated as follows:

$$\text{Carbon Dioxide GSV} = 0.036 (3.6\%) \times 0.1 = 0.003.6 \text{ l/hr}$$

When considering these results, in accordance with CIRIA C665, the GSV for CO₂ would fall below the lower target concentration of 0.07l/hr and would equate to a Characteristic Situation 1 (CS1) site classification.

6.0 In-situ Testing (Cont'd)

6.2 In-situ Gas & Water Monitoring (Cont'd): -

Based on the updated UKRadon map (December 2022), the site lays within an area where 1-3% of homes are at or above the action level for radon, and that radon protection measures are not required at the site.

When considering the results of the groundwater monitoring, all three monitoring wells remained dry. However, consideration should be taken to allow for the introduction of groundwater control measures (i.e., sump pumping equipment), to take care of any localised ingresses of groundwater which may occur during the construction period, especially during the wetter periods of the year.

6.3 In-situ Soakaway Testing to BRE365: -

In-situ soakaway tests were completed at SA01 & SA02 in accordance with BRE 365: Soakaway Design, to assess the suitability of the superficial deposits for utilising soakaways. The test pits were partially filled with clean 'no fines' gravel for stability and then water to the same level and monitored for water level versus time (at close intervals).

The water was supplied from a large tractor towed water bowser and dispensed into the test pits at a rapid rate to ensure the pits were filled within a short period of time. The pits were filled level of c.0.50m below current ground levels.

To calculate to soil infiltration rate (f) for the Glaciofluvial silty slightly gravelly sands, the time (in seconds) is required for the water to seep away from 75% to 25% effective depth using an average of three test results (three fills). The time to achieve this ranged from 3,900 secs (65 mins) to 5,400 secs (1hrs 30mins). Average infiltration values for the soils tested were $4.06 \times 10^{-5} \text{ms}^{-1}$ and $5.33 \times 10^{-5} \text{ms}^{-1}$ suggesting good drainage characteristics and a medium permeability classification. These results can be used for designing an appropriate SuDS scheme.

However, it must be noted that a significant portion of the response zone within SA02 comprised of made ground, which may have had an anomalous effect on the test results.

7.0 Laboratory Testing

7.1 Determination of pH & SO₄: -

Representative samples of the made ground and natural deposits recovered from the boreholes during the investigation were tested to determine their acidic (pH) and soluble sulphate (SO₄) levels. The results are shown in Table 7.1 on the following page and are also contained within the Chemtech Analytical Report (Ref. 26-01178-2) a copy of which can be seen in Appendix III.

7.0 Laboratory Testing (Cont'd): -

7.1 Determination of pH & SO₄ (Cont'd): -

Table 7.1

Position	Depth (m)	Strata	pH	SO ₄ (mg/l)	Design SO ₄ Class	ACEC Class
BH01	0.90 - 1.00	MG	8.6	687	DS-2	AC-1
BH01	1.80 - 2.00	MG	8.4	476	DS-1	AC-1
BH01	2.50 - 3.00	NS	8.7	210	DS-1	AC-1
BH02	1.80 - 2.00	MG	8.3	353	DS-1	AC-1
BH02	2.60 - 3.00	MG	8.0	62.4	DS-1	AC-1
BH03	1.80 - 2.00	MG	8.6	59.2	DS-1	AC-1
BH04	0.40 - 0.50	MG	8.6	41.9	DS-1	AC-1
BH05	0.90 - 1.00	MG	8.4	104	DS-1	AC-1
BH05	1.60 - 1.80	MG	8.7	93.6	DS-1	AC-1
BH06	0.40 - 0.50	MG	9.1	27.3	DS-1	AC-1
BH06	1.40 - 1.50	MG	8.6	48.6	DS-1	AC-1
BH06	2.50 - 3.00	NS	9.0	29.0	DS-1	AC-1
BH07	0.90 - 1.00	MG	8.3	22.8	DS-1	AC-1
BH08	1.20 - 1.40	MG	8.5	85.0	DS-1	AC-1
BH09	0.10 - 0.20	MG	8.7	15.3	DS-1	AC-1
BH09	0.90 - 1.00	MG	8.3	47.9	DS-1	AC-1
BH09	1.80 - 2.00	NS	8.8	31.1	DS-1	AC-1

ACEC = Aggressive Chemical Environment for Concrete site classification, MG = Made Ground, NS = Natural Strata

From these results the pH values for the samples tested ranges from 8.0 to 9.1 and the amount of soluble sulphate present ranges from 27.3mg/l to 687mg/l.

Therefore, in accordance with the BRE Special Digest 1:2005 in a data set of more than 10 samples, the site should be given a classification of DS-1 and considering the nature of the made ground materials and natural strata tested and assuming mobile groundwater, the assessment of the Chemical Environment for concrete is AC-1.

7.2 Determination of Particle Size Distribution: -

Representative samples of the natural strata were scheduled for particle size distribution (PSD) testing. The results are summarised in Table 7.2 below, as well as both numerically and graphically in the PSL Analytical Report (Ref. PSL26/0882), a copy of which is contained in Appendix III.

Table 7.2

* estimate of uniformity coefficient using smallest percentage passing (i.e., 10% (d₁₀) to 14% (d₁₄))

Position	Depth (m)	Clay / Silt Fraction %	Sand Fraction %	Gravel Fraction %	Cobble Fraction %	Brief Soil Description	Uniformity Coefficient (U=d ₆₀ /d ₁₀ *)
BH01	2.50-3.00	9	81	10	0	Slightly gravelly clayey SAND	<10*
BH04	2.50-2.70	3	82	15	0	Slightly gravelly clayey SAND	<10*
BH06	2.50-3.00	2	92	6	0	Slightly gravelly clayey SAND	<10*
BH08	2.50-3.00	4	92	4	0	Slightly gravelly clayey SAND	<10*

From the testing, all the samples tested can be classified as poorly graded.

7.0 Laboratory Testing (Cont'd): -

7.3 Contamination Screening / Screening Strategy: -

Representative samples of the made ground materials and natural strata were passed onto Chemtech Environmental of Stanley so that soil contamination and leachate screening could be carried out to assess any potential risk to Human Health, Controlled Waters, and assist with off-site disposal.

The samples were screened using a standard generic contamination suite as detailed below (based on the CLEA SGV listed analytes with additions), which is used to assess typical made ground (disturbed natural strata mixed with anthropogenic debris) of an unknown source. The representative samples were also tested for Speciated PAH (Polycyclic Aromatic Hydrocarbons), Speciated TPH (Total Petroleum Hydrocarbons), & Asbestos. The catalogue of testing results can be found in the Chemtech Analytical Report (Ref. 26-01178-2), attached in Appendix III, and the total analysis carried out is summarised below.

7.3.1 Soils:

- 5 no. samples tested for generic (metals and non-organics) soil suite including Arsenic, Cadmium, Chromium (III & VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide and Total Organic Carbon (TOC)
- 5 no. samples were tested for Speciated Polycyclic Aromatic Hydrocarbons (PAH's)
- 5 no. tested for Speciated Total Petroleum Hydrocarbons (based on a full Aliphatic / Aromatic Split & BTEX)
- 5 no. samples tested for Presence of asbestos

7.3.2 Leachates:

- 3 no. samples screened for a generic (metals and inorganics) suite which includes the following determinants: Arsenic, Cadmium, Chromium (III & VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide, pH, and Total Organic Carbon (TOC).
- 3 no. samples screened for Speciated Polycyclic Aromatic Hydrocarbons (PAHs).
- 3 no. samples screened for Speciated Total Petroleum Hydrocarbons (Aliphatic / Aromatic + BTEX).

8.0 Ground Contamination Risk Assessment

8.1 Methodology: -

Following completion of the contamination screening undertaken on various samples from this site, Level 1 quantitative ground contamination risk assessments have been undertaken, generally in accordance with BS10175: British Standard Code of Practice for the Investigation of Potentially Contaminated Sites (2011+A2:2017) & Land Contamination Risk Management (LCRM: October 2020).

This quantitative ground contamination risk assessment uses the current UK practice for assessing the risks from land contamination, which is based on the established *source-pathway-receptor* pollutant linkage methodology and 'suitable for use' approach (Part IIA, EPA 1990 - inserted through Section 57 EA 1995).

Based on the results of the contamination screening completed for this site, the risks from potential contaminants have been assessed for Human Health and Controlled Waters. The results of the risk assessments can be found in Sections 8.2 (Human Health) and 8.3 (Controlled Waters), with a summary of the potential contamination sources, migration pathways and sensitive receptors for this site described within the revised CSM in Section 8.4.

8.0 Ground Contamination Risk Assessment (Cont'd): -

8.2 Level 1 Risk Assessment (Human Health): -

The soil screening results from across the site have been assessed by comparing the Maximum Concentration values (C_M) recorded for each analyte to the Critical Concentration (C_C) values chosen for this site (taken as *Commercial*). The results of the testing are contained in Appendix II and are summarised in Table 8.1 on the following pages.

The average TOC across the 5 no. samples tested is 1.99%, which when converted to SOM using a conversion factor of 1.72 is 3.42%. As such it is suitable to adopt Critical Concentrations based on SOM of 2.5%.

Table 8.1

Bold = Elevated concentrations

Analyte	Critical Conc. (C_C)	No. of Samples Screened	Max. Conc. (C_M) Recorded	No. of Samples $>C_C$
Metals and Non-metals				
Arsenic	640 ⁽¹⁾	5	16.9	0
Cadmium	190 ⁽¹⁾	5	3.3	0
Chromium III	8600 ⁽¹⁾	5	33.9	0
Chromium VI	33 ⁽¹⁾	5	<0.040	0
Copper	68000 ⁽¹⁾	5	58.5	0
Lead	2300 ⁽²⁾	5	314	0
Mercury	1100 ⁽¹⁾	5	1.3	0
Nickel	980 ⁽¹⁾	5	22.4	0
Selenium	12000 ⁽¹⁾	5	4.5	0
Zinc	730000 ⁽¹⁾	5	63.7	0
Cyanide	34 ⁽³⁾	5	<1.00	0
PAHs				
Acenaphthene	97000 ⁽¹⁾	5	0.048	0
Acenaphthylene	97000 ⁽¹⁾	5	0.102	0
Anthracene	540000 ⁽¹⁾	5	0.234	0
Benzo(a)anthracene	170 ⁽¹⁾	5	0.815	0
Benzo(a)pyrene	35 ⁽¹⁾	5	0.877	0
Benzo(b)fluoranthene	44 ⁽¹⁾	5	1.06	0
Benzo(ghi)perylene	4000 ⁽¹⁾	5	0.63	0
Benzo(k)fluoranthene	1200 ⁽¹⁾	5	0.36	0
Chrysene	350 ⁽¹⁾	5	0.723	0
Dibenz(ah)anthracene	3.6 ⁽¹⁾	5	0.16	0
Fluoranthene	23000 ⁽¹⁾	5	1.59	0
Fluorene	68000 ⁽¹⁾	5	0.076	0
Indeno(123cd)pyrene	510 ⁽¹⁾	5	0.726	0
Naphthalene	460 ⁽¹⁾	5	0.368	0
Phenanthrene	22000 ⁽¹⁾	5	0.892	0
Pyrene	54000 ⁽¹⁾	5	1.37	0
BTEX				
Benzene	47 ⁽¹⁾	5	0.012	0
Toluene	110000 ⁽¹⁾	5	<0.001	0
Ethylbenzene	13000 ⁽¹⁾	5	<0.001	0
m & p-Xylene	14000 ⁽¹⁾	5	<0.002	0
o-Xylene	15000 ⁽¹⁾	5	0.002	0

⁽¹⁾ = LQM CIEH Suitable 4 Use Levels (S4UL Nov 2014 (Revised August 2015) – Commercial – 2.5% SOM), ⁽²⁾ = C4SL Values (Commercial), ⁽³⁾ = ATRISK^{SOIL} SSV.

8.0 Ground Contamination Risk Assessment (Cont'd): -

8.2 Level 1 Risk Assessment (Human Health) (Cont'd): -

Table 8.1 (Cont'd)

Bold = Elevated concentrations

<u>Analyte</u>	<u>Critical Conc. (C_C)</u>	<u>No. of Samples Screened</u>	<u>Max. Conc. (C_M) Recorded</u>	<u>No. of Samples >C_C</u>
TPHs				
VPH Aliphatic (>C5-C6)	5900 ⁽¹⁾	5	<0.1	0
VPH Aliphatic (>C6-C8)	17000 ⁽¹⁾	5	<0.1	0
VPH Aliphatic (>C8-C10)	4800 ⁽¹⁾	5	3.93	0
EPH Aliphatic (>C10-C12)	23000 ⁽¹⁾	5	<1.0	0
EPH Aliphatic (>C12-C16)	82000 ⁽¹⁾	5	15.5	0
EPH Aliphatic (>C16-35)	170000 ⁽¹⁾	5	42.1	0
EPH Aliphatic (>C35-C44)	170000 ⁽¹⁾	5	0.012	0
VPH Aromatic (>EC5-EC7)	46000 ⁽¹⁾	5	<0.01	0
VPH Aromatic (>EC7-EC8)	110000 ⁽¹⁾	5	0.047	0
VPH Aromatic (>EC8-EC10)	8100 ⁽¹⁾	5	3.8	0
EPH Aromatic (>EC10-EC12)	28000 ⁽¹⁾	5	16.3	0
EPH Aromatic (>EC12-EC16)	37000 ⁽¹⁾	5	14.8	0
EPH Aromatic (>EC16-EC21)	28000 ⁽¹⁾	5	27.1	0
EPH Aromatic (>EC21-EC35)	28000 ⁽¹⁾	5	7	0
EPH Aromatic (>EC35-EC44)	28000 ⁽¹⁾	5	132	0
Asbestos	Presence	5	NAD	0

⁽¹⁾ = LQM CIEH Suitable 4 Use Levels (S4UL Nov 2014 (Revised August 2015) – Commercial – 2.5% SOM), NAD - No Asbestos Detected

The results of the analysis and risk assessment have identified the following: -

- No Maximum Concentration (C_M) values exceeded the Critical Concentration (C_C) values for any analyte tested.
- No Asbestos was detected within any of the 5 no. samples tested.

The results of the contamination screening and analysis have confirmed that the made ground below the site does not pose a possible risk to Human Health where exposure pathways are available, and therefore no remedial measures and / or further assessments are required to protect future end users.

8.3 Level 1 Risk Assessment (Controlled Waters): -

Leachate screening has been carried out on 4 no. soil samples recovered from the site. The results have been used to complete a Level 1 Risk Assessment for the potential impact on Controlled Waters and adjacent sites, and the results have been summarised in Table 8.2 below and on the following page.

Table 8.2

Bold = Elevated concentrations

<u>Analyte</u>	<u>Target Conc. C_T (µg/l)</u>	<u>No. of Samples Screened</u>	<u>Max. Conc. (µg/l)</u>	<u>No. of Samples >C_T</u>
Metals & Non-metals				
Arsenic	10 ⁽¹⁾	3	5.11	0
Boron	1000 ⁽¹⁾	3	80.0	0
Cadmium	5 ⁽¹⁾	3	<0.10	0
Chromium	50 ⁽¹⁾	3	6.25	0
Copper	2000 ⁽¹⁾	3	16.3	0
Lead	10-25 ⁽¹⁾	3	24.3	1 (BH09)
Mercury	1 ⁽¹⁾	3	0.078	0

8.0 Ground Contamination Risk Assessment (Cont'd): -

8.3 Level 1 Risk Assessment (Controlled Waters) (Cont'd): -

Table 8.2

Bold = Elevated concentrations

Analyte	Target Conc. C_T	No. of Samples	Max. Conc.	No. of Samples >C_T
Metals & Non-metals	(µg/l)	Screened	(µg/l)	
Nickel	20 ⁽¹⁾	3	7.56	0
Selenium	10 ⁽¹⁾	3	<1.1	0
Zinc	5000 ⁽¹⁾	3	37.2	0
Sulphate	250,000 ⁽¹⁾	3	24.0	0
Cyanide	50 ⁽¹⁾	3	<5.00	0
PAHs				
Acenaphthene	0.1 ⁽¹⁾	3	<0.10	0
Acenaphthylene	0.1 ⁽¹⁾	3	<0.10	0
Anthracene	0.1 ⁽¹⁾	3	<0.10	0
Benzo(a)anthracene	0.1 ⁽¹⁾	3	<0.10	0
Benzo(a)pyrene	0.1 ⁽¹⁾	3	<0.10	0
Benzo(b)fluoranthene	0.1 ⁽¹⁾	3	<0.10	0
Benzo(ghi)perylene	0.1 ⁽¹⁾	3	<0.10	0
Benzo(k)fluoranthene	0.1 ⁽¹⁾	3	<0.10	0
Chrysene	0.1 ⁽¹⁾	3	<0.10	0
Dibenz(ah)anthracene	0.1 ⁽¹⁾	3	<0.10	0
Fluoranthene	0.1 ⁽¹⁾	3	0.17	2 (BH01 & BH09)
Fluorene	0.1 ⁽¹⁾	3	<0.10	0
Indeno(123cd)pyrene	0.1 ⁽¹⁾	3	<0.10	0
Naphthalene	10 ⁽¹⁾	3	<0.10	0
Phenanthrene	0.1 ⁽¹⁾	3	0.13	2 (BH01 & BH09)
Pyrene	0.1 ⁽¹⁾	3	0.21	2 (BH01 & BH02)
Speciated TPH's				
VPH Aliphatic (>C5-C6)	10 ⁽¹⁾	3	<1.00	0
VPH Aliphatic (>C6-C8)	10 ⁽¹⁾	3	<1.00	0
VPH Aliphatic (>C8-C10)	10 ⁽¹⁾	3	<1.00	0
EPH Aliphatic (>C10-C12)	10 ⁽¹⁾	3	<1.00	0
EPH Aliphatic (>C12-C16)	10 ⁽¹⁾	3	<1.00	0
EPH Aliphatic (>C16-C35)	10 ⁽¹⁾	3	<1.00	0
EPH Aliphatic (>C35-C44)	10 ⁽¹⁾	3	<1.00	0
VPH Aromatic (>EC5-EC7)	10 ⁽¹⁾	3	<1.00	0
VPH Aromatic (>EC7-EC8)	10 ⁽¹⁾	3	<1.00	0
VPH Aromatic (>EC8-EC10)	10 ⁽¹⁾	3	<1.00	0
EPH Aromatic (>EC10-EC12)	10 ⁽¹⁾	3	<1.00	0
EPH Aromatic (>EC12-EC16)	10 ⁽¹⁾	3	<1.00	0
EPH Aromatic (>EC16-EC21)	10 ⁽¹⁾	3	<1.00	0
EPH Aromatic (>EC21-EC35)	10 ⁽¹⁾	3	<1.00	0
EPH Aromatic (>EC35-EC44)	10 ⁽¹⁾	3	<1.00	0
BTEX				
Benzene	1.0 ⁽¹⁾	3	<1.00	0
Toluene	50 ⁽²⁾	3	<1.00	0
Ethylbenzene	300 ⁽³⁾	3	<1.00	0
m-Xylene	30 ⁽²⁾	3	<1.00	0
p-Xylene	30 ⁽²⁾	3	<1.00	0
o-Xylene	30 ⁽²⁾	3	<1.00	0

⁽¹⁾ = EQS Freshwater, ⁽²⁾ = UK Drinking Standard, ⁽³⁾ = WHO Health.

8.0 Ground Contamination Risk Assessment (Cont'd): -

8.3 Level 1 Risk Assessment (Controlled Waters) (Cont'd): -

The results of the Level 1 risk assessment for Controlled Waters have identified the following:

- With the exception of Lead, Fluoranthene, Fluorene, Phenanthrene and Pyrene, none of the other analytes screened for exceed the chosen Target Conc. (C_T) values for this site and therefore will not represent a significant risk to Controlled Waters if they remain in-situ.

From the results of these intrusive investigation works the made ground identified within the sampling trial pits does not contain any free product or mobile contamination such as waste oils, fuels, solvents, etc., that could migrate vertically or laterally from the site and impact Controlled Waters.

No shallow groundwater was recorded in the trial pits and the made ground across this site is not considered to lie within a saturated groundwater zone.

There are no Source Protection Zones or Water Abstractions noted to be located within c.1km of the site.

Bearing this in mind, and given the low permeability superficial made ground, which will significantly reduce lateral and vertical mobility, in combination with the lack of nearby sensitive receptors, there is not considered to be a potential risk to Controlled Waters and the closest identified sensitive receptor, from this site and the proposed development works and no further works and / or assessment are deemed necessary.

8.4 Revised Conceptual Site Model (CSM): -

From the findings of the intrusive investigation and contamination testing, a Conceptual Site Model (CSM) has been developed for the site and is illustrated in Table 8.3 below.

Table 8.3

	<i>Sources (S)</i>		<i>Pathways (P)</i>		<i>Receptors (R)</i>
S1	Made ground associated with the reclaimed land (ballast), and the current and previous developments on the site. No raised level of analytes identified above C_C limits. No asbestos detected.	P1	Ingestion & Dermal Contact.	R1	Human Health End Users: Construction Workforce. End use taken as 'Residential with homegrown produce' due to proposed nursery.
		P2	Air – Inhalation of vapours (indoor & outdoors) and contact with dust generated through the construction works.		
S2	Potential ground gases from the made ground on this site. Monitoring identified (Characteristic Situation) CS-1.	P3	Plant Uptake and attached soil.	R2	Controlled Waters: Groundwater – anticipated within the superficial and bedrock deposits (both Secondary Aquifers - A).
		P4	Migration through existing service corridors.	R3	Adjacent sites.
		P5	Direct contact with building materials.	R4*	Building materials.
		P6	Surface runoff & Infiltration.	R5*	Flora and fauna.

* = Not included in the Human Health & Controlled Waters Risk Assessment.

8.0 Ground Contamination Risk Assessment (Cont'd): -

8.4 Revised Conceptual Site Model (CSM) (Cont'd): -

8.4.1 Sources: -

The site is generally covered by varying thickness of made ground up to c.3.40m thickness which represents a potential source of ground contamination for this site. The made ground generally contains anthropogenic debris i.e., brick, concrete, coal and tile. These materials have been assessed using a standard generic soil suite, were raised levels of Lead were encountered above C_C limits.

Due to the underlying coal measures, there is the potential for hazardous ground gases to migrate upwards and pose a risk to the proposed development.

8.4.2 Pathways: -

When considering the proposed end use, and without considering treatment, removal or protection measures, there are some potential plausible pathways available for direct contact, dermal contact, ingestion, inhalation, wind (dust / particulate), volatilization, and vertical and lateral transportation below the site, where there is no hardcover present.

Within the CLEA Risk Assessment Model for Human Health, there are 3 exposure mediums considered for on-site receptors, comprising ingestion of soil containing contaminants, inhalation of contaminated dust / vapours and dermal contact, with up to 10 no. exposure pathways considered, as shown below.

1. Ingestion of soil and indoor dust
2. Consumption of homegrown produce and attached soil
3. Dermal contact (indoor)
4. Dermal contact (outdoor)
5. Inhalation of dust (indoor)
6. Inhalation of dust (outdoor)
7. Inhalation of vapour (indoor)
8. Inhalation of vapour (outdoor)
9. Oral background intake
10. Inhalation background intake.

