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UPDATED GROUND INVESTIGATION
REPORT
SCHOOL LANE
CHANDLER'S FORD
EASTLEIGH
HAMPSHIRE

Report Reference No. 132887D.2

On behalf of:-

Portakabin Limited
New Lane
Huntington
York
YO32 9PT

May 2026

C132887D.2 - EXECUTIVE SUMMARY

SCHOOL LANE - CHANDLER'S FORD

- The site is to be redeveloped with a new headquarters building including associated parking and landscaping. The layout is shown on a plan at the rear of this text.
- The site is to be cleared of the existing building, and remediated, which is to include removal of a decommissioned underground fuel tank and associated contamination in the north-eastern part of the site.
- The ground in the western part of the site had been raised by approximately 2.00m/2.70m to level the site. The new building is proposed to have piled foundations.
- Ground investigation found petroleum impacted soil adjacent the underground tank but not elsewhere.
- The investigation found petroleum impacted groundwater beneath the north-eastern corner of the building, and in the south-eastern part of the site, considered to have flowed west/south from the underground fuel tank area. The groundwater flow direction appears dictated by the presence of sand layers in the Wittering Formation, which is locally to the north-west towards a tributary stream of Monk's Brook from the northern part of the site. The piling contractor should be made aware of the petroleum impacted groundwater to be piled through.
- During gas monitoring, elevated concentrations of VOCs, indicating TPH impacted ground, were recorded in the eastern and north-eastern parts of the site around the underground tank location. Elevated methane values were also recorded but are considered to be related to the elevated VOC concentrations. Gas protection measures including a vapour membrane will be required for the new building.
- No asbestos containing materials were noted during excavation and boring, or during testing in the laboratory.
- The near surface soil, excluding TPH impacted soils, would be considered suitable for retention or re-use in landscaped areas of the proposed development. If geotechnically suitable, near surface soil could be used beneath buildings and areas of permanent hardstanding.

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PORTAKABIN LIMITED

UPDATED GROUND INVESTIGATION REPORT

FOR

PROPOSED NEW HEADQUARTERS BUILDING

AT

SCHOOL LANE

CHANDLER'S FORD

EASTLEIGH

HAMPSHIRE

Report Reference No. 132887D.2

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INTRODUCTION

The client, Portakabin Limited, intend to redevelop an existing building, located off School Lane, Chandler's Ford, Eastleigh, Hampshire. The proposals include demolition of the existing building and construction of a new headquarters building, comprising an office block, together with associated parking areas and associated landscaping. The layout is shown on a plan at the rear of this text.

Lucion Ground Engineering Limited was commissioned by the client to carry out a ground investigation to determine the nature and geotechnical properties of the underlying soils and provide information for the design and construction of the foundations. A contamination assessment was also to be included within the scope of this report. A Phase 1 desk study had previously been undertaken on the site by Lucion Ground Engineering Limited, report reference 132887 dated June 2025, which should be consulted for further details. Extracts from the desk study are included within this report. Following consultation with Eastleigh Borough Council in December 2025, additional investigation/monitoring was proposed to provide more information

on the ground conditions, with regard to remediation proposals for development of the site, namely removal of a decommissioned underground fuel tank and associated petroleum impacted soils, and Lucion Ground Engineering Limited report referenced 132887D.1 updated the findings.

Following clearance of the existing building to ground floor level, Lucion Ground Engineering Limited undertook additional investigation in April 2026, through the floor slab to investigate the ground beneath, so called ‘dark ground’, to determine whether contaminated soil/groundwater was present, and determine whether remediation was required.

SITE LOCATION, DESCRIPTION, TOPOGRAPHY, GEOLOGY, HYDROGEOLOGY

Location

The site is within an industrial estate on the south-west side of a junction between School Lane (to the north) and Bournemouth Road B3043 (to the east), in Chandler's Ford, Eastleigh, Hampshire. The site is located approximately 200m south of Chandler's Ford Railway Station and is centred at National Grid Reference 443265 120368. A site location plan is presented to the rear of this report text, together with a plan of the proposed development.

Description

The near rectangular 0.51 hectare site has an approximately 90m wide frontage onto School Lane, from which it extends southwards by a maximum of 80m along the western side of Bournemouth Road B3043.

At the time of the original investigations the centre of the site was occupied by a vacant two-storey office building, which was surrounded by a concrete-surfaced hardstanding previously used for car parking.

The northern part of the site is terraced into northward falling ground and includes an access road from School Lane. It was understood from the client that there were decommissioned underground fuel tanks beneath the north-eastern part of the site, however there was no surface evidence of these.

Retaining walls, approximately 1.5m to 2.0m high, crossed the northern part of the site from east to west, and were alongside the west and south elevations of the office building.

The site contains some vegetation along the southern and eastern boundaries, including several Sycamore and Ash trees.

Topography

The majority of the site is at an approximate elevation of 35mOD, terraced into the south-eastern valley side of a tributary stream that is approximately 120m north-west of the site. The tributary stream flows towards the north-east and joins Monk's Brook, some 270m north of the site, that flows to the south-east then south, to eventually join the River Itchen at Swaythling, Southampton.

Geology

The 1987 geological map for the area at 1:50,000 scale, Sheet 315, shows the site to be directly underlain by the solid geology of the Wittering Formation (sand, silt, and clay). Superficial Alluvium is indicated to cover the latter along the valleys of the tributary stream and Monk's Brook, close to the north-west and north, respectively.

Hydrogeology

The client provided statutory buried services plans, including a Southern Water sewer plan, which was partly reproduced for the Exploratory Hole Plan. This indicates a 225mm diameter foul sewer draining eastwards beneath the southern part of the site, between manholes 2301 and 2302, then draining northwards beneath the eastern edge of the site to manhole 3303. Tabulated levels provided together with the plan indicate invert depths of 4.76m in manhole 2302 and 4.25m in manhole 3303. A 150mm diameter surface water sewer is marked close to the north of the site, draining towards the north-west beneath School Lane, from manhole 3351 (invert depth 0.99m), to 2452 (invert depth 2.25m) then beyond to the north-west 2451 (off-plan, invert depth 1.57m).

The Wittering Formation is a Secondary (A) Aquifer. Based on the topography of the site locality and the available drainage records, the direction of surface water and near surface groundwater water flow would generally be towards the north-west and north, downslope, towards the tributary stream and Monk's Brook, respectively.

SITE WORK

The original site work conducted between 29th September and 1st November 2025, comprised eight window sample boreholes (WS01 to WS08), one cable percussion borehole (BH01) and two trial trenches (TP01A-B and TP02A-B).

Additional investigation undertaken in December 2025, comprised four cable percussion boreholes (for clarity, numbered WS01A, WS03A, WS06A & WS07A), all with standpipes.

The most recent investigations in February 2026 (TP101 & TP102, ‘flagpole area’); April 2026 (BH101-BH104 & HA01, ‘dark ground’ beneath building footprint); and April 2026 (TP03 extended buried tank area excavation), were undertaken to provide additional information on the site condition. The positions are shown on the exploratory hole location plan following this report text.

Public utility service drawings were provided and consulted prior to determining the exploratory hole positions. Prior to excavation a service scan was made at each position using a CAT (Cable Avoidance Tool) to check for the absence of detectable buried services that may otherwise have been damaged by the investigation. The surface hardstanding was concrete cored or broken out at the borehole and trial pit locations.

The exploratory hole records, presented following the plans, give the descriptions and depths of the various strata encountered, details of all samples taken, in-situ tests, and the groundwater conditions observed during and on completion of boring/excavation and subsequent monitoring.

Cable Percussion Boreholes

The cable percussion boreholes (BH01, BH101-BH104, WS01A, WS03A, WS06A & WS07A) were undertaken using a standard cable percussion rig. Prior to boring, the surface concrete was cored, and a starter pit was dug at the borehole positions to 1.20m below ground level using hand tools, in order to ensure the absence of buried services. The boreholes were then advanced from the base of the starter pit using weighted claycutter and shell tools,

working within 150mm diameter casing to 6.00m (BH101-BH104, WS01A, WS03A, WS06A & WS07A) and 15.00m (BH01) below ground level.

Representative small disturbed (D) and bulk (B) samples were taken at regular intervals throughout the boreholes. A water (W) sample was also taken once sufficient water had entered borehole BH01.

Standard penetration tests were undertaken in BH01 in order to give an indication of the in-situ relative density/shear strength of soil. The tests were made by driving a 50mm diameter split-spoon sampler (S), into the soil at the base of the borehole by means of an automatic trip hammer weighing 63.50kg falling freely through 760mm. The penetration resistance was determined as the number of blows (N) required to drive the tool the final 300mm of a total penetration of 450mm into the soil ahead of the borehole. The SPT results are presented on the borehole record, tabulated following the record, plotted against depth in Figure 1, and presented on the soil profile in Figure 2A.

Undisturbed samples, 100mm in diameter, were taken in BH01 in clay at regular intervals. The ends of the samples were capped to maintain them in as representative condition as possible during transit to the laboratory.

On completion of the boreholes, a 50mm diameter gas and groundwater monitoring standpipe was installed to 6.00m depth in BH101-BH104, WS01A, WS03A, WS06A and WS07A, and to 7.00m depth in BH01. The annulus around the standpipes was backfilled with pea gravel with a bentonite seal placed around the top of the installation within 1.00m of ground level. A gas tap was installed in the top of the standpipes, and a protective stopcock cover was concreted into the ground flush with the surface at each location.

Window Sampled Boreholes

Prior to boring, the surface concrete was cored, and a starter pit was dug at the borehole positions to 1.20m below ground level using hand tools, in order to ensure the absence of buried services. The window sampled boreholes were sunk to a depth of 4.45m or 5.45m below ground level.

Representative small (D) disturbed samples of soil were taken from the starter pits at regular intervals throughout their depth. Environmental samples (ES) were also taken in near surface soils.

The boreholes were formed by a small track mounted window sampling and super heavy dynamic probing rig. The window sampling equipment consisted of drive-in sample tubes of specially constructed and strengthened steel, lined with a plastic core-liner. The barrels were initially of 87mm or 77mm internal diameter and were reduced in diameter by successive barrels with increasing depth. Upon extraction, a continuous ‘undisturbed’ profile of the soil was obtained within the plastic liners.

Standard penetration tests were undertaken in the window sample boreholes at regular intervals in order to give an indication of the in-situ relative density/shear strength of the material. The test was made by driving a 50mm diameter open shoe and split spoon sampler (S), into the soil at the base of the borehole by means of an automatic trip hammer weighing 63.50kg falling freely through 750mm. The penetration resistance was determined as the number of blows required to drive the tool the final 300mm of a total penetration of 450mm into the soil ahead of the borehole. The results have been tabulated to the rear of the window sample borehole records, are presented against depth in Figure 1 at the rear of this report, and recorded on the soil profile in Figure 2A.

On completion of boreholes WS02, WS04 and WS05, 50mm diameter gas and groundwater monitoring standpipes were installed to 4.00m depth. The annulus around the standpipes were backfilled with pea gravel with a bentonite seal placed around the top of the installations within 1.00m of ground level. A gas tap was installed in the top of the standpipes, and a protective stopcock cover was concreted into the ground flush with the surface at each location.

The remaining boreholes WS01, WS03, WS06, WS07 and WS08 were backfilled with arisings on completion and the surfaces reinstated.

Hand Auger Borehole

Prior to undertaking hand auger borehole HA01, the surface concrete was cored, and a starter pit was dug at the borehole position to 0.80m below ground level using hand tools. The starter pit encountered a concrete slab at 0.80m depth and the position was abandoned as no further progress was possible with the equipment available.

Representative small (D) disturbed samples of soil were taken from the starter pit at regular intervals throughout its depth. Environmental samples (ES) were also taken.

On completion of borehole HA01, the hole was backfilled with arisings.

Machine Excavated Trial Pits

Two trial pit trenches (TP01A-B and TP02A-B) were dug using a tracked 7T excavator to depths of 1.90m and 2.50m on 29th & 30th September 2025. The trenches were set out in conjunction with the client to target the anticipated buried tank locations.

Two additional trial pit trenches (TP101 and TP102) were dug using a tracked 7T excavator to 3.00m depth. These trial pits were set out to target the area east of the buried tank, in the ‘flagpole’ area.

Small disturbed (D) and environmental (ES) samples of soil were taken at regular intervals throughout the pits, and placed into polycarbonate pots or amber jars, respectively.

On completion of the excavations, the spoil was returned to the pits and replaced in compacted layers. The surface concrete layer was then replaced.

Gas and Groundwater Monitoring Visits

As part of the original investigation three return visits were made to site on 8th, 15th and 29th October 2025, when the standpipes installed within boreholes WS02, WS04, WS05 and BH01 were monitored for standing groundwater level and for soil gases using a GFM 436, which included VOCs using a PID as an indicator for TPH impacted soil/groundwater. On the third monitoring visit an interface meter was used to detect if any ‘free product’ was present. The results of the monitoring visits are presented following the exploratory hole records. On the

second monitoring visit, a water sample was recovered from BH01 and sent to a specialist laboratory for chemical testing. The other three standpipes were dry and could not be sampled.

Three additional gas and groundwater monitoring visits were made to site on 2nd and 16th December 2025, and 7th January 2026. On the 7th January visit, water samples were recovered from BH01, WS01A, WS03A, WS06A and WS07A and sent to a specialist laboratory for total petroleum hydrocarbon (TPH) chemical testing.

A return monitoring visit was also conducted on 13th April 2026, when water samples were recovered from the standpipes in BH101 to BH104 and sent to a specialist laboratory for speciated total petroleum hydrocarbon and BTEX chemical testing.

LABORATORY WORK

The samples were inspected in the laboratory and assessments of the soil characteristics have been taken into account during preparation of the exploratory hole records. The soil descriptions have been made in accordance with BS5930:2015+A1:2020. The geotechnical test results, undertaken in accordance with BS1377:1990, 2016 & 2022 and BS EN ISO17892, are presented following the exploratory hole records. The chemical test results follow the geotechnical test results.

The window sample plastic liners were split by a geotechnical engineer who sub-sampled them, with the remaining samples re-sealed within the plastic liners.

The moisture content and index properties of selected soil samples were determined as a guide to soil classification and behaviour. The liquid limit was determined by a cone penetrometer.

An indication of the shear strength of clay soils within the cable percussive borehole at 7.50m depth in BH01 was made using a hand shear vane (V), and the reading is presented on the borehole record. This test was not undertaken on the in-situ clay soils, and the result should only be used as a guide to the shear strength.

California Bearing Ratio (CBR) tests were performed on selected recompacted near surface samples. The test consisted of jacking into the soil a cylindrical plunger with a cross sectional area of 1935mm². A nominal force of 10N was applied initially to seat the plunger on the soil surface and then the plunger was made to penetrate the soil at a uniform rate of 1mm/min. Readings of force were taken at intervals of penetration of 0.25mm to a penetration not exceeding 7.50mm. The CBR value is the ratio of the force required to achieve 2.50mm or 5.00mm penetration to standard forces expressed as a percentage.

Test specimens were prepared at full diameter from selected undisturbed samples. An immediate undrained triaxial compression test was performed under a single confining cell pressure. The moisture content and bulk density of the specimens were also determined.

Selected samples of soil and groundwater were analysed to determine the concentration of soluble sulphates. The pH values were also determined.

Chemical analysis of one groundwater and seven soil samples recovered from the initial exploratory holes was undertaken, by an independent laboratory, primarily for characterisation purposes. The samples were tested for a suite encompassing a wide range of potential contaminants outlined by the Environment Agency (EA) and National House Building Council (NHBC) document R&D 66; 2008 'Guidance for the Safe Development of Housing on Land Affected by Contamination'. In addition, all the selected soil samples were screened for the presence of asbestos. Nineteen soil samples were also tested for total petroleum hydrocarbons (TPH). The groundwater sample, collected from BH01 during the original investigation, was also tested for speciated TPH, SVOCs and VOCs.

Five groundwater samples, collected from standpipes during the additional investigation, were tested for total TPH. Five soil samples from the 'flagpole' area were also tested for total TPH.

A total of five samples were tested for the full Waste Acceptance Criteria (WAC) CEN leachate test at 10l/kg.

As part of the recent investigation beneath the building, twelve soil samples were tested for total TPH, and four water samples recovered from BH101 to BH104, were tested for speciated TPH and BTEX.

GROUND CONDITIONS

The ground conditions have been plotted as a soil profile in Figure 2A. The ground conditions comprised a surface layer of locally reinforced concrete hardstanding to between 0.10m and 0.45m depth, covering made ground/recompacted Wittering Formation to between 0.35m and 3.50m depth, and in turn the expected solid geology Wittering Formation to at least the base of the deepest borehole at 15.00m depth. Petroleum impacted soils were encountered beside the decommissioned underground tank in the north-eastern part of the site, but not elsewhere. Groundwater seepages were locally struck as shallow as 0.20m/0.30m in sub-base fill. On completion, water was recorded at between 3.70m and 5.80m depth. During monitoring of the standpipes, groundwater was recorded as shallow as 3.11m below ground level in WS07A.

Made Ground/Hardstanding

A surface layer of locally reinforced concrete hardstanding between 0.10m and 0.22m thick was encountered across the site, and to between 0.20m and 0.45m thick beneath the building. A granular sub-base fill was locally encountered beneath the concrete in the northern part of the site, and beneath the building, to a depth of between 0.30m and 0.80m below ground level. The sub-base comprised brown, clayey, silty sand and gravel, with a gravel fraction of flint, quartzite, limestone, brick and concrete.

Beneath the concrete, and sub-base layer where present, at between 0.12m and 0.45m depth, and beneath the building footprint, generally soft or firm, brown, dark brown and grey, slightly sandy, slightly gravelly, silty clay fill, with a gravel fraction of brick, concrete, clinker, ash, flint, sandstone, ironstone, mudstone and locally wood/root fragments, was encountered to between 0.70m and 3.50m depth. In WS06A, at 0.35m to 2.25m depth, firm, dark brown and grey, becoming dark grey, slightly sandy, silty clay with rare decayed roots was encountered, which was considered to represent recompacted Wittering Formation, used to build up site levels on this western side of the site, which included beneath the building footprint.

The thickest made ground was encountered in the western part of the site in WS01 and WS06, and beneath the building footprint, where the ground level had been built up, and beside the buried fuel tank in TP01, which was hydrocarbon impacted. The made ground locally contained silty, gravelly sand fill layers, in BH102, WS01 and WS08, and beside the buried tank in TP01.

Wittering Formation

Beneath the made ground at between 0.70m and 3.50m depth, generally firm or stiff, brown, orange brown and light grey, slightly sandy to sandy, silty clay was encountered to between 1.10m and 3.45m depth. Below the clay, medium dense or dense, yellow brown, silty sand with layers of clay was encountered, in turn covering firm or stiff, brown and dark grey, slightly sandy to sandy, silty clay below 3.60m to 7.20m depth. A 0.20m thick layer of stiff, brown and grey, sandy clay at 14.30m depth, was underlain by a very dense, grey, slightly silty, slightly gravelly sand with rare clay lenses and a gravel fraction of sub-rounded sandstone. These soils were considered to represent the solid geology Wittering Formation, which was encountered to at least the base of all the boreholes, and to at least 15.00m depth in BH01.

Groundwater

Groundwater seepages were locally struck as shallow as 0.20m (WS06A) and 0.30m (WS07A) depth, in the sub-base fill beneath the hardstanding, at 3.00m depth (WS07) and 4.50m depth in BH102 and BH104. On completion, water was recorded at between 3.70m and 5.80m depth.

During monitoring of the standpipes, groundwater was recorded between 3.11m (WS07A) and 5.33m (BH01) below ground level.

Based on the limited groundwater information from this investigation, in the northern part of the site, to the north of the tank, the groundwater flow is indicated to the north within sand layers of the Wittering Formation. To the south of the tank in the central

eastern/western parts of the site, the groundwater flow is indicated to the south-eastern corner of the site (BH01), also within sand layers of the Wittering Formation.

Evidence of Contamination

The made ground encountered during this investigation was not generally noted to have olfactory or visual evidence of fuel contamination, however there was a strong hydrocarbon odour and staining noted adjacent the buried fuel tank (TP01/TP02). In addition, a hydrocarbon odour was noted during the installation of the standpipe in BH01. No hydrocarbon odours were noted during the installation of the new standpipes (April 2026). The made ground contained brick, concrete, clinker, ash and locally wood/root fragments. No asbestos containing materials were noted during excavation and boring, or during testing in the laboratory.

COMMENTS ON THE GROUND CONDITIONS IN RELATION TO FOUNDATION DESIGN AND CONSTRUCTION

The proposed development was understood to comprise construction of a new headquarters building, comprising an office block, together with associated parking areas and associated landscaping. The proposed development layout is shown on a plan at the rear of this text.

This investigation found made ground/recompacted Wittering Formation to depths of between 0.70m and 3.50m, covering the solid geology Wittering Formation (clay/sand), encountered to at least 15.00m below ground level in BH01.

Traditional foundation excavations would need to extend through made ground, locally encountered to 2.70m depth, into naturally deposited soils. Excavations below 3.00m depth are likely to encounter groundwater seepages from sand layers within the Wittering Formation, which would need to be controlled and closely supported.

Due to the variable thickness of made ground, the proposed new building is anticipated to be constructed on piled foundations into the Wittering Formation.

Traditional Shallow Foundations

Large scale processes of natural sedimentation allow a certain degree of confidence to be placed in the absence of important variation of the engineering properties of natural soils across sites. The made ground, which had variable bearing properties, was found to a maximum depth of 3.50m (BH102), and should be avoided as a bearing stratum.

Samples of the near surface clay had modified plasticity indices of between 19% and 44%, and the clay is rated as having a low to high volume change potential based on NHBC Standards Chapter 4.2 'Building near trees' (2026). A minimum foundation depth of 1.00m in the naturally deposited clay soils beneath this site, where remote from trees, would be considered appropriate in order to penetrate the zone affected by seasonal moisture content and volume change.

The firm clay present at 3.00m depth, would have a maximum safe bearing capacity of 135kN/m² beneath a 0.60m wide strip footing, with a factor of safety of 3.0 applied against shear failure, for settlement within 25mm, and may be sufficient to support the loads of the structure. It is recommended that foundations should bear within a consistent soil type, such as clay or sand, to avoid variable settlement.

Piled Foundations

Piled foundations could be used to support the anticipated loads of the proposed building. The ground conditions are considered suitable for bored or CFA piles, but not driven piles. Driven piles may be considered but vibrations during installation could damage existing nearby buildings. The advice of specialist piling contractors should be sought as to their preferred method of pile installation in these conditions on this site, and whether it would be necessary to monitor ground borne vibrations during pile driving/pile testing in order to determine if this is an issue on this site.

Bored piles will require the use of casing to maintain hole side stability and exclude groundwater, and this casing will need to be carefully withdrawn in order to avoid 'necking' within the made ground and sand layers of the Wittering Formation.

For the purposes of preliminary pile design, the pile bearing coefficients given below, which are based on the following assumptions, may be used to assess working loads for a bored pile.