Where the future site has hard cover and below new structures, a number of these pathways may not be available. In addition, when considering the potential pathways for leachate migration, where either hard cover and / or future surface water drainage systems are present, the potential effects of surface infiltration or contaminated surface water runoff will be greatly reduced. Similarly, when considering the construction work force, exposure pathways through direct contact, ingestion and dust inhalation will be available during part of the construction process, and therefore adequate PPE should be provided to protect the workforce during this period.

8.4.3 Receptors: -

Within the CLEA Risk Assessment Model for Human Health, the potential receptors are assessed initially on-site end use, followed by a delineation of age category (i.e., child or adult), with default settings for *Residential*, *Allotment* and *Public Open Space (Park)* end uses based on a child aged 0 to 6 years, *Public Open Space (Residential)* based on a child aged 3 to 9 and *Commercial* end uses based upon a working exposure period of up to 49 years (i.e., 16 to 65).

Key generic assumptions for *Residential* and *Public Open Space (Residential)* are based upon a typical residential property, consisting of a two-storey small, terraced house, with private garden, and a *Commercial* end use based upon a typical commercial or light industrial property, consisting of a three-storey office building (pre-1970). No buildings are anticipated for *Allotment* or *Public Open Space (Park)* end uses. Within the CLEA Risk Assessment Model for Human Health there are 6 no. generic end use categories presently in use, as seen on the following page:

8.0 Ground Contamination Risk Assessment (Cont'd): -

8.4 Revised Conceptual Site Model (CSM) (Cont'd): -

8.4.3 Receptors (Cont'd): -

- 1) Residential - with home grown produce, 2) Residential - without home grown produce, 3) Allotments, 4) Commercial
5) Public Open Space – Residential, 6) Public Open Space - Park*

Due to the proposed end use of the site, for this Level 1 Risk Assessment, when considering the sensitivity of the site a conservative approach has been taken resulting in:

- 4) Commercial*

With regards to Controlled Waters, the primary receptor considered for this site is the anticipated groundwater within the superficial and bedrock deposits, both classified as Secondary Aquifers - A.

9.0 Conclusions & Recommendations

9.1 Ground Conditions: -

Made ground generally comprised a combination of slightly gravelly clayey topsoil with low cobble content from ground level to between c.0.30m to c.0.50m bcgl underlain by slightly gravelly silty clay and slightly gravelly sand to depths between c.2.00m bcgl to c.3.40m bcgl, with noted anthropogenic fragments of brick, coal and tile.

The base of the made ground was not proven in BH02 or BH05 due to obstructions.

Proven to underly the made ground, natural strata comprised of slightly gravelly sand recorded from between c.1.60m bcgl to c.3.40m bcgl to depths of at least c.5.45m bcgl.

9.2 Groundwater & Stability: -

No groundwater ingress was noted throughout the works; shallow water ingress is unlikely but may be experienced during future construction related excavations. It is therefore recommended that allowance is made for some groundwater control measures, in order to take care of any localised ingresses of groundwater which may occur during the construction period, especially during the wetter periods of the year.

When considering the results of the groundwater monitoring, all three monitoring wells remained dry. However, consideration should be taken to allow for the introduction of groundwater control measures (i.e., sump pumping equipment), to take care of any localised ingresses of groundwater which may occur during the construction period, especially during the wetter periods of the year.

9.3 Hazardous Waste Analysis: -

The made ground material on site, which may have to be discarded as a waste to landfill, has been assessed using Technical Guidance WM3 'Guidance on the classification and assessment of Waste', in conjunction with the on-line waste classification software tool HazWasteOnline™.

9.0 Conclusions & Recommendations (Cont'd): -

9.3 Hazardous Waste Analysis (Cont'd): -

Each sample has been assessed separately to determine whether all the soils can be considered as a single waste stream or whether the different sources represent separate waste streams.

Based on the physical (visual and olfactory) inspection of the samples recovered from the boreholes and trial pits, representative samples have been assessed as either 17 05 03 (waste soil and stones containing hazardous substances) or 17 05 04 (waste soil and stones other than those mentioned in 17 05 03) from the WM3 List of Waste (LoW).

In order to determine which waste code applies to each sample, the results of the laboratory testing have been assessed using the HazWasteOnline™ software. The results are summarised in Table 9.1 below and the full Waste Classification Report can be found attached in Appendix III.

Table 9.1

<u>Position</u>	<u>Depth (m)</u>	<u>Classification</u>	<u>Waste Code</u>
BH01	0.90 - 1.00	Non-Hazardous	17 05 04
BH02	2.60 - 3.00	Non-Hazardous	17 05 04
BH04	0.40 - 0.50	Non-Hazardous	17 05 04
BH07	0.90 - 1.00	Non-Hazardous	17 05 04
BH09	0.10 - 0.20	Non-Hazardous	17 05 04

The results of this assessment have identified that all 5 no. of the soil samples tested are classified as Non-Hazardous Waste.

To assess whether the Non-Hazardous made ground materials meet the criteria for disposal at an Inert Waste Landfill, supplementary WAC screening has been scheduled on 3 no. representative samples.

From the results of this assessment the made ground materials meet the criteria for disposal at an Inert Waste Landfill. The soils description, screening results and Waste Classification Report should be passed on to the chosen Waste Treatment Centre / Landfill operator for their comments.

It should be noted that this Waste Classification Report is only applicable to those made ground materials which have been sampled and screened as part of the assessment. If materials, other than those covered by this report, are to be discarded from site as a waste to landfill or there is a significant increase in the volume of materials to be discarded, then these additional materials will also need to be assessed using Technical Guidance WM3: Guidance on the classification and assessment of Waste.

9.0 Conclusions & Recommendations (Cont'd): -

9.4 Ground Contamination Assessment: -

9.4.1 Human Health: -

From the results of the contamination screening, no elevated levels of analytes have been identified above Critical Concentrations in the samples tested. As such, no further assessment for ground contamination is required currently and a Phase 3 Remediation Strategy is not deemed necessary for the proposed development.

The contamination screening results should be provided to the Main Contractor / Project Coordinator, for use in devising an adequate Site Health & Safety Plan, in accordance with current CDM Regulations. For further guidance reference should be made to the Health and Safety Executive (HSE) document EH40 / 2005 Workplace exposure limits.

9.4.2 Controlled Waters: -

When taking into account the results of the leachate screening and Level 1 Risk Assessment (Section 8.3), the risk to Controlled Waters from on-site contamination is considered to be low and therefore no further works are considered necessary with this regard.

9.5 Foundation Options: -

When considering the foundation options available for the proposed development of the Gym and Hotel Extensions, conventional strip or pad mass trench fill foundations will be suitable, taken through any made ground and based wholly within the natural sand and gravel deposits encountered between c.1.60 to c.2.30m bgl, where a maximum allowable bearing capacity of c.80kN/m². Should an increased bearing capacity be required, ground improvement techniques could be applicable for these developments.

When considering the proposed Nursery, located in the area surrounding BH01, BH02 and BH10, due to the thickness of the made ground, up to c.3.40m bcgl, ground improvement techniques should be considered.

This report should be provided to the relevant ground improvement specialist contractor for comment.

When considering the results of the pH and soluble sulphate testing, future foundations and buried concrete on the site can be constructed utilising a concrete design class of DS-1 and ACEC class of AC-1.

9.6 Gas Protection Measures: -

Considering the gas monitoring completed, in accordance with CIRIA C665, the GSV for CO₂ would fall below the lower target concentration of 0.071/hr and would equate to a Characteristic Situation 1 (CS1) site classification.

The site is not considered to be at potential risk from Radon gas.

9.0 Conclusions & Recommendations (Cont'd): -

9.7 General Comments: -

Where we have sampled and tested for asbestos this is discussed in the report. Whilst we would target any asbestos sampling and testing in accordance with a Conceptual Site Model and site findings, there is always the possibility, along with other contamination, that undiscovered asbestos exists between sample locations and the possibility of unknown asbestos exists on all sites.

For future site works, adequate lateral trench support will be required for excavations, to prevent trench wall collapse or over excavations, as well as to create a safe working environment, and any excavations on this site should remain open for as short a period as possible, since some of these materials may be susceptible to deterioration, if left open to the natural elements for any significant period.

In addition, for deeper excavations, drainage, service runs or the like that may pass close to or beneath any proposed new foundations, these should be undertaken with care and completed prior to the preparation of any new foundations, so as not to allow any loose or granular material to move or 'flow', thus causing settlement to occur to any new foundations based at a higher level.

Consideration should also be given to the protection of any new service pipes for any proposed development, and a suite of contamination testing (UKWIR suite) may be required to meet the requirements of the local utilities service provider for their 'pipe selection risk assessment' (PSRA) once the location and depth of future services have been determined.

An "observational technique" can be applied to the design and construction of this site, and where ground conditions seem to vary from that indicated from the conceptual ground model derived from works to date, then advice from a suitably qualified Engineer should be sought.

END OF REPORT

APPENDIX I



Client:

SHED

Project Title:

Proposed Extensions to the
Existing Building & New Buildings
south Shields, NE33 1LH

Drawing Title:

Location Plan

Job Reference:

25-810

Drawing Number:

-

Revision:

-

Drawn by:

P.D

Date:

27.01.26

Scale at A4:

As shown

Checked by:

S.D

Approved by:

S.D

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site before commencement of any works.
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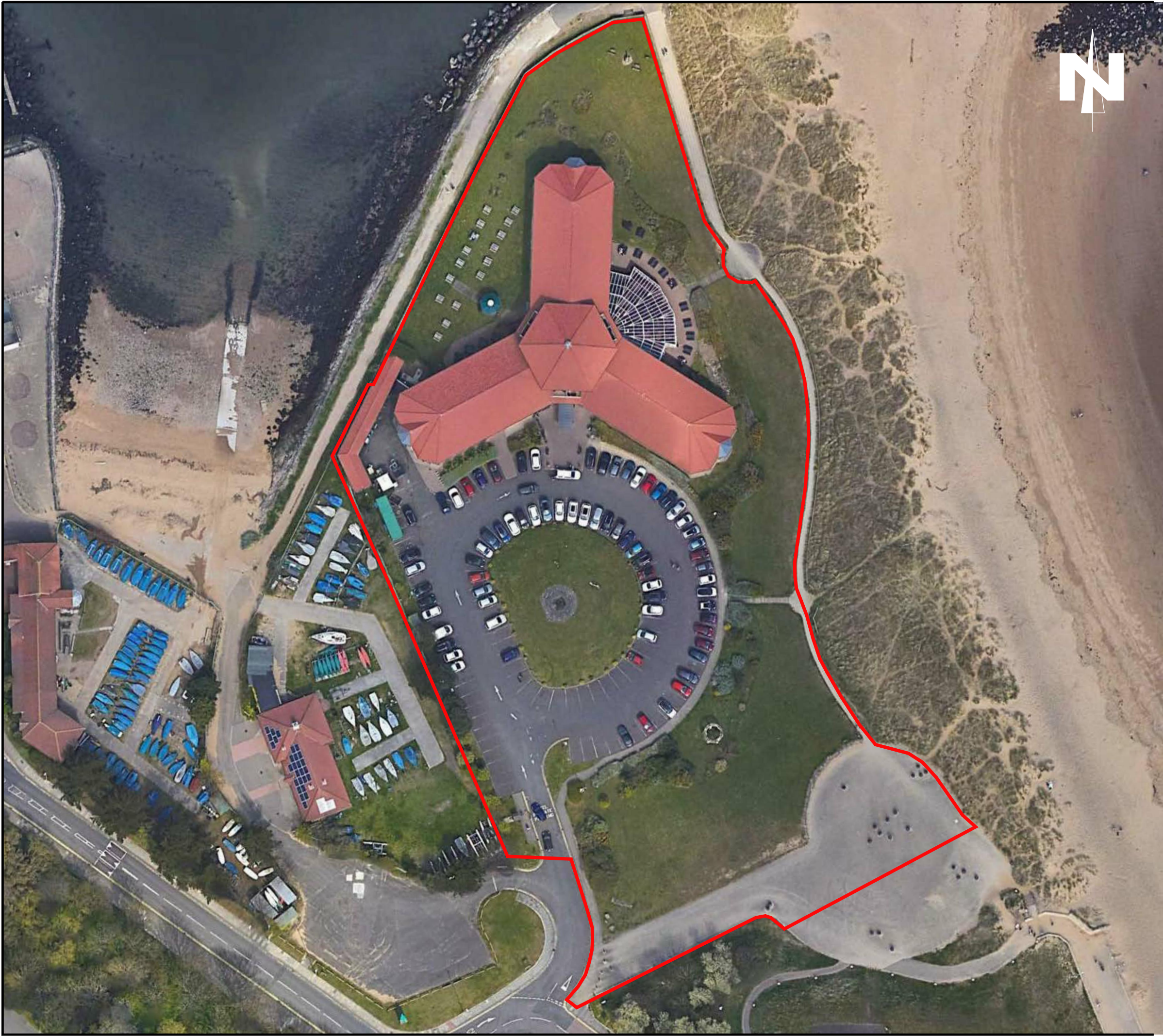
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Legend

 Approximate Site Boundary

rev.	date	amendments		drawn	chckd

Client: **SHED**

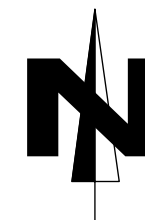
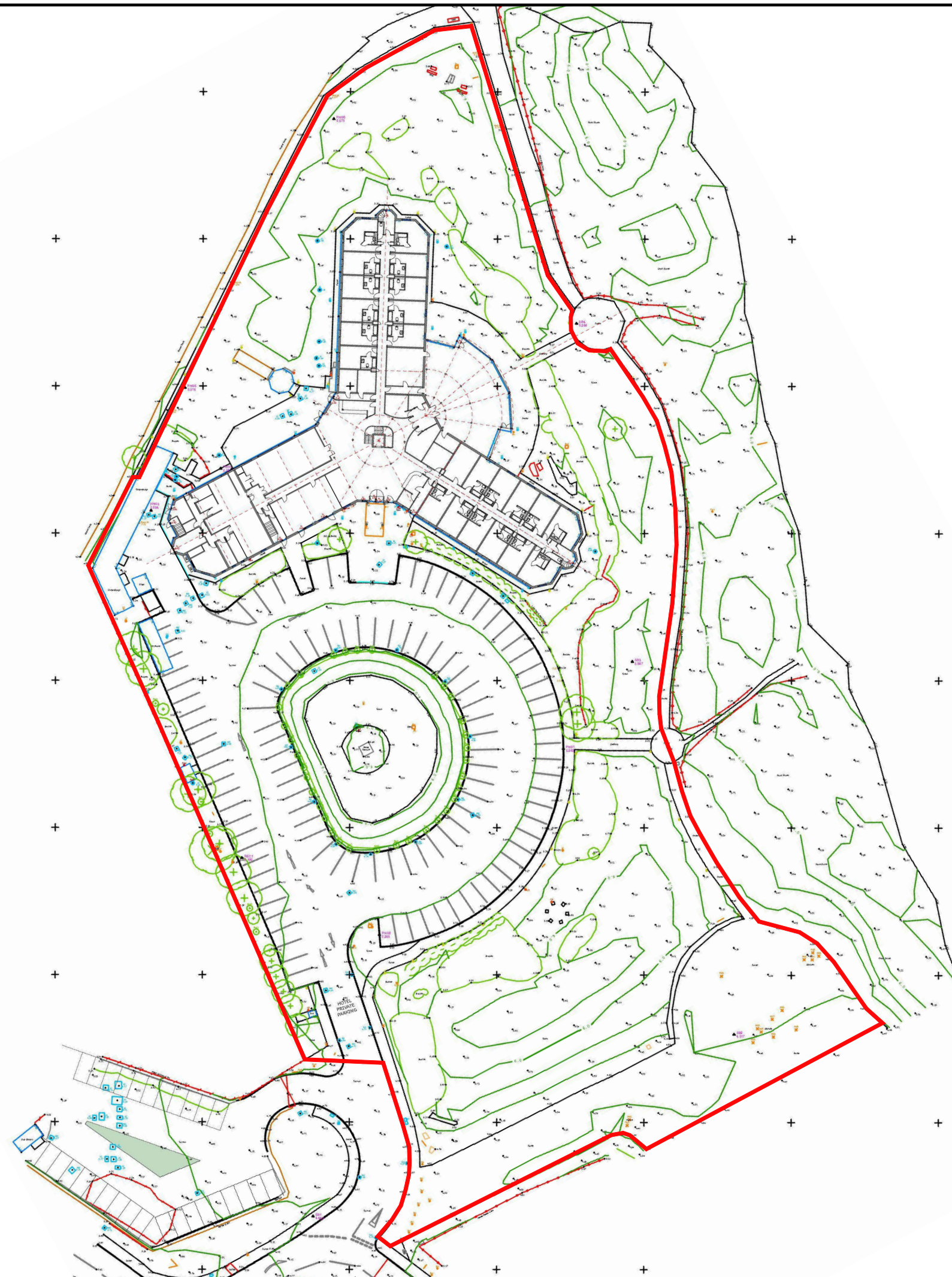
Project Title:
Proposed Extensions to the Existing Building
& New Buildings, Liven Haven Hotel
South Shields, NE33 1LH

Drawing Title:

Aerial Photograph

Scale at A3: NTS @ A3	Date: 26.01.26	Drawn by: P.D	Approved by: S.D
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Job Ref: 25-810	Drg no: —	Rev: —
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Legend

 Approximate Site Boundary

rev.	date	amendments	drawn	chckd

Client: **SHED**

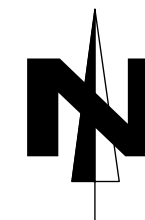
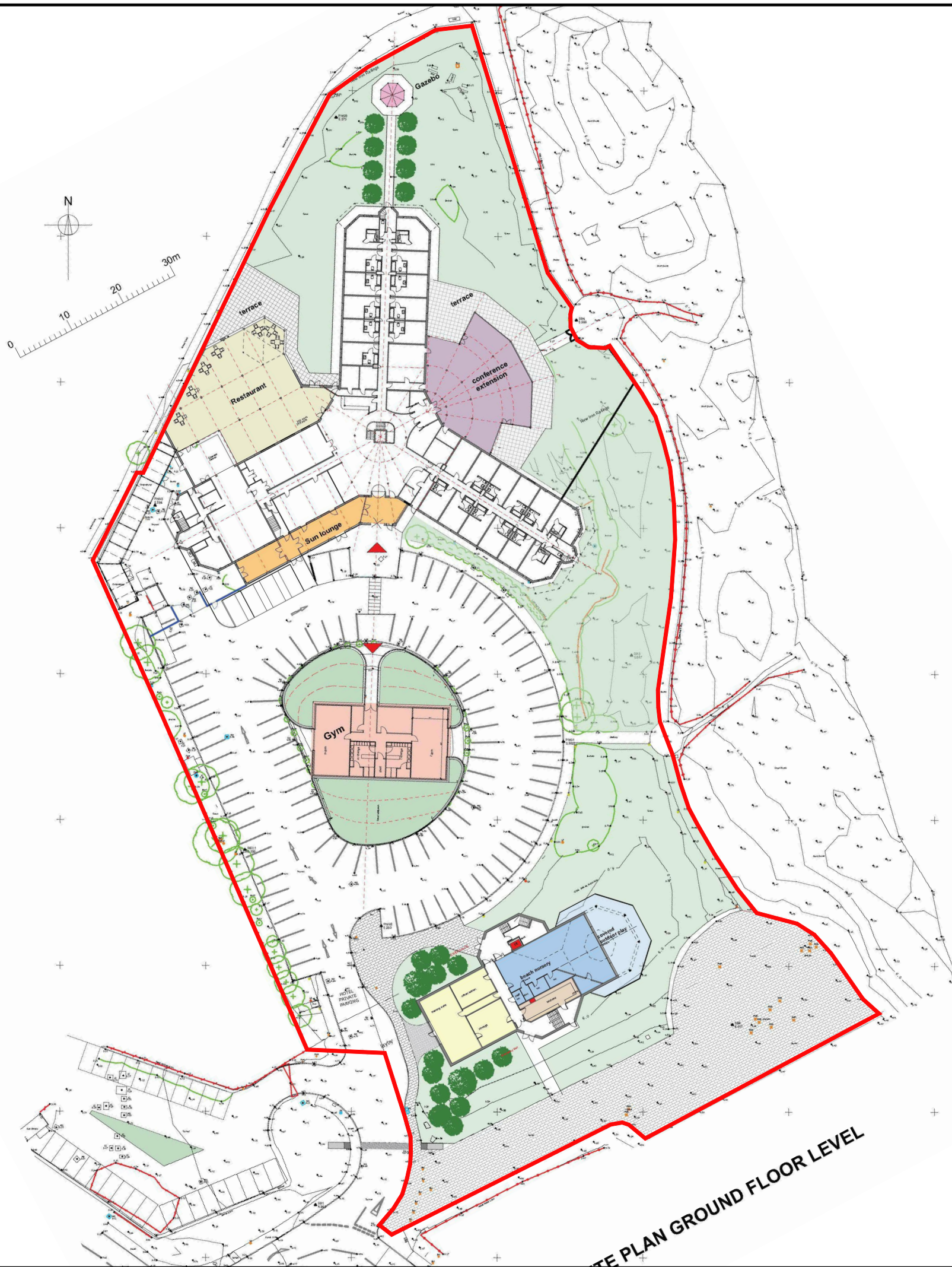
Project Title:
Proposed Extensions to the Existing Building
& New Buildings, Liven Haven Hotel
South Shields, NE33 1LH

Drawing Title:

Existing Site Layout Plan

Scale at A3:	Date:	Drawn by:	Approved by:
NTS @ A3	26.01.26	P.D	S.D

Job Ref:	Drg no:	Rev:
25-810	-	-



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Legend

 Approximate Site Boundary

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Client:

SHED

Project Title:
Proposed Extensions to the Existing Building
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South Shields, NE33 1LH

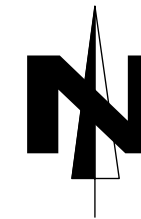
Drawing Title:

Proposed Development Layout Plan

Scale at A3:	Date:	Drawn by:	Approved by:
NTS @ A3	26.01.26	P.D	S.D

Job Ref:	Drg no:	Rev:
25-810	-	-

APPENDIX II



ARC ENVIRONMENTAL LTD

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Legend

	Approximate Site Boundary
	Windowless sampling borehole location
	Manually excavated foundation trial pit

rev.	date	amendments	drawn	chckd
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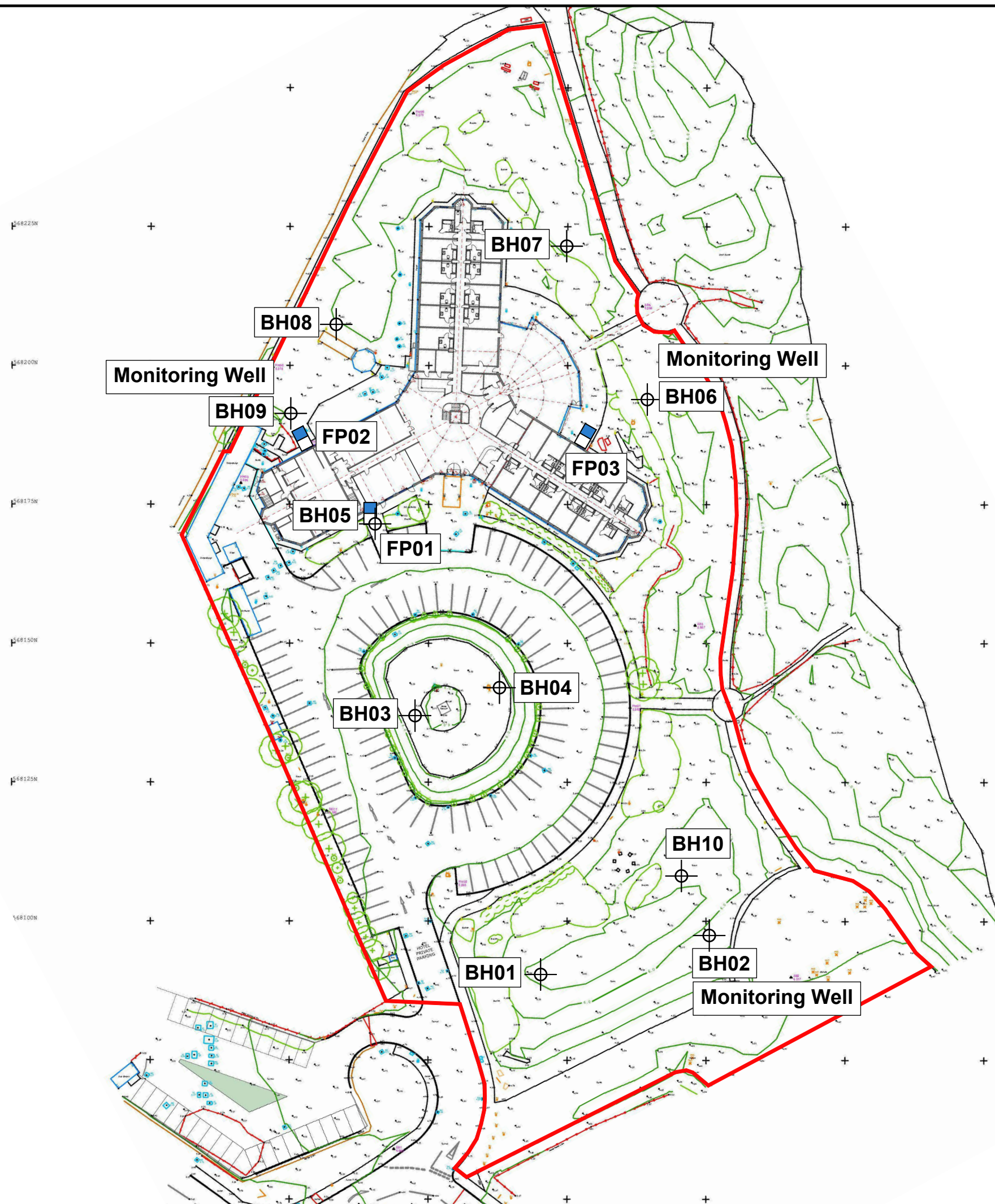
Client: **SHED**

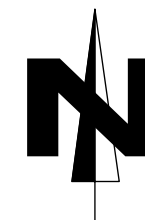
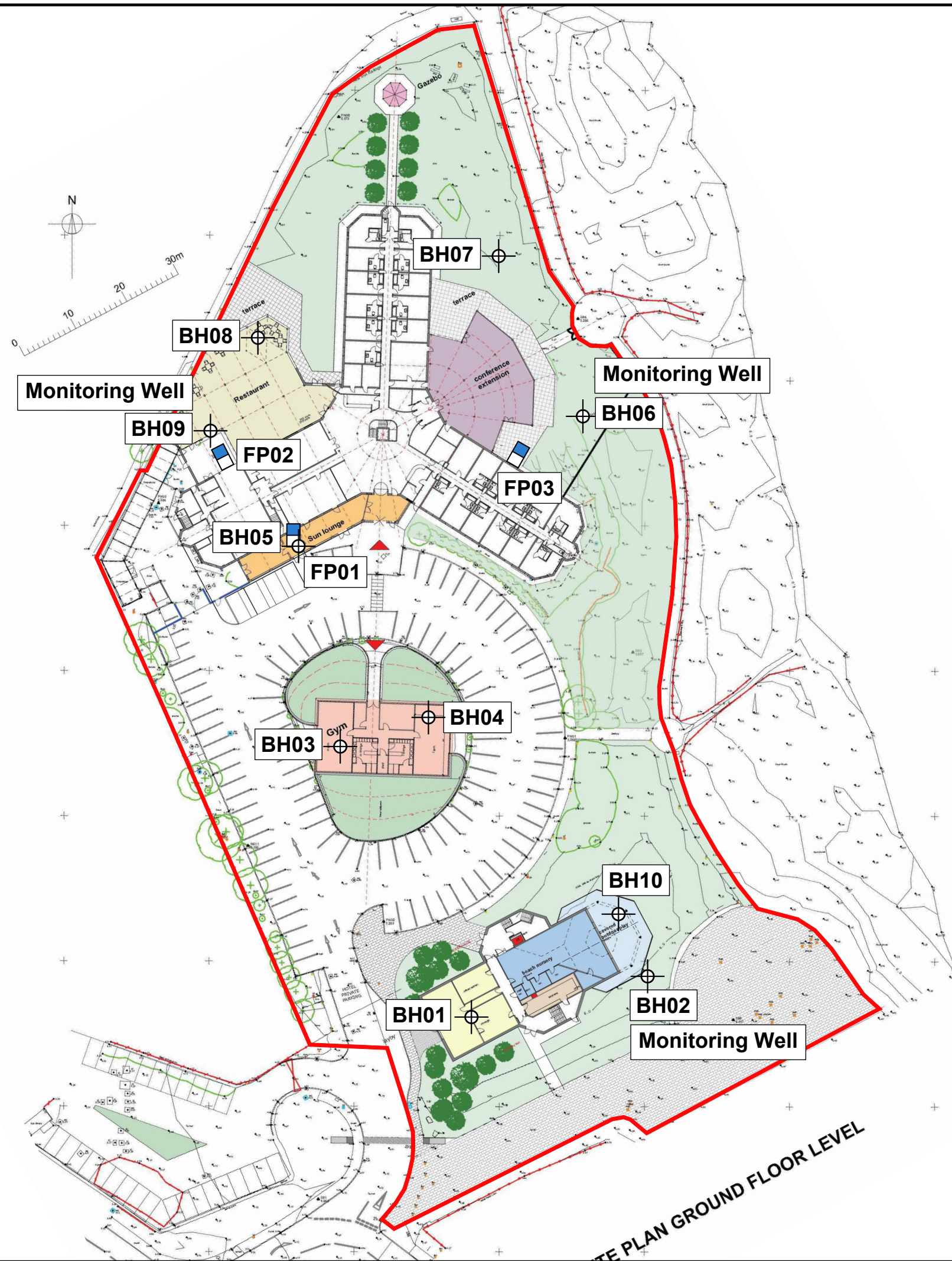
Project Title:
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& New Buildings, Liven Haven Hotel
South Shields, NE33 1LH

Drawing Title:
Exploratory Hole Location Plan (Existing Layout)

Scale at A3: NTS @ A3	Date: 26.01.26	Drawn by: P.D	Approved by: S.D
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Job Ref: 25-810	Drg no: —	Rev: —
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The contractor shall check all dimensions on site before commencement of any works. No dimensions to be scaled off this drawing.
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Legend

	Approximate Site Boundary
	Windowless sampling borehole location
	Manually excavated foundation trial pit

rev.	date	amendments	drawn	chckd
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Client: **SHED**

Project Title:
Proposed Extensions to the Existing Building
& New Buildings, Liven Haven Hotel
South Shields, NE33 1LH

Drawing Title:
Exploratory Hole Location Plan (Proposed Layout)

Scale at A3: NTS @ A3	Date: 26.01.26	Drawn by: P.D	Approved by: S.D
--------------------------	-------------------	------------------	---------------------

Job Ref: 25-810	Drg no: -	Rev: -
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Key to exploratory hole symbols and abbreviations

SAMPLE TYPES

ACM - Asbestos sample	AMAL - Amalgamated sample	B - Bulk disturbed sample
BLK - Block sample	C - Core sample	CBR - CBR test sample
D - Disturbed sample	ES - Environmental sample	EW - Environmental water sample
G - Gas sample	J - Jar sample	L - Liner sample
TW - Pushed thin wall sample	U - Undisturbed sample	UT - Undisturbed thin wall sample
W - Water sample		

IN-SITU TESTS

HV - Hand shear vane	HV(r) - Hand shear vane residual	PID - Photo ionisation detector
PP - Hand penetrometer	SPT - Standard penetration test	SPT(C) - SPT using cone

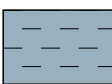
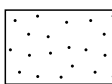
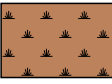
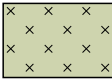
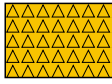
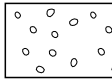
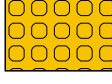
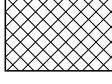
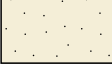
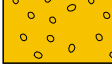
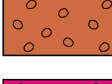
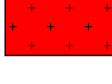
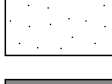
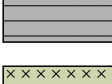
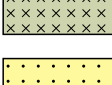
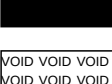
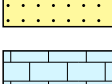
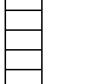
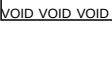
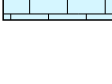
GROUNDWATER

 Groundwater strike	 Groundwater rest level
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ROTARY CORE DETAILS

TCR - Total core recovery (%)	SCR - Solid core recovery (%)	RQD - Rock quality designation (%)
FI - Fracture index	NI - Non-intact core	AZCL - Assumed zone of core loss

LEGEND

 Topsoil	 Clay	 Chalk	 Sand backfill
 Peat	 Silt	 Breccia	 Gravel backfill
 Made ground [cohesive]	 Sand	 Conglomerate	 Arisings
 Concrete	 Gravel	 Metamorphic	 Bentonite
 Wood	 Cobbles	 Igneous	 Concrete
 Brick	 Boulders		 Grout
 Bituminous material	 Mudstone		 Plain pipe
 Gypsum	 Siltstone		
 Coal	 Sandstone		 Slotted pipe
 VOID VOID VOID VOID VOID VOID VOID VOID VOID VOID VOID VOID	 Limestone		



Borehole Log

BH01

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 22/01/2026	End Date 22/01/2026	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.10-0.20	B, ES			(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]
		0.40-0.50	B, ES			0.30		
		0.90-1.00	B, ES					Dark brown slightly sandy becoming sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. [MADE GROUND]
		1.20	SPT	N=16 (3,3/4,4,4,4)		(1.90)		
		1.40-1.60	B, ES					
		1.80-2.00	B, ES					Light brown slightly gravelly SAND. Gravel is fine to coarse grained, sub-angular to rounded of sandstone, limestone, mudstone and occasional shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]
		2.00	SPT	N=36 (6,8/9,9,9,9)		2.20		
		2.50-3.00	B					
		3.00	SPT	N=15 (4,4/4,3,4,4)		(1.80)		
		3.50-4.00	B					Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]
		4.00	SPT	N=30 (5,5/6,7,8,9)		4.00		
		4.50-5.00	B			(1.45)		
		5.00	SPT	N=35 (6,6/8,8,9,10)		5.45		
							End of Borehole at 5.45m	

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed.	Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools Stable 1.20 - 5.45m WLS Tracked Windowless Sampling Rig	Logger SD SD
	Checked By: S.D Approved By: S.D Status: FINAL	



Borehole Log

BH02

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 22/01/2026	End Date 22/01/2026	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.10-0.20	B, ES			(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]
		0.40-0.50	B, ES			0.30		
		0.90-1.00	B, ES					Dark brown slightly sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. [MADE GROUND]
		1.20	SPT	N=15 (2,2/3,3,4,5)				
		1.40-1.60	B, ES			(2.30)		
		1.80-2.00	B, ES					
		2.00	SPT	N=24 (5,5/6,6,6,6)				Black Staining and Strong Hydrocarbon Odour Noted. (2.00 - 2.60m)
		2.60-3.00	B, ES			2.60		Brown, black stained, slight gravelly clayey Sand with suspected cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick and coal.
		2.90	SPT	N=50 for 65mm (25 for 35mm/50 for 65mm)		(0.40) 3.00		Strong Hydrocarbon Odour Noted. [MADE GROUND]
								End of Borehole at 3.00m

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed. BH terminated due to refusal at 3.00m bgl.	Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools Stable 1.20 - 3.00m WLS Tracked Windowless Sampling Rig	Logger SD SD
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Checked By: S.D Approved By: S.D Status: FINAL



Borehole Log

BH03

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 22/01/2026	End Date 22/01/2026	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	B, ES	N=17 (4,4/4,5,4,4)		(0.20)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]	
	0.40-0.50	B, ES	0.20						
	0.90-1.00	B, ES	(1.80)						
	1.20 1.20-1.40	SPT B, ES							
	1.80-2.00	B, ES	N=1 (1,0/1,0,0,0)	2.00			Light brown slightly gravelly SAND. Gravel is fine to coarse grained, sub-angular to rounded of sandstone, limestone, mudstone and occasional shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]		
	2.00	SPT							
	2.50-3.00	B	(1.50)						
	3.00	SPT	N=25 (5,5/6,6,7,6)						
	3.50-4.00	B	3.50	Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]					
	4.00	SPT	N=22 (5,4/5,6,5,6)						
	4.50-5.00	B	(1.95)						
	5.00	SPT	N=33 (6,6/8,8,8,9)						
				5.45				End of Borehole at 5.45m	

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed.	Method, Plant, Stability, Dimensions	Logger
	0.00 - 1.20m IP Hand Tools	SD
	1.20 - 5.45m WLS Tracked Windowless Sampling Rig	SD

Checked By: S.D Approved By: S.D Status: FINAL



Borehole Log

BH04

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 22/01/2026	End Date 22/01/2026	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10-0.20	B, ES	N=12 (3,2/3,3,3,3)		(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]	0.5
		0.40-0.50	B, ES						
		0.90-1.00	B, ES						
		1.20	SPT						
		1.20-1.40	B, ES						
		1.40-1.60	B, ES						
		1.80-2.00	B, ES	N=25 (3,5/5,6,7,7)				Dark brown slightly sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. Slight Sulphurous Odour Noted. [MADE GROUND]	1.0
		2.00	SPT						
		2.50-2.70	B						
		3.00	SPT	N=24 (5,5/5,6,6,7)				Light brown slightly gravelly SAND. Gravel is fine to coarse grained, sub-angular to rounded of sandstone, limestone, mudstone and occasional shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]	2.0
		3.50-4.00	B						
		4.00	SPT						
		4.50-5.00	B	N=19 (4,4/4,4,5,6)				Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]	2.5
		5.00	SPT						
			N=34 (6,7/7,9,9,9)					3.0	
								3.5	
								4.0	
								4.5	
								5.0	
								5.5	
								6.0	
								6.5	
								7.0	

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed.	Method, Plant, Stability, Dimensions	Logger
	0.00 - 1.20m IP Hand Tools Stable 1.20 - 5.45m WLS Tracked Windowless Sampling Rig	SD SD
Checked By: S.D Approved By: S.D Status: FINAL		



Borehole Log

BH05

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 22/01/2026	End Date 22/01/2026	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
						(0.50)		NO DATA!
						0.50		
		0.90-1.00	B, ES			(0.50)		Dark brown slightly sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments.
		1.20	SPT	N=15 (4,4/4,4,3,4)		1.00		Slight Sulphurous Odour Noted. [MADE GROUND]
		1.20-1.40	B, ES					NO DATA!
						(1.00)		
		1.60-1.80	B, ES					
		1.80	SPT	N=18 (8,6/6,4,4,4)		2.00		
						(0.40)		Brown to black gravelly clayey Sand with suspected cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and slag-like material.
		2.30	SPT	N=50 for 45mm (25 for 55mm/50 for 45mm)		2.40		[MADE GROUND]
								End of Borehole at 2.40m

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed. BH Terminated due to refusal at 2.40m bgl.	Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools Stable 1.20 - 2.40m WLS Tracked Windowless Sampling Rig	Logger SD SD
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Checked By: S.D Approved By: S.D Status: FINAL



Borehole Log

BH06

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 23/01/2025	End Date 23/01/2025	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.10-0.20	B, ES			(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]
		0.40-0.50	B, ES			0.30		
		0.90-1.00	B, ES					Dark brown slightly sandy becoming sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. [MADE GROUND]
		1.20	SPT	N=19 (3,4/5,4,5,5)		(1.70)		
		1.40-1.60	B, ES					
		1.80-2.00	B, ES					
		2.00	SPT	N=9 (2,2/3,2,2,2)		2.00		Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]
		2.50-3.00	B					
		3.00	SPT	N=21 (5,5/5,6,5,5)				
		3.50-4.00	B					
		4.00	SPT	N=30 (7,7/7,8,7,8)		(3.45)		
		4.50-5.00	B					
		5.00	SPT	N=37 (9,9/9,10,8,10)				
						5.45		End of Borehole at 5.45m

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed.	Method, Plant, Stability, Dimensions	Logger
	0.00 - 1.20m IP Hand Tools Stable 1.20 - 5.45m WLS Tracked Windowless Sampling Rig	SD SD

Checked By: S.D Approved By: S.D Status: FINAL



Borehole Log

BH07

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 23/01/2025	End Date 23/01/2025	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.10-0.20	B, ES			(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]
		0.40-0.50	B, ES			0.30		
		0.90-1.00	B, ES					Dark brown slightly sandy becoming sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. [MADE GROUND]
		1.20	SPT	N=21 (5,5/5,6,5,5)		(1.90)		
		1.40-1.60	B, ES					
		1.80-2.00	B, ES					Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]
		2.00	SPT	N=13 (2,2/2,4,4,3)		2.20		
		2.50-3.00	B					
		3.00	SPT	N=16 (4,4/3,4,4,5)		(2.25)		
		3.50-4.00	B					
		4.00	SPT	N=18 (5,4/4,5,4,5)		4.45		
							End of Borehole at 4.45m	

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed. BH Terminated due to collapse at 4.45m bgl.	Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools Stable 1.20 - 4.45m WLS Tracked Windowless Sampling Rig	Logger SD SD
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Checked By: S.D Approved By: S.D Status: FINAL



Borehole Log

BH08

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 23/01/2025	End Date 23/01/2025	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.10-0.20	B, ES			(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]
		0.40-0.50	B, ES			0.30		
		0.90-1.00	B, ES			(0.90)		Dark brown slightly sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. [MADE GROUND]
		1.20	SPT	N=17 (5,4/4,4,5,4)		1.20		
		1.20-1.40	B, ES			(0.30)		Dark brown to black gravelly clayey Sand. Sand is fine to coarse grained with ash. Gravel is fine to coarse grained, angular to sub-angular of mudstone with anthropogenic fragments of brick, coal, concrete and tile. [MADE GROUND]
		1.80-2.00	B, ES			1.50		
		2.00	SPT	N=13 (1,0/2,3,4,4)		(0.80)		Dark brown slightly sandy slightly gravelly silty Clay. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone, mudstone and rootlets with anthropogenic fragments of brick and coal. [MADE GROUND]
		2.50-3.00	B			2.30		
		3.00	SPT	N=15 (4,4/4,4,3,4)				Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]
		3.50-4.00	B					
		4.00	SPT	N=27 (7,7/6,7,7,7)		(3.15)		
		4.50-5.00	B					
		5.00	SPT	N=49 (12,12/11,12,12,14)				
						5.45		End of Borehole at 5.45m

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed.	Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools Stable	Logger SD
	1.20 - 5.45m WLS Tracked Windowless Sampling Rig	

Checked By: S.D Approved By: S.D Status: FINAL



Borehole Log

BH09

Sheet 1 of 1

Hole Type BH	Easting	Northing	Ground Level (m)	Scale 1:35
Project Name Little Haven Hotel, South Shields	Project No. 25-810	Start Date 23/01/2025	End Date 23/01/2025	

Client Studio Horn	Consultant SD	Contractor L&A Drilling
-----------------------	------------------	----------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata	
		Depth (m)	Type/ Ref	Results			Legend	Description
		0.10-0.20	B, ES			(0.30)		Dark brown slightly gravelly clayey sandy Toposil with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal, concrete and tile. Cobbles are angular to sub-angular of brick fragments and concrete. [MADE GROUND]
		0.40-0.50	B, ES			0.30		
		0.90-1.00	B, ES			(1.30)		Dark brown slightly sandy slightly gravelly silty Clay with low cobble content. Gravel is fine to coarse grained, angular to sub-angular of sandstone, limestone and mudstone with anthropogenic fragments of brick, coal and tile. Cobbles are angular to sub-angular of brick fragments. [MADE GROUND]
		1.20	SPT	N=23 (5,5/6,6,5,6)				
		1.20-1.40	B, ES					
		1.80-2.00	B			1.60		Light brown slightly gravelly SAND. Gravel is fine to medium grained, sub-angular to sub-rounded of sandstone, quartz and shell fragments. [BEACH DEPOSITS - SANDS AND GRAVELS]
		2.00	SPT	N=20 (4,4/5,5,5,5)				
		2.50-3.00	B					
		3.00	SPT	N=14 (3,3/3,4,3,4)				
		3.50-4.00	B			(3.85)		
		4.00	SPT	N=30 (7,7/7,8,7,8)				
		4.50-5.00	B					
		5.00	SPT	N=49 (10,10/12,12,13,12)				
						5.45		End of Borehole at 5.45m

Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed.	Method, Plant, Stability, Dimensions 0.00 - 1.20m IP Hand Tools Stable 1.20 - 5.45m WLS Tracked Windowless Sampling Rig	Logger SD SD
--	--	--------------------

Checked By: S.D Approved By: S.D Status: FINAL



Remarks 1.20m bgl Hand-Dug Serice Inspection Pit Completed. BH Terminated after encountering natural strata.	Method, Plant, Stability, Dimensions			Logger
	0.00 - 1.20m Stable	IP	Hand Tools	SD
	1.20 - 4.00m	WLS Tracked Windowless Sampling Rig		SD
Checked By: S.D Approved By: S.D Status: FINAL				

Address: Little Haven Hotel, South Shields

Test Pit No. SA01

Worksheet for Soakaways:

Soil Infiltration Rate Calculated as BRE Digest 365: Soakaway Design

DATE: 04/02/2026

Test pit dimesions	L	W	D
	2.00	0.60	1.50

Effective depth (D) from 0.50m to 1.50m = 1.00 m

75% effective depth =	0.75	m bg
50% effective depth =	1.00	m bg
25% effective depth =	1.25	m bg

V_{p75-25} = outflow volume between 75% & 25% effective depth	V_{p75-25} =	0.6000 m ³
a_{p50} = 50% internal surface area of effective depth including base	a_{p50} =	3.200 m ²

OBSERVATIONS :

Pit filled from water bowser - Fill time c.3mins
Pit filled to 0.50m below ground level