- 1) The ultimate load on a pile would be the sum of the side friction/adhesion acting on the pile shaft together with the end bearing load.
- 2) The pile bearing properties within the made ground have been ignored.
- 3) In coarse grained strata the shaft friction would be a function of the SPT (N) values as plotted in Figure 1.
- 4) In clay strata the shaft adhesion and end bearing would be a function of the apparent shear strength values.

5) A factor of safety (F) of at least 2.5 would be used to assess pile working loads unless test loading is undertaken. Where piles are to be largely end-bearing an increased factor of safety of 3.0 would be appropriate.

Item	Ultimate Pile Bearing Value kN/m²
Shaft friction/adhesion in made ground and root affected clays	Nil
Average shaft adhesion in Wittering Formation clay to 2.20m depth	25
Average shaft friction in Wittering Formation sand 2.20m to 7.20m depth	25
Average shaft adhesion in Wittering Formation clay 7.20m to 10.00m	60
Average shaft friction in Wittering Formation sand 10.00m to 14.30m	30
End bearing in Wittering Formation clay 7.20m to 10.00m depth	1080
End bearing in Wittering Formation sand at 10.00m depth	9200

Using these coefficients and thicknesses of strata met in BH01, a single 450mm diameter bored pile, installed to depths of 8.00m and 10.00m, would support estimated working loads in the order of 185kN (F=2.5) and 640kN (F=3.0), respectively.

Different pile lengths, or diameters, from those detailed would give different available working loads, which could be tailored to suit the working loads required.

Piles would need to be spaced at least 3.0 pile diameters apart (centre to centre) if capped pile groups are used, otherwise a reduction in available working load would result. A piling specialist should undertake final design of piles.

Excavations

The surface concrete will require breaking out, as well as the foundations of the existing building, and the decommissioned fuel tank. The made ground together with the underlying soils should be easily removed within excavations for the proposed building. The sides of excavations within any made ground and Wittering Formation sand may be unstable and should not be relied upon to stand unsupported. Hydrocarbon vapours would be expected in

association with the buried fuel tank, and this investigation has determined that vapours have migrated across the site, particularly northern, north-eastern and eastern areas (see plan to the rear of this report), within the Wittering Formation sand layer. Safety procedures will need to be in place to protect personnel, which will require appropriate monitoring.

Excavations below 3.00m depth would be expected to encounter groundwater seepages from the made ground and sand, with resulting side instability. Care should be taken not to excavate below the water table in the absence of suitable groundwater control, such as dewatering via screened sumps and close side support by interlocking sheeting. The clays are prone to rapid softening and deterioration in the presence of water, and the sand to 'loosening', with the reduction of their bearing properties. Care should be taken to keep the excavations dry.

Attention should be given where personnel are to enter deep excavations, when sides should either be safely battered back, or close side support provided, in order to comply with statutory safety requirements and prevent sidewall collapse.

Floor Slab

Due to the variable thickness of made ground, a ground bearing floor slab would not be suitable for the new building due to likely unacceptable settlement.

A suspended floor slab should be adopted with piled foundations and will avoid the potential for large total and differential consolidation settlements, providing that the sub-floor gaps recommended in Table 7 of the NHBC Standards Chapter 4.2 (2025), are adopted.

Hardstanding

Made ground or naturally deposited, firm silty clay was encountered at sub-grade level across this site.

Laboratory CBR tests yielded CBR values of 1.8% and 1.9% for soft, silty clay fill, and 10.1% and 10.6% for stiff clay fill. Based on IAN 73/06, Table 5.1 recommends a design CBR value of 2.5% for silty clay with a plasticity index of 40%.

A design CBR value of 2.0% for the silty clay fill, and a similar CBR value for coarse grained fill, could be adopted for hardstanding design on this site.

This assumes that any made ground and inferior soils at sub-grade level will be removed and replaced or covered with a geotextile and an adequate thickness of granular fill.

The sub-grade should be suitably compacted and inspected, with any very soft, organic or desiccated clays being removed and replaced with suitable well-graded coarse-grained fill. Care should be taken not to allow exposed silty clay soils at sub-grade level to become exposed to inclement weather conditions, since they are prone to rapid softening and deterioration.

Sulphate Conditions

Sulphate analysis of selected samples of soil and groundwater yielded soluble sulphate concentrations within Design Sulphate Class DS-1 of the BRE Special Digest 1, Table C2 (2001), presented in Appendix 1. The pH results of the samples ranged between 4.2 and 9.0 indicating acidic to alkaline conditions.

These results indicate an Aggressive Chemical Environment for Concrete (ACEC) Class of AC-4z for buried concrete. This ACEC Class should be considered when specifying a Design Chemical Class (DC Class) for buried concrete on this site, as detailed in the above cited BRE document.

SOIL GAS MONITORING

The monitoring of soil gasses (methane, carbon dioxide and oxygen) within the standpipes installed within boreholes WS02, WS04, WS05 and BH01, was originally undertaken on 8th, 15th and 29th October 2025. Additional monitoring was undertaken on 2nd and 16th December 2025, and 7th January 2026, within standpipes installed within WS01A, WS02, WS03A, WS04, WS05, WS06A, WS07A and BH01. The results of the monitoring are summarised in Table 1 below.

Table 1: Summary of Gas Monitoring Data

Hole Location	No. Visits	VOC (ppm)	Methane* (% v/v)	Carbon Dioxide (% v/v)	Oxygen (% v/v)	Flow (l/hr)	Water Level (mbgl)	Atmospheric Pressure (mb)
WS01A	2	0.9-1.0	<0.1	2.4-2.7	18.0-18.3	<0.1	3.74	1004-1007
WS02	6	0.3-1.3	<0.1	1.3-14.5	3.1-18.4	<0.1	3.85-3.94	995-1025
WS03A	2	184.5	85.4-85.6	12.2-12.7	2.3-3.4	<0.1	4.78	1004-1007
WS04	6	158.1-393.7	43.9-88.3	2.0-10.9	2.6-16.0	<0.1	3.25-3.94	995-1025
WS05	6	141.8-249.7	2.1-85.5	4.1-12.2	2.4-17.1	<0.1	3.91-3.93	995-1025
WS06A	2	2.3-2.4	<0.1	2.8-2.9	3.5-3.7	<0.1	3.58-3.60	1003-1007
WS07A	2	121.3-129.4	88.6-89.5	3.0-3.1	7.3-7.8	<0.1	3.11-3.12	1003-1007
BH01	6	0.3-2.1	<0.1	0.2-11.1	7.2-20.5	<0.1	4.86m-5.33m	995-1025

* Results considered to reflect petroleum pollution.

The results of the soil gas monitoring of the installations indicated between less than 0.1% by volume methane (WS01A, WS02, WS06A & BH01) and a maximum 89.5% by volume methane (WS07A). The soil gas monitoring also recorded between 0.2% and 12.7% by volume carbon dioxide during the monitoring visits. The in-situ measurements recorded gas emission rates of less than 0.1l/hr. The monitoring also recorded VOC concentrations of

between 0.4ppm (WS02) and 393.7ppm (WS04). The elevated methane values are considered to be related to the elevated VOC concentrations (indicating TPH impacted ground) in the standpipes affecting the gas monitor.

Using a flow rate of 0.1l/hr, these in-situ measurements indicate a Gas Screening Value (GSV) of 0.0863l/hr for methane and 0.0122l/hr for carbon dioxide. These results fall into Characteristic Situation 3, as defined by BS8485:2015 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'. These results indicate a moderate hazard potential to end users, and a moderate hazard potential to groundworkers, and that special gas protection measures are required. Further gas monitoring would help characterise the ground gas regime.

COMMENTS ON THE SOIL CHEMICAL TEST RESULTS

The results of the laboratory chemical testing on near surface soil samples have primarily been compared to soil screening values (SSVs) produced by Land Quality Management Limited (LQM) and the Chartered Institute for Environmental Health (CIEH) presented in their document ‘The LQM/CIEH S4ULs for Human Health Risk Assessment: 2015 (Publication Number S4UL3608)’. The LQM/CIEH S4ULs are intended for use in assessing the potential risks posed to human health by contaminants in soil and are transparently-derived and cautious ‘trigger values’ above which further assessment of the risks or remedial action may be needed. The S4ULs (Suitable for Use Levels) have been derived, in accordance with UK legislation and Environment Agency policy, using a modified version of the Environment Agency CLEA 1.06 software.

Reference has also been given to AGAC soil screening values produced by Society of Brownfield Risk Assessment (SoBRA) as documented in their July 2020 publication ‘Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil’. With the absence of a S4UL for cyanide, the SoBRA AGAC has been used as the soil screening criteria within this report because the acute dose toxicity thresholds for free cyanide are very close to the chronic dose toxicity thresholds.

In 2014 the Department for Environment Food and Rural Affairs (DEFRA) published, in their document SP1010, Category 4 Screening Levels (C4SL) for several contaminants including lead. The C4SL represent screening levels below which the land could be considered suitable for a specified use and definitely not contaminated land in respect of those determinands. With the absence of S4UL for lead the C4SL has been used as the soil screening criteria within this report.

For each contaminant the adopted soil screening criteria have been calculated for the following land uses:

- Residential use with home grown produce
- Residential use without home grown produce
- Commercial and industrial usage

The intended purpose of the SSVs are as “intervention values” in the regulatory framework for assessment of human health risks in relation to land use. These values are not binding standards, but are intended to inform judgements about the need for action to ensure that a new use of land does not pose any unacceptable risks to the health of the intended users.

Tables 2 and 3 compare the test results for the near surface soils with the SSVs in relation to the specified uses. The number of test results, which exceed these values, are also provided.

Commercial and industrial usage values are considered appropriate screening values for the proposed office development.

Table 2: Comparison of Chemical Test Results with SSVs for Near Surface Soils

Determinand	Number of Samples	Min Value mg/kg	Max Value mg/kg	Number of Samples Exceeding SSV For			Soil Screening Criteria 1.0% SOM				
				Residential with home grown produce	Residential without home grown produce	Commercial/ Industrial	Measured 95 th Percentile mg/kg	Assessment Method	Residential with home grown produce (mg/kg)	Residential without home grown produce (mg/kg)	Commercial/ Industrial (mg/kg)
Organic matter	7	0.41%	7.1%	-	-	-	-	-	-	-	-
Arsenic	7	3.4	10	0	0	0	9.29	S4UL	37	40	640
Cadmium	7	<0.10	<0.10	0	0	0	<0.10	S4UL	11	85	190
Total Chromium	7	9.7	29	0	0	0	22.49	S4UL	910	910	8600
Hexavalent Chromium	7	<0.50	0.76	0	0	0	0.61	S4UL	6	6	33
Lead	7	7.7	910	2	2	0	372.03	C4SL	200	310	2330
Mercury	7	<0.05	0.62	0	0	0	0.33	S4UL	11	15	320
Selenium	7	<0.25	0.58	0	0	0	0.45	S4UL	250	430	12,000
Nickel	7	2.90	19	0	0	0	13.95	S4UL	130	180	980
Phenols	7	<0.10	<0.10	0	0	0	<0.10	S4UL	120	440	440
Copper	7	4.5	170	0	0	0	93.92	S4UL	2400	7100	68,000
Zinc	7	26	200	0	0	0	129.65	S4UL	3700	40,000	730,000
Free Cyanide	7	<0.50	<0.50	0	0	0	<0.50	AGAC	24	24	24

Notes

S4UL and C4SL for metals were derived using 6% SOM. These values are not sensitive to SOM and would also be applicable for 1% SOM and 2.5% SOM

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AGAC soil screening values produced by Society of Brownfield Risk Assessment (SoBRA) as documented in their July 2020 publication 'Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil'.

Table 3: Comparison of PAH Chemical Test Results for Near Surface Soil with Soil Screening Values (SSV)

Determinand	Number of Samples	Min Value (mg/kg)	Max Value (mg/kg)	Number of Samples Exceeding SSV for:			Soil Screening Values (SSV) (1% SOM)				
				Residential with home grown produce	Residential without home grown produce	Commercial/Industrial	Measured 95 th Percentile mg/kg	Assessment Method	Residential with home grown produce (mg/kg)	Residential without home grown produce (mg/kg)	Commercial/Industrial (mg/kg)
Acenaphthene	7	<0.10	<0.10	0	0	0	<0.10	S4UL	210	3000	84,000
Acenaphthylene	7	<0.10	<0.10	0	0	0	<0.10	S4UL	170	2900	83,000
Anthracene	7	<0.10	0.13	0	0	0	0.12	S4UL	2400	3100	520,000
Benzo[a]anthracene	7	<0.10	0.62	0	0	0	0.39	S4UL	7.2	11	170
Benzo[a]pyrene	7	<0.10	0.78	0	0	0	0.46	S4UL	2.2	3.2	35
Benzo[b]fluoranthene	7	<0.10	1.1	0	0	0	0.62	S4UL	2.6	3.9	44
Benzo[g,h,i]perylene	7	<0.10	0.61	0	0	0	0.34	S4UL	320	360	390
Benzo[k]fluoranthene	7	<0.10	0.56	0	0	0	0.34	S4UL	77	110	1200
Chrysene	7	<0.10	0.77	0	0	0	0.51	S4UL	15	30	350
Dibenz[a,h]anthracene	7	<0.10	<0.10	0	0	0	<0.10	S4UL	0.24	0.31	3.5
Fluoranthene	7	<0.10	0.92	0	0	0	0.56	S4UL	280	1500	23,000
Fluorene	7	<0.10	<0.10	0	0	0	<0.10	S4UL	170	2800	63,000
Indeno[1,2,3-cd]pyrene	7	<0.10	0.47	0	0	0	0.27	S4UL	27	45	500
Naphthalene	7	<0.10	<0.10	0	0	0	<0.10	S4UL	2.3	2.3	190
Phenanthrene	7	<0.10	0.36	0	0	0	0.28	S4UL	95	1300	22,000
Pyrene	7	<0.10	1.2	0	0	0	0.76	S4UL	620	3700	54,000

Notes

S4UL and C4SL for metals were derived using 6% SOM. These values are not sensitive to SOM and would also be applicable for 1% SOM and 2.5% SOM
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Discussion of Soil Results

Two concentrations of lead exceeded the associated soil screening values for residential with home grown produce end use and residential without home grown produce. None of the concentrations exceeded the soil screening values for commercial/industrial end uses.

With the exception of the buried fuel tank area, the made ground encountered during this investigation was not generally noted to have olfactory or visual evidence of fuel contamination. The tested samples had total petroleum hydrocarbon concentrations of 520mg/kg and 5600mg/kg beside the fuel tank. Away from the tank and across the site, tested samples had total petroleum hydrocarbons concentrations of between less than 10mg/kg (below laboratory detection limit) and 300mg/kg, which is not considered significant.

No asbestos containing materials (ACM) were observed within the made ground soils during site work or testing in the laboratory.

Statistical analysis indicates that the US95 value for lead exceeded the screening values for both of the residential end uses, but not the screening value for commercial or industrial usage. None of the other US95 values exceeded the screening values for the most sensitive residential with home grown produce end use, the residential without home grown produce end use, or the screening value for commercial or industrial usage.

In conclusion, the near surface soil would be considered suitable for retention or re-use in landscaped areas of the proposed development. If geotechnically suitable, near surface soil could be used beneath buildings and areas of permanent hardstanding.

COMMENTS ON THE WATER CHEMICAL TESTING

During the original investigation, a sample of groundwater recovered from the borehole standpipe in BH01 was analysed in the laboratory for a suite of common inorganic and organic potential contaminants primarily for characterisation purposes. The other three standpipes were dry and could not be sampled.

On 7th January 2026, the samples of groundwater recovered from the borehole standpipes in BH01, WS01A, WS03A, WS06A and WS07A were analysed in the laboratory for Total Petroleum Hydrocarbons (TPH). The other three standpipes had insufficient groundwater for sampling.

On 13th April 2026, samples of groundwater recovered from the borehole standpipes in BH101 to BH104, beneath the building footprint, were analysed in the laboratory for speciated TPH and BTEX.

The primary assessment tool employed for the generic screening of samples for the protection of ‘Controlled Waters’ consists of the Statutory Instrument 2000 No.3184 ‘The Water Supply (Water Quality) Regulations 2000’ that amends the 1991 version, which provided a standard threshold for TPH of 10µg/l. In the absence of an amended TPH threshold in the updated version, we defer to the 1991 standard which is generally accepted within the industry.

Freshwater Environmental Quality Standards (EQS) were taken from the Water Framework Directive.

The fraction of test results that exceed these levels are summarised in Table 4 over page.

Table 4: Comparison of Chemical Test Result with Water Supply & EOS Regulations

Determinand	Value	The Water Supply (Water Quality) Regulations 1989-2000 Maximum Concentration/ value for Consumers Taps	Fraction of samples exceeding Water Supply Regulation	EQS freshwater	Fraction of samples exceeding EQS
Arsenic (total) µg/l	1.0	10 µg/l	0/1	50µg/l	0/1
Benzo[a]pyrene µg/l	<0.01	0.01 µg/l	0/1	0.03 µg/l	0/1
Boron (total) mg/l	0.47	1 mg/l	0/1	2 mg/l	0/1
Cadmium (total) µg/l	<0.50	5.0 µg/l	0/1	5 µg/l	0/1
Chromium (total) µg/l	<0.50	50 µg/l	0/4	20 µg/l	0/4
Copper (total) µg/l	1.1	2000 µg/l	0/1	12 µg/l	0/1
Cyanide (total) mg/l	<0.050	0.05 mg/l	0/1	1 µg/l	-/1
Lead (total) µg/l	<0.50	10 µg/l	0/1	10 µg/l	0/1
Mercury (total) µg/l	<0.05	1.0 µg/l	0/1	1 µg/l	0/1
Nickel (total) µg/l	14	20 µg/l	0/1	50 µg/l	0/1
Phenols µg/l	66	30 µg/l	1/1	30 µg/l	1/1
pH value	8.1	6.5 min. 10.0 max.	0/1	6 - 9	0/1
Selenium (total) µg/l	2.2	10 µg/l	0/1	-	-
Sulphate (soluble) mg/l	130	250 mg/l	0/1	400 mg/l	0/1
Zinc (total) µg/l	67	5000 µg/l	0/1	50 µg/l	1/1
Total Petroleum Hydrocarbons (TPH) µg/l	<10 - 53,000	10 µg/l	6/10	-	-
Total PAH µg/l	160	0.1 µg/l	1/1	0.07 µg/l	1/1
Benzene µg/l	<0.1-1400	0.1 µg/l	1/4	10 µg/l	1/4
Toluene µg/l	<1.0 - 2.2	700 µg/l	0/4	74 µg/l	0/4
Ethylbenzene µg/l	<1.0 - 200	300 µg/l	0/4	20 µg/l	1/4
O, m & p xylene µg/l	<2.0 - 115	500 µg/l	0/4	30 µg/l	1/4

With regard to the groundwater quality recorded, elevated concentrations of phenols, TPH and total PAH in the groundwater sample obtained from BH01 at 5.33m depth, exceeded the water supply regulation concentration/value for consumers' taps.

Concentrations of phenols, zinc and total PAH in the sample from 5.33m depth in BH01, exceeded the freshwater Environmental Quality Standards (EQS).

Total petroleum hydrocarbon concentrations in the water samples were between <10µg/l (below laboratory detection limit) in WS06A & WS07A in the northern part of the site; 910µg/l in WS03A in the eastern part of the site; 2,000µg/l in WS01A in the south-western corner; 13,000µg/l in BH01 in the south-eastern part of the site; and up to 53,000µg/l (BH102) beneath the building footprint.

The elevated water TPH concentrations were beneath the building, and to the south of the underground tank, with the highest concentration in the north-eastern corner of the building, and in the south-eastern corner of the site, indicating a groundwater flow to the west/south from the tank. The water TPH concentrations to the north of the tank were below laboratory detection limit, which indicates that the groundwater flow is not in this direction.

COMMENTS ON GROUND CONTAMINATION IN RELATION TO PROPOSED DEVELOPMENT

Anticipated exposure scenarios relating to the existing site, and proposed office building end use of the site are discussed as follows.

This investigation may not have revealed the full extent of contamination on the site and appropriate professional advice should be sought if subsequent site work reveals materials that may appear to be contaminated.

Contaminated Soil

On the basis of the ground investigation, the site is underlain by between 0.70m and 2.70m of made ground. The chemical testing has identified elevated concentrations of lead and TPH contaminants in the soils tested, with respect to the existing/proposed office development. The level of contaminants in the made ground indicates that it is likely contaminants would affect groundworkers during any construction works. It is also likely contaminants would affect future end users of the site.

Contamination Risk from the Leakage of Petroleum from Old Fuel Tank (north-eastern area)

The presence of a buried fuel tank beneath the north-eastern part of the site and evidence of petroleum pollution in the adjacent ground indicates a moderate risk to future development of the site. Consequently, in order to eliminate this risk, the removal of all such sources would be recommended. All fuel/oil tanks, fuel lines, drums, chemicals, oil interceptors and associated drain connections should be decommissioned prior to their removal, which should also include the removal of obviously polluted soil. The latter measures should reduce the future risk to human health and water environment to low.

Contamination Risk - Contamination from Made Ground Soil Beneath Site

Apart from lead, none of the determinand concentrations exceeded the respective SSVs for residential or commercial uses. Petroleum impacted soil should be expected to be present in and around the former buried fuel tank in the north-eastern corner.

It would not be recommended to reuse TPH impacted made ground at the surface within future landscaping and consequently it should be removed. If geotechnically suitable, near surface soil could be used beneath buildings and areas of permanent hardstanding.

Contamination Risk – Petroleum Impacted Natural Soil Beneath Site

Petroleum impacted soil (clay/sand Wittering Formation), likely to be encountered adjacent the underground tank should not be reused within future development works.

Contamination Risk – Petroleum Impacted Groundwater Beneath Site

Petroleum impacted groundwater has been encountered, particularly beneath the building footprint in BH102, close to the former underground tank, and in BH01 to the south of the former tank, which is considered to reflect the groundwater flow direction.

It is recommended that a ‘pump and treat’, or some other form of groundwater remediation is undertaken, as the proposed piling through the contaminated groundwater is likely to impact the underlying aquifer.

Existing Drainage

Redundant drain runs, if present, should be removed where encountered from beneath the site and precautions should ensure that any remaining sediment is directly disposed off-site. The integrity of the existing drains should be checked, and where they are to be retained, any damaged sections should be replaced prior to development.

Soil Gas/Vapours

The site is underlain by a variable layer of made ground/recompacted Wittering Formation, covering clay and sand of the Wittering Formation.

Up to 88.3% by volume methane and a maximum 14.5% by volume carbon dioxide was recorded in the standpipes during the monitoring period. Elevated VOC concentrations were recorded in WS03A, WS04, WS05 and WS07A, with a maximum concentration of 393.7ppm in WS04 on the first monitoring visit (8th October 2025), the concentrations of which generally declined during the monitoring period.

In the absence of landfills, the elevated methane values are considered to reflect the elevated VOC concentrations (indicating TPH impacted ground).

Consequently, there is a moderate risk that hazardous gases would affect groundworkers during the construction phase and a moderate risk of hazardous gases affecting future users of the site. Gas protection measures are required for the new development, to include a vapour membrane, which is to be designed by specialists under the civils subcontractor.

The site is not in a radon affected area, and no radon protection measures are required for new properties on the site.

Human Health - Construction Workers

Based on the chemical test results, no special precautions would be required during the development of the site by workers who may come into contact with the soil during groundworks, providing standard precautions are adopted which should generally include the procedures given by the Health and Safety Executive (The Blue Book) HS(G)66.

For the protection of workers during groundworks the following is recommended:

- a) Limit repeated or prolonged skin contact with soils by wearing gloves with sleeves rolled down.
- b) Washing facilities should be made available to groundworkers, so as to minimise the potential for inadvertent ingestion of soil.

c) If any soils are revealed which are different to those encountered by this ground investigation, the advice of a specialist should be sought in view of classifying the material and ascertaining its risk to groundworkers.

d) Consideration should be given to gas monitoring within deep or confined spaces, particularly where thick made ground, organic soils and vapours from hydrocarbon impacted soils are present, to ensure safety of personnel entering them, since methane and carbon dioxide could accumulate within any excavations, service chambers or sub-structures.

Human Health - Users of Completed Development

The results of the chemical analysis indicate that the made ground could be considered suitable for retention at the surface within any proposed landscaped areas within the proposed office development.

The made ground, excluding any TPH impacted soils, could be considered for re-use beneath proposed buildings and permanent hardstanding, if suitable for engineering purposes, where it is unlikely to affect future users of the site.

Any soil imported to site must be certified as "suitable for use".

Water Environment

The solid geology Wittering Formation (clay and sand) has been found beneath the site, which is classified by the EA as a 'Secondary (A) Aquifer'.

The closest water feature is likely to be a stream approximately 220m north-west of the site. The groundwater flow is indicated to the north from the northern part of the site, and to the south from the central part of the site, within sand layers of the Wittering Formation.

Groundwater seepages were locally struck as shallow as 0.20m depth in sub-base fill. On completion, water was recorded at between 3.70m and 5.80m depth.

During monitoring of the standpipes, groundwater was recorded between 3.11m (WS07A) and 5.33m (BH01) below ground level.

Following the removal/remediation of the buried fuel tanks and associated TPH impacted soils, and treatment of the TPH impacted groundwater, it is unlikely that the proposed development, including the installation of piled foundations, would impact the quality of the water environment.

Effects on Buried Services

The local water supply company should be consulted if new buried plastic water pipes are to be installed within the made ground soils on this site.

Off-Site Disposal of Soil Arisings

The results of chemical analysis are provided to the rear of this report and can be used within the information necessary for basic characterisation of the soil destined for landfill. The Environment Agency publication Hazardous Waste, Technical Guidance WM3 outlines the methodology for classifying wastes and should be referenced for guidance. The test results (total metals, hydrocarbons and cyanide) should be compared to the relevant thresholds to determine whether they fall into the primary categories of non-hazardous or hazardous waste and will help indicate the likely European Waste Catalogue (EWC) code which is determined by the waste type. The results of Waste Acceptance Criteria (WAC) leachate testing should be used to check whether if categorised as non-hazardous waste it could be disposed of at an inert waste landfill; or if categorised as hazardous waste whether it could qualify as stable non-reactive hazardous waste for disposal in non-hazardous landfill.

Samples tested for WAC are listed as follows;

- TP01/TP02, 0.20m-0.30m, clay fill beside underground tank
- TP01, 0.60m-0.90m, sand fill below underground tank
- WS01, 1.20m-2.00m, clay fill (south-west, infilled area)
- WS03, 0.60m-1.20m, clay fill (eastern area)
- WS06, 0.60m-1.90m, clay fill (north-west, infilled area)

Excavated material and excess spoil should always be classified prior to removal from site as required by 'Duty of Care' (Environmental Protection Act, 1990) legislation. This means that material has to be given a proper description and waste classification prior to removal. Basic characterisation is the responsibility of the waste producer, whilst compliance checking and on-site verification are generally the responsibility of the landfill operator. The landfill operator will need to liaise with the waste producer, as the approach relies on the information from basic characterisation. The TPH impacted soils may be considered special waste.

It is expected that arisings of natural soils from the excavations across this site would fall into the inert category under the European Waste Catalogue description 'Soil and Stones', EWC code 17 05 04 with restrictions excluding topsoil and peat.

LUCION GROUND ENGINEERING LIMITED



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Associate



S. J. FLEMING

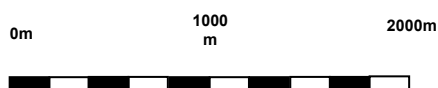
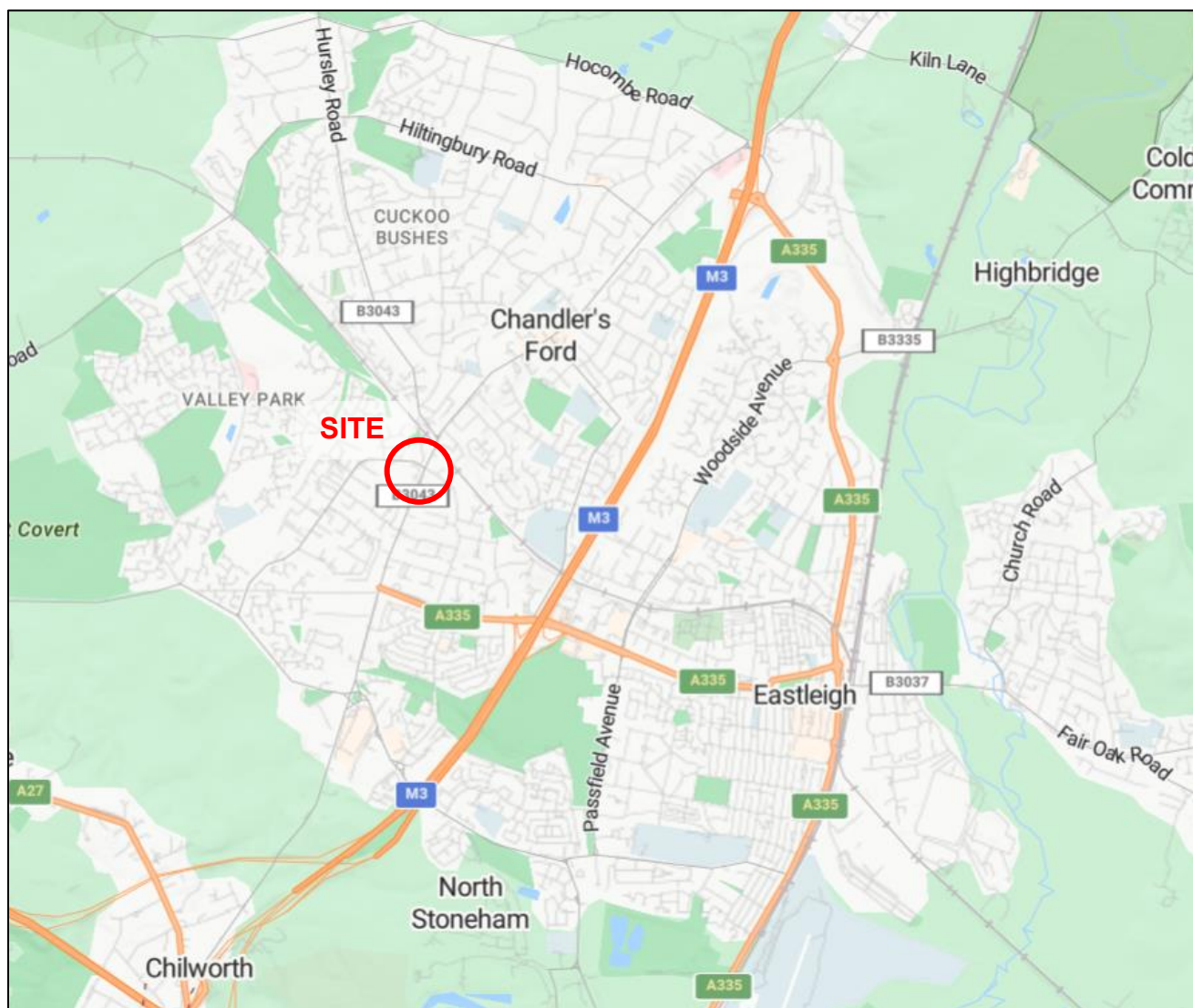
M.Sc., M.S.C.M.,

C.Geol., F.G.S.

Ground Engineering Director

Site Location Plan

Licence number AL100005523



Project: School Lane, Chandler's Ford, Eastleigh, Hampshire

Client : Portakabin Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
132887

Updated Exploratory Hole Plan

Reproduced, Not to Scale, from a Southern Water sewer plan (dated 20/03/25) provided by the client

Key



Additional monitoring boreholes



Boreholes April 2026



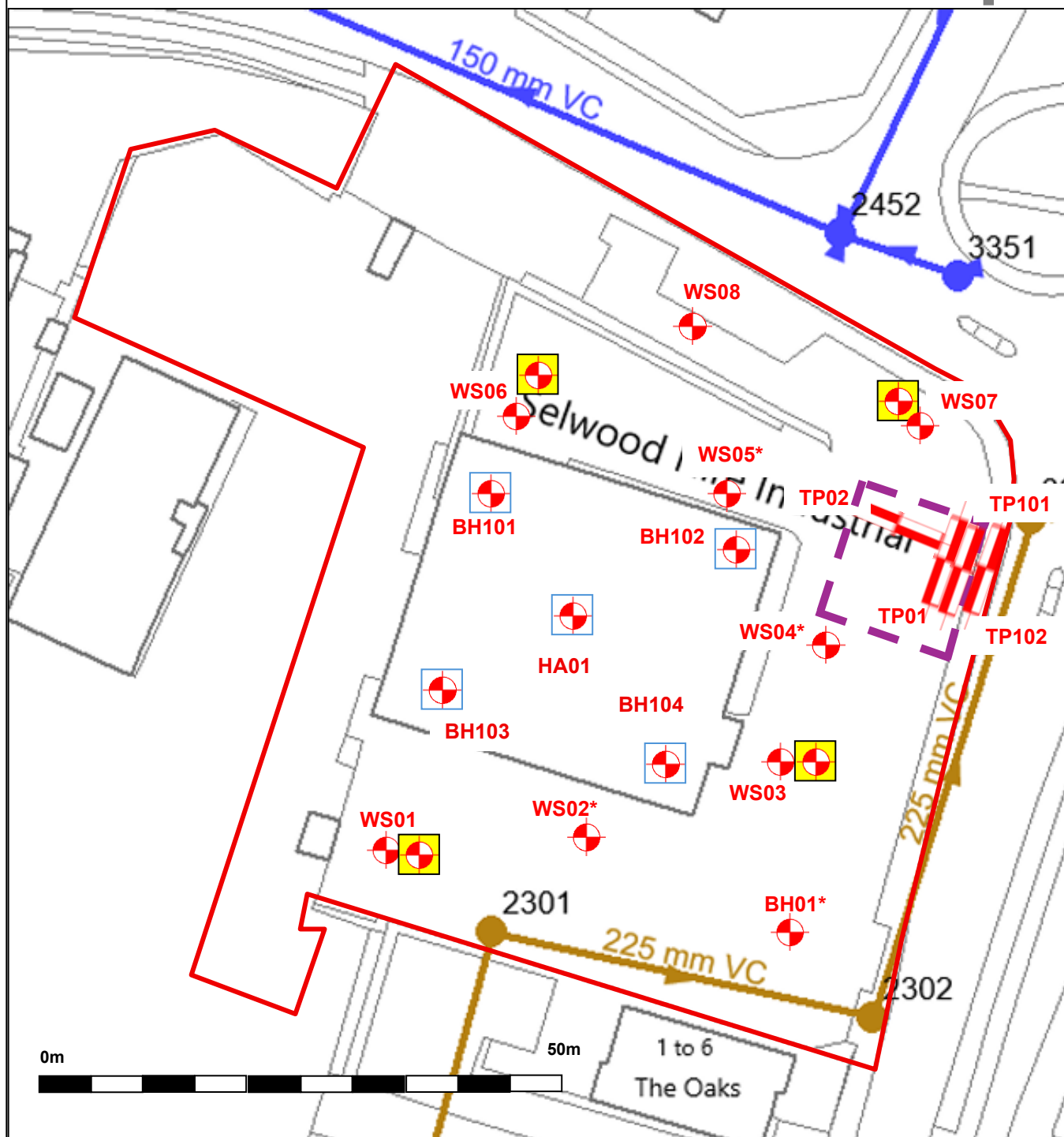
Sept/Oct 2025 boreholes (*= installed)



Trial Pits



Indicative tank area



Project : School Lane, Chandler's Ford, Eastleigh, Hampshire

Client : Portakabin Group



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Peterborough Tel : 01733 566566

Project No.
132887

Approximate Groundwater Flow

Reproduced, Not to Scale, from a Southern Water sewer plan (dated 20/03/25) provided by the client

Key



Additional monitoring boreholes



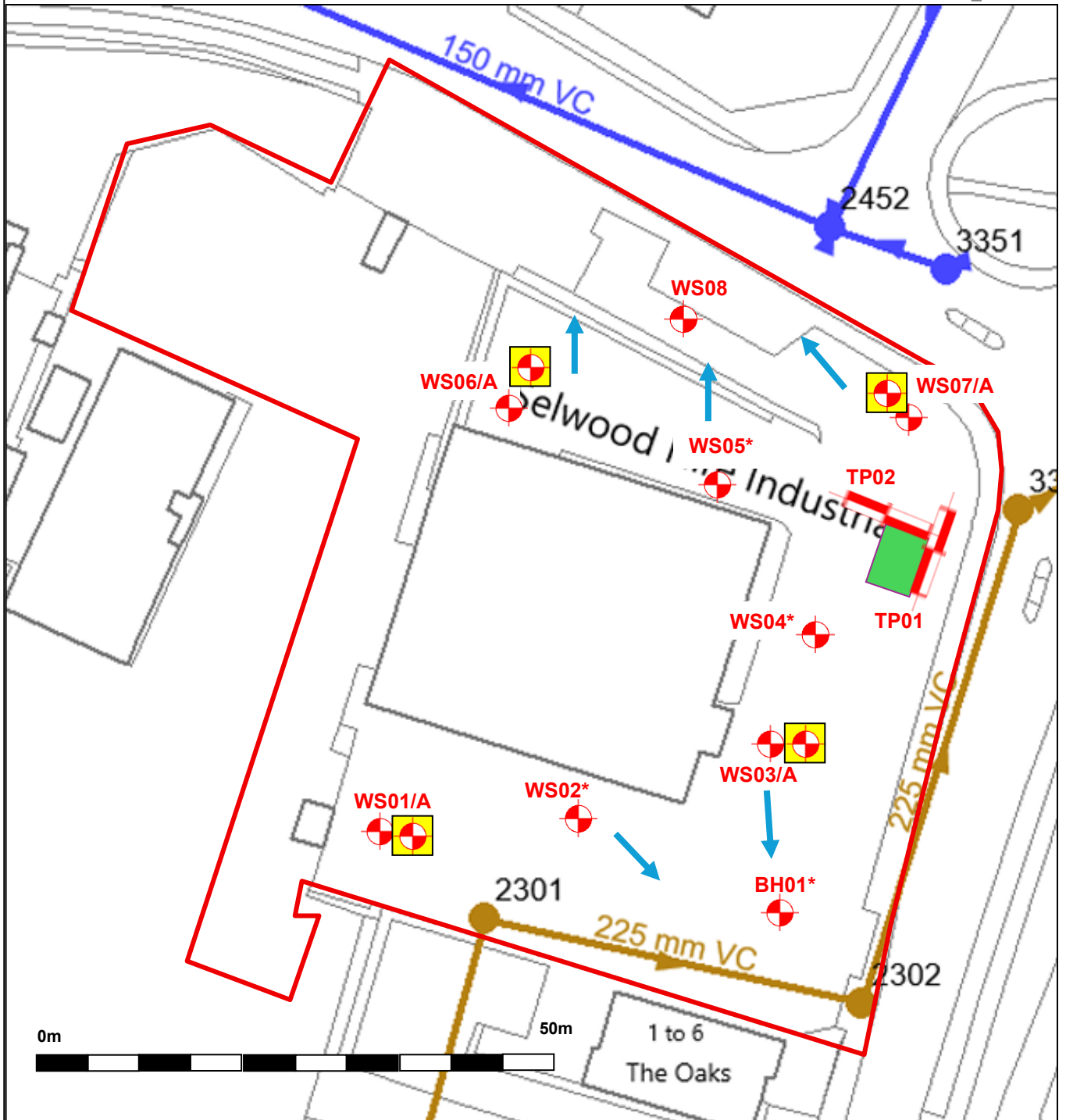
Sept/Oct 2025 boreholes (*= installed)



Indicative fuel tank



Approximate groundwater flow



Project : School Lane, Chandler's Ford, Eastleigh, Hampshire

Client : Portakabin Limited



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Project No.
132887

Approximate VOC Concentrations

Reproduced, Not to Scale, from a Southern Water sewer plan (dated 20/03/25) provided by the client

Key



Additional monitoring boreholes



Sept/Oct 2025 boreholes (*= installed)

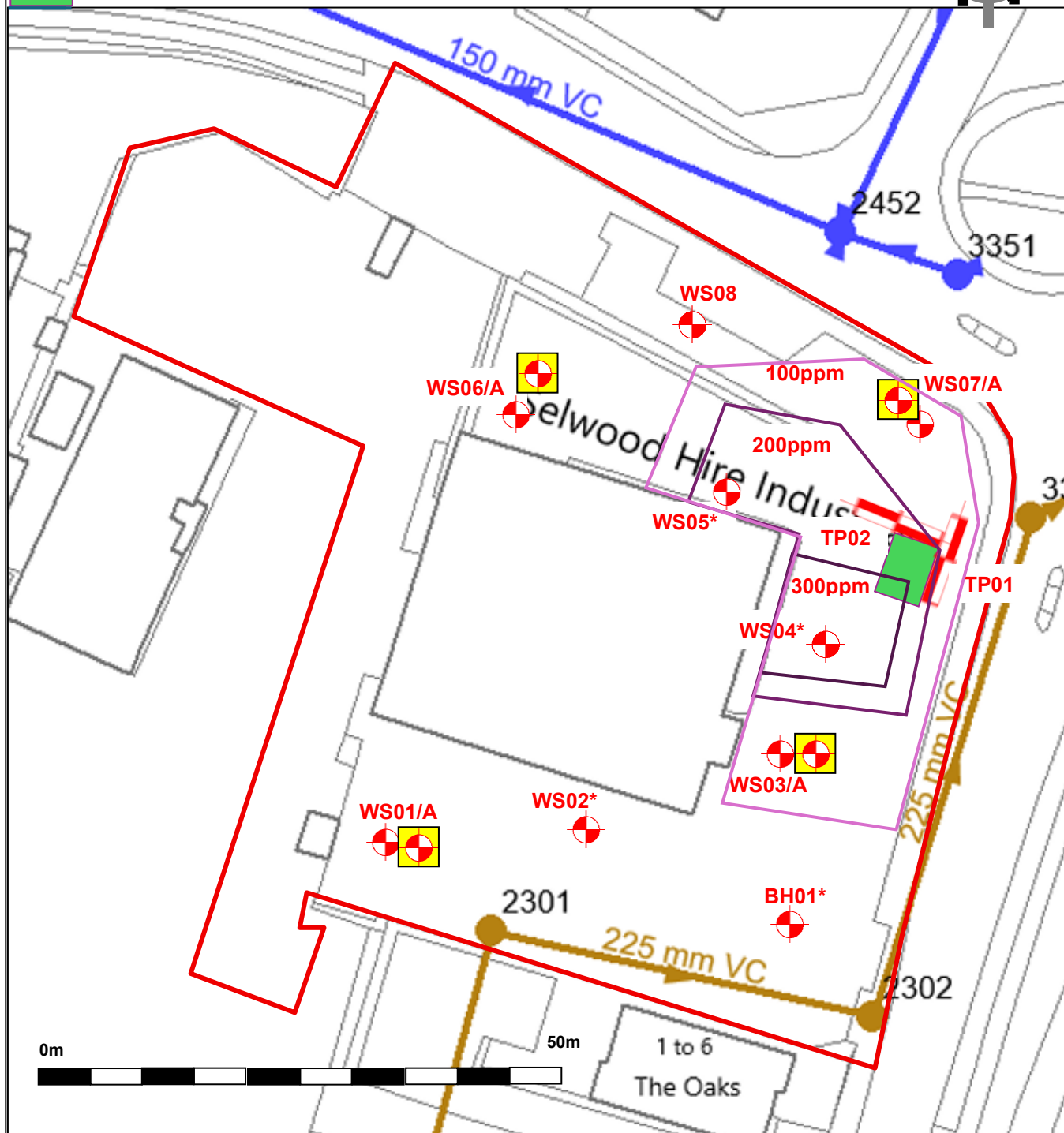


Indicative fuel tank

Max. VOC >300ppm

Max. VOC 200-300ppm

Max. VOC >100ppm



Project : School Lane, Chandler's Ford, Eastleigh, Hampshire

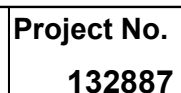
Client : Portakabin Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
132887

Based on plan provided by the client



Lucion Investigating people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				BOREHOLE BH101	
08/04/2026			Final Depth 6.00 m		Equipment Cable Percussion Rig			
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)	
Depth (m)	Type	Results						
0.30-0.80	B1							

 LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford			BOREHOLE BH102	
07/04/2026			Final Depth 6.00 m		Equipment Cable Percussion Rig		
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)
Depth (m)	Type	Results					
0.40	D1				MADE GROUND - CONCRETE.		0.30
0.40	ES1				MADE GROUND - Red brown, silty SAND AND GRAVEL. Gravel is brick and concrete.		0.45
0.55	D2				MADE GROUND - Firm, dark grey, becoming light brown and grey, slightly gravelly, silty CLAY. Gravel is flint and brick.		
0.60	ES2						
0.80	D3						
0.80	ES3				MADE GROUND - Soft, light brown, brown and grey, slightly sandy, slightly gravelly, silty CLAY. Gravel is mudstone, sandstone, clinker and glass.		1.20
1.20-1.70	B1						
1.50	D4						
1.50	ES4						
1.70-2.20	B2						
2.00	D5						
2.00	ES5						
2.50-3.00	B3						
2.70	ES6						
2.75	D6						
3.00-3.50	B4				MADE GROUND - Yellow brown, clayey, silty SAND with gravel size lumps of firm, dark brown, slightly gravelly, silty clay. Gravel is flint.		3.00
3.20	D7						
3.20	ES7						
3.50-4.00	B5				Yellow brown and light brown, silty SAND with lenses of firm, light grey clay/extremely weak mudstone.		3.50
3.70	D8						
3.70	ES8						
4.00-4.50	B6				...Becoming yellow brown and orange brown, clayey, silty SAND below 4.00m depth.		
4.20	D9						
4.20	ES9						
4.50-5.00	B7						
4.70	D10						
4.70	ES10						
4.70	W1				(WITTERING FORMATION)		
5.00-5.50	B8						
5.20	D11						
5.20	ES11						
5.50-6.00	B9						
5.70	D12						
5.70	ES12						
End of Borehole at 6.00m							6.00
Remarks 1. Borehole concrete cored to 0.30m depth. 2. Starter pit excavated from 0.30m to 1.20m depth. 3. Borehole cased to 6.00m depth. 4. Gas monitoring standpipe installed to 6.00m depth.						Hole Diameter by Depth	
						Depth (m)	Diameter (mm)
						6.00	150
						Project No. 132887	
						Scale: 1:50	Page 1/1
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample S/C - SPT Spoon/Cone ☒ - Water Strike ☒ - Water Rise MP - Mackintosh Probe V - Vane Shear Test N/* - SPT Blows ES - Environmental Sample ☒ - Level On Completion ☒ - Level Casing Withdrawn ☒ - Standpipe Level				Groundwater Strike			
				Strike (m)	Rose To (m)	Casing (m)	Sealed
				4.50			Not
				Groundwater Observations			
				Date	Depth (m)	Casing (m)	Water (m)
				07/04/2026	6.00	6.00	5.50
				07/04/2026	6.00		5.50
				13/04/2026	6.00	1.00	4.70

Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: School Lane, Chandler's Ford				BOREHOLE BH103			
From 08/04/2026 to 09/04/2026				Final Depth 6.00 m		Equipment Cable Percussion Rig					
Samples and In Situ Testing			Water Levels (Casing)	Well		Stratum Description	Legend	Depth (m)			
Depth (m)	Type	Results									
0.45-0.90	B1										

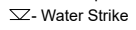
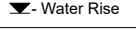
Lucion Investing people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				BOREHOLE BH104					
From 07/04/2026 to 08/04/2026			Final Depth 6.00 m	Equipment Cable Percussion Rig								
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)					
Depth (m)	Type	Results										
0.30-0.80	B1				MADE GROUND - CONCRETE.		0.30					
0.50	ES1				MADE GROUND - Light brown and red brown, silty SAND NAD GRAVEL. Gravel is brick, concrete and flint.							
0.80-1.20	B2				MADE GROUND - Firm, brown, orange brown and light grey, slightly sandy, slightly gravelly, silty CLAY. Gravel is flint, concrete and mudstone. With occasional dead roots up to 3mm diameter.		0.80					
1.00	ES2											
1.20-1.70	B3											
1.50	ES3											
1.80-2.30	B4											
2.00	ES4											
2.30-2.80	B5											
2.50	ES5											
2.80-3.30	B6											
3.00	ES6											
3.30-3.80	B7	Yellow brown and orange brown, silty SAND with firm, light grey, silty clay lenses.		3.30								
3.50	ES7											
3.80-4.30	B8	(WITTERING FORMATION)		4.30								
4.00	ES8											
4.30-4.80	B9	Orange brown, silty SAND.		4.30								
4.50	ES9											
4.80-5.30	B10	(WITTERING FORMATION)		6.00								
4.92	W1											
5.00	ES10											
5.50-6.00	B11	End of Borehole at 6.00m		6.00								
5.60	ES11											
Remarks					Hole Diameter by Depth		Project No.					
1. Borehole concrete cored to 0.30m depth. 2. Starter pit excavated from 0.30m to 1.20m depth (1 hr). 3. Borehole cased to 6.00m depth. 4. Gas monitoring standpipe installed to 6.00m depth.					Depth (m)		132887					
					6.00		150					
							Scale: 1:50 Page 1/1					
KEY				Groundwater Strike			Groundwater Observations					
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample		V - Vane Shear Test		4.50			Not		08/04/2026	6.00	6.00	5.00
U - Undisturbed Sample		N/* - SPT Blows							08/04/2026	6.00		5.00
W - Water Sample		ES - Environmental Sample							13/04/2026	6.00	1.00	4.92
S/C - SPT Spoon/Cone		▽ - Level On Completion										
☒ - Water Strike		⏏ - Level Casing Withdrawn										
⏏ - Water Rise		⏏ - Standpipe Level										

 LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566		Site: School Lane, Chandler's Ford			HAND AUGER HA01	
		07/04/2026	Final Depth 0.80 m	Equipment Hand Tools		

Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)
Depth (m)	Type	Results				
0.30	D1			MADE GROUND - CONCRETE.		0.20
0.30	ES1			MADE GROUND - Brown and orange brown, silty SAND AND GRAVEL. Gravel is brick, flint and concrete.		
0.45	D2			MADE GROUND - Red brown and grey, silty SAND AND GRAVEL. Gravel is brick, concrete and clinker.		0.40
0.45	ES2			MADE GROUND - Dark brown, silty SAND AND GRAVEL. Gravel is flint, concrete and brick.		0.50
0.70	D3					0.80
0.70	ES3			End of Borehole at 0.80m		

Remarks 1. Borehole concrete cored to 0.20m depth. 2. Hole sides stable. 3. Hole abandoned at 0.80m depth on concrete slab.					Hole Diameter by Depth		Project No. 132887	
					Depth (m)	Diameter (mm)		
					0.80	250	Scale: 1:25	Page 1/1

KEY D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▽ - Level On Completion  - Water Strike ▽ - Level Casing Withdrawn  - Water Rise ▽ - Standpipe Level		Groundwater Strike					Groundwater Observations			
		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
						07/04/2026	0.80		Dry	

 LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford			TRIAL PIT TP101												
			26/02/2026	Final Depth 3.00 m	Equipment 3T Excavator													
Samples and In Situ Testing			Water Levels	Stratum Description	Legend	Depth (m)												
Depth (m)	Type	Results																
1.00	ES1			MADE GROUND - CONCRETE.		0.10												
				MADE GROUND - Brick and concrete GRAVEL.		0.30												
				MADE GROUND - Orange brown, gravelly, becoming clayey SAND. Gravel is concrete.														
2.00	ES2																	
3.00	ES3			End of Trial Pit at 3.00m		3.00												
Remarks 1. No roots observed. 2. Pit sides stable. 3. Hydrocarbon odour noted below 0.30m depth.					<table border="1"> <tr> <th colspan="2">Dimensions</th> <th rowspan="2">Project No. 132887</th> </tr> <tr> <th>Length (m)</th> <th>Width (m)</th> </tr> <tr> <td>3.00</td> <td>0.60</td> <td></td> </tr> </table>		Dimensions		Project No. 132887	Length (m)	Width (m)	3.00	0.60					
Dimensions		Project No. 132887																
Length (m)	Width (m)																	
3.00	0.60																	
KEY D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▽ - Level On Completion  - Water Strike ▽ - Level Casing Withdrawn  - Water Rise ▽ - Standpipe Level				<table border="1"> <tr> <th colspan="3">Water Strike</th> <th>Completion</th> </tr> <tr> <th>Strike (m)</th> <th>Rose To (m)</th> <th>Remarks</th> <th>Depth (m)</th> </tr> <tr> <td></td> <td></td> <td></td> <td>Dry</td> </tr> </table>			Water Strike			Completion	Strike (m)	Rose To (m)	Remarks	Depth (m)				Dry
Water Strike			Completion															
Strike (m)	Rose To (m)	Remarks	Depth (m)															
			Dry															

 LUCION protecting people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: School Lane, Chandler's Ford				TRIAL PIT TP102											
				26/02/2026	Final Depth 3.00 m	Equipment 3T Excavator													
Samples and In Situ Testing			Water Levels	Stratum Description	Legend	Depth (m)													
Depth (m)	Type	Results																	
0.30	ES1			MADE GROUND - Firm, brown, sandy, gravelly, silty CLAY. Gravel is brick, ash and flint.		0.60													
0.60	ES2			MADE GROUND - Brown, gravelly SAND. Gravel is sandstone with iron-staining.															
0.90	ES3			MADE GROUND - Brown, grey and iron-stained, clayey SAND AND GRAVEL with abundant lenses of very stiff clay and ironstone. Gravel is clinker and ironstone.		1.00													
1.20	ES4			Stiff, closely fissured, grey brown, very sandy CLAY.		1.45													
1.50	ES5			(WITTERING FORMATION)		2.00													
1.80	ES6			Brown, grey and iron-stained, clayey SAND.															
2.10	ES7			(WITTERING FORMATION)		3.00													
2.40	ES8			End of Trial Pit at 3.00m															
2.90	ES9																		
Remarks 1. No live roots observed. 2. Pit sides stable. 3. Hydrocarbon odour noted below 2.50m depth.						<table border="1"> <tr> <th colspan="2">Dimensions</th> <th rowspan="2">Project No. 132887</th> </tr> <tr> <th>Length (m)</th> <th>Width (m)</th> </tr> <tr> <td>3.00</td> <td>0.60</td> <td></td> </tr> </table>		Dimensions		Project No. 132887	Length (m)	Width (m)	3.00	0.60					
Dimensions		Project No. 132887																	
Length (m)	Width (m)																		
3.00	0.60																		
KEY D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▽ - Level On Completion  - Water Strike ▽ - Level Casing Withdrawn  - Water Rise ▽ - Standpipe Level						<table border="1"> <tr> <th colspan="3">Water Strike</th> <th>Completion</th> </tr> <tr> <th>Strike (m)</th> <th>Rose To (m)</th> <th>Remarks</th> <th>Depth (m)</th> </tr> <tr> <td></td> <td></td> <td></td> <td>Dry</td> </tr> </table>		Water Strike			Completion	Strike (m)	Rose To (m)	Remarks	Depth (m)				Dry
Water Strike			Completion																
Strike (m)	Rose To (m)	Remarks	Depth (m)																
			Dry																

Lucion Investigating people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: School Lane, Chandler's Ford				BOREHOLE BH01				
01/10/2025				Final Depth 15.00 m		Equipment Cable Percussion Rig		Ground Level: 35.00m O.D.				
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)	Level (m O.D)				
Depth (m)	Type	Results										
0.20-0.50	B1	Blows=70			MADE GROUND - CONCRETE.		0.20	34.80				
0.50-1.00	B2				MADE GROUND - Soft, brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick, clinker, flint and occasional plant matter.		0.50	34.50				
1.10	D1				MADE GROUND - Soft, brown, slightly sandy, slightly gravelly, silty CLAY with occasional pockets of sand. Gravel is flint, sandstone and ironstone.		1.00	34.00				
1.20-1.50	U1	Blows=65			Stiff, friable, brown and orange brown, slightly sandy to sandy, silty CLAY.							
1.60	D2				(WITTERING FORMATION)							
2.20-2.60	U2				Brown, orange brown and dark brown, silty SAND with grey clay lenses.		2.20	32.80				
2.70	D3	N19 (5/4,5,5,5)	(3.10)		(WITTERING FORMATION)							
3.00	D4				Medium dense, yellow brown, silty SAND with lenses of brown clay.		3.00	32.00				
3.10-3.60	B3											
3.25-3.55	SPT	N19 (6/4,4,5,6)	(4.10)									
3.55	D5											
4.10-4.60	B4											
4.25-4.55	SPT	N22 (6/5,5,6,6)	(5.10)									
4.55	D6											
5.10-5.60	B5											
5.25-5.55	SPT	N24 (7/5,6,6,7)	(6.60)									
5.55	D7											
6.60-7.10	B6											
6.75-7.05	SPT	N17 (4/3,4,4,6) [116kPa]	(7.30)									
7.00	W1											
7.05	D8											
7.20	D9	Blows=70			Stiff, dark brown and grey, slightly sandy, silty CLAY.		7.20	27.80				
7.30-7.80	B7											
7.45-7.75	SPT											
7.50	V1	Blows=70										
7.75	D10											
8.30	D11											
8.80-9.20	U3	Blows=70			(WITTERING FORMATION)							
9.30	D12											
9.80	D13						10.00	25.00				
Remarks						Hole Diameter by Depth		Project No.				
1. Surface concrete cored to 0.20m depth. 2. Starter pit excavated to 1.20m depth. 3. Water added from 3.10m to 7.00m and 10.60m to 14.50m depth. 4. Borehole cased to 15.00m depth. 5. Gas monitoring standpipe installed to 7.00m depth. 6. Hydrocarbon odour noted during standpipe installation.						Depth (m)		Diameter (mm)		132887		
						0.20 15.00		200 150		Scale: 1:50		Page 1/2
KEY				Groundwater Strike				Groundwater Observations				
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample		V - Vane Shear Test		7.00	5.00	6.60	7.30	Medium	01/10/2025	15.00	15.00	Dry
U - Undisturbed Sample		N/* - SPT Blows							01/10/2025	15.00		5.40
W - Water Sample		ES - Environmental Sample							08/10/2025	7.00	1.00	5.27
S/C - SPT Spoon/Cone		┐ - Level On Completion							15/10/2025	7.00	1.00	5.33
┐ - Water Strike		┐ - Level Casing Withdrawn							29/10/2025	7.00	1.00	5.18
┐ - Water Rise		┐ - Standpipe Level							02/12/2025	7.00	1.00	4.95



01/10/2025

Final Depth
15.00 m

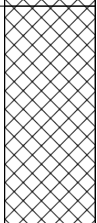
Equipment
Cable Percussion Rig

**BOREHOLE
BH01**

Ground Level: 35.00m O.D.

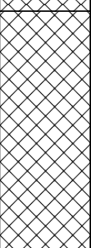
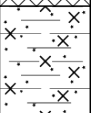
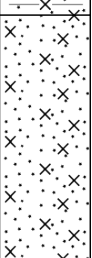
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* C denotes test using a solid cone
S denotes test using a split barrel sampler

LUCION improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS01					
30/09/2025			Final Depth 5.45 m		Equipment Dynamic Sampling Rig		Ground Level: 34.00m O.D.					
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)	Level (m O.D.)					
Depth (m)	Type	Results										
0.30	D1	N18 (6/4,4,5,5)		MADE GROUND - CONCRETE.		0.17	33.83					
0.30	ES1			MADE GROUND - Soft, brown and orange brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick and flint.		0.60	33.40					
0.50	D2			MADE GROUND - Light brown, slightly gravelly, silty SAND. Gravel is flint, wood and rare brick and concrete fragments.								
0.50	ES2											
0.90	D3											
0.90	ES3											
1.20	D4			MADE GROUND - Firm, light brown and dark brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick, clinker and flint.		1.20	32.80					
1.20-2.00	ES4											
1.20-2.00	ES5											
1.20-2.00	U1											
2.00-3.00	U2			...Becoming mottled grey and light brown below 2.00m depth.			2.70	31.30				
3.00	D5	Firm, becoming stiff, brown, light brown and light grey, slightly sandy, silty CLAY.										
3.00-4.00	U3	(WITTERING FORMATION)	3.45	30.55								
3.15-3.45	SPT	Medium dense, light orange brown and grey, silty SAND with bands of grey clay.										
4.00	D6	N11 (6/4,3,2,2)		4.00	30.00							
4.00-5.00	U4					Firm, grey and orange brown mottled, sandy, silty CLAY.						
4.15-4.45	SPT					(WITTERING FORMATION)						
5.00	D7	N11 (3/3,2,3,3)		5.00	29.00							
5.15-5.45	SPT					Firm, fissured, brown and grey, slightly sandy, silty CLAY. (WITTERING FORMATION)						
				End of Borehole at 5.45m		5.45	28.55					
Remarks					Hole Diameter by Depth		Project No. 132887					
1. Surface concrete cored to 0.17m depth. 2. Starter pit excavated to 1.20m depth.					Depth (m)	Diameter (mm)						
					0.17	200	Scale: 1:50	Page 1/1				
					2.00	87						
					4.00	67						
					5.45	57						
KEY				Groundwater Strike		Groundwater Observations						
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample		V - Vane Shear Test							30/09/2025	5.45		Dry
U - Undisturbed Sample		N/* - SPT Blows										
W - Water Sample		ES - Environmental Sample										
S/C - SPT Spoon/Cone		┐ - Level On Completion										
≡ - Water Strike		┐ - Level Casing Withdrawn										
▲ - Water Rise		┐ - Standpipe Level										

Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: School Lane, Chandler's Ford				BOREHOLE WS01A		
10/12/2025				Final Depth 6.00 m		Equipment Cable Percussion Rig		E: 443247 m N: 120341 m Ground Level: 34.00m O.D.		
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)	Level (m O.D)		
Depth (m)	Type	Results								
0.15-0.65	B1		<							

Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS02						
30/09/2025			Final Depth 4.45 m		Equipment Dynamic Sampling Rig		E: 443260 m N: 120341 m Ground Level: 34.10m O.D.						
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)	Level (m O.D)					
Depth (m)	Type	Results											
0.30	D1	N25 (9/8,6,6,5)			MADE GROUND - CONCRETE.		0.14	33.96					
0.30	ES1				MADE GROUND - Soft, brown and dark grey, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick.			0.50	33.60				
0.60	D2				MADE GROUND - Firm, brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is flint and brick.	0.80		33.30					
0.60	ES2								MADE GROUND - Firm, orange brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is flint.				
0.90	D3				Firm, light brown and orange brown mottled, silty CLAY with layers of orange brown and yellow sand.		1.20	32.90					
0.90	ES3												
1.20	D4												
1.20-2.00	U1												
2.00-3.00	U2				(WITTERING FORMATION)		2.70	31.40					
3.00	D5				Medium dense, orange brown and yellow brown, silty SAND with clay lenses.								
3.00-4.00	U3												
3.15-3.45	SPT												
4.00	D6	N26 (7/6,6,6,8)			(WITTERING FORMATION)		4.45	29.65					
4.15-4.45	SPT				End of Borehole at 4.45m								
Remarks					Hole Diameter by Depth		Project No.						
1. Surface concrete cored to 0.14m depth.					Depth (m) Diameter (mm)		132887						
2. Starter pit excavated to 1.20m depth.					0.14 200		Scale:	Page					
3. Gas monitoring standpipe installed to 4.00m depth.					2.00 87								
4. 07/01/26 water level 3.87m depth.					3.00 77								
					4.45 67		1:50	1/1					
KEY					Groundwater Strike		Groundwater Observations						
D - Disturbed Sample MP - Mackintosh Probe					Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample V - Vane Shear Test										30/09/2025	4.45		Dry
U - Undisurbed Sample N/* - SPT Blows										08/10/2025	4.00	1.00	Dry
W - Water Sample ES - Environmental Sample										15/10/2025	4.00	1.00	Dry
S/C - SPT Spoon/Cone ▮ - Level On Completion										29/10/2025	4.00	1.00	Dry
⚡ - Water Strike ▮ - Level Casing Withdrawn										02/12/2025	4.00	1.00	3.94
⬇ - Water Rise ▮ - Standpipe Level										16/12/2025	4.00	1.00	3.85

Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS03					
30/09/2025			Final Depth 4.45 m		Equipment Dynamic Sampling Rig		Ground Level: 35.00m O.D.					
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)	Level (m O.D)					
Depth (m)	Type	Results										
0.30 0.30 0.60 0.60 0.90 0.90 1.20 1.20-2.00	D1 ES1 D2 ES2 D3 ES3 D4 U1	N29 (9/8,6,6,9)		MADE GROUND - CONCRETE. MADE GROUND - Firm, brown and dark grey, slightly sandy, gravelly, silty CLAY. Gravel is brick, quartz and flint. MADE GROUND - Firm, light grey and light brown, slightly gravelly, silty CLAY with root fragments. Gravel is sub-rounded mudstone, siltstone and flint.		0.12	34.88					
						0.40	34.60					
2.00-3.00	U2				Firm, light grey and light brown, slightly sandy, silty CLAY with lense of red brown sand. (WITTERING FORMATION)		2.00	33.00				
3.00 3.00-4.00 3.15-3.45	D5 U3 SPT				Medium dense, becoming dense, orange brown and light brown, silty SAND. (WITTERING FORMATION)		2.80	32.20				
4.00 4.15-4.45	D6 SPT			N35 (13/9,9,8,9)			4.45	30.55				
				End of Borehole at 4.45m								
Remarks 1. Surface concrete cored to 0.12m depth. 2. Starter pit excavated to 1.20m depth.												
					Hole Diameter by Depth		Project No.					
					Depth (m)	Diameter (mm)	132887					
					0.12	200	Scale: 1:50	Page 1/1				
					2.00	77						
					3.00	67						
					4.45	57						
KEY D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▽ - Level On Completion ☒ - Water Strike ▽ - Level Casing Withdrawn ▴ - Water Rise ▽ - Standpipe Level				Groundwater Strike			Groundwater Observations					
				Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
				3.00			Not	Seepage	30/09/2025	4.45		Dry



08/12/2025

Final Depth
6.00 m

Equipment
Cable Percussion Rig

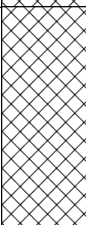
BOREHOLE
WS03A

E: 443287 m N: 120349 m
Ground Level: 35.00m O.D.