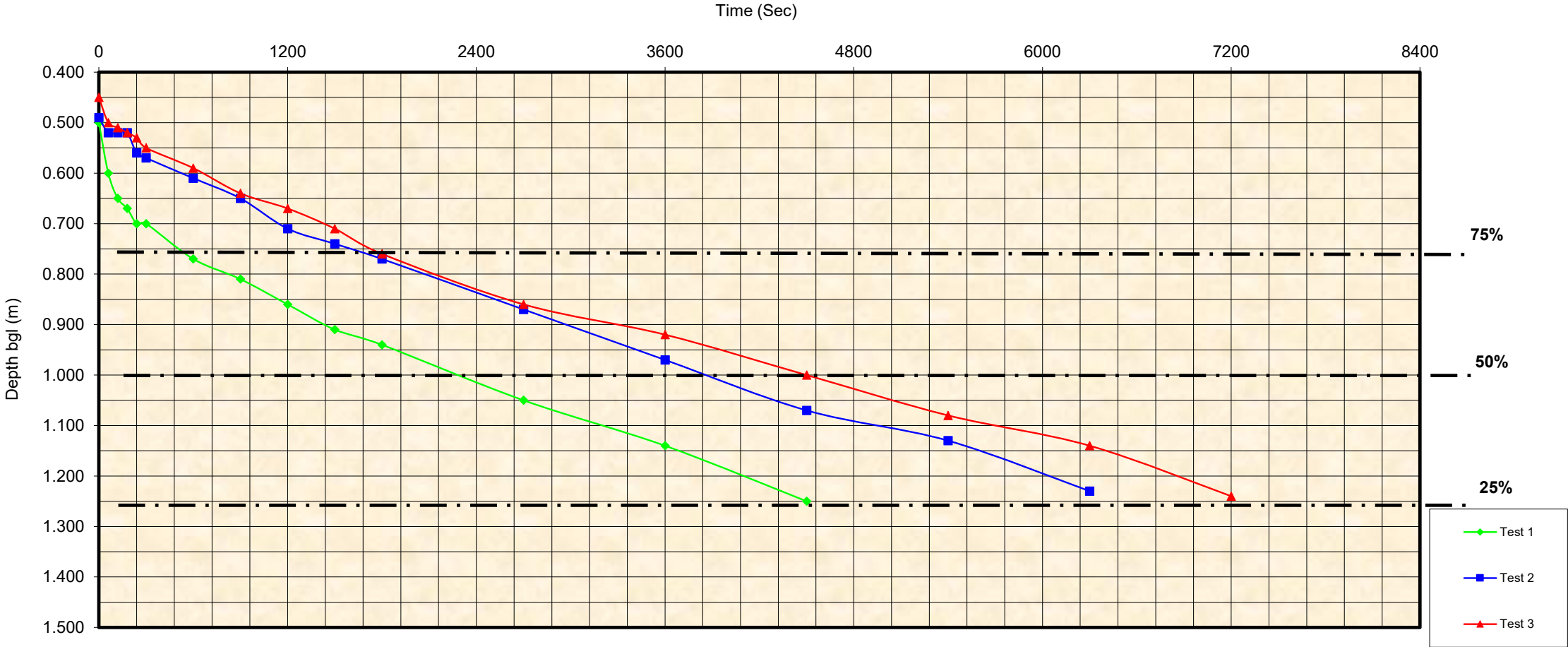
Trial pit sides unstable during construction

Estimated soil infiltration rate is
 $4.60 \times 10^{-5} \text{ m/s}$
i.e



Time (sec) dt_0	Depth bgl (m)		
	Test No.		
	1	2	3
0	0.500	0.490	0.450
60	0.600	0.520	0.500
120	0.650	0.520	0.510
180	0.670	0.520	0.520
240	0.700	0.560	0.530
300	0.700	0.570	0.550
600	0.770	0.610	0.590
900	0.810	0.650	0.640
1200	0.860	0.710	0.670
1500	0.910	0.740	0.710
1800	0.940	0.770	0.760
2700	1.050	0.870	0.860
3600	1.140	0.970	0.920
4500	1.250	1.070	1.000
5400		1.130	1.080
6300		1.230	1.140
7200			1.240

Fig 1: Depth v's Time - Infiltration Rates



Soil Infiltration Calculations				
	Test 1	Test 2	Test 3	
t_{p75-25} = time for infiltration (from fig 1)	t_{p75-25} =	3900	4800.00	5400 secs
Soil infiltration rate (f) =	$\frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$			
	f=	4.81E-05	3.91E-05	3.47E-05 ms ⁻¹
	Average f=	4.06E-05		ms ⁻¹

Address: Little Haven Hotel, South Shields

Test Pit No. SA02

Worksheet for Soakaways:

Soil Infiltration Rate Calculated as BRE Digest 365: Soakaway Design

DATE: 05/02/2026

Test pit dimesions	L	W	D
	2.60	0.70	2.00

Effective depth (D) from 0.50m to 2.00m = 1.50 m

75% effective depth =	0.875	m bg
50% effective depth =	1.25	m bg
25% effective depth =	1.625	m bg

V_{p75-25} = outflow volume between 75% & 25% effective depth	V_{p75-25} =	1.3650 m ³
a_{p50} = 50% internal surface area of effective depth including base	a_{p50} =	5.860 m ²

OBSERVATIONS :

Pit filled from water bowser - Fill time c.7mins
Pit filled to 0.50m below ground level

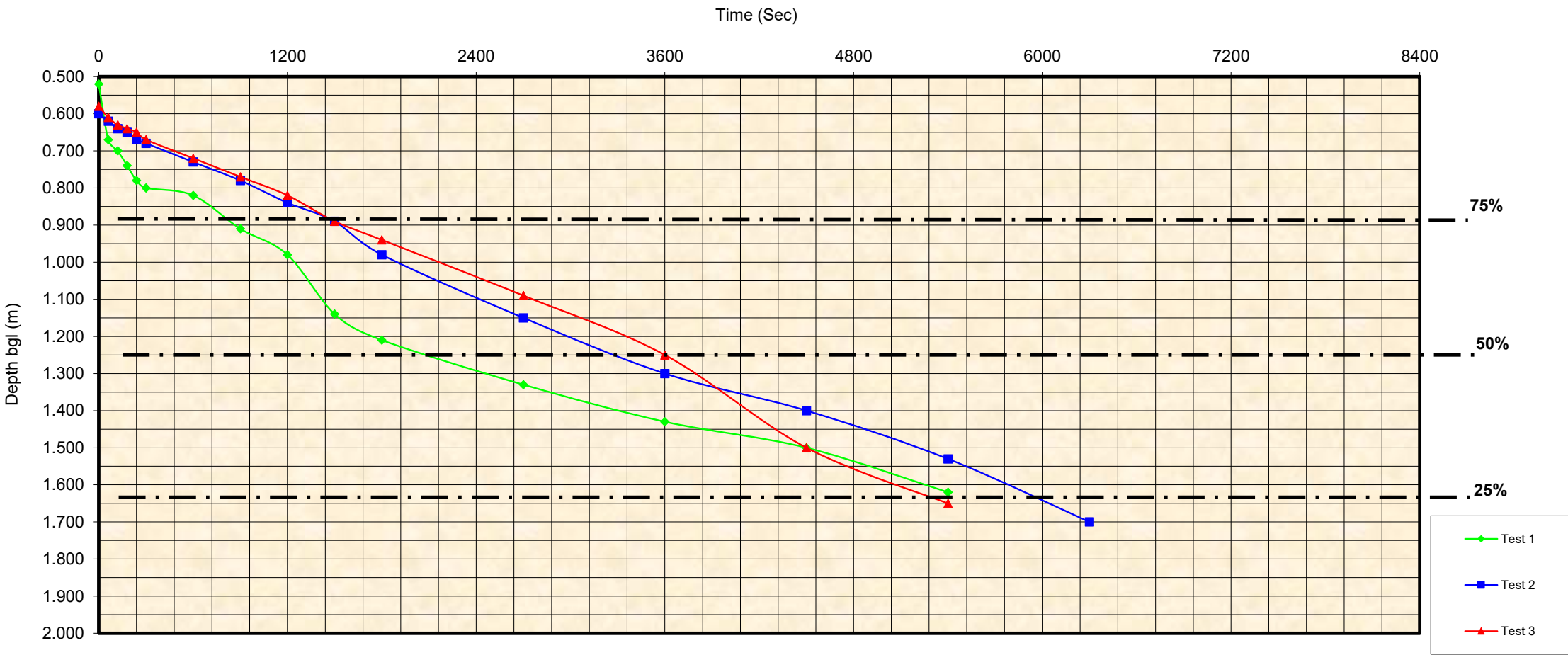
Trial pit sides unstable during construction

Estimated soil infiltration rate is
 $5.33 \times 10^{-5} \text{ m/s}$
i.e



Time (sec) dt ₀	Depth bgl (m)		
	Test No.		
	1	2	3
0	0.520	0.600	0.580
60	0.670	0.620	0.610
120	0.700	0.640	0.630
180	0.740	0.650	0.640
240	0.780	0.670	0.650
300	0.800	0.680	0.670
600	0.820	0.730	0.720
900	0.910	0.780	0.770
1200	0.980	0.840	0.820
1500	1.140	0.890	0.890
1800	1.210	0.980	0.940
2700	1.330	1.150	1.090
3600	1.430	1.300	1.250
4500	1.500	1.400	1.500
5400	1.620	1.530	1.650
6300		1.700	
7200			

Fig 1: Depth v's Time - Infiltration Rates



Soil Infiltration Calculations				
	Test 1	Test 2	Test 3	
t_{p75-25} = time for infiltration (from fig 1)	t_{p75-25} =	4500	4800.00	3900 secs
Soil infiltration rate (f) =	$\frac{V_{p75-25}}{a_{p50} \times t_{p75-25}}$			
	f=	5.18E-05	4.85E-05	5.97E-05 ms ⁻¹
	Average f=	5.33E-05		ms ⁻¹



ARC ENVIRONMENTAL LTD
Solum House
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Tel: (0191) 378 6380
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web: www.arc-environmental.com

The contractor shall check all dimensions on site prior to commencement of works. No dimensions to be scaled off this drawing
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rev.	date	amendments	drawn	chckd

Client: **SHED**

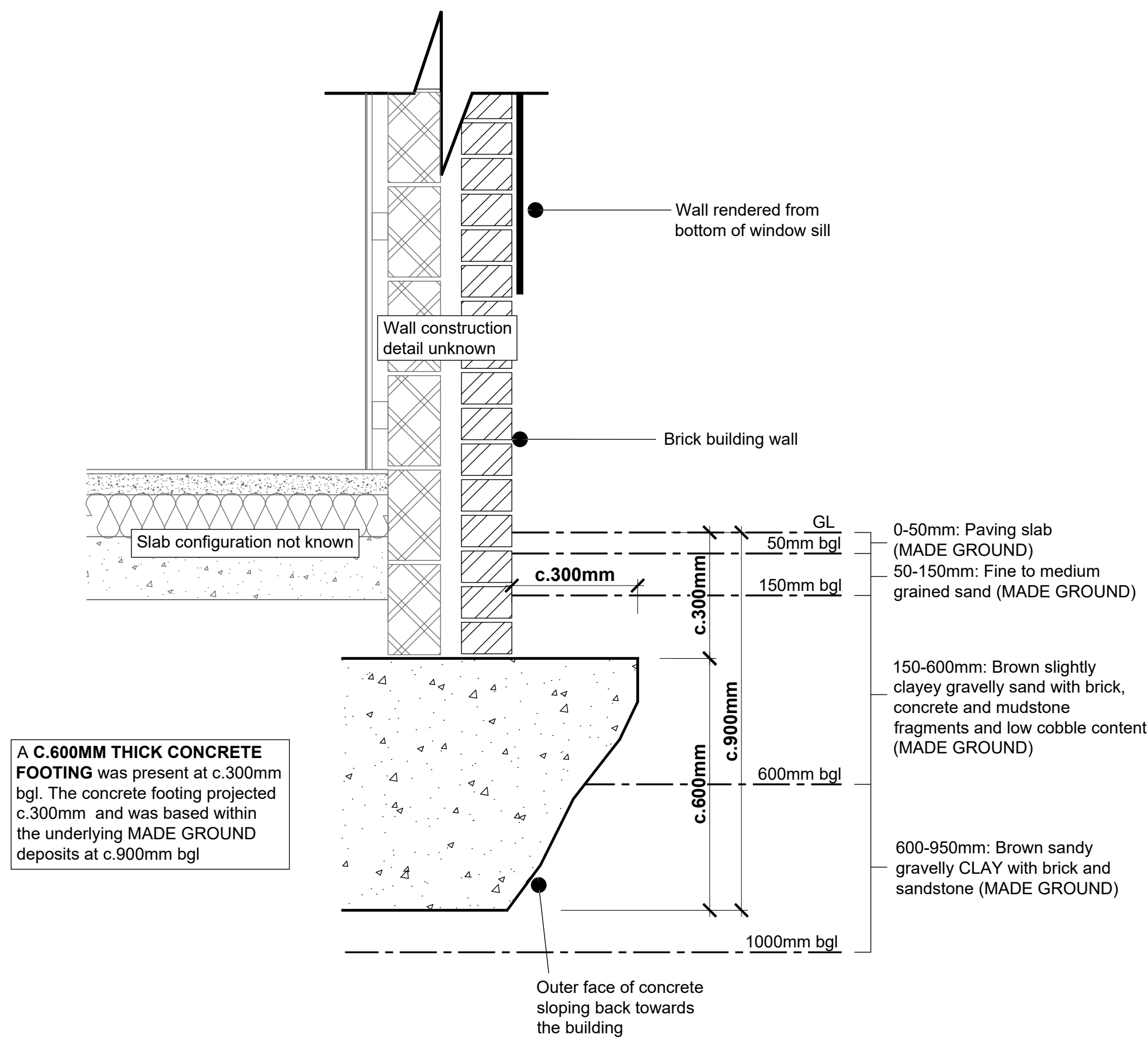
Project Title:
Proposed Extension to the Existing Building
& New Building, Little Haven Hotel
South Shields, NE33 1LH

Drawing Title:
Foundation Detail Record Sheet 1

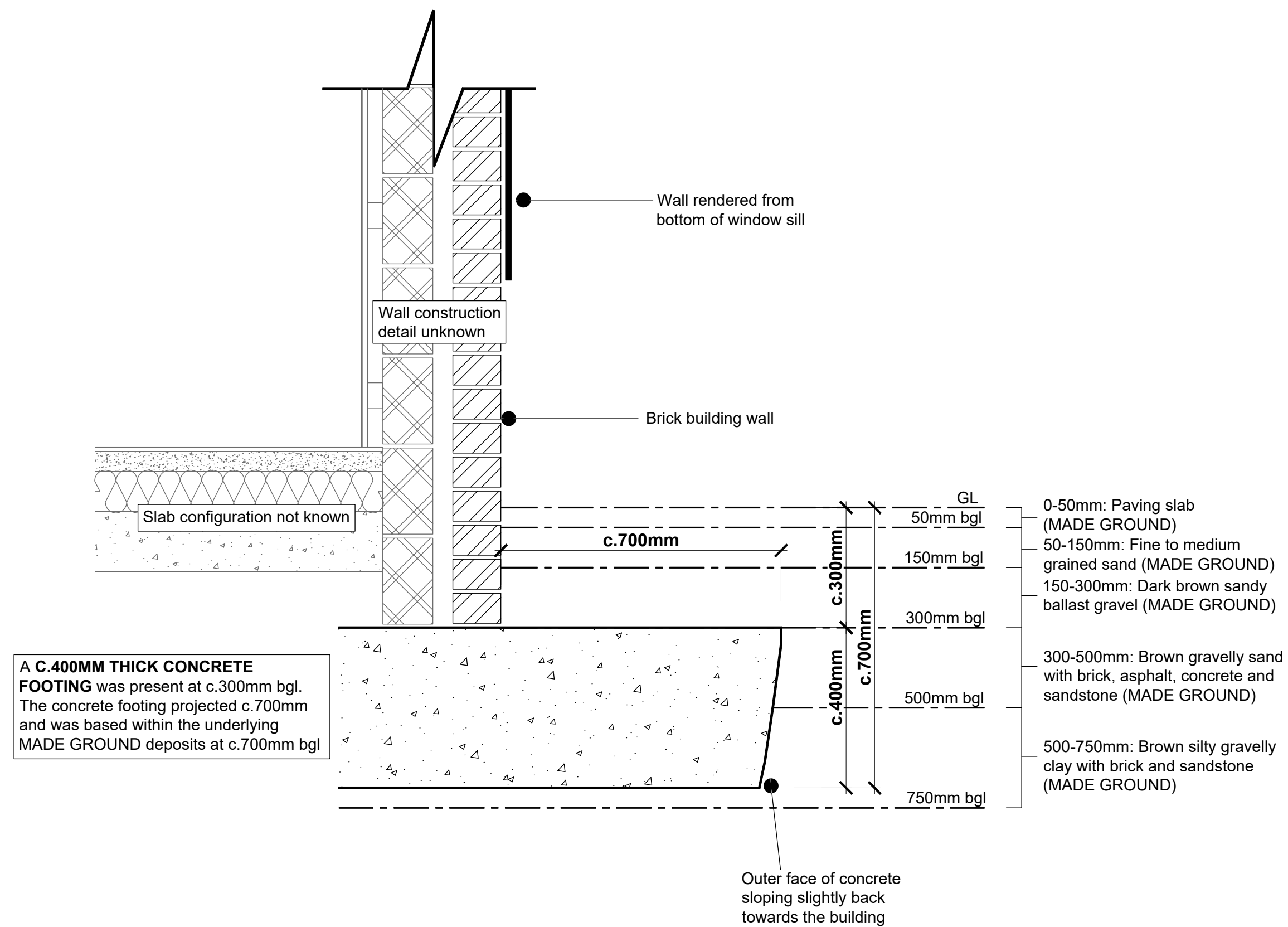
Scale at A1: As Shown	Date: 01.05.26	Drawn by: P.D	Approved by: S.D
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Job Ref: 25 810	Dwg no:	Rev:
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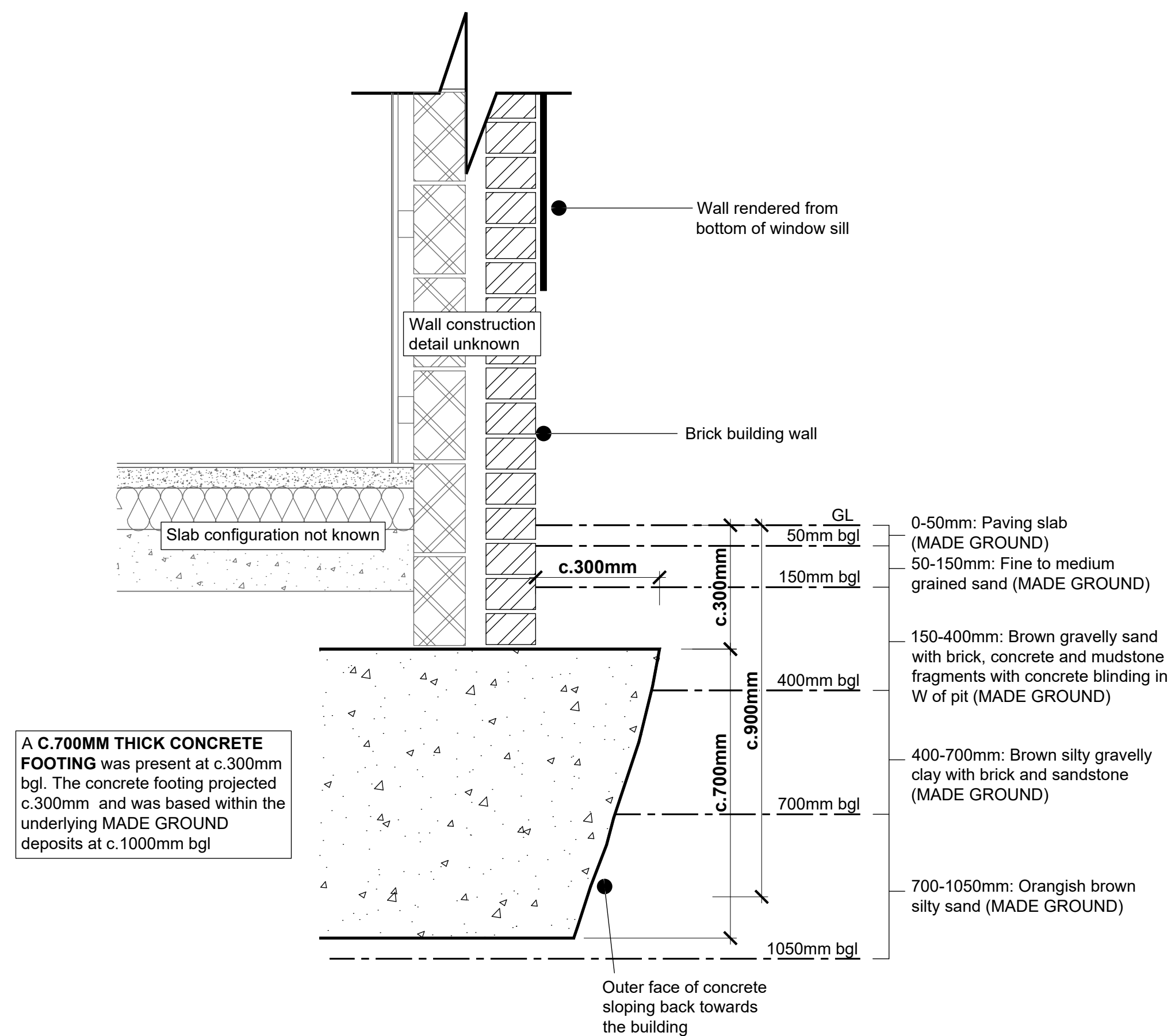
Indicative foundation section detail (FP01)



Indicative foundation section detail (FP02)



Indicative foundation section detail (FP03)



APPENDIX III

ANALYTICAL TEST REPORT

Report Number 26-01178, issue number 2

Contract name: Little Haven Hotel South Shields

Client reference: 25-810

Clients name: ARC Environmental Ltd

Clients address: ARC Environmental Ltd
Solum House, Unit 1 Elliott Court
St Johns Road
DH7 8PN

Samples received: 02/02/2026

Analysis started: 03/02/2026

Analysis completed: 19/02/2026

Report issued: 19/02/2026
2. Replaces Analytical Report number 26-01178; issue no.1

Key

U UKAS accredited test
M MCERTS & UKAS accredited test
(B) Analysis performed at Southampton Site
I/S Insufficient sample to carry out test
U/S Sample not suitable for testing
NAD No Asbestos Detected
Full key available on Information page

Approved by: Sam Rogerson
Receipt and Reporting Manager

Re-Issue Summary

Client: ARC Environmental Ltd
Address: Solum House, Unit 1 Elliott Court, St Johns Road,
Meadowfield, DH7 8PN

Date: 19-Feb-26

Report No.: 26-01178

Issue: 2

This report replaces 26-01178, issue: 1, issued: 09 February 2026

Reason for Change

1. Client Request- Additional analysis

PCB's in Soil
pH of Leachate
VPH in Leachate
WAC in leachates 10:1
WAC moistures
Asbestos Identification
Total Organic Carbon
>C5-C6 Aliphatic
>C5-C7 Aromatic
>C6-C8 Aliphatic
>C7-C8 Aromatic
>C8-C10 Aliphatic
>C8-C10 Aromatic
Water Soluble Sulphate

Key

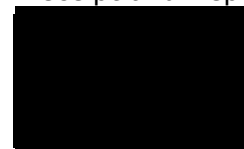
A - Additional Work added
D - Work Deleted
E - Result Edited*
R - Work Repeated*

*If a result changed, please refer to the previous report for the old result. The new result will be shown in this report.