[illegible]

Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS04		
30/09/2025			Final Depth 4.45 m		Equipment Dynamic Sampling Rig		E: 443289 m N: 120362 m Ground Level: 35.00m O.D.		
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)	Level (m O.D)	
Depth (m)	Type	Results							
0.30	D1	N14 (4/3,4,3,4)							

Lucion Investing people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566 <td colspan="5">Site: School Lane, Chandler's Ford</td> <td colspan="3">WINDOW SAMPLE WS05</td>			Site: School Lane, Chandler's Ford					WINDOW SAMPLE WS05		
29/09/2025			Final Depth 4.45 m		Equipment Dynamic Sampling Rig		E: 443277 m N: 120382 m Ground Level: 34.10m O.D.			
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)	Level (m O.D)		
Depth (m)	Type	Results								
0.30	D1	N30 (11/8,8,7,7)		</						

 Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS06	
29/09/2025			Final Depth 5.45 m		Equipment Dynamic Sampling Rig		Ground Level: 34.00m O.D.	
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)	Level (m O.D.)	
Depth (m)	Type	Results						
0.30 0.30 0.60 0.60 0.90 0.90 1.20 1.20 1.20-2.00	D1 ES1 D2 ES2 D3 ES3 D4 ES4 U1	N21 (8/5,5,5,6)		MADE GROUND - CONCRETE. MADE GROUND - Brown, clayey, silty SAND AND GRAVEL. Gravel is flint and quartzite. MADE GROUND - Soft, becoming firm, grey brown and orange brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is flint, brick, mudstone, concrete and occasional organic matter.	  	0.15 		

 LUCION Powering people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS07				
29/09/2025				Final Depth 4.45 m		Equipment Dynamic Sampling Rig			Ground Level: 33.20m O.D.			
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description			Legend	Depth (m)	Level (m O.D)			
Depth (m)	Type	Results										
0.30	D1	N11 (4/3,3,2,3)	c ▾	MADE GROUND - CONCRETE.				0.17	33.03			
0.30	ES1			MADE GROUND - Brown and red brown, clayey, silty SAND AND GRAVEL. Gravel is brick and concrete.				0.40	32.80			
0.60	D2			MADE GROUND - Firm, brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick and flint.				0.70	32.50			
0.60	ES2			(WITTERING FORMATION)								
0.90	D3											
0.90	ES3											
1.20	D4											
1.20	ES4											
1.20-2.00	U1											
1.35-1.65	SPT			(WITTERING FORMATION)								
2.00	D5											
2.00-3.00	U2											
2.15-2.45	SPT	N15 (5/4,4,3,4)	(WITTERING FORMATION)									
												
												
3.00	D6	N19 (5/5,4,4,6)	c ▾	(WITTERING FORMATION)								
3.00-4.00	U3											
3.15-3.45	SPT											
4.00	D7	N21 (6/5,5,5,6)	c ▾	Stiff, dark grey, slightly sandy, silty CLAY.				3.80	29.40			
4.15-4.45	SPT			(WITTERING FORMATION)								
End of Borehole at 4.45m					4.45	28.75						
Remarks 1. Surface concrete cored to 0.17m depth. 2. Starter pit excavated to 1.20m depth.							Hole Diameter by Depth		Project No. 132887			
							Depth (m)	Diameter (mm)				
							0.17	200				
							2.00	77				
							3.00	67				
4.45	57	Scale: 1:50	Page 1/1									
KEY				Groundwater Strike			Groundwater Observations					
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample		V - Vane Shear Test		3.00			Not	Seepage	29/09/2025	4.00		3.70
U - Undisturbed Sample		N/* - SPT Blows										
W - Water Sample		ES - Environmental Sample										
S/C - SPT Spoon/Cone		▾ - Level On Completion										
 - Water Strike		▾ - Level Casing Withdrawn										
 - Water Rise		▾ - Standpipe Level										

Lucion Powering people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: School Lane, Chandler's Ford				WINDOW SAMPLE WS08					
			29/09/2025	Final Depth 4.45 m	Equipment Dynamic Sampling Rig	E: 443277 m N: 120392 m Ground Level: 32.00m O.D.						
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)	Level (m O.D)					
Depth (m)	Type	Results										
0.30	D1	N12 (4/3,3,3,3)		MADE GROUND - CONCRETE.		0.22	31.78					
0.30	ES1			MADE GROUND - Brown, silty, sandy GRAVEL. Gravel is brick and flint.		0.40	31.60					
0.60	D2			MADE GROUND - Light brown and dark brown, silty, gravelly SAND.		0.70	31.30					
0.60	ES2			Gravel is brick, concrete and ironstone.								
0.90	D3			Medium dense, yellow brown, silty SAND with grey clay lenses.								
0.90	ES3											
1.20	D4											
1.20-2.00	U1											
1.35-1.65	SPT											
2.00-3.00	U2											
3.00-4.00	U3	N16 (5/4,4,4,4)	C 	(WITTERING FORMATION)								
												
												
												
												
												
												
4.00	D5			Firm, becoming stiff, orange brown becoming dark grey, sandy, becoming slightly sandy, silty CLAY.		3.60	28.40					
4.15-4.45	SPT			(WITTERING FORMATION)								
				End of Borehole at 4.45m		4.45	27.55					
Remarks					Hole Diameter by Depth		Project No.					
1. Surface concrete cored to 0.22m depth.					Depth (m)		132887					
2. Starter pit excavated to 1.20m depth.					Diameter (mm)		Scale: 1:50 Page 1/1					
					0.22		200					
					2.00		77					
					3.00		67					
					4.45		57					
KEY				Groundwater Strike			Groundwater Observations					
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample		V - Vane Shear Test		4.45			Not	Seepage	29/09/2025	0.00		3.93
U - Undisturbed Sample		N/* - SPT Blows										
W - Water Sample		ES - Environmental Sample										
S/C - SPT Spoon/Cone		 - Level On Completion										
 - Water Strike		 - Level Casing Withdrawn										
 - Water Rise		 - Standpipe Level										

Results of Standard Penetration Tests

132887

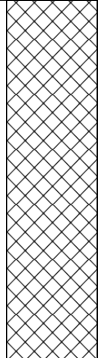
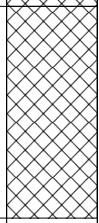
School Lane, Chandler's Ford

Borehole ID.	Depth (m)	Casing Depth (m)	Water Depth (m)	Type *	Seating Blows/ Penetration		Test Drive : 300mm - Blows for each successive 75mm penetration				N Value	Extra- polated N Value
WS01	3.00 - 3.45			S	6	150	4	4	5	5	18	
WS01	4.00 - 4.45			S	6	150	4	3	2	2	11	
WS01	5.00 - 5.45			S	3	150	3	2	3	3	11	
WS02	3.00 - 3.45			S	9	150	8	6	6	5	25	
WS02	4.00 - 4.45			S	7	150	6	6	6	8	26	
WS03	3.00 - 3.45			S	9	150	8	6	6	9	29	
WS03	4.00 - 4.45			S	13	150	9	9	8	9	35	
WS04	1.20 - 1.65			S	4	150	3	4	3	4	14	
WS04	3.00 - 3.45			S	8	150	6	6	7	6	25	
WS04	4.00 - 4.45			S	8	150	5	6	8	8	27	
WS05	2.00 - 2.45			S	11	150	8	8	7	7	30	
WS05	3.00 - 3.45			S	9	150	7	7	7	8	29	
WS05	4.00 - 4.45			S	7	150	4	4	4	6	18	
WS06	3.00 - 3.45			S	8	150	5	5	5	6	21	
WS06	4.00 - 4.45			S	3	150	2	3	2	2	9	
WS06	5.00 - 5.45			S	4	150	4	3	2	3	12	
WS07	1.20 - 1.65			S	4	150	3	3	2	3	11	
WS07	2.00 - 2.45			S	5	150	4	4	3	4	15	
WS07	3.00 - 3.45			S	5	150	5	4	4	6	19	
WS07	4.00 - 4.45			S	6	150	5	5	5	6	21	
WS08	1.20 - 1.65			S	4	150	3	3	3	3	12	
WS08	4.00 - 4.45			S	5	150	4	4	4	4	16	

* C denotes test using a solid cone

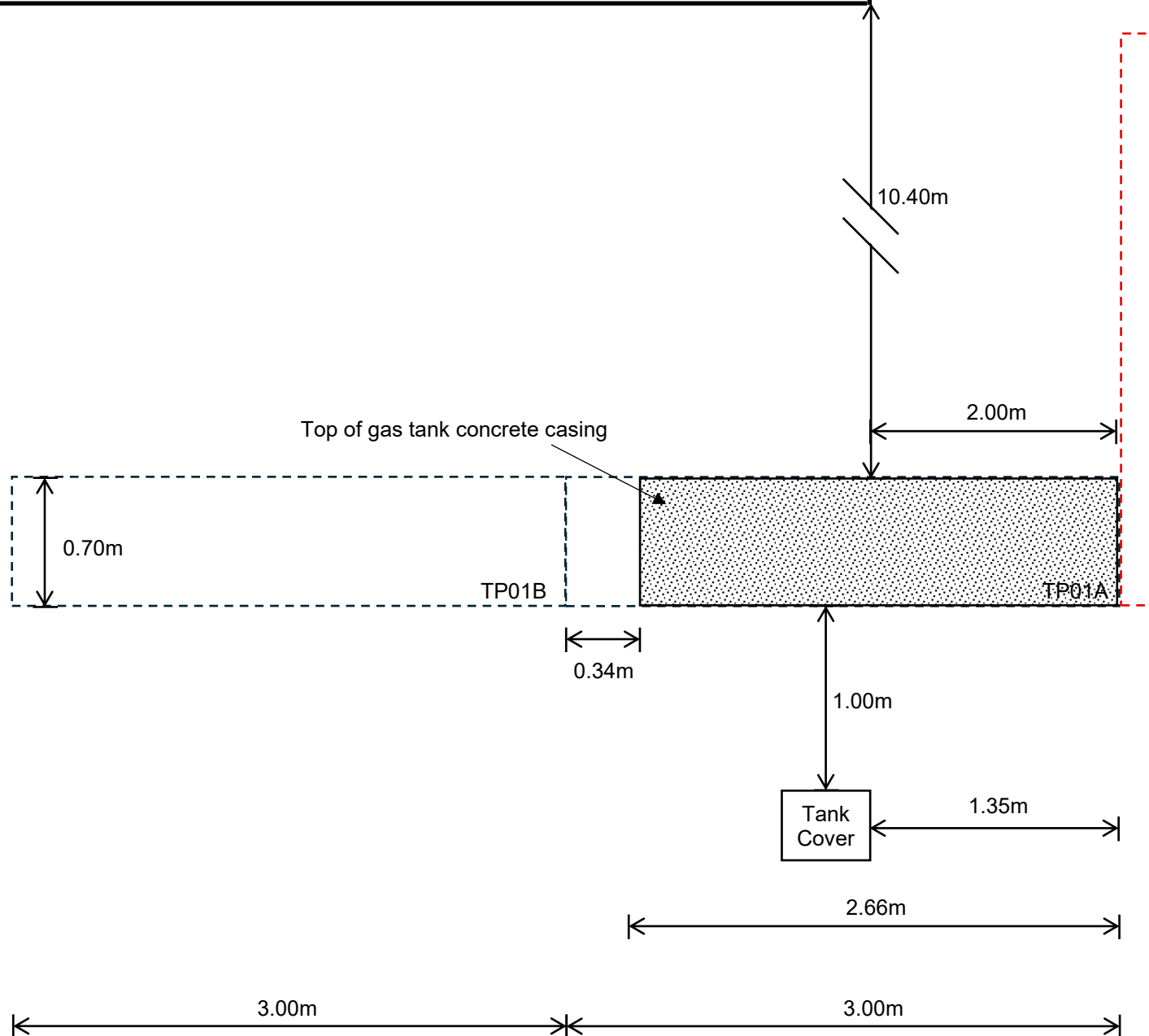
S denotes test using a split barrel sampler

Lucion Powering people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566 <td colspan="4">Site: School Lane, Chandler's Ford</td> <td colspan="2">TRIAL PIT TP01A</td>			Site: School Lane, Chandler's Ford				TRIAL PIT TP01A	
29/09/2025			Final Depth 1.90 m	Equipment 7T Excavator		Ground Level: 34.20m O.D.		
Samples and In Situ Testing			Water Levels	Stratum Description	Legend	Depth (m)	Level (m O.D)	
Depth (m)	Type	Results						
0.20	D1							
0.20	ES1							
0.30	D2							
0.30	ES2							
0.60	D3							
0.60	ES3							
0.90	D4							
0.90	ES4							
1.30	D5							
1.30	ES5							
1.60	D6							
1.60	ES6							
1.90	D7							
1.90	ES7							
End of Trial Pit at 1.90m								

Lucion Powering people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566 <td colspan="4">Site: School Lane, Chandler's Ford</td> <td colspan="2">TRIAL PIT TP01B</td>			Site: School Lane, Chandler's Ford				TRIAL PIT TP01B				
29/09/2025			Final Depth 2.50 m	Equipment 7T Excavator		Ground Level: 34.20m O.D.					
Samples and In Situ Testing			Water Levels	Stratum Description	Legend	Depth (m)	Level (m O.D)				
Depth (m)	Type	Results									
0.30 0.30	D1 ES1							MADE GROUND - Reinforced CONCRETE.		0.18	34.02
								MADE GROUND - Stiff, brown and orange brown, slightly sandy, silty CLAY.			
0.65 0.65	D2 ES2							MADE GROUND - Stiff, friable, brown, orange brown and grey, slightly sandy, gravelly, silty CLAY. Gravel is siltstone and flint.		0.60	33.60
1.20 1.20	D4 ES4										
1.50 1.50	D5 ES5										
1.80 1.80	D6 ES6		MADE GROUND - Green grey and brown, silty SAND.		1.80	32.40					
2.10 2.10	D7 ES7										
2.40 2.40	D8 ES8										
			End of Trial Pit at 2.50m		2.50	31.70					
Remarks				Dimensions		Project No.					
1. Surface concrete broken out by breaker on excavator. 2. No roots observed. 3. Encountered a disconnected service cable at 0.25m depth. 4. Pit sides stable. 5. Strong fuel odour noted below 1.80m depth.				Length (m)	Width (m)	132887					
				3.00	0.70	Scale: 1:25	Page 1/1				
KEY				Water Strike		Completion					
D - Disturbed Sample MP - Mackintosh Probe				Strike (m)	Rose To (m)	Remarks	Depth (m)				
B - Bulk Sample V - Vane Shear Test							Dry				
U - Undisturbed Sample N/* - SPT Blows											
W - Water Sample ES - Environmental Sample											
S/C - SPT Spoon/Cone ▼ - Level On Completion											
 - Water Strike ▼ - Level Casing Withdrawn											
 - Water Rise ▼ - Standpipe Level											

Trial Pit TP01A & TP01B Plan View

Selwood Main Building



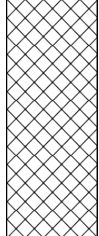
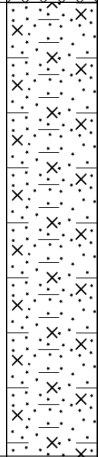
Project : School Lane, Chandler's Ford

Client : Portakabin Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

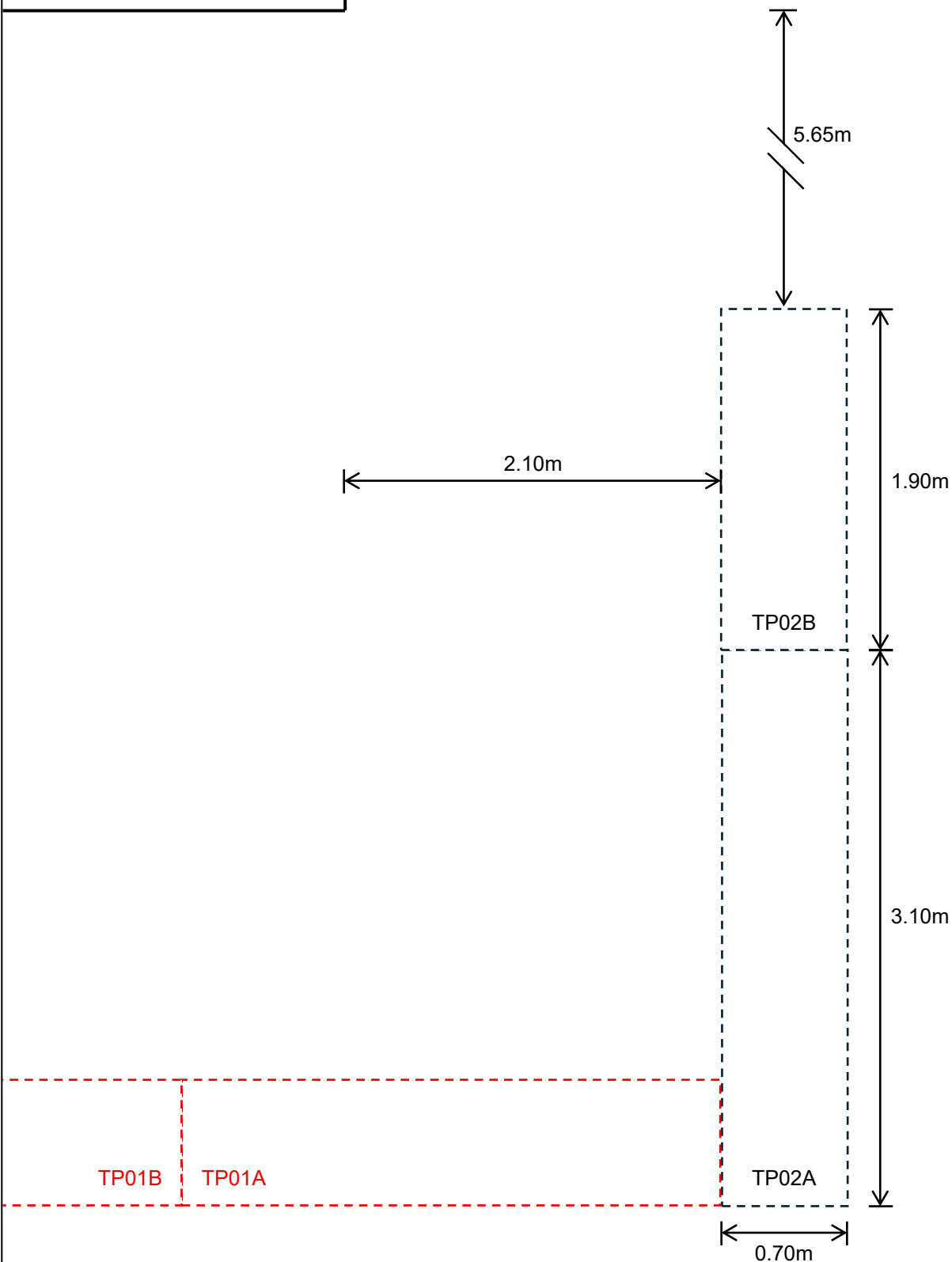
Project No.
132887

Lucion Investing people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566 <td colspan="4">Site: School Lane, Chandler's Ford</td> <td colspan="2">TRIAL PIT TP02A</td>			Site: School Lane, Chandler's Ford				TRIAL PIT TP02A	
30/09/2025			Final Depth 2.50 m	Equipment 7T Excavator		Ground Level: 34.10m O.D.		
Samples and In Situ Testing			Water Levels	Stratum Description	Legend	Depth (m)	Level (m O.D)	
Depth (m)	Type	Results						
0.30 0.30	D1 ES1			MADE GROUND - Reinforced CONCRETE.		0.20	33.90	
				MADE GROUND - Soft, locally firm, brown, orange brown and green brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick and concrete.				
0.60 0.60	D2 ES2			Brown, orange brown and green grey, silty SAND with grey clay lenses. (WITTERING FORMATION)		1.00	33.10	
0.90 0.90	D3 ES3							
1.10 1.10	D4 ES4							
1.30 1.30	D5 ES5							
1.60 1.60	D6 ES6							
1.95 1.95	D7 ES7							
2.15 2.15	D8 ES8							
2.40 2.40	D9 ES9							
				End of Trial Pit at 2.50m		2.50	31.60	
Remarks 1. Surface concrete broken out by breaker on excavator. 2 No roots observed. 3. Pit sides stable. 4. Strong fuel odour noted below 1.70m depth.					Dimensions		Project No. 132887	
					Length (m)	Width (m)		
KEY D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▮ - Level On Completion ☒ - Water Strike ▮ - Level Casing Withdrawn ▮ - Water Rise ▮ - Standpipe Level				Water Strike			Completion	
				Strike (m)	Rose To (m)	Remarks	Depth (m)	
							Dry	

 Lucion Powering people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566 <td colspan="4">Site: School Lane, Chandler's Ford</td> <td colspan="2">TRIAL PIT TP02B</td>			Site: School Lane, Chandler's Ford				TRIAL PIT TP02B				
			30/09/2025	Final Depth 2.50 m	Equipment 7T Excavator	Ground Level: 34.10m O.D.					
Samples and In Situ Testing			Water Levels	Stratum Description	Legend	Depth (m)	Level (m O.D.)				
Depth (m)	Type	Results									
0.30 0.30	D1 ES1							MADE GROUND - Reinforced CONCRETE.		0.20	33.90
								MADE GROUND - Soft, locally firm, brown, slightly sandy, slightly gravelly, silty CLAY. Gravel is brick and ash.		0.35	33.75
0.60 0.60	D2 ES2							Firm, locally stiff, grey, brown and orange brown, sandy, silty CLAY.		1.10	33.00
								(WITTERING FORMATION)			
0.90 0.90	D3 ES3										
1.20 1.20	D4 ES4							Brown, orange brown and green grey, silty SAND with grey clay lenses.			
1.50 1.50	D5 ES5							(WITTERING FORMATION)		2.50	31.60
1.80 1.80	D6 ES6										
2.10 2.10	D7 ES7										
2.40 2.40	D8 ES8										
				End of Trial Pit at 2.50m							
Remarks					Dimensions		Project No.				
1. Surface concrete broken out by breaker on excavator. 2. No roots observed. 3. Pit sides stable. 4. Strong fuel odour below 2.00m depth.					Length (m)	Width (m)	132887				
					1.90	0.70	Scale: 1:25	Page 1/1			
KEY					Water Strike			Completion			
D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▾ - Level On Completion  - Water Strike ▾ - Level Casing Withdrawn  - Water Rise ▾ - Standpipe Level					Strike (m)	Rose To (m)	Remarks	Depth (m)			
								Dry			

**Trial Pit TP02A & TP02B
Plan View**

Selwood Main Building



Project : School Lane, Chandler's Ford

Client : Portakabin Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.	132887
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[illegible]

Gas, VOC and Groundwater Monitoring Results

[illegible]

[illegible]

Gas, VOC and Groundwater Monitoring Results

[illegible]

Gas, VOC and Groundwater Monitoring Results

[illegible]

[illegible]

Lucion Ground Engineering Limited

Summary of Test Results

Project No. 132887	Project Name School Lane, Chandler's Ford
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Sample					Density		Classification											Sulphates (SO4) 2:1				CBR			Hand Vane	Remarks
Location	Ref	Top m	Base m	Type	Bulk Mg/m ³	Dry	Moisture Content % NMC TRX CBR	Class	LL %	PL %	PI %	Retained on 425µm %	Type	Max Deviator Stress kPa	Cell pressure kPa	Shear Strength kPa	Angle of Shear Resistance Degrees	Soil mg/l	Water mg/l	pH	Organic Content %	Top %	Base %	Retained on 20mm %	Hand Vane kPa	Remarks
BH01	B2	0.50	1.00	B	1.91	1.48	29															1.8	1.9	2		
BH01	D1	1.10		D			34	CH	64	20	44	1														
BH01	U1	1.20	1.50	U	1.76	1.33	32						Single Stage	140	50	70	0									
BH01	D2	1.60		D														33		4.5						
BH01	U2	2.20	2.60	U			30																			
BH01	D3	2.70		D														49		4.2						
BH01	D5	3.55		D														66		4.9						
BH01	D7	5.55		D														91		5.1						
BH01	W1	7.00		W															107	4.3						
BH01	D10	7.75		D														82		7.8						
BH01	U3	8.80	9.20	U	1.96	1.60	23						Single Stage	164	150	82	0									
BH01	U4	10.30	10.55	U			11																			

Key

U - Undisturbed
D - Disturbed
B - Bulk
C - Core
W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGELab/C/1974 Iss 2 Rev 32

[illegible]

Key
 U - Undisturbed
 D - Disturbed
 B - Bulk
 C - Core
 W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGLLab/C/1974 Iss 2 Rev 32



Lucion Ground Engineering Limited Summary of Test Results

Project No. 132887	Project Name School Lane, Chandler's Ford
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Sample					Density		Classification											Sulphates (SO4) 2:1				CBR						
Location	Ref	Top	Base	Type	Bulk	Dry	Moisture Content %			Class	LL	PL	PI	Retained on 425µm	Type	Max Deviator Stress	Cell pressure	Shear Strength	Angle of Shear Resistance	Soil	Water	pH	Organic Content	Top	Base	Retained on 20mm	Hand Vane	Remarks
		m	m		Mg/m ³		NMC	TRX	CBR		%	%	%	%		kPa	kPa	kPa	Degrees	mg/l	mg/l		%	%	%	%	kPa	
WS01	D5	3.00		D			28			CI	37	18	19	1														
WS01	D7	5.00		D			34			CH	67	31	36	0														
WS03	D4	1.20		D			31			CH	65	26	39	0														
WS04	D4	1.20		D			31			CH	63	24	39	1														
WS06	D3	0.90		D			36			CH	67	25	42	3														

Key
U - Undisturbed
D - Disturbed
B - Bulk
C - Core
W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGELab/C/1974 Iss 2 Rev 32



Project No.	Project Name
132887	School Lane, Chandler's Ford

[illegible]

Key
 U - Undisturbed
 D - Disturbed
 B - Bulk
 C - Core
 W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGLLab/C/1974 Iss 2 Rev 32



Final Report

Report No.: 26-12000-1

Initial Date of Issue: 29-Apr-2026

Re-Issue Details:

Client Lucion Ground Engineering Limited

Client Address: Newark Road
Peterborough
Cambridgeshire
PE1 5UA

Contact(s): Rory Griggs
Luke Welch

Project 132887 School Lane, Chandlers Ford

Quotation No.: **Date Received:** 22-Apr-2026

Order No.: 27340 **Date Instructed:** 16-Apr-2026

No. of Samples: 12

Turnaround (Wkdays): 5 **Results Due:** 22-Apr-2026

Date Approved: 29-Apr-2026 **Subcon Results Due:** 29-Apr-2026

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:				26-12000	26-12000	26-12000	26-12000	26-12000	26-12000
Quotation No.:		Chemtest Sample ID.:				2108828	2108832	2108835	2108838	2108840	2108844
Order No.: 27340		Client Sample Ref.:				ES2	ES6	ES9	ES12	ES2	ES6
		Client Sample ID.:				D2	D6	D9	D12	D2	D6
		Client Reference:				BH101	BH101	BH101	BH101	BH102	BH102
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				1.00	3.00	4.50	5.80	0.55	2.75
		Date Sampled:				09-Apr-2026	09-Apr-2026	09-Apr-2026	09-Apr-2026	07-Apr-2026	07-Apr-2026
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
Moisture		N	2030	%	0.020	16	21	18	20	17	22
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	Stones and Roots	Stones	Stones	None	Stones, Roots and brick	None
Soil Texture		N	2030		N/A	Clay	Clay	Clay	Clay	Clay	Clay
Total TPH >C10-C40 NC	EH_1D_Total	M	5001	mg/kg	10.0	13	< 10	< 10	< 10	16	69

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:					26-12000	26-12000	26-12000	26-12000	26-12000	26-12000
Quotation No.:		Chemtest Sample ID.:					2108847	2108850	2108851	2108854	2108859	2108861
Order No.: 27340		Client Sample Ref.:					ES9	ES12	ES1	ES4	ES9	ES11
		Client Sample ID.:					D9	D12	D1	D4	D9	D11
		Client Reference:					BH102	BH102	BH104	BH104	BH104	BH104
		Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):					4.20	5.70	0.50	2.00	4.50	5.50
		Date Sampled:					07-Apr-2026	07-Apr-2026	07-Apr-2026	07-Apr-2026	08-Apr-2026	08-Apr-2026
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
Moisture		N	2030	%	0.020	16	19	14	20	21	21	
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown	Brown	
Other Material		N	2030		N/A	Stones	None	Stones	Stones	Stones	Stones	
Soil Texture		N	2030		N/A	sand / clay	Sand	Clay	Clay	Sand	Sand	
Total TPH >C10-C40 NC	EH_1D_Total	M	5001	mg/kg	10.0	< 10	300	160	< 10	< 10	< 10	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
5001	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C10-C40); optional carbon banding, e.g. 4-band DRO >C10-12, >C12-16, >C16-21 and >C21-35	Hexane/Acetone extraction / GC-FID	

Report Information

Key	
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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

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All results are expressed on a dry weight basis.

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For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

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Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - The required amount of sample for analysis was not received

H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Report Information

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 26-06019-1

Initial Date of Issue: 19-Mar-2026

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Rory Griggs*

Project *132887 School Lane, Chandler's Ford,
Eastleigh, Hampshire*

Quotation No.: Q26-40647 **Date Received:** 02-Mar-2026

Order No.: 26115 **Date Instructed:** 02-Mar-2026

No. of Samples: 5

Turnaround (Wkdays): 10 **Results Due:** 13-Mar-2026

Date Approved: 19-Mar-2026

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 132887 School Lane, Chandler's Ford, Eastleigh, Hampshire

Client: Lucion Ground Engineering Limited		Chemtest Job No.:				26-06019	26-06019	26-06019	26-06019	26-06019
<i>Quotation No.: Q26-40647</i>		Chemtest Sample ID.:				2090761	2090762	2090763	2090764	2090765
<i>Order No.: 26115</i>		<i>Client Sample Ref.:</i>				<i>ES1</i>	<i>ES2</i>	<i>ES3</i>	<i>ES6</i>	<i>ES9</i>
		<i>Client Reference:</i>				<i>TP101</i>	<i>TP101</i>	<i>TP101</i>	<i>TP102</i>	<i>TP102</i>
		<i>Sample Type:</i>				<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>
		<i>Top Depth (m):</i>				<i>1.00</i>	<i>2.00</i>	<i>3.00</i>	<i>1.80</i>	<i>2.90</i>
		<i>Date Sampled:</i>				<i>26-Feb-2026</i>	<i>26-Feb-2026</i>	<i>26-Feb-2026</i>	<i>26-Feb-2026</i>	<i>26-Feb-2026</i>
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Moisture		N	2030	%	0.020	17	16	19	15	17
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	Stones	Stones	Stones	Stones	Stones
Soil Texture		N	2030		N/A	Sand	Sand	Sand	Sand	Sand
Total TPH >C10-C40 NC	EH_1D_Total	M	5001	mg/kg	10.0	< 10	< 10	12	41	< 10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
5001	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C10-C40); optional carbon banding, e.g. 4-band DRO >C10-12, >C12-16, >C16-21 and >C21-35	Hexane/Acetone extraction / GC-FID	

Report Information

Key	
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I/S	Insufficient Sample
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<	"less than"
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None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

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

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 26-12281-1

Initial Date of Issue: 08-May-2026

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Rory Griggs*

Project *132887 School Lane, Chandlers Ford*

Quotation No.: *Q25-40208*

Date Received: 16-Apr-2026

Order No.: 27028

Date Instructed: 16-Apr-2026

No. of Samples: 4

Turnaround (Wkdays): 10

Results Due: 29-Apr-2026

Date Approved: 08-May-2026

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Water

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:					26-12281	26-12281	26-12281	26-12281
Quotation No.: Q25-40208		Chemtest Sample ID.:					2109677	2109678	2109679	2109680
		Client Reference:					BH10a	BH102	BH103	BH104
		Sample Type:					WATER	WATER	WATER	WATER
		Sample Sub Type:					Ground Water	Ground Water	Ground Water	Ground Water
		Top Depth (m):					3.88	4.70	3.94	4.92
		Date Sampled:					13-Apr-2026	13-Apr-2026	13-Apr-2026	13-Apr-2026
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Aliphatic TPH >C5-C6	EH 2D AL #1	N	1780	µg/l	0.10	< 0.10	510	520	< 0.10	
Aliphatic TPH >C6-C8	EH 2D AL #1	N	1780	µg/l	0.10	< 0.10	210	330	< 0.10	
Aliphatic TPH >C8-C10	EH 2D AL #1	N	1780	µg/l	0.10	< 0.10	230	< 0.10	< 0.10	
Aliphatic TPH >C10-C12	EH 2D AL #1	N	1680	µg/l	0.10	< 0.10	4900	< 0.10	< 0.10	
Aliphatic TPH >C12-C16	EH 2D AL #1	N	1680	µg/l	0.10	< 0.10	12000	< 0.10	< 0.10	
Aliphatic TPH >C16-C21	EH 2D AL #1	N	1680	µg/l	0.10	< 0.10	11000	< 0.10	< 0.10	
Aliphatic TPH >C21-C35	EH 2D AL #1	N	1680	µg/l	0.10	< 0.10	2800	< 0.10	< 0.10	
Aliphatic TPH >C35-C44	EH 2D AL #1	N	1680	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Total Aliphatic Hydrocarbons	EH 2D AL #1	N	1675	µg/l	5.0	< 5.0	31000	850	< 5.0	
Aromatic TPH >C5-C7	EH 2D AR #1	N	1780	µg/l	0.10	< 0.10	1000	740	< 0.10	
Aromatic TPH >C7-C8	EH 2D AR #1	N	1780	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10	
Aromatic TPH >C8-C10	EH 2D AR #1	N	1780	µg/l	0.10	< 0.10	320	100	< 0.10	
Aromatic TPH >C10-C12	EH 2D AR #1	N	1680	µg/l	0.10	< 0.10	4000	150	< 0.10	
Aromatic TPH >C12-C16	EH 2D AR #1	N	1680	µg/l	0.10	< 0.10	10000	31	< 0.10	
Aromatic TPH >C16-C21	EH 2D AR #1	N	1680	µg/l	0.10	< 0.10	5900	< 0.10	< 0.10	
Aromatic TPH >C21-C35	EH 2D AR #1	N	1680	µg/l	0.10	< 0.10	650	< 0.10	< 0.10	
Aromatic TPH >C35-C44	EH 2D AR #1	N	1680	µg/l	0.10	< 0.10	17	< 0.10	< 0.10	
Total Aromatic Hydrocarbons	EH 2D AR #1	N	1675	µg/l	5.0	< 5.0	22000	1000	< 5.0	
Total Petroleum Hydrocarbons	EH 2D Total #1	N	1675	µg/l	10	< 10	53000	1900	< 10	
Benzene		U	1760	µg/l	1.0	< 1.0	1400	< 1.0	< 1.0	
Toluene		U	1760	µg/l	1.0	< 1.0	22	< 1.0	< 1.0	
Ethylbenzene		U	1760	µg/l	1.0	< 1.0	200	< 1.0	< 1.0	
m & p-Xylene		U	1760	µg/l	1.0	< 1.0	94	2.5	2.8	
o-Xylene		U	1760	µg/l	1.0	< 1.0	21	12	< 1.0	

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection	
1680	Extractable Petroleum Hydrocarbons	Aliphatics: >C5–C6, >C6–C8, >C8– C10*, >C10–C12*, >C12–C16*, >C16–C21*, >C21– C35*, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10*, >C10–C12*, >C12–C16*, >C16– C21*, >C21– C35*, >C35– C44	Pentane extraction / GCxGC FID detection	
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.	PL GW
1780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10Aromatics: >C5–C6, >C6–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	

Report Information

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DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

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C - Sample not received in appropriate containers

D - Broken Container

E - The required amount of sample for analysis was not received

H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

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All water samples will be retained for 14 days from the date of receipt.

Report Information

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

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PL - Prepared Leachate
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RE - Recreational Water
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cs@etuki.eurofins.com



Final Report

Report No.: 25-32547-1

Initial Date of Issue: 21-Oct-2025

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Simon Weatherley*

Project *132887 School Lane, Chandlers Ford*

Quotation No.: Q24-36851

Date Received: 08-Oct-2025

Order No.: 23755

Date Instructed: 08-Oct-2025

No. of Samples: 19

Turnaround (Wkdays): 10

Results Due: 21-Oct-2025

Date Approved: 21-Oct-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:	2037901	2037902	2037903	2037904	2037905	2037906	2037907
<i>Order No.: 23755</i>		<i>Client Sample Ref.:</i>	D2/ES2	ES4	ES5	ES7	ES4	ES6	ES8
		<i>Client Reference:</i>	TP01A	TP01A	TP01A	TP01A	TP01B	TP01B	TP01B
		<i>Sample Type:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>	0.30	0.90	1.30	1.90	1.20	1.80	2.40
		<i>Date Sampled:</i>	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025
		Asbestos Lab:	DURHAM						
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
pH at 20C		M	2010		4.0	8.4			
Moisture		N	2030	%	0.020	19	19	20	15
Stones and Removed Materials		N	2030	%	0.020	< 0.020			18
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	< 0.40			13
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.20			
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50			
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50			
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	8.8			
Arsenic		M	2455	mg/kg	0.5	3.4			
Cadmium		M	2455	mg/kg	0.10	< 0.10			
Chromium		M	2455	mg/kg	0.5	11			
Copper		M	2455	mg/kg	0.50	4.5			
Mercury		M	2455	mg/kg	0.05	< 0.05			
Nickel		M	2455	mg/kg	0.50	2.9			
Lead		M	2455	mg/kg	0.50	7.7			
Selenium		M	2455	mg/kg	0.25	0.33			
Zinc		M	2455	mg/kg	0.50	26			
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50			
Organic Matter		M	2625	%	0.40	0.41			
Acenaphthene		M	2700	mg/kg	0.10	< 0.10			
Acenaphthylene		M	2700	mg/kg	0.10	< 0.10			
Anthracene		M	2700	mg/kg	0.10	< 0.10			
Benzo[a]anthracene		M	2700	mg/kg	0.10	< 0.10			
Benzo[a]pyrene		M	2700	mg/kg	0.10	< 0.10			
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	< 0.10			
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	< 0.10			
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	< 0.10			
Chrysene		M	2700	mg/kg	0.10	< 0.10			
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	< 0.10			
Fluoranthene		M	2700	mg/kg	0.10	< 0.10			
Fluorene		M	2700	mg/kg	0.10	< 0.10			
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	< 0.10			
Naphthalene		M	2700	mg/kg	0.10	< 0.10			
Phenanthrene		M	2700	mg/kg	0.10	< 0.10			
Pyrene		M	2700	mg/kg	0.10	< 0.10			
Total Of 16 PAH's		M	2700	mg/kg	2.0	< 2.0			
Total Phenols		M	2920	mg/kg	0.10	< 0.10			

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:	2037901	2037902	2037903	2037904	2037905	2037906	2037907
<i>Order No.: 23755</i>		<i>Client Sample Ref.:</i>	D2/ES2	ES4	ES5	ES7	ES4	ES6	ES8
		<i>Client Reference:</i>	TP01A	TP01A	TP01A	TP01A	TP01B	TP01B	TP01B
		<i>Sample Type:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>	0.30	0.90	1.30	1.90	1.20	1.80	2.40
		<i>Date Sampled:</i>	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025	29-Sep-2025
		Asbestos Lab:	DURHAM						
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
ACM Type		N	2192		N/A	-			
Asbestos Identification		U	2192		N/A	No Asbestos Detected			
Soil Colour		N	2030		N/A	Grey	Brown	Brown	Brown
Other Material		N	2030		N/A	None	None	None	None
Soil Texture		N	2030		N/A	Clay	Clay	Clay	Sand
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	5600	< 10	< 10	< 10

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:	2037908	2037909	2037910	2037911	2037912	2037913	2037914
<i>Order No.: 23755</i>		<i>Client Sample Ref.:</i>	ES5	ES7	ES9	ES4	ES6	ES8	D1 ES1
		<i>Client Reference:</i>	TP02A	TP02A	TP02A	TP02B	TP02B	TP02B	WS01
		<i>Sample Type:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>	1.30	1.95	2.40	1.20	1.80	2.40	0.30
		<i>Date Sampled:</i>	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025
		Asbestos Lab:							DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
pH at 20C		M	2010		4.0				8.8
Moisture		N	2030	%	0.020	12	11	14	17
Stones and Removed Materials		N	2030	%	0.020				< 0.020
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40				0.47
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010				0.053
Cyanide (Free)		M	2300	mg/kg	0.50				< 0.50
Cyanide (Total)		M	2300	mg/kg	0.50				< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50				2.1
Arsenic		M	2455	mg/kg	0.5				7.7
Cadmium		M	2455	mg/kg	0.10				< 0.10
Chromium		M	2455	mg/kg	0.5				16
Copper		M	2455	mg/kg	0.50				23
Mercury		M	2455	mg/kg	0.05				0.25
Nickel		M	2455	mg/kg	0.50				6.5
Lead		M	2455	mg/kg	0.50				910
Selenium		M	2455	mg/kg	0.25				0.43
Zinc		M	2455	mg/kg	0.50				110
Chromium (Hexavalent)		N	2490	mg/kg	0.50				< 0.50
Organic Matter		M	2625	%	0.40				3.7
Acenaphthene		M	2700	mg/kg	0.10				< 0.10
Acenaphthylene		M	2700	mg/kg	0.10				< 0.10
Anthracene		M	2700	mg/kg	0.10				< 0.10
Benzo[a]anthracene		M	2700	mg/kg	0.10				< 0.10
Benzo[a]pyrene		M	2700	mg/kg	0.10				< 0.10
Benzo[b]fluoranthene		M	2700	mg/kg	0.10				< 0.10
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10				< 0.10
Benzo[k]fluoranthene		M	2700	mg/kg	0.10				< 0.10
Chrysene		M	2700	mg/kg	0.10				< 0.10
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10				< 0.10
Fluoranthene		M	2700	mg/kg	0.10				0.20
Fluorene		M	2700	mg/kg	0.10				< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10				< 0.10
Naphthalene		M	2700	mg/kg	0.10				< 0.10
Phenanthrene		M	2700	mg/kg	0.10				< 0.10
Pyrene		M	2700	mg/kg	0.10				0.52
Total Of 16 PAH's		M	2700	mg/kg	2.0				< 2.0
Total Phenols		M	2920	mg/kg	0.10				< 0.10

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:				25-32547	25-32547	25-32547	25-32547	25-32547	25-32547	25-32547
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:				2037908	2037909	2037910	2037911	2037912	2037913	2037914
<i>Order No.: 23755</i>		<i>Client Sample Ref.:</i>				ES5	ES7	ES9	ES4	ES6	ES8	D1 ES1
		<i>Client Reference:</i>				TP02A	TP02A	TP02A	TP02B	TP02B	TP02B	WS01
		<i>Sample Type:</i>				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Top Depth (m):</i>				1.30	1.95	2.40	1.20	1.80	2.40	0.30
		<i>Date Sampled:</i>				30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025	30-Sep-2025
		Asbestos Lab:										DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
ACM Type		N	2192		N/A							-
Asbestos Identification		U	2192		N/A							No Asbestos Detected
Soil Colour		N	2030		N/A	Brown	Beige	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	Stones	None	None	None	None	Stones	Stones and brick
Soil Texture		N	2030		N/A	Sand	Sand	Sand	Clay	Sand	Sand	Clay
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:	25-32547	25-32547	25-32547	25-32547	25-32547
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:	2037915	2037916	2037917	2037918	2037919
<i>Order No.: 23755</i>		<i>Client Sample Ref.:</i>	<i>D1 ES1</i>	<i>D1 ES1</i>	<i>D1 ES1</i>	<i>D1 ES1</i>	<i>D2 ES2</i>
		<i>Client Reference:</i>	<i>WS02</i>	<i>WS05</i>	<i>WS06</i>	<i>WS07</i>	<i>WS08</i>
		<i>Sample Type:</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>
		<i>Top Depth (m):</i>	<i>0.30</i>	<i>0.30</i>	<i>0.30</i>	<i>0.30</i>	<i>0.60</i>
		<i>Date Sampled:</i>	<i>30-Sep-2025</i>	<i>29-Sep-2025</i>	<i>29-Sep-2025</i>	<i>29-Sep-2025</i>	<i>29-Sep-2025</i>
		Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
pH at 20C		M	2010		4.0	8.4	8.5
Moisture		N	2030	%	0.020	21	14
Stones and Removed Materials		N	2030	%	0.020	< 0.020	< 0.020
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	0.80	0.69
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.12	0.060
Cyanide (Free)		M	2300	mg/kg	0.50	< 0.50	< 0.50
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50
Sulphide (Easily Liberatable)		N	2325	mg/kg	0.50	3.4	2.4
Arsenic		M	2455	mg/kg	0.5	9.4	9.9
Cadmium		M	2455	mg/kg	0.10	< 0.10	< 0.10
Chromium		M	2455	mg/kg	0.5	13	22
Copper		M	2455	mg/kg	0.50	35	16
Mercury		M	2455	mg/kg	0.05	0.12	0.07
Nickel		M	2455	mg/kg	0.50	9.9	5.0
Lead		M	2455	mg/kg	0.50	200	31
Selenium		M	2455	mg/kg	0.25	0.38	0.58
Zinc		M	2455	mg/kg	0.50	50	37
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter		M	2625	%	0.40	5.0	1.1
Acenaphthene		M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene		M	2700	mg/kg	0.10	< 0.10	< 0.10
Anthracene		M	2700	mg/kg	0.10	0.12	< 0.10
Benzo[a]anthracene		M	2700	mg/kg	0.10	0.45	< 0.10
Benzo[a]pyrene		M	2700	mg/kg	0.10	0.52	< 0.10
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	0.68	< 0.10
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	0.28	< 0.10
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	0.56	< 0.10
Chrysene		M	2700	mg/kg	0.10	0.77	< 0.10
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene		M	2700	mg/kg	0.10	0.59	< 0.10
Fluorene		M	2700	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	0.19	< 0.10
Naphthalene		M	2700	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene		M	2700	mg/kg	0.10	0.36	< 0.10
Pyrene		M	2700	mg/kg	0.10	0.72	< 0.10
Total Of 16 PAH's		M	2700	mg/kg	2.0	5.2	< 2.0
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10

Results - Soil

Project: 132887 School Lane, Chandlers Ford

Client: Lucion Ground Engineering Limited		Chemtest Job No.:				25-32547	25-32547	25-32547	25-32547	25-32547
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:				2037915	2037916	2037917	2037918	2037919
<i>Order No.: 23755</i>		<i>Client Sample Ref.:</i>				<i>D1 ES1</i>	<i>D1 ES1</i>	<i>D1 ES1</i>	<i>D1 ES1</i>	<i>D2 ES2</i>
		<i>Client Reference:</i>				<i>WS02</i>	<i>WS05</i>	<i>WS06</i>	<i>WS07</i>	<i>WS08</i>
		<i>Sample Type:</i>				<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>	<i>SOIL</i>
		<i>Top Depth (m):</i>				<i>0.30</i>	<i>0.30</i>	<i>0.30</i>	<i>0.30</i>	<i>0.60</i>
		<i>Date Sampled:</i>				<i>30-Sep-2025</i>	<i>29-Sep-2025</i>	<i>29-Sep-2025</i>	<i>29-Sep-2025</i>	<i>29-Sep-2025</i>
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
ACM Type		N	2192		N/A	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	Stones and brick	None	Stones and brick	Stones and brick	Stones and brick
Soil Texture		N	2030		N/A	Clay	Clay	Clay	Sand	Sand
Total TPH >C6-C40	EH_1D_Total	U	2670	mg/kg	10	< 10	< 10	120	160	< 10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
2325	Sulphide in Soils	Sulphide	Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	

Report Information

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

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

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

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 25-32613-1

Initial Date of Issue: 16-Oct-2025

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Simon Weatherley*

Project *132887 School Lane, Chandler's Ford*

Quotation No.: Q24-36851

Date Received: 09-Oct-2025

Order No.: 23756

Date Instructed: 09-Oct-2025

No. of Samples: 1

Turnaround (Wkdays): 7

Results Due: 17-Oct-2025

Date Approved: 16-Oct-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - 2 Stage WAC