Re-issued by: Sam Rogerson
Receipt and Reporting Manager



Approved by: Sam Rogerson
Receipt and Reporting Manager



SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.
% Moisture reported as MCERTS drying at 30°C

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
87217	BH01	0.90 - 1.00	Brown Sandy Clay with Gravel and Vegetation.	-	-	10.9
87218	BH01	1.80 - 2.00	Brown Clay with Gravel and Vegetation.	-	-	17.1
87219	BH01	2.50 - 3.00	Brown Sandy Clay with Gravel and Vegetation.	-	-	24.6
87220	BH02	1.80 - 2.00	Brown Sandy Clay with Gravel and Vegetation.	-	-	14.6
87221	BH02	2.60 - 3.00	Brown Clayey Sand with Gravel and Vegetation.	-	-	19.6
87222	BH03	1.80 - 2.00	Brown Sandy Clay with Gravel and Vegetation.	-	-	14.7
87223	BH04	0.40 - 0.50	Brown Sandy Clay with Gravel and Vegetation.	-	-	13.4
87224	BH05	0.90 - 1.00	Brown Sandy Clay with Gravel and Vegetation.	-	-	16.7
87225	BH05	1.60 - 1.80	Brown Sandy Clay with Gravel and Vegetation.	-	-	18.5
87226	BH06	0.40 - 0.50	Brown Sand with Gravel and Vegetation.	-	-	5.8
87227	BH06	1.40 - 1.50	Brown Clay with Gravel and Vegetation.	-	-	14.2
87228	BH06	2.50 - 3.00	Brown Sand with Gravel and Vegetation.	-	-	5.0
87229	BH07	0.90 - 1.00	Brown Sand with Gravel and Vegetation.	-	-	5.0
87230	BH08	1.20 - 1.40	Brown Sandy Clay with Gravel and Vegetation.	-	-	8.8
87231	BH09	0.10 - 0.20	Brown Clayey Sand with Gravel and Vegetation.	-	-	14.7
87232	BH09	0.90 - 1.00	Brown Clay with Gravel and Vegetation.	-	-	18.4
87233	BH09	1.80 - 2.00	Brown Sand with Gravel and Vegetation.	-	-	8.9

SOILS

Lab Number					87217	87218	87219	87220	87221
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH01	BH01	BH02	BH02
Depth (m)					0.90 - 1.00	1.80 - 2.00	2.50 - 3.00	1.80 - 2.00	2.60 - 3.00
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
Moisture Content	CE001	N	0.1	%	10.9	17.1	24.6	14.6	19.6
Arsenic	CE264	U	1.8	mg/kg	15.2	n/t	n/t	n/t	16.9
Cadmium	CE264	M	1.6	mg/kg	3.3	n/t	n/t	n/t	2.0
Chromium	CE264	U	2	mg/kg	25.7	n/t	n/t	n/t	33.9
Chromium III	CE208	N	2	mg/kg	25.7	n/t	n/t	n/t	33.9
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	< 0.040	n/t	n/t	n/t	< 0.040
Copper	CE264	U	1.6	mg/kg	48.6	n/t	n/t	n/t	49.4
Lead	CE264	U	2.3	mg/kg	314	n/t	n/t	n/t	119
Mercury	CE264	U	0.7	mg/kg	< 0.7	n/t	n/t	n/t	0.7
Nickel	CE264	M	2.1	mg/kg	20.1	n/t	n/t	n/t	22.1
Selenium	CE264	U	3	mg/kg	< 3.0	n/t	n/t	n/t	< 3.0
Zinc	CE264	M	4	mg/kg	116	n/t	n/t	n/t	148
pH	CE004	M	0.1	pH units	8.6	8.4	8.7	8.3	8.0
Water Soluble Sulphate	CE061	M	10	mg/l	697	476	210	353	62.4
Free Cyanide	CE077	N	1	mg/kg	< 1.0	n/t	n/t	n/t	< 1.0
Total Organic Carbon	CE197	M	0.1	%	2.08	n/t	n/t	n/t	2.75
Polyaromatic hydrocarbons									
Acenaphthene	CE087	M	0.013	mg/kg	0.048	n/t	n/t	n/t	0.036
Acenaphthylene	CE087	M	0.015	mg/kg	0.102	n/t	n/t	n/t	< 0.015
Anthracene	CE087	U	0.017	mg/kg	0.234	n/t	n/t	n/t	0.095
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.815	n/t	n/t	n/t	0.240
Benzo(a)pyrene	CE087	U	0.019	mg/kg	0.877	n/t	n/t	n/t	0.201
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	1.06	n/t	n/t	n/t	0.282
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	0.630	n/t	n/t	n/t	0.136
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	0.360	n/t	n/t	n/t	0.110
Chrysene	CE087	M	0.028	mg/kg	0.723	n/t	n/t	n/t	0.200
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	0.160	n/t	n/t	n/t	0.040
Fluoranthene	CE087	M	0.017	mg/kg	1.59	n/t	n/t	n/t	0.387
Fluorene	CE087	U	0.013	mg/kg	0.076	n/t	n/t	n/t	0.052
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	0.726	n/t	n/t	n/t	0.181
Naphthalene	CE087	M	0.016	mg/kg	0.368	n/t	n/t	n/t	0.122

SOILS

Lab Number					87217	87218	87219	87220	87221
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH01	BH01	BH02	BH02
Depth (m)					0.90 - 1.00	1.80 - 2.00	2.50 - 3.00	1.80 - 2.00	2.60 - 3.00
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
Phenanthrene	CE087	M	0.014	mg/kg	0.892	n/t	n/t	n/t	0.247
Pyrene	CE087	M	0.016	mg/kg	1.37	n/t	n/t	n/t	0.322
Total PAH(16)	CE087	N	0.28	mg/kg	10.0	n/t	n/t	n/t	2.65
Coronene	CE087	N	0.02	mg/kg	0.143	n/t	n/t	n/t	n/t
Total PAH(17)	CE087	N	0.3	mg/kg	10.2	n/t	n/t	n/t	n/t
BTEX & Total Petroleum Hydrocarbons									
Benzene	CE267	U	0.001	mg/kg	< 0.001	n/t	n/t	n/t	0.012
Toluene	CE267	U	0.001	mg/kg	< 0.001	n/t	n/t	n/t	< 0.001
Ethylbenzene	CE267	U	0.001	mg/kg	< 0.001	n/t	n/t	n/t	< 0.001
Xylenes	CE267	N	0.004	mg/kg	< 0.004	n/t	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	< 0.002	n/t	n/t	n/t	< 0.002
m,p-Xylene	CE267	U	0.002	mg/kg	< 0.002	n/t	n/t	n/t	< 0.002
oXylenes	CE267	U	0.002	mg/kg	< 0.002	n/t	n/t	n/t	0.002
Total BTEX	CE267	N	0.007	mg/kg	< 0.007	n/t	n/t	n/t	n/t
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	n/t	n/t	n/t	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	n/t	n/t	n/t	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	n/t	n/t	n/t	3.93
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	< 1.0	n/t	n/t	n/t	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5	n/t	n/t	n/t	15.5
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	< 3.0	n/t	n/t	n/t	42.1
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5	n/t	n/t	n/t	< 0.5
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	n/t	n/t	n/t	0.012
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	n/t	n/t	n/t	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	n/t	n/t	n/t	0.047
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	0.7	n/t	n/t	n/t	3.8
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	1.6	n/t	n/t	n/t	16.3
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0	n/t	n/t	n/t	14.8
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	6.3	n/t	n/t	n/t	27.1
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0	n/t	n/t	n/t	7.0
>C5-C44 Total (HS_1D_MS+EH_2D_Total)	CE250	N	14	mg/kg	< 14.0	n/t	n/t	n/t	132
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	62	n/t	n/t	n/t	n/t

SOILS

Lab Number					87217	87218	87219	87220	87221
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH01	BH01	BH02	BH02
Depth (m)					0.90 - 1.00	1.80 - 2.00	2.50 - 3.00	1.80 - 2.00	2.60 - 3.00
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
PCB (ICES 7 congeners)									
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	< 0.035	n/t	n/t	n/t	n/t
PCB 101	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 118	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 138	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 153	CE137	M	0.01	mg/kg	< 0.010	n/t	n/t	n/t	n/t
PCB 180	CE137	M	0.01	mg/kg	< 0.010	n/t	n/t	n/t	n/t
PCB 28	CE137	M	0.015	mg/kg	< 0.015	n/t	n/t	n/t	n/t
PCB 52	CE137	M	0.01	mg/kg	< 0.010	n/t	n/t	n/t	n/t
Asbestos									
Asbestos Identification	SUBCO N	SU	0	-	NAD	n/t	n/t	n/t	NAD

SOILS

Lab Number					87222	87223	87224	87225	87226
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH03	BH04	BH05	BH05	BH06
Depth (m)					1.80 - 2.00	0.40 - 0.50	0.90 - 1.00	1.60 - 1.80	0.40 - 0.50
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
Moisture Content	CE001	N	0.1	%	14.7	13.4	16.7	18.5	5.8
Arsenic	CE264	U	1.8	mg/kg	n/t	9.4	n/t	n/t	n/t
Cadmium	CE264	M	1.6	mg/kg	n/t	< 1.6	n/t	n/t	n/t
Chromium	CE264	U	2	mg/kg	n/t	18.3	n/t	n/t	n/t
Chromium III	CE208	N	2	mg/kg	n/t	18.3	n/t	n/t	n/t
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	n/t	< 0.040	n/t	n/t	n/t
Copper	CE264	U	1.6	mg/kg	n/t	41.4	n/t	n/t	n/t
Lead	CE264	U	2.3	mg/kg	n/t	82.6	n/t	n/t	n/t
Mercury	CE264	U	0.7	mg/kg	n/t	< 0.7	n/t	n/t	n/t
Nickel	CE264	M	2.1	mg/kg	n/t	19.1	n/t	n/t	n/t
Selenium	CE264	U	3	mg/kg	n/t	< 3.0	n/t	n/t	n/t
Zinc	CE264	M	4	mg/kg	n/t	90.9	n/t	n/t	n/t
pH	CE004	M	0.1	pH units	8.6	8.6	8.4	8.7	9.1
Water Soluble Sulphate	CE061	M	10	mg/l	59.2	41.9	104	93.6	27.3
Free Cyanide	CE077	N	1	mg/kg	n/t	< 1.0	n/t	n/t	n/t
Total Organic Carbon	CE197	M	0.1	%	n/t	2.13	n/t	n/t	n/t
Polyaromatic hydrocarbons									
Acenaphthene	CE087	M	0.013	mg/kg	n/t	< 0.013	n/t	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	0.030	n/t	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	0.132	n/t	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	0.137	n/t	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	0.185	n/t	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	0.117	n/t	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	0.065	n/t	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	0.103	n/t	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	0.027	n/t	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	0.222	n/t	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	0.015	n/t	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	0.137	n/t	n/t	n/t
Naphthalene	CE087	M	0.016	mg/kg	n/t	0.094	n/t	n/t	n/t

SOILS

Lab Number					87222	87223	87224	87225	87226
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH03	BH04	BH05	BH05	BH06
Depth (m)					1.80 - 2.00	0.40 - 0.50	0.90 - 1.00	1.60 - 1.80	0.40 - 0.50
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
Phenanthrene	CE087	M	0.014	mg/kg	n/t	0.165	n/t	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	0.205	n/t	n/t	n/t
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	1.63	n/t	n/t	n/t
Coronene	CE087	N	0.02	mg/kg	n/t	0.030	n/t	n/t	n/t
Total PAH(17)	CE087	N	0.3	mg/kg	n/t	1.67	n/t	n/t	n/t
BTEX & Total Petroleum Hydrocarbons									
Benzene	CE267	U	0.001	mg/kg	n/t	< 0.001	n/t	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	< 0.001	n/t	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	< 0.001	n/t	n/t	n/t
Xylenes	CE267	N	0.004	mg/kg	n/t	< 0.004	n/t	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	< 0.002	n/t	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	< 0.002	n/t	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	< 0.002	n/t	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	< 0.007	n/t	n/t	n/t
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	< 0.10	n/t	n/t	n/t
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	< 0.10	n/t	n/t	n/t
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	< 0.10	n/t	n/t	n/t
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	n/t	< 1.0	n/t	n/t	n/t
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	< 0.5	n/t	n/t	n/t
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	n/t	< 3.0	n/t	n/t	n/t
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	< 0.5	n/t	n/t	n/t
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	n/t	< 0.6	n/t	n/t	n/t
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	n/t	< 1.0	n/t	n/t	n/t
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	< 2.0	n/t	n/t	n/t
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	n/t	< 4.5	n/t	n/t	n/t
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	< 2.0	n/t	n/t	n/t
>C5-C44 Total (HS_1D_MS+EH_2D_Total)	CE250	N	14	mg/kg	n/t	< 14.0	n/t	n/t	n/t
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t	51	n/t	n/t	n/t

SOILS

Lab Number					87222	87223	87224	87225	87226
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH03	BH04	BH05	BH05	BH06
Depth (m)					1.80 - 2.00	0.40 - 0.50	0.90 - 1.00	1.60 - 1.80	0.40 - 0.50
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
PCB (ICES 7 congeners)									
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t	< 0.035	n/t	n/t	n/t
PCB 101	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 118	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 138	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 153	CE137	M	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
PCB 180	CE137	M	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
PCB 28	CE137	M	0.015	mg/kg	n/t	< 0.015	n/t	n/t	n/t
PCB 52	CE137	M	0.01	mg/kg	n/t	< 0.010	n/t	n/t	n/t
Asbestos									
Asbestos Identification	SUBCO N	SU	0	-	n/t	NAD	n/t	n/t	n/t

SOILS

Lab Number					87227	87228	87229	87230	87231
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH06	BH06	BH07	BH08	BH09
Depth (m)					1.40 - 1.50	2.50 - 3.00	0.90 - 1.00	1.20 - 1.40	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
Moisture Content	CE001	N	0.1	%	14.2	5.0	5.0	8.8	14.7
Arsenic	CE264	U	1.8	mg/kg	n/t	n/t	11.6	n/t	14.1
Cadmium	CE264	M	1.6	mg/kg	n/t	n/t	< 1.6	n/t	< 1.6
Chromium	CE264	U	2	mg/kg	n/t	n/t	8.0	n/t	19.6
Chromium III	CE208	N	2	mg/kg	n/t	n/t	8.05	n/t	19.6
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	n/t	n/t	< 0.040	n/t	< 0.040
Copper	CE264	U	1.6	mg/kg	n/t	n/t	13.4	n/t	58.5
Lead	CE264	U	2.3	mg/kg	n/t	n/t	44.1	n/t	168
Mercury	CE264	U	0.7	mg/kg	n/t	n/t	< 0.7	n/t	1.3
Nickel	CE264	M	2.1	mg/kg	n/t	n/t	7.2	n/t	22.4
Selenium	CE264	U	3	mg/kg	n/t	n/t	< 3.0	n/t	4.5
Zinc	CE264	M	4	mg/kg	n/t	n/t	63.7	n/t	172
pH	CE004	M	0.1	pH units	8.6	9.0	8.3	8.5	8.7
Water Soluble Sulphate	CE061	M	10	mg/l	48.6	29.0	22.8	85.0	15.3
Free Cyanide	CE077	N	1	mg/kg	n/t	n/t	< 1.0	n/t	< 1.0
Total Organic Carbon	CE197	M	0.1	%	n/t	n/t	0.59	n/t	2.38
Polyaromatic hydrocarbons									
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t	< 0.013	n/t	0.024
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t	< 0.015	n/t	0.024
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t	0.019	n/t	0.102
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t	0.109	n/t	0.467
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t	0.111	n/t	0.452
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t	0.148	n/t	0.597
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t	0.085	n/t	0.312
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t	0.057	n/t	0.237
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t	0.094	n/t	0.392
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t	0.024	n/t	0.077
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t	0.195	n/t	0.835
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t	< 0.013	n/t	0.023
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t	0.102	n/t	0.376
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t	< 0.016	n/t	0.066



SOILS

Lab Number					87227	87228	87229	87230	87231
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH06	BH06	BH07	BH08	BH09
Depth (m)					1.40 - 1.50	2.50 - 3.00	0.90 - 1.00	1.20 - 1.40	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t	0.090	n/t	0.406
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t	0.174	n/t	0.699
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t	1.21	n/t	5.09
Coronene	CE087	N	0.02	mg/kg	n/t	n/t	n/t	n/t	0.072
Total PAH(17)	CE087	N	0.3	mg/kg	n/t	n/t	n/t	n/t	5.16
BTEX & Total Petroleum Hydrocarbons									
Benzene	CE267	U	0.001	mg/kg	n/t	n/t	< 0.001	n/t	< 0.001
Toluene	CE267	U	0.001	mg/kg	n/t	n/t	< 0.001	n/t	< 0.001
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t	< 0.001	n/t	< 0.001
Xylenes	CE267	N	0.004	mg/kg	n/t	n/t	n/t	n/t	< 0.004
MTBE	CE267	N	0.002	mg/kg	n/t	n/t	< 0.002	n/t	< 0.002
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t	< 0.002	n/t	< 0.002
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t	< 0.002	n/t	< 0.002
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t	n/t	n/t	< 0.007
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	n/t	< 0.10	n/t	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	n/t	< 0.10	n/t	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	n/t	< 0.10	n/t	< 0.10
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	n/t	n/t	< 1.0	n/t	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	n/t	< 0.5	n/t	< 0.5
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	n/t	n/t	< 3.0	n/t	< 3.0
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	n/t	< 0.5	n/t	< 0.5
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	n/t	< 0.010	n/t	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	n/t	< 0.010	n/t	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	n/t	< 0.010	n/t	< 0.010
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	n/t	n/t	< 0.6	n/t	< 0.6
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	n/t	n/t	< 1.0	n/t	1.6
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	n/t	< 2.0	n/t	< 2.0
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	n/t	n/t	< 4.5	n/t	8.3
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	n/t	< 2.0	n/t	< 2.0
>C5-C44 Total (HS_1D_MS+EH_2D_Total)	CE250	N	14	mg/kg	n/t	n/t	< 14.0	n/t	14.3
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t	n/t	n/t	n/t	35

SOILS

Lab Number					87227	87228	87229	87230	87231
Client Reference					SOIL	SOIL	SOIL	SOIL	SOIL
Sample ID					BH06	BH06	BH07	BH08	BH09
Depth (m)					1.40 - 1.50	2.50 - 3.00	0.90 - 1.00	1.20 - 1.40	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units					
PCB (ICES 7 congeners)									
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t	n/t	n/t	n/t	< 0.035
PCB 101	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 118	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 138	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 153	CE137	M	0.01	mg/kg	n/t	n/t	n/t	n/t	< 0.010
PCB 180	CE137	M	0.01	mg/kg	n/t	n/t	n/t	n/t	< 0.010
PCB 28	CE137	M	0.015	mg/kg	n/t	n/t	n/t	n/t	< 0.015
PCB 52	CE137	M	0.01	mg/kg	n/t	n/t	n/t	n/t	< 0.010
Asbestos									
Asbestos Identification	SUBCO N	SU	0	-	n/t	n/t	NAD	n/t	NAD

SOILS

Lab Number					87232	87233
Client Reference					SOIL	SOIL
Sample ID					BH09	BH09
Depth (m)					0.90 - 1.00	1.80 - 2.00
Sampling Date					23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units		
Moisture Content	CE001	N	0.1	%	18.4	8.9
Arsenic	CE264	U	1.8	mg/kg	n/t	n/t
Cadmium	CE264	M	1.6	mg/kg	n/t	n/t
Chromium	CE264	U	2	mg/kg	n/t	n/t
Chromium III	CE208	N	2	mg/kg	n/t	n/t
Water Soluble Chromium VI	CE263	N	0.04	mg/kg	n/t	n/t
Copper	CE264	U	1.6	mg/kg	n/t	n/t
Lead	CE264	U	2.3	mg/kg	n/t	n/t
Mercury	CE264	U	0.7	mg/kg	n/t	n/t
Nickel	CE264	M	2.1	mg/kg	n/t	n/t
Selenium	CE264	U	3	mg/kg	n/t	n/t
Zinc	CE264	M	4	mg/kg	n/t	n/t
pH	CE004	M	0.1	pH units	8.3	8.8
Water Soluble Sulphate	CE061	M	10	mg/l	47.9	31.1
Free Cyanide	CE077	N	1	mg/kg	n/t	n/t
Total Organic Carbon	CE197	M	0.1	%	n/t	n/t
Polyaromatic hydrocarbons						
Acenaphthene	CE087	M	0.013	mg/kg	n/t	n/t
Acenaphthylene	CE087	M	0.015	mg/kg	n/t	n/t
Anthracene	CE087	U	0.017	mg/kg	n/t	n/t
Benzo(a)anthracene	CE087	U	0.012	mg/kg	n/t	n/t
Benzo(a)pyrene	CE087	U	0.019	mg/kg	n/t	n/t
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	n/t	n/t
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	n/t	n/t
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	n/t	n/t
Chrysene	CE087	M	0.028	mg/kg	n/t	n/t
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	n/t	n/t
Fluoranthene	CE087	M	0.017	mg/kg	n/t	n/t
Fluorene	CE087	U	0.013	mg/kg	n/t	n/t
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	n/t	n/t
Naphthalene	CE087	M	0.016	mg/kg	n/t	n/t

SOILS

Lab Number					87232	87233
Client Reference					SOIL	SOIL
Sample ID					BH09	BH09
Depth (m)					0.90 - 1.00	1.80 - 2.00
Sampling Date					23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units		
Phenanthrene	CE087	M	0.014	mg/kg	n/t	n/t
Pyrene	CE087	M	0.016	mg/kg	n/t	n/t
Total PAH(16)	CE087	N	0.28	mg/kg	n/t	n/t
Coronene	CE087	N	0.02	mg/kg	n/t	n/t
Total PAH(17)	CE087	N	0.3	mg/kg	n/t	n/t
BTEX & Total Petroleum Hydrocarbons						
Benzene	CE267	U	0.001	mg/kg	n/t	n/t
Toluene	CE267	U	0.001	mg/kg	n/t	n/t
Ethylbenzene	CE267	U	0.001	mg/kg	n/t	n/t
Xylenes	CE267	N	0.004	mg/kg	n/t	n/t
MTBE	CE267	N	0.002	mg/kg	n/t	n/t
m,p-Xylene	CE267	U	0.002	mg/kg	n/t	n/t
oXylenes	CE267	U	0.002	mg/kg	n/t	n/t
Total BTEX	CE267	N	0.007	mg/kg	n/t	n/t
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	n/t
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	n/t
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	n/t	n/t
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	n/t	n/t
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	n/t
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	n/t	n/t
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	n/t	n/t
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	n/t
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	n/t
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	n/t	n/t
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	n/t	n/t
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	n/t	n/t
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	n/t
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	n/t	n/t
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	n/t	n/t
>C5-C44 Total (HS_1D_MS+EH_2D_Total)	CE250	N	14	mg/kg	n/t	n/t
Mineral Oil (>C10-C40 Total) (EH_CU_1D_Total)	CE162	N	19	mg/kg	n/t	n/t



SOILS

Lab Number					87232	87233
Client Reference					SOIL	SOIL
Sample ID					BH09	BH09
Depth (m)					0.90 - 1.00	1.80 - 2.00
Sampling Date					23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units		
PCB (ICES 7 congeners)						
Total PCBs (7 congeners)	CE137	M	0.035	mg/kg	n/t	n/t
PCB 101	CE137	M	0.015	mg/kg	n/t	n/t
PCB 118	CE137	M	0.015	mg/kg	n/t	n/t
PCB 138	CE137	M	0.015	mg/kg	n/t	n/t
PCB 153	CE137	M	0.01	mg/kg	n/t	n/t
PCB 180	CE137	M	0.01	mg/kg	n/t	n/t
PCB 28	CE137	M	0.015	mg/kg	n/t	n/t
PCB 52	CE137	M	0.01	mg/kg	n/t	n/t
Asbestos						
Asbestos Identification	SUBCO N	SU	0	-	n/t	n/t