Project: 132887 School Lane, Chandler's Ford

Chemtest Job No: 25-32613 Chemtest Sample ID: 2038226 Sample Ref: D1 ES1 Sample ID: Client Reference: TP01-2 A-B Top Depth(m): 0.20 Bottom Depth(m): 0.30 Sampling Date: 29-Sep-2025							Landfill Waste Acceptance Criteria						
			Limits										
			Inert Waste Landfill				Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill					
Determinand	SOP	Accred.							Units				
Total Organic Carbon	2625	M							%				
Loss On Ignition	2610	M							%				
Total BTEX	2760	M							mg/kg				
Total PCBs (7 Congeners)	2815	M							mg/kg				
WAC Total C10-C40	2690	N							mg/kg				
Total (Of 17) PAH's	2700	N		mg/kg									
pH at 20C	2010	M											
Acid Neutralisation Capacity	2015	N	mol/kg										
Eluate Analysis							2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0061	0.0074	0.012	0.073	0.5	2	25				
Barium	1455	U	0.017	0.009	0.034	0.095	20	100	300				
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5				
Chromium	1455	U	0.029	0.0041	0.058	0.056	0.5	10	70				
Copper	1455	U	0.0081	0.0090	0.016	0.0047	2	50	100				
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2				
Molybdenum	1455	U	0.040	0.0062	0.081	0.082	0.5	10	30				
Nickel	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.4	10	40				
Lead	1455	U	0.0007	0.0014	0.0014	0.014	0.5	10	50				
Antimony	1455	U	0.0025	0.0009	0.0050	0.0097	0.06	0.7	5				
Selenium	1455	U	0.0035	0.0015	0.0070	0.016	0.1	0.5	7				
Zinc	1455	U	0.014	0.054	0.029	0.52	4	50	200				
Chloride	1220	U	13	8.5	26	88	800	15000	25000				
Fluoride	1220	U	1.6	0.60	3.2	6.6	10	150	500				
Sulphate	1220	U	74	13	150	170	1000	20000	50000				
Total Dissolved Solids	1020	N	220	64	450	730	4000	60000	100000				
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-				
Dissolved Organic Carbon	1610	U	29	7.2	58	85	500	800	1000				

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	7.1
WAC Sample Weight	2402

Leachate Test Information	
Leachant volume 1st extract/l	0.337
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.102

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter	TE LE SW GW
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	PL LE GW
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	RE PW PL SW DW GW
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation	PL SW GW
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	
2010	pH Value of Soils	pH at 20°C	pH Meter	
2015	Acid Neutralisation Capacity	Acid Reserve	Titration	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS. Reported PCB 101 results may contain contributions from PCB 90 due to inseparable chromatography.	
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	
650	Characterisation of Waste (Leaching C2,C8,C10,WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Report Information

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

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

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

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 25-33297-1

Initial Date of Issue: 30-Oct-2025

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Simon Weatherley*

Project *132887 SCHOOL LANE,
CHANDLER'S FORD*

Quotation No.: Q24-36851

Date Received: 15-Oct-2025

Order No.: 23806

Date Instructed: 15-Oct-2025

No. of Samples: 1

Turnaround (Wkdays): 10

Results Due: 28-Oct-2025

Date Approved: 30-Oct-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Water

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:		25-33297		
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:		2040955		
<i>Order No.: 23806</i>		<i>Client Sample Ref.:</i>		W1		
		<i>Client Reference:</i>		BH01		
		<i>Sample Type:</i>		WATER		
		<i>Sample Sub Type:</i>				
		<i>Top Depth (m):</i>		5.33		
		<i>Date Sampled:</i>		15-Oct-2025		
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
pH at 20C		U	1010		4.0	8.1
Boron (Dissolved)		U	1455	µg/l	10.0	47
Sulphate		U	1220	mg/l	1.0	130
Cyanide (Free)		U	1300	mg/l	0.050	< 0.050
Cyanide (Total)		U	1300	mg/l	0.050	< 0.050
Sulphide		U	1325	mg/l	0.050	< 0.050
Arsenic (Dissolved)		U	1455	µg/l	0.20	1.0
Cadmium (Dissolved)		U	1455	µg/l	0.11	0.12
Chromium (Dissolved)		U	1455	µg/l	0.50	< 0.50
Copper (Dissolved)		U	1455	µg/l	0.50	1.1
Mercury (Dissolved)		U	1455	µg/l	0.05	< 0.05
Nickel (Dissolved)		U	1455	µg/l	0.50	14
Lead (Dissolved)		U	1455	µg/l	0.50	< 0.50
Selenium (Dissolved)		U	1455	µg/l	0.50	2.2
Zinc (Dissolved)		U	1455	µg/l	2.5	67
Acenaphthene		N	1790	µg/l	0.50	< 0.50
Acenaphthene		U	1700	µg/l	0.10	< 0.10
Acenaphthylene		N	1790	µg/l	0.50	< 0.50
Acenaphthylene		U	1700	µg/l	0.10	< 0.10
Anthracene		N	1790	µg/l	0.50	< 0.50
Anthracene		U	1700	µg/l	0.10	< 0.10
Benzo[a]anthracene		N	1790	µg/l	0.50	< 0.50
Benzo[a]anthracene		U	1700	µg/l	0.10	< 0.10
Benzo[a]pyrene		N	1790	µg/l	0.50	< 0.50
Benzo[a]pyrene		U	1700	µg/l	0.10	< 0.10
Benzo[b]fluoranthene		N	1790	µg/l	0.50	< 0.50
Benzo[b]fluoranthene		U	1700	µg/l	0.10	< 0.10
Benzo[g,h,i]perylene		N	1790	µg/l	0.50	< 0.50
Benzo[g,h,i]perylene		U	1700	µg/l	0.10	< 0.10
Benzo[k]fluoranthene		N	1790	µg/l	0.50	< 0.50
Benzo[k]fluoranthene		U	1700	µg/l	0.10	< 0.10
Chrysene		N	1790	µg/l	0.50	< 0.50
Chrysene		N	1700	µg/l	0.10	< 0.10
Dibenz(a,h)Anthracene		N	1790	µg/l	0.50	< 0.50
Dibenz(a,h)Anthracene		U	1700	µg/l	0.10	< 0.10
Fluoranthene		N	1790	µg/l	0.50	< 0.50
Fluoranthene		U	1700	µg/l	0.10	< 0.10

Results - Water

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:		25-33297		
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:		2040955		
<i>Order No.: 23806</i>		<i>Client Sample Ref.:</i>		W1		
		<i>Client Reference:</i>		BH01		
		<i>Sample Type:</i>		WATER		
		<i>Sample Sub Type:</i>				
		<i>Top Depth (m):</i>		5.33		
		<i>Date Sampled:</i>		15-Oct-2025		
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Fluorene		N	1790	µg/l	0.50	< 0.50
Fluorene		U	1700	µg/l	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene		N	1790	µg/l	0.50	< 0.50
Indeno(1,2,3-c,d)Pyrene		U	1700	µg/l	0.10	< 0.10
Naphthalene		N	1790	µg/l	0.50	170
Naphthalene		U	1700	µg/l	0.10	160
Phenanthrene		N	1790	µg/l	0.50	< 0.50
Phenanthrene		U	1700	µg/l	0.10	< 0.10
Pyrene		N	1790	µg/l	0.50	< 0.50
Pyrene		U	1700	µg/l	0.10	< 0.10
Total Of 16 PAH's		N	1700	µg/l	2.0	160
Total Phenols		U	1920	mg/l	0.030	0.066
Total Hardness as CaCO3		U	1270	mg/l	15	580
Aliphatic TPH >C5-C6	EH_2D_AL_#1	N	1780	µg/l	0.10	490
Aliphatic TPH >C6-C8	EH_2D_AL_#1	N	1780	µg/l	0.10	400
Aliphatic TPH >C8-C10	EH_2D_AL_#1	N	1780	µg/l	0.10	< 0.10
Aliphatic TPH >C10-C12	EH_2D_AL_#1	N	1680	µg/l	0.10	10
Aliphatic TPH >C12-C16	EH_2D_AL_#1	N	1680	µg/l	0.10	< 0.10
Aliphatic TPH >C16-C21	EH_2D_AL_#1	N	1680	µg/l	0.10	< 0.10
Aliphatic TPH >C21-C35	EH_2D_AL_#1	N	1680	µg/l	0.10	< 0.10
Aliphatic TPH >C35-C44	EH_2D_AL_#1	N	1680	µg/l	0.10	< 0.10
Total Aliphatic Hydrocarbons	EH_2D_AL_#1	N	1675	µg/l	5.0	900
Aromatic TPH >C5-C7	EH_2D_AR_#1	N	1780	µg/l	0.10	3000
Aromatic TPH >C7-C8	EH_2D_AR_#1	N	1780	µg/l	0.10	160
Aromatic TPH >C8-C10	EH_2D_AR_#1	N	1780	µg/l	0.10	1800
Aromatic TPH >C10-C12	EH_2D_AR_#1	N	1680	µg/l	0.10	460
Aromatic TPH >C12-C16	EH_2D_AR_#1	N	1680	µg/l	0.10	78
Aromatic TPH >C16-C21	EH_2D_AR_#1	N	1680	µg/l	0.10	< 0.10
Aromatic TPH >C21-C35	EH_2D_AR_#1	N	1680	µg/l	0.10	< 0.10
Aromatic TPH >C35-C44	EH_2D_AR_#1	N	1680	µg/l	0.10	< 0.10
Total Aromatic Hydrocarbons	EH_2D_AR_#1	N	1675	µg/l	5.0	5500
Total Petroleum Hydrocarbons	EH_2D_Total_#1	N	1675	µg/l	10	6400
Dichlorodifluoromethane		N	1760	µg/l	1.0	< 1.0
Chloromethane		U	1760	µg/l	1.0	< 1.0
Vinyl Chloride		N	1760	µg/l	1.0	< 1.0
Bromomethane		U	1760	µg/l	5	< 5
Chloroethane		U	1760	µg/l	2.0	< 2.0

Results - Water

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:		25-33297		
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:		2040955		
<i>Order No.: 23806</i>		<i>Client Sample Ref.:</i>		W1		
		<i>Client Reference:</i>		BH01		
		<i>Sample Type:</i>		WATER		
		<i>Sample Sub Type:</i>				
		<i>Top Depth (m):</i>		5.33		
		<i>Date Sampled:</i>		15-Oct-2025		
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
Trichlorofluoromethane		N	1760	µg/l	1.0	< 1.0
1,1-Dichloroethene		U	1760	µg/l	1.0	< 1.0
Trans 1,2-Dichloroethene		U	1760	µg/l	1.0	< 1.0
1,1-Dichloroethane		U	1760	µg/l	1.0	< 1.0
cis 1,2-Dichloroethene		U	1760	µg/l	1.0	< 1.0
Bromochloromethane		U	1760	µg/l	5	< 5
Trichloromethane		U	1760	µg/l	1.0	< 1.0
1,1,1-Trichloroethane		U	1760	µg/l	1.0	< 1.0
Tetrachloromethane		U	1760	µg/l	1.0	< 1.0
1,1-Dichloropropene		U	1760	µg/l	1.0	< 1.0
Benzene		U	1760	µg/l	1.0	34
1,2-Dichloroethane		U	1760	µg/l	2.0	< 2.0
Trichloroethene		N	1760	µg/l	1.0	< 1.0
1,2-Dichloropropane		U	1760	µg/l	1.0	< 1.0
Dibromomethane		U	1760	µg/l	10	< 10
Bromodichloromethane		U	1760	µg/l	5	< 5
cis-1,3-Dichloropropene		N	1760	µg/l	10	< 10
Toluene		U	1760	µg/l	1.0	< 1.0
Trans-1,3-Dichloropropene		N	1760	µg/l	10	< 10
1,1,2-Trichloroethane		U	1760	µg/l	10	< 10
Tetrachloroethene		U	1760	µg/l	1.0	< 1.0
1,3-Dichloropropane		U	1760	µg/l	2.0	< 2.0
Dibromochloromethane		U	1760	µg/l	10	< 10
1,2-Dibromoethane		U	1760	µg/l	5	< 5
Chlorobenzene		N	1760	µg/l	1.0	< 1.0
1,1,1,2-Tetrachloroethane		U	1760	µg/l	2.0	< 2.0
Ethylbenzene		U	1760	µg/l	1.0	< 1.0
m & p-Xylene		U	1760	µg/l	1.0	7.3
o-Xylene		U	1760	µg/l	1.0	2.9
Styrene		U	1760	µg/l	1.0	< 1.0
Tribromomethane		U	1760	µg/l	1.0	< 1.0
Isopropylbenzene		U	1760	µg/l	1.0	< 1.0
Bromobenzene		U	1760	µg/l	1.0	< 1.0
1,2,3-Trichloropropane		N	1760	µg/l	50	< 50
N-Propylbenzene		U	1760	µg/l	1.0	< 1.0
2-Chlorotoluene		U	1760	µg/l	1.0	< 1.0
1,3,5-Trimethylbenzene		U	1760	µg/l	1.0	1.8

Results - Water

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:		25-33297		
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:		2040955		
<i>Order No.: 23806</i>		<i>Client Sample Ref.:</i>		W1		
		<i>Client Reference:</i>		BH01		
		<i>Sample Type:</i>		WATER		
		<i>Sample Sub Type:</i>				
		<i>Top Depth (m):</i>		5.33		
		<i>Date Sampled:</i>		15-Oct-2025		
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
4-Chlorotoluene		U	1760	µg/l	1.0	< 1.0
Tert-Butylbenzene		U	1760	µg/l	1.0	< 1.0
1,2,4-Trimethylbenzene		U	1760	µg/l	1.0	< 1.0
Sec-Butylbenzene		U	1760	µg/l	1.0	< 1.0
1,3-Dichlorobenzene		N	1760	µg/l	1.0	< 1.0
4-Isopropyltoluene		U	1760	µg/l	1.0	< 1.0
1,4-Dichlorobenzene		U	1760	µg/l	1.0	< 1.0
N-Butylbenzene		U	1760	µg/l	1.0	< 1.0
1,2-Dichlorobenzene		U	1760	µg/l	1.0	< 1.0
1,2-Dibromo-3-Chloropropane		N	1760	µg/l	50	< 50
1,2,4-Trichlorobenzene		U	1760	µg/l	1.0	< 1.0
Hexachlorobutadiene		U	1760	µg/l	1.0	< 1.0
1,2,3-Trichlorobenzene		U	1760	µg/l	2.0	< 2.0
Methyl Tert-Butyl Ether		N	1760	µg/l	1.0	< 1.0
N-Nitrosodimethylamine		N	1790	µg/l	0.50	< 0.50
Phenol		N	1790	µg/l	0.50	< 0.50
2-Chlorophenol		N	1790	µg/l	0.50	< 0.50
Bis-(2-Chloroethyl)Ether		N	1790	µg/l	0.50	< 0.50
1,3-Dichlorobenzene		N	1790	µg/l	0.50	< 0.50
1,4-Dichlorobenzene		N	1790	µg/l	0.50	< 0.50
1,2-Dichlorobenzene		N	1790	µg/l	0.50	< 0.50
2-Methylphenol (o-Cresol)		N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroisopropyl)Ether		N	1790	µg/l	0.50	< 0.50
Hexachloroethane		N	1790	µg/l	0.50	< 0.50
N-Nitrosodi-n-propylamine		N	1790	µg/l	0.50	< 0.50
4-Methylphenol		N	1790	µg/l	0.50	< 0.50
Nitrobenzene		N	1790	µg/l	0.50	< 0.50
Isophorone		N	1790	µg/l	0.50	< 0.50
2-Nitrophenol		N	1790	µg/l	0.50	< 0.50
2,4-Dimethylphenol		N	1790	µg/l	0.50	< 0.50
Bis(2-Chloroethoxy)Methane		N	1790	µg/l	0.50	< 0.50
2,4-Dichlorophenol		N	1790	µg/l	0.50	< 0.50
1,2,4-Trichlorobenzene		N	1790	µg/l	0.50	< 0.50
4-Chloroaniline		N	1790	µg/l	0.50	< 0.50
Hexachlorobutadiene		N	1790	µg/l	0.50	< 0.50
4-Chloro-3-Methylphenol		N	1790	µg/l	0.50	< 0.50
2-Methylnaphthalene		N	1790	µg/l	0.50	13

Results - Water

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:		25-33297		
<i>Quotation No.: Q24-36851</i>		Chemtest Sample ID.:		2040955		
<i>Order No.: 23806</i>		<i>Client Sample Ref.:</i>		W1		
		<i>Client Reference:</i>		BH01		
		<i>Sample Type:</i>		WATER		
		<i>Sample Sub Type:</i>				
		<i>Top Depth (m):</i>		5.33		
		<i>Date Sampled:</i>		15-Oct-2025		
Determinand	HWOL Code	Accred.	SOP	Units	LOD	
2,4,6-Trichlorophenol		N	1790	µg/l	0.50	< 0.50
2,4,5-Trichlorophenol		N	1790	µg/l	0.50	< 0.50
2-Chloronaphthalene		N	1790	µg/l	0.50	< 0.50
2-Nitroaniline		N	1790	µg/l	0.50	< 0.50
Dimethylphthalate		N	1790	µg/l	0.50	< 0.50
2,6-Dinitrotoluene		N	1790	µg/l	0.50	< 0.50
3-Nitroaniline		N	1790	µg/l	0.50	< 0.50
Dibenzofuran		N	1790	µg/l	0.50	< 0.50
4-Chlorophenylphenylether		N	1790	µg/l	0.50	< 0.50
2,4-Dinitrotoluene		N	1790	µg/l	0.50	< 0.50
Diethyl Phthalate		N	1790	µg/l	0.50	< 0.50
4-Nitroaniline		N	1790	µg/l	0.50	< 0.50
2-Methyl-4,6-Dinitrophenol		N	1790	µg/l	0.50	< 0.50
Azobenzene		N	1790	µg/l	0.50	< 0.50
4-Bromophenylphenyl Ether		N	1790	µg/l	0.50	< 0.50
Hexachlorobenzene		N	1790	µg/l	0.50	< 0.50
Carbazole		N	1790	µg/l	0.50	< 0.50
Di-N-Butyl Phthalate		N	1790	µg/l	0.50	< 0.50
Butylbenzyl Phthalate		N	1790	µg/l	0.50	< 0.50
Bis(2-Ethylhexyl)Phthalate		N	1790	µg/l	0.50	< 0.50
Di-N-Octyl Phthalate		N	1790	µg/l	0.50	< 0.50
4-Nitrophenol		N	1790	µg/l	0.50	< 0.50

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1010	pH Value of Waters	pH at 20°C	pH Meter	RE PW TE TS PL DW GW
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	RE PW PL LE DW GW
1270	Total Hardness of Waters	Total hardness	Calculation applied to calcium and magnesium results, expressed as mg l-1 CaCO3 equivalent.	GW LE
1300	Cyanides & Thiocyanate in Waters	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Continuous Flow Analysis.	GW
1325	Sulphide in Waters	Sulphides	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using N,N-dimethyl-p-phenylenediamine.	PL LE GW
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	RE PW PL SW DW GW
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection	
1680	Extractable Petroleum Hydrocarbons	Aliphatics: >C5–C6, >C6–C8, >C8– C10*, >C10–C12*, >C12–C16*, >C16–C21*, >C21– C35*, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10*, >C10–C12*, >C12–C16*, >C16– C21*, >C21– C35*, >C35– C44	Dichloromethane extraction / GCxGC FID detection	
1700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	PL GW
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.	PL GW
1780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10 Aromatics: >C5–C6, >C6–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
1790	Semi-Volatile Organic Compounds (SVOCs) in Waters by GC-MS	Semi-volatile organic compounds	Solvent extraction / GCMS detection	
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	PL GW

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection
<i>Text example</i>	All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory This report shall not be reproduced except in full, and only with the prior approval of the laboratory. Any comments or interpretations are outside the scope of UKAS accreditation. The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory. Uncertainty of measurement for the determinands tested are available upon request . None of the results in this report have been recovery corrected. All results are expressed on a dry weight basis. The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols. For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis. All Asbestos testing is performed at the indicated laboratory . Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1. Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.
NEW_AS	Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL
DURHAM	Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 25-37371-1

Initial Date of Issue: 03-Dec-2025

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Simon Weatherley*

Project *132887 SCHOOL LANE,
CHANDLER'S FORD*

Quotation No.: Q24-36851

Date Received: 20-Nov-2025

Order No.: 24467

Date Instructed: 20-Nov-2025

No. of Samples: 4

Turnaround (Wkdays): 10

Results Due: 03-Dec-2025

Date Approved: 03-Dec-2025

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:				25-37371	25-37371	25-37371	25-37371
Quotation No.: Q24-36851		Chemtest Sample ID.:				2055802	2055803	2055804	2055805
Order No.: 24467		Client Sample Ref.:				A1A U1B	D1,D2,D3,ES1,ES2,ES3	D2,D4,ES2,ES3,ES4	D3,D4,D5,D6,D7
		Client Reference:				WS01	WS03	WS06	TP01
		Sample Type:				SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				1.20	0.60	0.60	0.60
		Bottom Depth (m):				2.00	1.20	1.20	1.90
		Date Sampled:				18-Nov-2025	18-Nov-2025	18-Nov-2025	18-Nov-2025
Determinand	HWOL Code	Accred.	SOP	Units	LOD				
Moisture		N	2030	%	0.020	16	16	20	15

Results - 2 Stage WAC

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Chemtest Job No: 25-37371							Landfill Waste Acceptance Criteria			
Chemtest Sample ID: 2055802							Limits			
Sample Ref: A1A U1B							Inert Waste Landfill	Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Sample ID:										
Client Reference: WS01										
Top Depth(m): 1.20										
Bottom Depth(m): 2.00										
Sampling Date: 18-Nov-2025										
Determinand	SOP	Accred.	Units							
Total Organic Carbon	2625	M	%				2.3	3	5	6
Loss On Ignition	2610	M	%				4.6	--	--	10
Total BTEX	2760	M	mg/kg				< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg				< 0.05	1	--	--
WAC Total C10-C40	2690	N	mg/kg				43	500	--	--
Total (Of 17) PAH's	2800	N	mg/kg				7.5	100	--	--
pH at 20C	2010	M					7.6	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg	0.016	--	To evaluate	To evaluate			
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg			
Arsenic	1455	U	0.0006	0.0023	0.0011	0.021	0.5	2	25	
Barium	1455	U	0.024	0.010	0.047	0.11	20	100	300	
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5	
Chromium	1455	U	< 0.0005	0.0015	< 0.0005	0.014	0.5	10	70	
Copper	1455	U	0.0074	0.0074	0.015	0.0072	2	50	100	
Mercury	1455	U	< 0.00005	0.00012	< 0.00005	0.0011	0.01	0.2	2	
Molybdenum	1455	U	0.0007	0.0018	0.0015	0.017	0.5	10	30	
Nickel	1455	U	< 0.0005	0.0008	< 0.0005	0.0070	0.4	10	40	
Lead	1455	U	0.0028	0.029	0.0055	0.26	0.5	10	50	
Antimony	1455	U	0.0006	0.0009	0.0012	0.0086	0.06	0.7	5	
Selenium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.1	0.5	7	
Zinc	1455	U	0.006	0.021	0.011	0.20	4	50	200	
Chloride	1220	U	10	< 1.0	20	< 10	800	15000	25000	
Fluoride	1220	U	0.13	0.23	< 1.0	2.2	10	150	500	
Sulphate	1220	U	11	3.1	22	37	1000	20000	50000	
Total Dissolved Solids	1020	N	150	17	290	270	4000	60000	100000	
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-	
Dissolved Organic Carbon	1610	U	3.0	6.8	< 50	64	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	16
WAC Sample Weight	1774

Leachate Test Information	
Leachant volume 1st extract/l	0.316
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.144

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - 2 Stage WAC

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Chemtest Job No: 25-37371 Chemtest Sample ID: 2055803 Sample Ref: D1,D2,D3,ES1,ES2,ES3 Sample ID: Client Reference: WS03 Top Depth(m): 0.60 Bottom Depth(m): 1.20 Sampling Date: 18-Nov-2025							Landfill Waste Acceptance Criteria						
			Limits										
			Inert Waste Landfill				Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill					
Determinand	SOP	Accred.							Units				
Total Organic Carbon	2625	M							%				
Loss On Ignition	2610	M							%				
Total BTEX	2760	M							mg/kg				
Total PCBs (7 Congeners)	2815	M							mg/kg				
WAC Total C10-C40	2690	N							mg/kg				
Total (Of 17) PAH's	2800	N		mg/kg									
pH at 20C	2010	M											
Acid Neutralisation Capacity	2015	N	mol/kg										
Eluate Analysis							2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0004	0.0017	0.0008	0.015	0.5	2	25				
Barium	1455	U	0.023	< 0.005	0.046	0.027	20	100	300				
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5				
Chromium	1455	U	< 0.0005	0.0011	< 0.0005	0.0093	0.5	10	70				
Copper	1455	U	0.033	0.0077	0.065	0.038	2	50	100				
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2				
Molybdenum	1455	U	0.0003	0.0004	0.0005	0.0039	0.5	10	30				
Nickel	1455	U	0.0008	< 0.0005	0.0015	0.0009	0.4	10	40				
Lead	1455	U	0.0011	0.0024	0.0022	0.022	0.5	10	50				
Antimony	1455	U	0.0005	< 0.0005	0.0010	0.0006	0.06	0.7	5				
Selenium	1455	U	0.0008	0.0009	0.0015	0.0088	0.1	0.5	7				
Zinc	1455	U	0.011	0.007	0.022	0.071	4	50	200				
Chloride	1220	U	13	3.5	26	46	800	15000	25000				
Fluoride	1220	U	0.13	0.14	< 1.0	1.4	10	150	500				
Sulphate	1220	U	16	7.9	32	88	1000	20000	50000				
Total Dissolved Solids	1020	N	180	< 1.0	360	210	4000	60000	100000				
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-				
Dissolved Organic Carbon	1610	U	4.7	7.2	< 50	69	500	800	1000				

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	6.3
WAC Sample Weight	1897

Leachate Test Information	
Leachant volume 1st extract/l	0.338
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.205

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - 2 Stage WAC

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Chemtest Job No: 25-37371 Chemtest Sample ID: 2055804 Sample Ref: D2,D4,ES2,ES3,ES4 Sample ID: Client Reference: WS06 Top Depth(m): 0.60 Bottom Depth(m): 1.20 Sampling Date: 18-Nov-2025							Landfill Waste Acceptance Criteria		
			Limits						
			Inert Waste Landfill				Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill	
Determinand	SOP	Accred.							Units
Total Organic Carbon	2625	M							%
Loss On Ignition	2610	M							%
Total BTEX	2760	M							mg/kg
Total PCBs (7 Congeners)	2815	M							mg/kg
WAC Total C10-C40	2690	N							mg/kg
Total (Of 17) PAH's	2800	N		mg/kg					
pH at 20C	2010	M							
Acid Neutralisation Capacity	2015	N	mol/kg						
Eluate Analysis			2:1 mg/l	8:1 mg/l	2:1 mg/kg	Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
Arsenic	1455	U	0.0008	0.0030	0.0016	0.028	0.5	2	25
Barium	1455	U	0.015	< 0.005	0.029	0.016	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	0.0010	< 0.0005	0.0090	0.5	10	70
Copper	1455	U	0.0093	0.010	0.019	0.0097	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	0.0015	0.0019	0.0029	0.019	0.5	10	50
Antimony	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.06	0.7	5
Selenium	1455	U	0.0006	< 0.0005	0.0012	0.0006	0.1	0.5	7
Zinc	1455	U	0.006	0.007	0.012	0.072	4	50	200
Chloride	1220	U	7.3	1.0	15	17	800	15000	25000
Fluoride	1220	U	0.11	0.11	< 1.0	1.1	10	150	500
Sulphate	1220	U	7.7	2.4	15	30	1000	20000	50000
Total Dissolved Solids	1020	N	110	2.3	210	130	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	2.6	5.8	< 50	55	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	7.1
WAC Sample Weight	1197

Leachate Test Information	
Leachant volume 1st extract/l	0.337
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.183

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - 2 Stage WAC

Project: 132887 SCHOOL LANE, CHANDLER'S FORD

Chemtest Job No: 25-37371 Chemtest Sample ID: 2055805 Sample Ref: D3,D4,D5,D6,D7 Sample ID: Client Reference: TP01 Top Depth(m): 0.60 Bottom Depth(m): 1.90 Sampling Date: 18-Nov-2025							Landfill Waste Acceptance Criteria			
			Limits							
			Inert Waste Landfill				Stable, Non-reactive hazardous waste in non-hazardous Landfill	Hazardous Waste Landfill		
Determinand	SOP	Accred.							Units	
Total Organic Carbon	2625	M							%	
Loss On Ignition	2610	M							%	
Total BTEX	2760	M							mg/kg	
Total PCBs (7 Congeners)	2815	M							mg/kg	
WAC Total C10-C40	2690	N							mg/kg	
Total (Of 17) PAH's	2800	N		mg/kg						
pH at 20C	2010	M								
Acid Neutralisation Capacity	2015	N	mol/kg							
Eluate Analysis							Cumulative mg/kg 10:1	Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg		
			2:1 mg/l	8:1 mg/l	2:1 mg/kg					
Arsenic	1455	U	0.0017	0.0006	0.0034	0.0070	0.5	2	25	
Barium	1455	U	0.047	0.022	0.093	0.25	20	100	300	
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5	
Chromium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	70	
Copper	1455	U	0.0042	0.0036	0.0084	0.0052	2	50	100	
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2	
Molybdenum	1455	U	0.0008	0.0011	0.0015	0.011	0.5	10	30	
Nickel	1455	U	0.0009	< 0.0005	0.0018	0.0011	0.4	10	40	
Lead	1455	U	0.0007	0.0006	0.0015	0.0066	0.5	10	50	
Antimony	1455	U	0.0005	< 0.0005	0.0010	0.0006	0.06	0.7	5	
Selenium	1455	U	0.0013	< 0.0005	0.0026	0.0016	0.1	0.5	7	
Zinc	1455	U	0.011	0.003	0.021	0.043	4	50	200	
Chloride	1220	U	6.6	< 1.0	13	< 10	800	15000	25000	
Fluoride	1220	U	0.13	0.17	< 1.0	1.6	10	150	500	
Sulphate	1220	U	470	57	940	1100	1000	20000	50000	
Total Dissolved Solids	1020	N	640	53	1300	1300	4000	60000	100000	
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-	
Dissolved Organic Carbon	1610	U	4.9	< 2.5	< 50	< 50	500	800	1000	

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	7.4
WAC Sample Weight	3450

Leachate Test Information	
Leachant volume 1st extract/l	0.336
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.215

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Chemtest Sample ID	Clients Sample Ref:	Clients Sample ID:	Clients Reference:	Sampled Date:	Deviation Code(s):	Containers Received:
2055802	A1A U1B		WS01	18-Nov-2025	E	Amber Glass 250ml
2055802	A1A U1B		WS01	18-Nov-2025	E	Plastic Tub 500g
2055803	D1,D2,D3,ES1,ES2,ES3		WS03	18-Nov-2025	E	Amber Glass 250ml
2055803	D1,D2,D3,ES1,ES2,ES3		WS03	18-Nov-2025	E	Plastic Tub 500g
2055804	D2,D4,ES2,ES3,ES4		WS06	18-Nov-2025	E	Amber Glass 250ml
2055804	D2,D4,ES2,ES3,ES4		WS06	18-Nov-2025	E	Plastic Tub 500g

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity at 25°C and Total Dissolved Solids (TDS) in Waters	Conductivity Meter	TE LE SW GW
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.	RE PW PL LE DW GW
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).	RE PW PL SW DW GW
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation	PL SW GW
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.	
2010	pH Value of Soils	pH at 20°C	pH Meter	
2015	Acid Neutralisation Capacity	Acid Reserve	Titration	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.	
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS	
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS. Reported PCB 101 results may contain contributions from PCB 90 due to inseparable chromatography.	
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	
650	Characterisation of Waste (Leaching C2,C8,C10,WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge	

Report Information

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

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

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Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

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

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

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 - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Final Report

Report No.: 26-00142-1

Initial Date of Issue: 27-Jan-2026

Re-Issue Details:

Client *Lucion Ground Engineering Limited*

Client Address: *Newark Road
Peterborough
Cambridgeshire
PE1 5UA*

Contact(s): *Simon Weatherley*

Project *132887 SCHOOL LANE, CHANDLERS
FORD*

Quotation No.: **Date Received:** 08-Jan-2026

Order No.: 24949 **Date Instructed:** 08-Jan-2026

No. of Samples: 5

Turnaround (Wkdays): 10 **Results Due:** 21-Jan-2026

Date Approved: 27-Jan-2026

Approved By:

Details: David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Water

Project: 132887 SCHOOL LANE, CHANDLERS FORD

Client: Lucion Ground Engineering Limited		Chemtest Job No.:				26-00142	26-00142	26-00142	26-00142	26-00142
Quotation No.:		Chemtest Sample ID.:				2071032	2071033	2071034	2071035	2071036
Order No.: 24949		Client Sample Ref.:				W1	W1	W1	W1	W1
		Client Reference:				BH01	WS01A	WS03A	WS06A	WS07A
		Sample Type:				WATER	WATER	WATER	WATER	WATER
		Sample Sub Type:				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
		Top Depth (m):				4.92	3.91	4.72	3.82	3.14
		Date Sampled:				07-Jan-2026	07-Jan-2026	07-Jan-2026	07-Jan-2026	07-Jan-2026
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Total TPH >C6-C40	EH_1D_Total	U	1670	µg/l	10	13000	2000	910	< 10	< 10

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
1670	Total Petroleum Hydrocarbons (TPH) in Waters by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO	Pentane extraction / GC FID detection	PL GW

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TS - Treated Sewage
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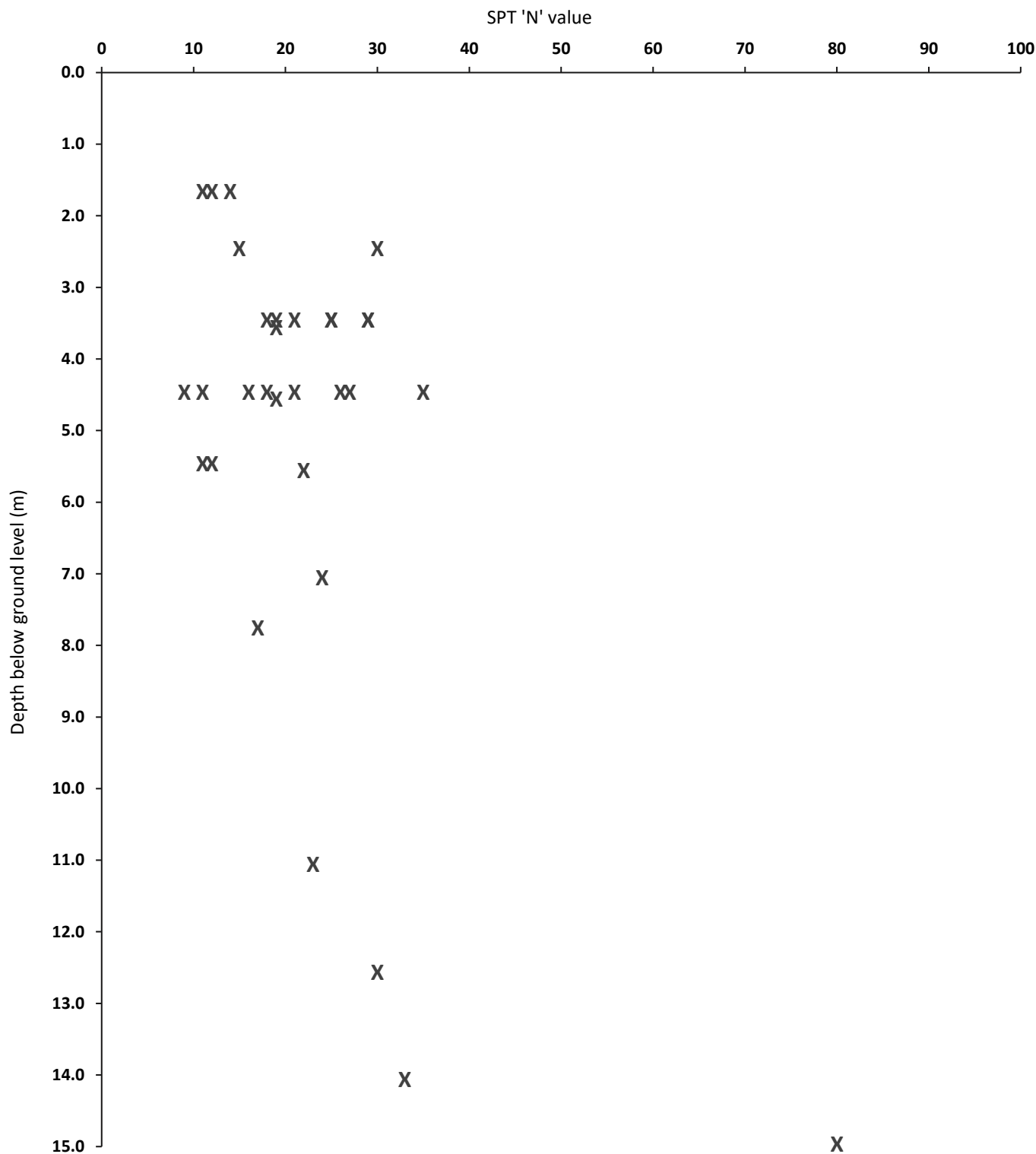
HWOL Acronym System

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Total - Aliphatics & Aromatics
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Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com



Key: BH01 & WS01 to WS08 = X

SPT 'N' value v Depth below ground level (m)

SITE: School Lane, Chandler's Ford

CLIENT: Portakabin Group



LUCION GROUND ENGINEERING LTD.
Tel. 01733 566566

Project No. 132887

Figure 1

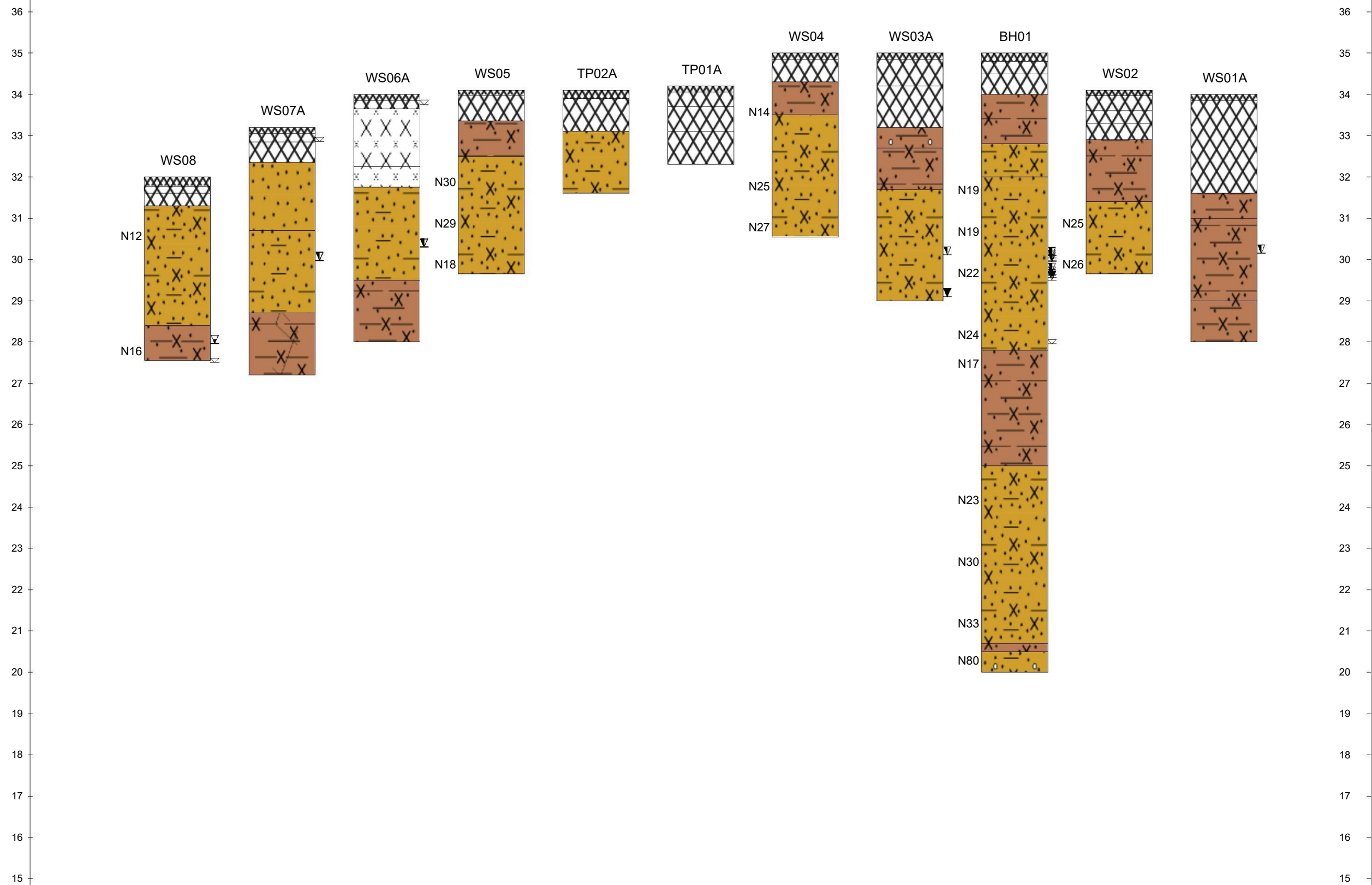
132887

SOUTH

	MADE GROUND - Hardstanding
	MADE GROUND
	REWORKED WITTERING FORMATION
	WITTERING FORMATION - CLAY
	WITTERING FORMATION - SAND

Elevation (mOD)

N/*	SPT Blows
	Water Strike
	Water Rise
	Level on Completion
	Level Casing Withdrawn
	Standpipe Level



Project: School Lane, Chandler's Ford

Client: Portakabin Group

Vertical Scale:	1:100
------------------------	--------------

Horizontal Scale:	Not to scale
--------------------------	---------------------

Figure 2A

APPENDIX 1

CLASSIFICATION OF AGGRESSIVE CHEMICAL ENVIRONMENT FOR BURIED CONCRETE

TABLE C2 – AGGRESSIVE CHEMICAL ENVIRONMENT FOR CONCRETE

(ACEC) CLASSIFICATION FOR BROWNFIELD LOCATIONS^a

Table C2 Aggressive Chemical Environment for Concrete (ACEC) classification for brownfield locations ^a								
Sulfate and magnesium						Groundwater		ACEC
Design Sulfate	2:1 water/soil extract ^b		Groundwater		Total potential sulfate ^c	Static water	Mobile water	Class for location
Class for location								
1	2	3	4	5	6	7	8	9
	(SO ₄ mg/l)	(Mg mg/l)	(SO ₄ mg/l)	(Mg mg/l)	(SO ₄ %)	(pH) ^d	(pH) ^d	
DS-1	< 500		< 400		< 0.24	≥ 2.5	> 6.5 ^d 5.5–6.5 4.5–5.5 2.5–4.5	AC-1s AC-1 AC-2z AC-3z AC-4z
DS-2	500–1500		400–1400		0.24–0.6	> 5.5 2.5–5.5	> 6.5 5.5–6.5 4.5–5.5 2.5–5.5	AC-1s AC-2 AC-2s AC-3z AC-4z AC-5z
DS-3	1600–3000		1500–3000		0.7–1.2	> 5.5 2.5–5.5	> 6.5 5.5–6.5 2.5–5.5	AC-2s AC-3 AC-3s AC-4 AC-5
DS-4	3100–6000	≤ 1200	3100–6000	≤ 1000	1.3–2.4	> 5.5 2.5–5.5	> 6.5 2.5–6.5	AC-3s AC-4 AC-4s AC-5
DS-4m	3100–6000	> 1200 ^e	3100–6000	> 1000 ^e	1.3–2.4	> 5.5 2.5–5.5	> 6.5 2.5–6.5	AC-3s AC-4m AC-4ms AC-5m
DS-5	> 6000	≤ 1200	> 6000	≤ 1000	> 2.4	> 5.5 2.5–5.5	≥ 2.5	AC-4s AC-5
DS-5m	> 6000	> 1200 ^e	> 6000	> 1000 ^e	> 2.4	> 5.5 2.5–5.5	≥ 2.5	AC-4ms AC-5m

Notes

- a** Brownfield locations are those sites, or parts of sites, that might contain chemical residues produced by or associated with industrial production (Section C5.1.3).
- b** The limits of Design Sulfate Classes based on 2:1 water/soil extracts have been lowered from previous Digests (Box C7).
- c** Applies only to locations where concrete will be exposed to sulfate ions (SO₄), which may result from the oxidation of sulfides such as pyrite, following ground disturbance (Appendix A1 and Box C8).
- d** An additional account is taken of hydrochloric and nitric acids by adjustment to sulfate content (Section C5.1.3).
- e** The limit on water-soluble magnesium does not apply to brackish groundwater (chloride content between 12 000 mg/l and 17 000 mg/l). This allows 'm' to be omitted from the relevant ACEC classification. Seawater (chloride content about 18 000 mg/l) and stronger brines are not covered by this table.

Explanation of suffix symbols to ACEC Class

- Suffix 's' indicates that the water has been classified as static.
- Concrete placed in ACEC Classes that include the suffix 'z' have primarily to resist acid conditions and may be made with any of the cements in Table D2 on page 42.
- Suffix 'm' relates to the higher levels of magnesium in Design Sulfate Classes 4 and 5.

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