LEACHATE

Lab Number					87217	87221	87223	87231
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH02	BH04	BH09
Depth (m)					0.90 - 1.00	2.60 - 3.00	0.40 - 0.50	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units				
Metals								
Arsenic 10:1	CE265	N	0.1	µg/l	0.810	n/t	1.31	1.49
Barium 10:1	CE265	N	0.9	µg/l	54.8	n/t	48.4	77.4
Cadmium 10:1	CE265	N	0.1	µg/l	< 0.100	n/t	< 0.100	< 0.100
Chromium 10:1	CE265	N	0.5	µg/l	< 0.500	n/t	1.16	1.77
Copper 10:1	CE265	N	0.6	µg/l	3.27	n/t	1.94	16.5
Mercury 10:1	CE265	N	0.05	µg/l	< 0.050	n/t	< 0.050	< 0.050
Molybdenum 10:1	CE265	N	0.9	µg/l	4.26	n/t	8.57	< 0.900
Nickel 10:1	CE265	N	0.4	µg/l	0.406	n/t	< 0.400	1.24
Lead 10:1	CE265	N	0.6	µg/l	< 0.600	n/t	1.07	35.5
Antimony 10:1	CE265	N	0.8	µg/l	3.44	n/t	1.84	2.11
Selenium 10:1	CE265	N	1.1	µg/l	< 1.10	n/t	< 1.10	< 1.10
Zinc 10:1	CE265	N	3	µg/l	< 3.00	n/t	3.82	46.3
Arsenic Leachate	CE265	U	0.1	µg/l	0.58	2.55	n/t	5.11
Boron Leachate	CE265	N	4	µg/l	34.3	80.0	n/t	4.7
Cadmium Leachate	CE265	U	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Chromium Leachate	CE265	U	0.5	µg/l	< 0.50	0.70	n/t	6.25
Copper Leachate	CE265	U	0.5	µg/l	2.75	5.33	n/t	16.3
Lead Leachate	CE265	U	0.6	µg/l	< 0.60	2.32	n/t	24.3
Mercury Leachate	CE265	N	0.05	µg/l	< 0.050	< 0.050	n/t	0.078
Nickel Leachate	CE265	U	0.4	µg/l	< 0.40	1.27	n/t	7.56
Selenium Leachate	CE265	U	1.1	µg/l	< 1.1	< 1.1	n/t	< 1.1
Zinc Leachate	CE265	U	3.5	µg/l	< 3.5	< 3.5	n/t	37.2
Arsenic 10:1	CE265	N	0.001	mg/kg	0.008	n/t	0.013	0.015
Barium 10:1	CE265	N	0.009	mg/kg	0.548	n/t	0.484	0.774
Cadmium 10:1	CE265	N	0.001	mg/kg	< 0.001	n/t	< 0.001	< 0.001
Chromium 10:1	CE265	N	0.005	mg/kg	< 0.005	n/t	0.012	0.018
Copper 10:1	CE265	N	0.006	mg/kg	0.033	n/t	0.019	0.165
Mercury 10:1	CE265	N	0.0005	mg/kg	< 0.0005	n/t	< 0.0005	< 0.0005
Molybdenum 10:1	CE265	N	0.009	mg/kg	0.043	n/t	0.086	< 0.009
Nickel 10:1	CE265	N	0.004	mg/kg	0.004	n/t	< 0.004	0.012

LEACHATE

Lab Number					87217	87221	87223	87231
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH02	BH04	BH09
Depth (m)					0.90 - 1.00	2.60 - 3.00	0.40 - 0.50	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units				
Lead 10:1	CE265	N	0.006	mg/kg	< 0.006	n/t	0.011	0.355
Antimony 10:1	CE265	N	0.008	mg/kg	0.034	n/t	0.018	0.021
Selenium 10:1	CE265	N	0.011	mg/kg	< 0.011	n/t	< 0.011	< 0.011
Zinc 10:1	CE265	N	0.03	mg/kg	< 0.03	n/t	0.04	0.46
Colourimetric								
Chloride 10:1	CE257	N	0.4	mg/l	0.70	n/t	1.10	1.20
Fluoride 10:1	CE257	N	0.08	mg/l	0.800	n/t	0.900	0.500
Sulphate 10:1	CE257	N	0.3	mg/l	33.8	n/t	5.20	< 0.30
Phenol Index 10:1	CE148	N	0.01	mg/l	< 0.01	n/t	< 0.01	< 0.01
Sulphate	CE257	U	0.3	mg/l	24.0	< 0.30	n/t	< 0.30
Chloride 10:1	CE257	N	4	mg/kg	7.0	n/t	11.0	12.0
Fluoride 10:1	CE257	N	0.8	mg/kg	8.00	n/t	9.00	5.00
Sulphate 10:1	CE257	N	3	mg/kg	338	n/t	52.0	< 3.0
Phenol Index 10:1	CE148	N	0.1	mg/kg	< 0.10	n/t	< 0.10	< 0.10
Free Cyanide	CE147	N	5	µg/l	< 5.0	fg < 5.0	n/t	< 5.0
Combustion								
Total Dissolved Solids 10:1	CE039	N	10	mg/l	140	n/t	109	95
Total Dissolved Solids 10:1	CE039	N	10	mg/l	140	n/t	109	95.0
Dissolved Organic Carbon 10:1	CE247	N	0.85	mg/l	3.63	n/t	2.98	5.19
Total Dissolved Solids 10:1	CE039	N	100	mg/kg	1400	n/t	1090	950
Dissolved Organic Carbon 10:1	CE247	N	8.5	mg/kg	36.3	n/t	29.8	51.9
Polyaromatic hydrocarbons								
Naphthalene	CE051	N	0.1	µg/l	0.30	0.32	n/t	0.39
Acenaphthylene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Acenaphthene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Fluorene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Phenanthrene	CE051	N	0.1	µg/l	0.12	< 0.10	n/t	0.13
Anthracene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Fluoranthene	CE051	N	0.1	µg/l	0.17	< 0.10	n/t	0.11
Pyrene	CE051	N	0.1	µg/l	0.15	0.21	n/t	< 0.10
Benzo(a)anthracene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10

LEACHATE

Lab Number					87217	87221	87223	87231
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH02	BH04	BH09
Depth (m)					0.90 - 1.00	2.60 - 3.00	0.40 - 0.50	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units				
Chrysene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Benzo(b)fluoranthene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Benzo(k)fluoranthene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Benzo(a)pyrene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Indeno(1,2,3-cd)pyrene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Dibenzo(a,h)anthracene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Benzo(g,h,i)perylene	CE051	N	0.1	µg/l	< 0.10	< 0.10	n/t	< 0.10
Total PAH(16)	CE051	N	1.6	µg/l	< 1.60	< 1.60	n/t	< 1.60
BTEX								
Benzene	CE266	U	1	µg/l	< 1.00	fg < 1.00	n/t	< 1.00
Toluene	CE266	U	1	µg/l	< 1.00	fg < 1.00	n/t	< 1.00
Ethylbenzene	CE266	U	1	µg/l	< 1.00	fg < 1.00	n/t	< 1.00
Xylenes	CE266	U	1	µg/l	< 1.00	fg < 1.00	n/t	< 1.00
MTBE	CE266	U	1	µg/l	1.20	fg < 1.00	n/t	< 1.00
m,p-Xylene	CE266	U	1	µg/l	< 1.00	fg < 1.00	n/t	< 1.00
oXylenes	CE266	U	1	µg/l	< 1.00	fg < 1.00	n/t	< 1.00
Total Petroleum Hydrocarbons								
>C5-C6 Aliphatic (HS_1D_AL)	CE266	N	1	µg/l	1.00	< 1.00	n/t	< 1.00
>C6-C8 Aliphatic (HS_1D_AL)	CE266	N	1	µg/l	< 1.00	< 1.00	n/t	< 1.00
>C8-C10 Aliphatic (HS_1D_AL)	CE266	N	1	µg/l	< 1.00	< 1.00	n/t	< 1.00
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C16-C21 Aliphatic (EH_2D_AL)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C21-C35 Aliphatic (EH_2D_AL)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C5-C7 Aromatic (HS_1D_AR)	CE266	N	1	µg/l	< 1.00	< 1.00	n/t	< 1.00
>C7-C8 Aromatic (HS_1D_AR)	CE266	N	1	µg/l	< 1.00	< 1.00	n/t	< 1.00
>C8-C10 Aromatic (HS_1D_AR)	CE266	N	1	µg/l	< 1.00	< 1.00	n/t	< 1.00
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0

LEACHATE

Lab Number					87217	87221	87223	87231
Client Reference					SOIL	SOIL	SOIL	SOIL
Sample ID					BH01	BH02	BH04	BH09
Depth (m)					0.90 - 1.00	2.60 - 3.00	0.40 - 0.50	0.10 - 0.20
Sampling Date					23/01/2026	23/01/2026	23/01/2026	23/01/2026
Test	Method	Accred	LoD	Units				
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	1	µg/l	< 1.0	< 1.0	n/t	< 1.0
Wet Chem								
pH (10:1 extract)	CE213	U	0.1	pH units	9.3	8.1	n/t	8.0
Temperature 10:1	CE002	N	0	°C	18	n/t	18	18
pH 10:1	CE213	N	0	pH units	7.8	n/t	8.3	8.2
Conductivity 10:1	CE214	N	50	µS/cm	184	n/t	144	125
Dry mass of test portion	CE002	N	0	kg	0.089	n/t	0.089	0.090
Wet Sample Mass Taken (Actual)	CE002	N	0	kg	0.100	n/t	0.103	0.105
Dry Matter 10:1	CE002	N	0.1	%	89.1	n/t	86.6	85.3
Moisture Content 10:1	CE001	N	0.1	%	12.2	n/t	15.4	17.3
Eluent Volume	CE002	N	0	l	0.880	n/t	0.878	0.880

WAC Analysis

WAC Analysis				Landfill Waste Acceptance Criteria Limits		
Lab Ref:	87217			Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Job Number:	26-01178					
Sample Date:	23/01/2026					
Sample ID:	BH01					
Depth (m)	0.90 - 1.00					
Site:	Little Haven Hotel South Shields					
Determinand	Code	Units				
Total Organic Carbon		%		3	5	6
Loss on Ignition		%		--	--	10
Total BTEX	N	mg/kg	< 0.007	6	--	--
Total PCBs (7 congeners)	MU	mg/kg	< 0.035	1	--	--
Mineral Oil (>C10-C40 Aliphatic) (EH_CU_1D_AL)	N	mg/kg	62	500	--	--
Total (of 17) PAHs	N	mg/kg	10.2	100	--	--
pH		pH Units	8.6	--	>6	--
Acid Neutralisation Capacity (pH4)		mol/kg		--	To be evaluated	
Acid Neutralisation Capacity (pH7)		mol/kg		--	To be evaluated	
Eluate Analysis		Conc in Eluate	10:1	Council Decision 2003/33/EC		
		10:1	mg/kg	Limit Values mg/kg at L:S 10:1		
Arsenic (µg/l)	N	0.81	0.008	0.5	2	25
Barium (µg/l)	N	54.8	0.548	20	100	300
Cadmium (µg/l)	N	< 0.100	< 0.001	0.04	1	5
Chromium (µg/l)	N	< 0.500	< 0.005	0.5	10	70
Copper (µg/l)	N	3.27	0.033	2	50	100
Mercury (µg/l)	N	< 0.050	< 0.0005	0.01	0.2	2
Molybdenum (µg/l)	N	4.26	0.043	0.5	10	30
Nickel (µg/l)	N	0.406	0.004	0.4	10	40
Lead (µg/l)	N	< 0.600	< 0.006	0.5	10	50
Antimony (µg/l)	N	3.44	0.034	0.06	0.7	5
Selenium (µg/l)	N	< 1.10	< 0.011	0.1	0.5	7
Zinc (µg/l)	N	< 3.00	< 0.03	4	50	200
Chloride (mg/l)	N	0.7	7	800	15000	25000
Fluoride (mg/l)	N	0.8	8	10	150	500
Sulphate (mg/l)	N	33.8	338	1000	20000	50000
Total Dissolved Solids (mg/l)	N	140	1400	4000	60000	100000
Phenol Index (mg/l)	N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon (mg/l)	N	3.63	36.3	500	800	1000

Leach Test Information

pH	N	7.8
Conductivity (uS/cm)	N	184
Temperature (°C)	N	18
Mass of dried test portion (kg)	N	0.089
Mass of wet test portion (kg)	N	0.1
Dry Matter (%)	N	89.1
Moisture (%)	N	12.2
Material Removed (%)		
Eluent Volume (l)	N	0.88

Disclaimer: The Landfill Waste Acceptance Criteria limits in this report are provided for guidance only and values are transcribed from the Council Decision annex 2003/33/EC

Chemtech Environmental Ltd does not take responsibility for any errors or omissions in the transcription, and all data should be verified by the end user.

Results will be colour flagged to the lowest threshold value breached. Any assessments made are based on the published results from the Laboratory and make no assessment of uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies.

Interpretation/assessment is outside the scope of the laboratory's UKAS accreditation.

Moisture Content Calculated on Wet Weight Basis

WAC Analysis

WAC Analysis				Landfill Waste Acceptance Criteria Limits		
Lab Ref:	87223			Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Job Number:	26-01178					
Sample Date:	23/01/2026					
Sample ID:	BH04					
Depth (m)	0.40 - 0.50					
Site:	Little Haven Hotel South Shields					
Determinand	Code	Units				
Total Organic Carbon		%		3	5	6
Loss on Ignition		%		--	--	10
Total BTEX	N	mg/kg	< 0.007	6	--	--
Total PCBs (7 congeners)	MU	mg/kg	< 0.035	1	--	--
Mineral Oil (>C10-C40 Aliphatic) (EH_CU_1D_AL)	N	mg/kg	51	500	--	--
Total (of 17) PAHs	N	mg/kg	1.67	100	--	--
pH		pH Units	8.6	--	>6	--
Acid Neutralisation Capacity (pH4)		mol/kg		--	To be evaluated	
Acid Neutralisation Capacity (pH7)		mol/kg		--	To be evaluated	
Eluate Analysis		Conc in Eluate	10:1	Council Decision 2003/33/EC		
		10:1	mg/kg	Limit Values mg/kg at L:S 10:1		
Arsenic (µg/l)	N	1.31	0.013	0.5	2	25
Barium (µg/l)	N	48.4	0.484	20	100	300
Cadmium (µg/l)	N	< 0.100	< 0.001	0.04	1	5
Chromium (µg/l)	N	1.16	0.012	0.5	10	70
Copper (µg/l)	N	1.94	0.019	2	50	100
Mercury (µg/l)	N	< 0.050	< 0.0005	0.01	0.2	2
Molybdenum (µg/l)	N	8.57	0.086	0.5	10	30
Nickel (µg/l)	N	< 0.400	< 0.004	0.4	10	40
Lead (µg/l)	N	1.07	0.011	0.5	10	50
Antimony (µg/l)	N	1.84	0.018	0.06	0.7	5
Selenium (µg/l)	N	< 1.10	< 0.011	0.1	0.5	7
Zinc (µg/l)	N	3.82	0.04	4	50	200
Chloride (mg/l)	N	1.1	11	800	15000	25000
Fluoride (mg/l)	N	0.9	9	10	150	500
Sulphate (mg/l)	N	5.2	52	1000	20000	50000
Total Dissolved Solids (mg/l)	N	109	1090	4000	60000	100000
Phenol Index (mg/l)	N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon (mg/l)	N	2.98	29.8	500	800	1000

Leach Test Information

pH	N	8.3
Conductivity (uS/cm)	N	144
Temperature (°C)	N	18
Mass of dried test portion (kg)	N	0.089
Mass of wet test portion (kg)	N	0.103
Dry Matter (%)	N	86.6
Moisture (%)	N	15.4
Material Removed (%)		
Eluent Volume (l)	N	0.878

Disclaimer: The Landfill Waste Acceptance Criteria limits in this report are provided for guidance only and values are transcribed from the Council Decision annex 2003/33/EC

Chemtech Environmental Ltd does not take responsibility for any errors or omissions in the transcription, and all data should be verified by the end user.

Results will be colour flagged to the lowest threshold value breached. Any assessments made are based on the published results from the Laboratory and make no assessment of uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies.

Interpretation/assessment is outside the scope of the laboratory's UKAS accreditation.

Moisture Content Calculated on Wet Weight Basis

WAC Analysis

WAC Analysis				Landfill Waste Acceptance Criteria Limits		
Lab Ref:	87231			Inert Waste Landfill	Stable Non-reactive Hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill
Job Number:	26-01178					
Sample Date:	23/01/2026					
Sample ID:	BH09					
Depth (m)	0.10 - 0.20					
Site:	Little Haven Hotel South Shields					
Determinand	Code	Units				
Total Organic Carbon		%		3	5	6
Loss on Ignition		%		--	--	10
Total BTEX	N	mg/kg	< 0.007	6	--	--
Total PCBs (7 congeners)	MU	mg/kg	< 0.035	1	--	--
Mineral Oil (>C10-C40 Aliphatic) (EH_CU_1D_AL)	N	mg/kg	35	500	--	--
Total (of 17) PAHs	N	mg/kg	5.16	100	--	--
pH		pH Units	8.7	--	>6	--
Acid Neutralisation Capacity (pH4)		mol/kg		--	To be evaluated	
Acid Neutralisation Capacity (pH7)		mol/kg		--	To be evaluated	
Eluate Analysis		Conc in Eluate	10:1	Council Decision 2003/33/EC		
		10:1	mg/kg	Limit Values mg/kg at L:S 10:1		
Arsenic (µg/l)	N	1.49	0.015	0.5	2	25
Barium (µg/l)	N	77.4	0.774	20	100	300
Cadmium (µg/l)	N	< 0.100	< 0.001	0.04	1	5
Chromium (µg/l)	N	1.77	0.018	0.5	10	70
Copper (µg/l)	N	16.5	0.165	2	50	100
Mercury (µg/l)	N	< 0.050	< 0.0005	0.01	0.2	2
Molybdenum (µg/l)	N	< 0.900	< 0.009	0.5	10	30
Nickel (µg/l)	N	1.24	0.012	0.4	10	40
Lead (µg/l)	N	35.5	0.355	0.5	10	50
Antimony (µg/l)	N	2.11	0.021	0.06	0.7	5
Selenium (µg/l)	N	< 1.10	< 0.011	0.1	0.5	7
Zinc (µg/l)	N	46.3	0.46	4	50	200
Chloride (mg/l)	N	1.2	12	800	15000	25000
Fluoride (mg/l)	N	0.5	5	10	150	500
Sulphate (mg/l)	N	< 0.30	< 3.0	1000	20000	50000
Total Dissolved Solids (mg/l)	N	95	950	4000	60000	100000
Phenol Index (mg/l)	N	< 0.01	< 0.10	1	-	-
Dissolved Organic Carbon (mg/l)	N	5.19	51.9	500	800	1000

Leach Test Information

pH	N	8.2
Conductivity (uS/cm)	N	125
Temperature (°C)	N	18
Mass of dried test portion (kg)	N	0.09
Mass of wet test portion (kg)	N	0.105
Dry Matter (%)	N	85.3
Moisture (%)	N	17.3
Material Removed (%)		
Eluent Volume (l)	N	0.88

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Interpretation/assessment is outside the scope of the laboratory's UKAS accreditation.

Moisture Content Calculated on Wet Weight Basis

METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE266	VPH in Leachate	HS-GCFID	As submitted sample
CE267	VPH in Soil	HS-GCFID	As submitted sample
CE250	GCXGC in Leachate	DCM Extraction and GCxGC-FID	As submitted sample
CE250	GCXGC in Soil	DCM Extraction and GCxGC-FID	As submitted sample
SUBCON	Asbestos Soil	HSG248	Air Dried Sample
CE061	W. Sol Metals	ICPOES	Air dried sample
CE001	WAC in leachates 10:1 single stage	BS12457-2	As submitted sample
CE002	WAC moistures	Gravimetric	As submitted sample
CE137	PCB's in Soil	DCM Extraction and GCMS	As submitted sample
CE265	Dissolved metals by ICP in Leachate	ICPMS	As submitted sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE266	BTEX in Leachate	Analysis by HSGCFID	As submitted sample
CE267	BTEX in Soils	Analysis by HSGCFID	As submitted sample
CE263	ChromiumVI by Discrete Analyser in Soil	Gallery	Air dried sample
CE257	Anions by Discrete Analyser in Leachate	Gallery	As submitted sample
CE051	PAH in Leachate	DCM Extraction and GCMS	As submitted sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE147	Cyanides in Leachate	Continuous Flow Analyser	As submitted sample
CE077	Cyanides in Soils	Continuous Flow Analyser	As submitted sample
CE208	Chromium Hexavalent in Soil	Colorimetry	Air dried sample
CE197	Primacs in Soil	Primacs	Air dried sample
CE162	Mineral Oil in Soil	Acetone:Hexane extract, Floriil clean up and GCFID	As submitted sample

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

- a Sampling date not provided
- b Sampling time not provided (waters only)
- c Sample not received in appropriate containers
- d Storage Temperature
- e Headspace present in sample container
- f Sample exceeded sampling to receipt
- g Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
87217	BH01	0.90 - 1.00	N	
87218	BH01	1.80 - 2.00	N	
87219	BH01	2.50 - 3.00	N	
87220	BH02	1.80 - 2.00	N	
87221	BH02	2.60 - 3.00	N	
87222	BH03	1.80 - 2.00	N	
87223	BH04	0.40 - 0.50	N	
87224	BH05	0.90 - 1.00	N	
87225	BH05	1.60 - 1.80	N	
87226	BH06	0.40 - 0.50	N	
87227	BH06	1.40 - 1.50	N	
87228	BH06	2.50 - 3.00	N	
87229	BH07	0.90 - 1.00	N	
87230	BH08	1.20 - 1.40	N	
87231	BH09	0.10 - 0.20	N	
87232	BH09	0.90 - 1.00	N	
87233	BH09	1.80 - 2.00	N	

REPORT INFORMATION

Report No.:26-01178, issue number 2

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

This report shall not be reproduced except in full, without prior written approval.

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

All testing carried out at Unit 6 Parkhead, Stanley, DH9 7YB, except for subcontracted testing.

The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis (at 30°C)

Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.

Where sampling was undertaken by Chemtech Environmental Limited it is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis (30°C). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones and 'inert' material, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

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Statement of Conformity

Statement of Conformity

Where Chemtech reports a statement of conformity to a specification, the decision rules applied are derived from the Ilac document ILAC G8:09/2019.

Acceptance limits (AL), applied are derived from the tolerance limits (TL) by you the client or applicable standard (e.g. 2003.33.EC Council Decision, BS3882, BS8601)

Agreed and reported Decision Rule:

"PASS" if the result < TL, and the bias / precision values for the process meet the targets defined within the methodology and/or applied accreditation.

Reported Decisions:

Result < TL for determinands: PASS

Result > TL for determinands: FAIL

Definitions Used:

Acceptance limit (AL) Specified upper or lower bounds of permissible measured quantity values.

Tolerance limit (TL) Specified upper or lower bound of permissible values of a property.

Accreditation of WAC/BS3882/BS8601

Accreditation in Soil to MCERTS is only applicable for specific matrix types identified as soil (Sand/Loam/Clay) during the sample assessment

If the sample is classified as not soil, no accreditation is conveyed



LABORATORY REPORT



Contract Number: PSL26/0882

Report Date: 26 February 2026
Client's Reference: 25-810
Client Name: ARC Environmental
Solum House
Unit 1 Elliott Court
St Johns Road, Meadowfield
Durham
DH7 8PN

For the attention of: Stephen Donald

Contract Title: Little Haven Hotel, South Shields

Date Received: 3/2/2026

Date Commenced: 3/2/2026

Date Completed: 26/2/2026

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. 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 other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins
(Managing Director)

R Berriman
(Associate Director)

S Royle
(Laboratory Manager)

L Knight
(Assistant Laboratory Manager) (Senior Technical Coordinator)



S Eyre

T Watkins
(Senior Technician)

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Hexthorpe,
Doncaster,
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Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

[illegible]

Little Haven Hotel, South Shields

Contract No:

PSL26/0882

Client Ref:

25-810

PARTICLE SIZE DISTRIBUTION TEST

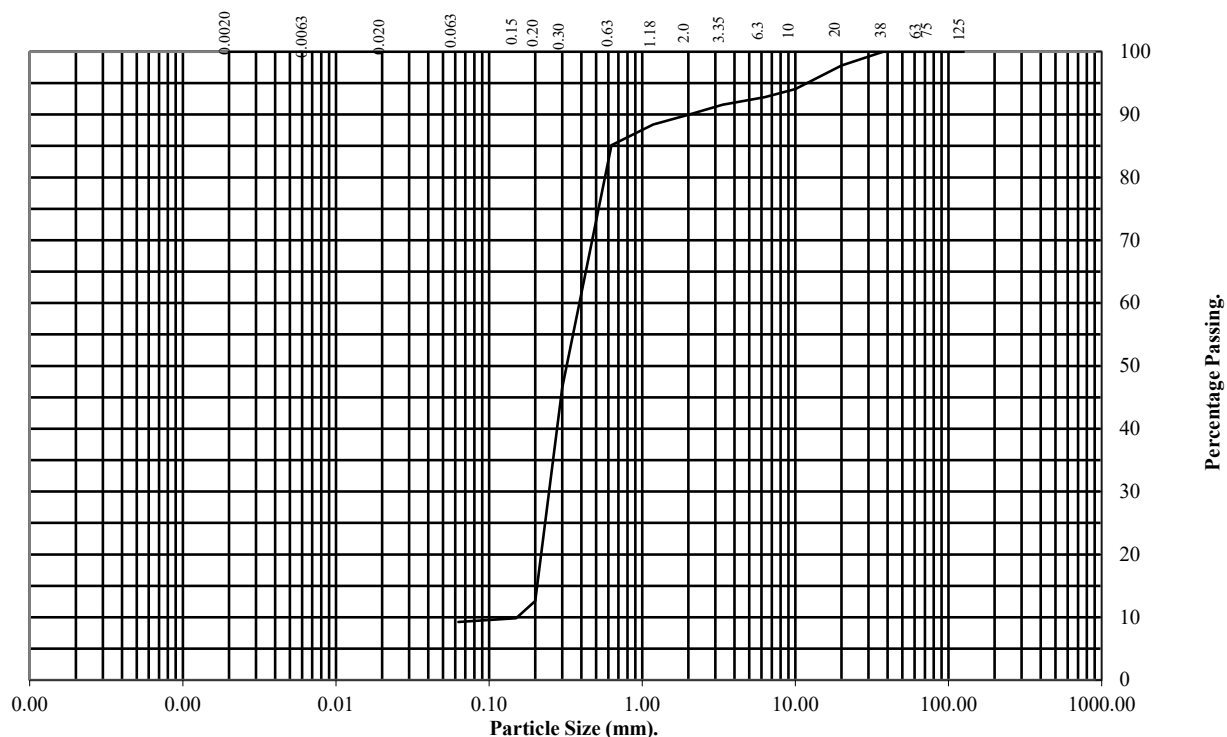
BS 1377 - Part 2 : 2022 : Clause 10 in accordance with BS EN ISO 17892 - 4 : 2016

Sieve Method, Clause 5.2

Hole Number: BH01 Top Depth (m): 2.50

Sample Number: Base Depth (m): 3.00

Sample Type:



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	94
6.3	93
3.35	92
2	90
1.18	88
0.63	85
0.3	47
0.2	13
0.15	10
0.063	9

Soil Fraction	Total Percentage
Cobbles	0
Gravel	10
Sand	81
Silt/Clay	9

Remarks:

See Summary of Soil Descriptions



Little Haven Hotel, South Shields

Contract No:

PSL26/0882

Client Ref:

25-810

PARTICLE SIZE DISTRIBUTION TEST

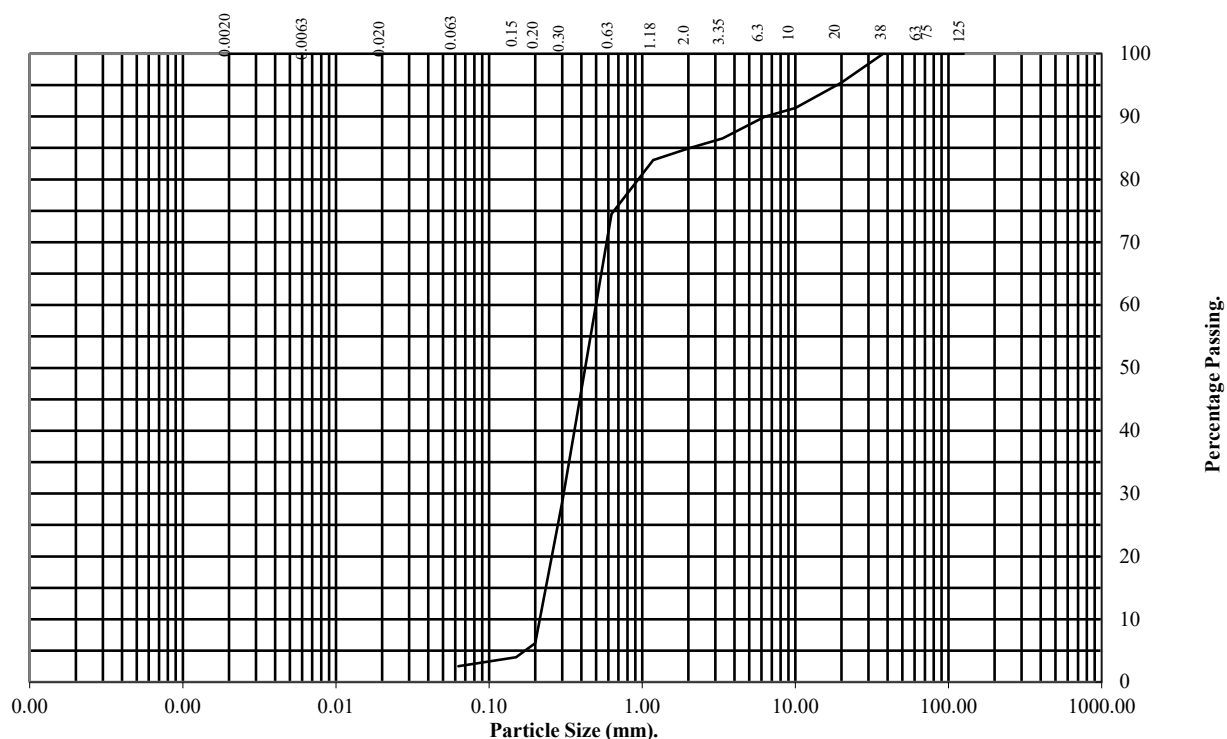
BS 1377 - Part 2 : 2022 : Clause 10 in accordance with BS EN ISO 17892 - 4 : 2016

Sieve Method, Clause 5.2

Hole Number: BH04 Top Depth (m): 2.50

Sample Number: Base Depth (m): 2.70

Sample Type:



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	91
6.3	90
3.35	87
2	85
1.18	83
0.63	74
0.3	29
0.2	6
0.15	4
0.063	3

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	82
Silt/Clay	3

Remarks:

See Summary of Soil Descriptions



Little Haven Hotel, South Shields

Contract No:
PSL26/0882
Client Ref:
25-810

PARTICLE SIZE DISTRIBUTION TEST

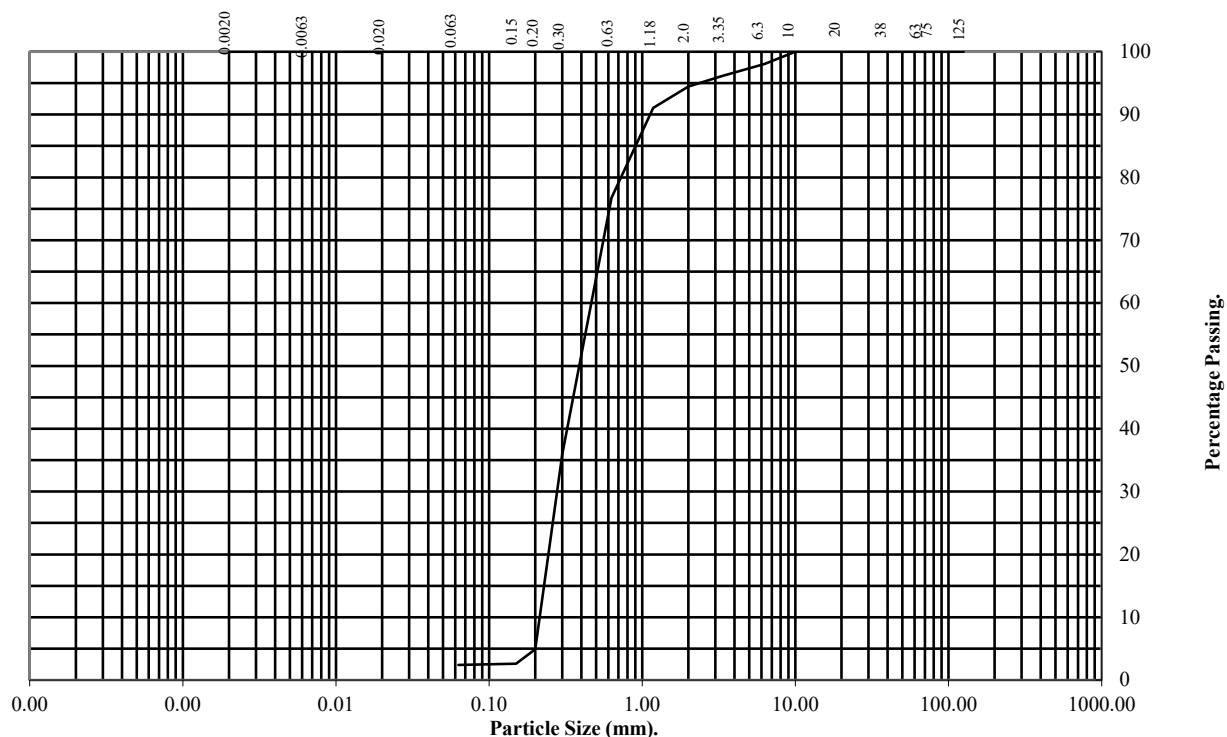
BS 1377 - Part 2 : 2022 : Clause 10 in accordance with BS EN ISO 17892 - 4 : 2016

Sieve Method, Clause 5.2

Hole Number: BH06 Top Depth (m): 2.50

Sample Number: Base Depth (m): 3.00

Sample Type:



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	98
3.35	96
2	94
1.18	91
0.63	77
0.3	36
0.2	5
0.15	3
0.063	2

Soil Fraction	Total Percentage
Cobbles	0
Gravel	6
Sand	92
Silt/Clay	2

Remarks:

See Summary of Soil Descriptions



Little Haven Hotel, South Shields

Contract No:
PSL26/0882
Client Ref:
25-810

PARTICLE SIZE DISTRIBUTION TEST

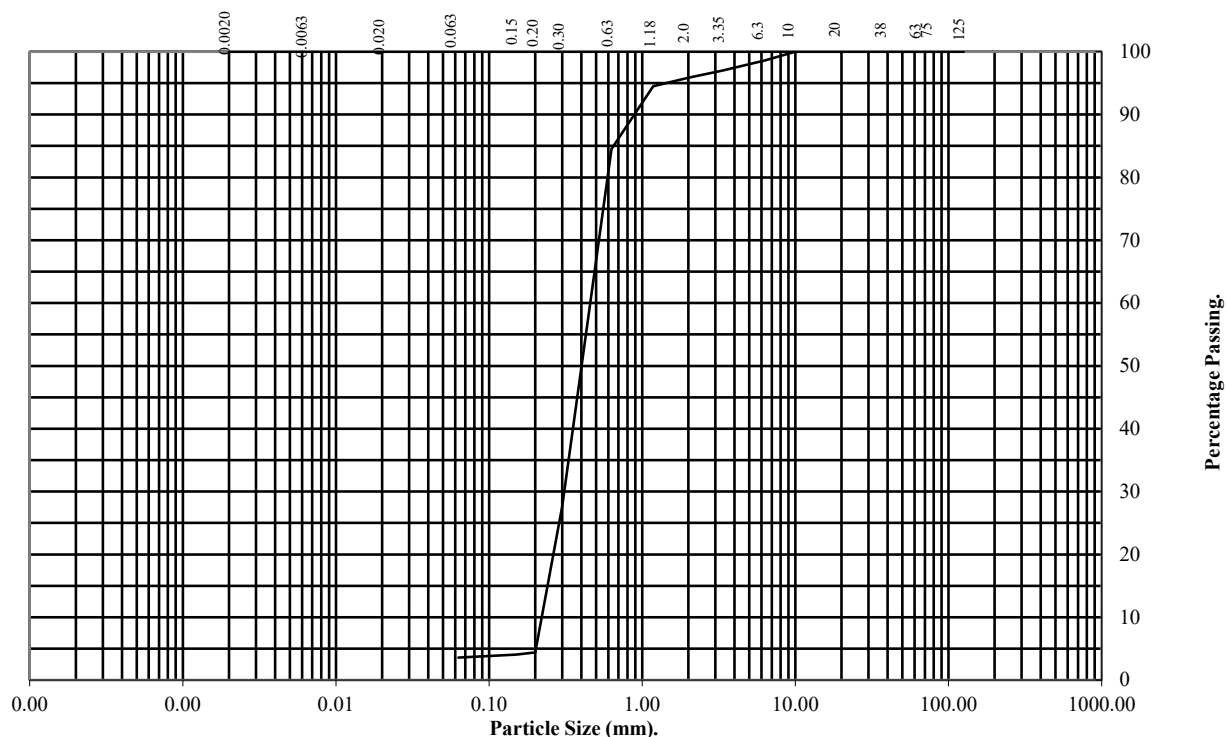
BS 1377 - Part 2 : 2022 : Clause 10 in accordance with BS EN ISO 17892 - 4 : 2016

Sieve Method, Clause 5.2

Hole Number: BH08 Top Depth (m): 2.50

Sample Number: Base Depth (m): 3.00

Sample Type:



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	99
3.35	97
2	96
1.18	95
0.63	85
0.3	28
0.2	4
0.15	4
0.063	4

Soil Fraction	Total Percentage
Cobbles	0
Gravel	4
Sand	92
Silt/Clay	4

Remarks:

See Summary of Soil Descriptions



Little Haven Hotel, South Shields

Contract No:

PSL26/0882

Client Ref:

25-810

Arc Environmental Ground Gas & Groundwater Monitoring Certificate



Site:

LITTLE HAVEN

Ref:

25-810

Visit	Date	Time	Equipment	Weather	Initials	Comments	Borehole	Gas Flow (l/hr)	Atmospheric Pressure (mb)	Trend	Methane (% v/v)		Methane (% LEL)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Hydrocarbons (GFM 435 only)		Other Gases (PPM)			Depth to Water (m bgl)
										R/F/S	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Hex %	PID Cf	PID (Isobutylene)	H ₂ S	CO	
1	02/02/2026	7.45am	GFM435	Rain	PR		BH02	<0.1	1002			0.0		0.0		2.2		17.3				0.0	0.0	DRY
							BH06	<0.1	1002			0.0		0.0		0.0		20.1				0.0	0.0	DRY
							BH09	<0.1	1002			0.0		0.0		0.1		19.8				0.0	0.0	DRY
2	16/2/26	8.30am	GFM435	CLOUDY	PR		BH02	<0.1	988			0.0		0.0		0.3		19.8				0.0	0.0	DRY
							BH06	<0.1	988			0.0		0.0		0.0		19.9				0.0	0.0	DRY
							BH09	<0.1	989			0.0		0.0		0.1		19.8				0.0	0.0	DRY
3	03/03/2026	12.00PM	GFM435	CLEAR	PR		BH02	<0.1	1022			0.0		0.0		0.4		17.1				0.0	0.0	DRY
							BH06	<0.1	1022			0.0		0.0		0.0		20.2				0.0	0.0	DRY
							BH09	<0.1	1021			0.0		0.0		0.2		19.9				0.0	0.0	DRY
4	17/3/26	7.00AM	GFM435	CLOUDY	PR		BH02	<0.1	1006			0.0		0.0		0.2		20.2				0.0	0.0	DRY
							BH06	<0.1	1007			0.0		0.0		1.1		18.6				0.0	0.0	DRY
							BH09	<0.1	1007			0.0		0.0		0.0		20.1				0.0	0.0	DRY
5	30/3/26	10.30am	GFM435	CLEAR	PR		BH02	<0.1	1018			0.0		0.0		3.6		15.7				0.0	0.0	DRY
							BH06	<0.1	1018			0.0		0.0		0.4		19.9				0.0	0.0	DRY
							BH09	<0.1	1018			0.0		0.0		0.3		20.2				0.0	0.0	DRY
6	15/4/26	12.30PM	GFM435	OVERCAST	PR		BH02	<0.1	1009			0.0		0.0		2.8		18.5				0.0	0.0	DRY
							BH06	<0.1	1009			0.0		0.0		0.5		19.5				0.0	0.0	DRY
							BH09	<0.1	1009			0.0		0.0		0.5		20.3				0.0	0.0	DRY

Notes:
Detection limits - Methane = 0.0%, Carbon Dioxide = 0.0%, LEL = 0.0%, Oxygen = 0.0%, Flow = 0.1l/hr
Monitoring order is from **Left to Right** across table
Monitoring should be for **Not Less** than 3 minutes However, if high concentrations of gasses initially recorded, monitoring should be for up to 10 minutes
N/A = Not applicable = Off the scale

Cf = PID compensation Factor (1-10) - Must be used to multiply the PID reading to give an accurate measure of the total hydrocarbons in the borehole when methane is present
Hex = Hexane (Valid and in range up to 2.000%) - Recorded when abnormally high methane is present.
PID = Photo Ionisation Detector (Calibrated to Isobutylene)

APPENDIX IV



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:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



IFLCJ-IQF0B-RAFH6

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in **pale yellow**.

Report is invalid if pages are removed.

Job name

25-810

Description/Comments

Project

25-810

Site

Little Haven Hotel

Classified by

Name: **John Ditchburn**
Date: **09 Feb 2026 22:13 GMT**
Telephone: **0191 378 6380**
Company: **Arc Environmental Ltd**
Solum House, Unit 1, Elliott Court, St.
Johns Road
Meadowfield
DH7 8PN

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

Hazardous Waste Classification
Most recent 3 year Refresher

Date

03 Dec 2020
05 Dec 2023

Next 3 year Refresher due by Dec 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Little Haven Hotel, South Shields

Post Code **NE33 1LH**

SIC for the process giving rise to the waste

41201 Construction of commercial buildings

Description of industry/producer giving rise to the waste

Construction and demolition waste

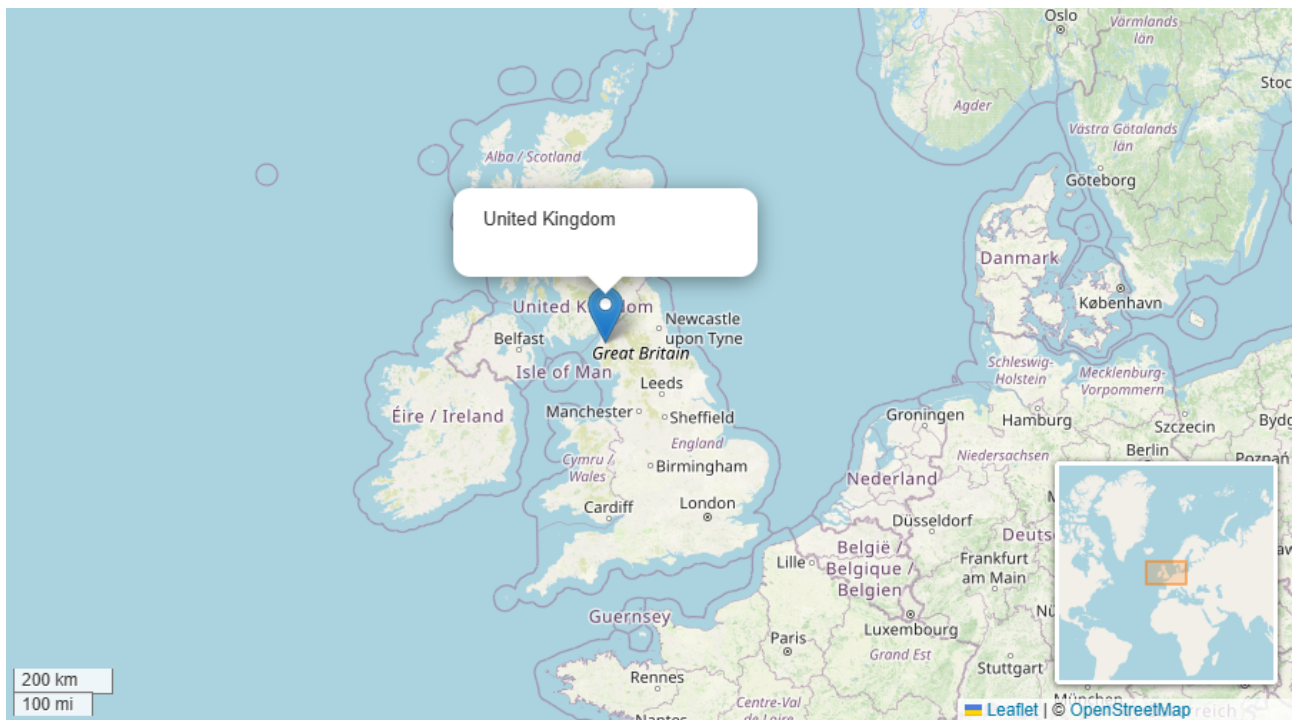
Description of the specific process, sub-process and/or activity that created the waste

Foundation and service trench arisings

Description of the waste

Made ground - dark brown sandy gravelly clay with brick

Waste Location



Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	Page
1	BH01-0.90-1.00-23/01/2026-SOIL-87217		Non Hazardous		3
2	BH02-2.60-3.00-23/01/2026-SOIL-87221		Non Hazardous		5
3	BH04-0.40-0.50-23/01/2026-SOIL-87223		Non Hazardous		8
4	BH07-0.90-1.00-23/01/2026-SOIL-87229		Non Hazardous		10
5	BH09-0.10-0.20-23/01/2026-SOIL-87231		Non Hazardous		12

Related documents

#	Name	Description
1	HWOL_26-01178-20260209.HWOL	Chemtech Environmental .hwol file used to populate the Job
2	Example worst case waste stream template: 17 05 04 or 17 05 03 *	waste stream template used to create this Job

Report

Created by: John Ditchburn

Created date: 09 Feb 2026 22:13 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	15
Appendix B: Rationale for selection of metal species	16
Appendix C: Version	17

Classification of sample: BH01-0.90-1.00-23/01/2026-SOIL-87217

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH01-0.90-1.00-23/01/2026-SOIL-87217	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
10.9% (wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 10.9% 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	asbestos fibres detected (Yes/No)				No					
			ACM_FIBRES							
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				15.2 mg/kg	1.895	25.658 mg/kg	0.00257 %	✓	
	033-005-00-1									
3	cadmium { cadmium sulfate }				3.3 mg/kg	1.855	5.453 mg/kg	0.000545 %	✓	
	048-009-00-9	233-331-6	10124-36-4							
4	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				25.7 mg/kg	1.462	33.468 mg/kg	0.00335 %	✓	
		215-160-9	1308-38-9							
5	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.04 mg/kg	2.27	<0.0908 mg/kg	<0.00000908 %		<LOD
	024-017-00-8									
6	copper { copper sulphate pentahydrate }				48.6 mg/kg	3.929	170.138 mg/kg	0.017 %	✓	
	029-023-00-4	231-847-6	7758-99-8							
7	lead { lead chromate }			1	314 mg/kg	1.56	436.396 mg/kg	0.028 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
8	mercury { mercury dichloride }				<0.7 mg/kg	1.353	<0.947 mg/kg	<0.0000947 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
9	nickel { nickel dibromate }				20.1 mg/kg	5.358	95.963 mg/kg	0.0096 %	✓	
	028-053-00-5	238-596-1	14550-87-9							
10	selenium { nickel selenate }				<3 mg/kg	2.554	<7.662 mg/kg	<0.000766 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
11	zinc { zinc chromate }				116 mg/kg	2.774	286.725 mg/kg	0.0287 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
12	TPH (C6 to C40) petroleum group				<14 mg/kg		<14 mg/kg	<0.0014 %		<LOD
			TPH							
13	confirm TPH has NOT arisen from diesel or petrol				☒					
			TPH_CONFIRM							
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
15	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2							

#	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							
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<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]							
19	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									
20	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
21	naphthalene				0.368 mg/kg		0.328 mg/kg	0.0000328 %	✓	
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				0.102 mg/kg		0.0909 mg/kg	0.00000909 %	✓	
		205-917-1	208-96-8							
23	acenaphthene				0.048 mg/kg		0.0428 mg/kg	0.00000428 %	✓	
		201-469-6	83-32-9							
24	fluorene				0.076 mg/kg		0.0677 mg/kg	0.00000677 %	✓	
		201-695-5	86-73-7							
25	phenanthrene				0.892 mg/kg		0.795 mg/kg	0.0000795 %	✓	
		201-581-5	85-01-8							
26	anthracene				0.234 mg/kg		0.208 mg/kg	0.0000208 %	✓	
		204-371-1	120-12-7							
27	fluoranthene				1.59 mg/kg		1.417 mg/kg	0.000142 %	✓	
		205-912-4	206-44-0							
28	pyrene				1.37 mg/kg		1.221 mg/kg	0.000122 %	✓	
		204-927-3	129-00-0							
29	benzo[a]anthracene				0.815 mg/kg		0.726 mg/kg	0.0000726 %	✓	
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				0.723 mg/kg		0.644 mg/kg	0.0000644 %	✓	
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				1.06 mg/kg		0.944 mg/kg	0.0000944 %	✓	
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				0.36 mg/kg		0.321 mg/kg	0.0000321 %	✓	
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				0.877 mg/kg		0.781 mg/kg	0.0000781 %	✓	
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				0.726 mg/kg		0.647 mg/kg	0.0000647 %	✓	
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				0.16 mg/kg		0.143 mg/kg	0.0000143 %	✓	
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				0.63 mg/kg		0.561 mg/kg	0.0000561 %	✓	
		205-883-8	191-24-2							
Total:								0.0906 %		

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 Determinand - 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: BH02-2.60-3.00-23/01/2026-SOIL-87221

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH02-2.60-3.00-23/01/2026-SOIL-87221	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Moisture content:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
19.6% (wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 19.6% 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		asbestos fibres detected (Yes/No)				No							
			ACM_FIBRES										
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				16.9 mg/kg		1.895	25.742 mg/kg		0.00257 %	✓	
		033-005-00-1											
3		cadmium { cadmium sulfate }				2 mg/kg		1.855	2.982 mg/kg		0.000298 %	✓	
		048-009-00-9	233-331-6	10124-36-4									
4		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				33.9 mg/kg		1.462	39.836 mg/kg		0.00398 %	✓	
			215-160-9	1308-38-9									
5		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.04 mg/kg		2.27	<0.0908 mg/kg		<0.00000908 %		<LOD
		024-017-00-8											
6		copper { copper sulphate pentahydrate }				49.4 mg/kg		3.929	156.053 mg/kg		0.0156 %	✓	
		029-023-00-4	231-847-6	7758-99-8									
7		lead { lead chromate }			1	119 mg/kg		1.56	149.237 mg/kg		0.00957 %	✓	
		082-004-00-2	231-846-0	7758-97-6									
8		mercury { mercury dichloride }				0.7 mg/kg		1.353	0.762 mg/kg		0.0000762 %	✓	
		080-010-00-X	231-299-8	7487-94-7									
9		nickel { nickel dibromate }				22.1 mg/kg		5.358	95.209 mg/kg		0.00952 %	✓	
		028-053-00-5	238-596-1	14550-87-9									
10		selenium { nickel selenate }				<3 mg/kg		2.554	<7.662 mg/kg		<0.000766 %		<LOD
		028-031-00-5	239-125-2	15060-62-5									
11		zinc { zinc chromate }				148 mg/kg		2.774	330.101 mg/kg		0.033 %	✓	
		024-007-00-3	236-878-9	13530-65-9									
12		TPH (C6 to C40) petroleum group				132 mg/kg			106.128 mg/kg		0.0106 %	✓	
			TPH										
13		confirm TPH has NOT arisen from diesel or petrol				☒							
			TPH_CONFIRM										
14		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg			<0.002 mg/kg		<0.0000002 %		<LOD
		603-181-00-X	216-653-1	1634-04-4									
15		benzene				0.012 mg/kg			0.0096 mg/kg		0.000000965 %	✓	
		601-020-00-8	200-753-7	71-43-2									

#	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							
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				0.002 mg/kg		0.0016 mg/kg	0.000000161 %	✓	
	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]							
19	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									
20	pH				8 pH		8 pH	8pH		
			PH							
21	naphthalene				0.122 mg/kg		0.0981 mg/kg	0.00000981 %	✓	
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.015 mg/kg		<0.015 mg/kg	<0.0000015 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				0.036 mg/kg		0.0289 mg/kg	0.00000289 %	✓	
		201-469-6	83-32-9							
24	fluorene				0.052 mg/kg		0.0418 mg/kg	0.00000418 %	✓	
		201-695-5	86-73-7							
25	phenanthrene				0.247 mg/kg		0.199 mg/kg	0.0000199 %	✓	
		201-581-5	85-01-8							
26	anthracene				0.095 mg/kg		0.0764 mg/kg	0.00000764 %	✓	
		204-371-1	120-12-7							
27	fluoranthene				0.387 mg/kg		0.311 mg/kg	0.0000311 %	✓	
		205-912-4	206-44-0							
28	pyrene				0.322 mg/kg		0.259 mg/kg	0.0000259 %	✓	
		204-927-3	129-00-0							
29	benzo[a]anthracene				0.24 mg/kg		0.193 mg/kg	0.0000193 %	✓	
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				0.2 mg/kg		0.161 mg/kg	0.0000161 %	✓	
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				0.282 mg/kg		0.227 mg/kg	0.0000227 %	✓	
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				0.11 mg/kg		0.0884 mg/kg	0.00000884 %	✓	
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				0.201 mg/kg		0.162 mg/kg	0.0000162 %	✓	
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				0.181 mg/kg		0.146 mg/kg	0.0000146 %	✓	
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				0.04 mg/kg		0.0322 mg/kg	0.00000322 %	✓	
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				0.136 mg/kg		0.109 mg/kg	0.0000109 %	✓	
		205-883-8	191-24-2							
Total:								0.0855 %		

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 Determinand - 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 for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%)
because: No liquid phase: too low to be flammable

Hazard Statements hit:

Flam. Liq. 2; H225 "Highly flammable liquid and vapour."

Because of determinand:

benzene (conc.: 9.65e-07%)

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinands:

TPH (C6 to C40) petroleum group (conc.: 0.0106%)

xylene (conc.: 1.61e-07%)

Classification of sample: BH04-0.40-0.50-23/01/2026-SOIL-87223

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH04-0.40-0.50-23/01/2026-SOIL-87223	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
13.4% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 13.4% 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	asbestos fibres detected (Yes/No)				No						
			ACM_FIBRES								
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				9.4 mg/kg	1.895	15.422 mg/kg	0.00154 %		✓	
	033-005-00-1										
3	cadmium { cadmium sulfate }				<1.6 mg/kg	1.855	<2.967 mg/kg	<0.000297 %			<LOD
	048-009-00-9	233-331-6	10124-36-4								
4	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				18.3 mg/kg	1.462	23.162 mg/kg	0.00232 %		✓	
		215-160-9	1308-38-9								
5	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.04 mg/kg	2.27	<0.0908 mg/kg	<0.00000908 %			<LOD
	024-017-00-8										
6	copper { copper sulphate pentahydrate }				41.4 mg/kg	3.929	140.866 mg/kg	0.0141 %		✓	
	029-023-00-4	231-847-6	7758-99-8								
7	lead { lead chromate }			1	82.6 mg/kg	1.56	111.576 mg/kg	0.00715 %		✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				<0.7 mg/kg	1.353	<0.947 mg/kg	<0.0000947 %			<LOD
	080-010-00-X	231-299-8	7487-94-7								
9	nickel { nickel dibromate }				19.1 mg/kg	5.358	88.63 mg/kg	0.00886 %		✓	
	028-053-00-5	238-596-1	14550-87-9								
10	selenium { nickel selenate }				<3 mg/kg	2.554	<7.662 mg/kg	<0.000766 %			<LOD
	028-031-00-5	239-125-2	15060-62-5								
11	zinc { zinc chromate }				90.9 mg/kg	2.774	218.379 mg/kg	0.0218 %		✓	
	024-007-00-3	236-878-9	13530-65-9								
12	TPH (C6 to C40) petroleum group				<14 mg/kg		<14 mg/kg	<0.0014 %			<LOD
			TPH								
13	confirm TPH has NOT arisen from diesel or petrol				☒						
			TPH_CONFIRM								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %			<LOD
	603-181-00-X	216-653-1	1634-04-4								
15	benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %			<LOD
	601-020-00-8	200-753-7	71-43-2								

#	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							
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<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]							
19	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									
20	pH				8.6 pH		8.6 pH	8.6 pH		
			PH							
21	naphthalene				0.094 mg/kg		0.0814 mg/kg	0.00000814 %	✓	
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.015 mg/kg		<0.015 mg/kg	<0.0000015 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
		201-469-6	83-32-9							
24	fluorene				0.015 mg/kg		0.013 mg/kg	0.0000013 %	✓	
		201-695-5	86-73-7							
25	phenanthrene				0.165 mg/kg		0.143 mg/kg	0.0000143 %	✓	
		201-581-5	85-01-8							
26	anthracene				0.03 mg/kg		0.026 mg/kg	0.0000026 %	✓	
		204-371-1	120-12-7							
27	fluoranthene				0.222 mg/kg		0.192 mg/kg	0.0000192 %	✓	
		205-912-4	206-44-0							
28	pyrene				0.205 mg/kg		0.178 mg/kg	0.0000178 %	✓	
		204-927-3	129-00-0							
29	benzo[a]anthracene				0.132 mg/kg		0.114 mg/kg	0.0000114 %	✓	
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				0.103 mg/kg		0.0892 mg/kg	0.00000892 %	✓	
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				0.185 mg/kg		0.16 mg/kg	0.000016 %	✓	
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				0.065 mg/kg		0.0563 mg/kg	0.00000563 %	✓	
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				0.137 mg/kg		0.119 mg/kg	0.0000119 %	✓	
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				0.137 mg/kg		0.119 mg/kg	0.0000119 %	✓	
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				0.027 mg/kg		0.0234 mg/kg	0.00000234 %	✓	
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				0.117 mg/kg		0.101 mg/kg	0.0000101 %	✓	
		205-883-8	191-24-2							
Total:								0.0559 %		

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 Determinand - 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: BH07-0.90-1.00-23/01/2026-SOIL-87229

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH07-0.90-1.00-23/01/2026-SOIL-87229	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
5%	Entry:
(wet weight correction)	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 5% 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		asbestos fibres detected (Yes/No)				No					
				ACM_FIBRES							
2		arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				11.6 mg/kg	1.895	20.878 mg/kg	0.00209 %	✓	
		033-005-00-1									
3		cadmium { cadmium sulfate }				<1.6 mg/kg	1.855	<2.967 mg/kg	<0.000297 %		<LOD
		048-009-00-9	233-331-6	10124-36-4							
4		chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				8.05 mg/kg	1.462	11.177 mg/kg	0.00112 %	✓	
			215-160-9	1308-38-9							
5		chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.04 mg/kg	2.27	<0.0908 mg/kg	<0.00000908 %		<LOD
		024-017-00-8									
6		copper { copper sulphate pentahydrate }				13.4 mg/kg	3.929	50.017 mg/kg	0.005 %	✓	
		029-023-00-4	231-847-6	7758-99-8							
7		lead { lead chromate }			1	44.1 mg/kg	1.56	65.348 mg/kg	0.00419 %	✓	
		082-004-00-2	231-846-0	7758-97-6							
8		mercury { mercury dichloride }				<0.7 mg/kg	1.353	<0.947 mg/kg	<0.0000947 %		<LOD
		080-010-00-X	231-299-8	7487-94-7							
9		nickel { nickel dibromate }				7.2 mg/kg	5.358	36.651 mg/kg	0.00367 %	✓	
		028-053-00-5	238-596-1	14550-87-9							
10		selenium { nickel selenate }				<3 mg/kg	2.554	<7.662 mg/kg	<0.000766 %		<LOD
		028-031-00-5	239-125-2	15060-62-5							
11		zinc { zinc chromate }				63.7 mg/kg	2.774	167.877 mg/kg	0.0168 %	✓	
		024-007-00-3	236-878-9	13530-65-9							
12		TPH (C6 to C40) petroleum group				<14 mg/kg		<14 mg/kg	<0.0014 %		<LOD
				TPH							
13		confirm TPH has NOT arisen from diesel or petrol				☒					
				TPH_CONFIRM							
14		tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
		603-181-00-X	216-653-1	1634-04-4							
15		benzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
		601-020-00-8	200-753-7	71-43-2							

#	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							
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<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]							
19	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									
20	pH				8.3 pH		8.3 pH	8.3 pH		
			PH							
21	naphthalene				<0.016 mg/kg		<0.016 mg/kg	<0.0000016 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				<0.015 mg/kg		<0.015 mg/kg	<0.0000015 %		<LOD
		205-917-1	208-96-8							
23	acenaphthene				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
		201-469-6	83-32-9							
24	fluorene				<0.013 mg/kg		<0.013 mg/kg	<0.0000013 %		<LOD
		201-695-5	86-73-7							
25	phenanthrene				0.09 mg/kg		0.0855 mg/kg	0.00000855 %	✓	
		201-581-5	85-01-8							
26	anthracene				0.019 mg/kg		0.0181 mg/kg	0.00000181 %	✓	
		204-371-1	120-12-7							
27	fluoranthene				0.195 mg/kg		0.185 mg/kg	0.0000185 %	✓	
		205-912-4	206-44-0							
28	pyrene				0.174 mg/kg		0.165 mg/kg	0.0000165 %	✓	
		204-927-3	129-00-0							
29	benzo[a]anthracene				0.109 mg/kg		0.104 mg/kg	0.0000104 %	✓	
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				0.094 mg/kg		0.0893 mg/kg	0.00000893 %	✓	
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				0.148 mg/kg		0.141 mg/kg	0.0000141 %	✓	
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				0.057 mg/kg		0.0542 mg/kg	0.00000542 %	✓	
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				0.111 mg/kg		0.105 mg/kg	0.0000105 %	✓	
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				0.102 mg/kg		0.0969 mg/kg	0.00000969 %	✓	
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				0.024 mg/kg		0.0228 mg/kg	0.00000228 %	✓	
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				0.085 mg/kg		0.0808 mg/kg	0.00000808 %	✓	
		205-883-8	191-24-2							
Total:								0.033 %		

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 Determinand - 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: BH09-0.10-0.20-23/01/2026-SOIL-87231

 **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
BH09-0.10-0.20-23/01/2026-SOIL-87231	Chapter:
Moisture content:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
14.7% (wet weight correction)	Entry:
	17 05 04 (Soil and stones other than those mentioned in 17 05 03)

Hazard properties

None identified

Determinands

Moisture content: 14.7% 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	asbestos fibres detected (Yes/No)				No						
			ACM_FIBRES								
2	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				14.1 mg/kg	1.895	22.786	mg/kg	0.00228 %	✓	
	033-005-00-1										
3	cadmium { cadmium sulfate }				<1.6 mg/kg	1.855	<2.967	mg/kg	<0.000297 %		<LOD
	048-009-00-9	233-331-6	10124-36-4								
4	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				19.6 mg/kg	1.462	24.435	mg/kg	0.00244 %	✓	
		215-160-9	1308-38-9								
5	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<0.04 mg/kg	2.27	<0.0908	mg/kg	<0.00000908 %		<LOD
	024-017-00-8										
6	copper { copper sulphate pentahydrate }				58.5 mg/kg	3.929	196.062	mg/kg	0.0196 %	✓	
	029-023-00-4	231-847-6	7758-99-8								
7	lead { lead chromate }			1	168 mg/kg	1.56	223.528	mg/kg	0.0143 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
8	mercury { mercury dichloride }				1.3 mg/kg	1.353	1.501	mg/kg	0.00015 %	✓	
	080-010-00-X	231-299-8	7487-94-7								
9	nickel { nickel dibromate }				22.4 mg/kg	5.358	102.382	mg/kg	0.0102 %	✓	
	028-053-00-5	238-596-1	14550-87-9								
10	selenium { nickel selenate }				4.5 mg/kg	2.554	9.803	mg/kg	0.00098 %	✓	
	028-031-00-5	239-125-2	15060-62-5								
11	zinc { zinc chromate }				172 mg/kg	2.774	407.012	mg/kg	0.0407 %	✓	
	024-007-00-3	236-878-9	13530-65-9								
12	TPH (C6 to C40) petroleum group				14.3 mg/kg		12.198	mg/kg	0.00122 %	✓	
			TPH								
13	confirm TPH has NOT arisen from diesel or petrol				☒						
			TPH_CONFIRM								
14	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.002 mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
15	benzene				<0.001 mg/kg		<0.001	mg/kg	<0.0000001 %		<LOD
	601-020-00-8	200-753-7	71-43-2								

#	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							
16	toluene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
17	ethylbenzene				<0.001 mg/kg		<0.001 mg/kg	<0.0000001 %		<LOD
	601-023-00-4	202-849-4	100-41-4							
18	xylene				<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<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]							
19	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									
20	pH				8.7 pH		8.7 pH	8.7 pH		
			PH							
21	naphthalene				0.066 mg/kg		0.0563 mg/kg	0.00000563 %	✓	
	601-052-00-2	202-049-5	91-20-3							
22	acenaphthylene				0.024 mg/kg		0.0205 mg/kg	0.00000205 %	✓	
		205-917-1	208-96-8							
23	acenaphthene				0.024 mg/kg		0.0205 mg/kg	0.00000205 %	✓	
		201-469-6	83-32-9							
24	fluorene				0.023 mg/kg		0.0196 mg/kg	0.00000196 %	✓	
		201-695-5	86-73-7							
25	phenanthrene				0.406 mg/kg		0.346 mg/kg	0.0000346 %	✓	
		201-581-5	85-01-8							
26	anthracene				0.102 mg/kg		0.087 mg/kg	0.0000087 %	✓	
		204-371-1	120-12-7							
27	fluoranthene				0.835 mg/kg		0.712 mg/kg	0.0000712 %	✓	
		205-912-4	206-44-0							
28	pyrene				0.699 mg/kg		0.596 mg/kg	0.0000596 %	✓	
		204-927-3	129-00-0							
29	benzo[a]anthracene				0.467 mg/kg		0.398 mg/kg	0.0000398 %	✓	
	601-033-00-9	200-280-6	56-55-3							
30	chrysene				0.392 mg/kg		0.334 mg/kg	0.0000334 %	✓	
	601-048-00-0	205-923-4	218-01-9							
31	benzo[b]fluoranthene				0.597 mg/kg		0.509 mg/kg	0.0000509 %	✓	
	601-034-00-4	205-911-9	205-99-2							
32	benzo[k]fluoranthene				0.237 mg/kg		0.202 mg/kg	0.0000202 %	✓	
	601-036-00-5	205-916-6	207-08-9							
33	benzo[a]pyrene; benzo[def]chrysene				0.452 mg/kg		0.386 mg/kg	0.0000386 %	✓	
	601-032-00-3	200-028-5	50-32-8							
34	indeno[123-cd]pyrene				0.376 mg/kg		0.321 mg/kg	0.0000321 %	✓	
		205-893-2	193-39-5							
35	dibenz[a,h]anthracene				0.077 mg/kg		0.0657 mg/kg	0.00000657 %	✓	
	601-041-00-2	200-181-8	53-70-3							
36	benzo[ghi]perylene				0.312 mg/kg		0.266 mg/kg	0.0000266 %	✓	
		205-883-8	191-24-2							
Total:								0.0924 %		

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 Determinand - 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 for cumulative determinand results below the concentration of: 1000 mg/kg (0.1%)
because: No liquid phase: too low to be flammable

Hazard Statements hit:

Flam. Liq. 3; H226 "Flammable liquid and vapour."

Because of determinand:

TPH (C6 to C40) petroleum group (conc.: 0.00122%)

Appendix A: Classifier defined and non GB MCL determinands

▀ **asbestos fibres detected (Yes/No)** (CAS Number: ACM_FIBRES)

Description/Comments: not classified, information only

Data source: N/A

Data source date: 15 Jan 2020

Hazard Statements: None.

▀ **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

▀ **TPH (C6 to C40) petroleum group** (CAS Number: TPH)

Description/Comments: Unknown Oil

Hazard statements taken from WM3 1st Edition 2015

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** (CAS Number: TPH_CONFIRM)

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

▀ **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.

▀ **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

Appendix B: Rationale for selection of metal species

arsenic {arsenic acid and its salts with the exception of those specified elsewhere in this Annex}

Worst case CLP species based on hazard statements/molecular weight and conversion factor for arsenic acid H₃AsO₄. (edit as required)

cadmium {cadmium sulfate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

chromium in Cr(III) compounds {chromium(III) oxide (worst case)}

No CrVI present

chromium in Cr(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 (edit as required)

copper {copper sulphate pentahydrate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Reasonable worst case CLP species based on hazard statements/molecular weight and assuming no evidence for the use of explosives. (edit as required)



nickel {nickel dibromate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

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] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2026.26.6955.12551 (26 Jan 2026)

HazWasteOnline Database: 2026.27.6959.12557 (27 Jan 2026)

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

GB MCL List v2.0 - version 2.0 of 20th October 2023

GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024

GB MCL List v5.0 - version 5.0 of 26th June 2024

GB MCL List v6.0 - version 6.0 of 15th February 2025

GB MCL List v7.0 - version 7.0 of 23rd September 2025