

Site Investigation

PARCEL 5, HOGWOOD FARM (FINCHWOOD PARK DEVELOPMENT)

CALA HOMES THAMES AND LEGAL & GENERAL HOMES LIMITED

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**GEOTECHNICAL AND GEO-ENVIRONMENTAL
SITE INVESTIGATION**

**PARCEL 5
HOGWOOD FARM
(FINCHWOOD PARK DEVELOPMENT)**

FOR

**CALA HOMES THAMES AND
LEGAL & GENERAL HOMES LIMITED**

ISSUE 2



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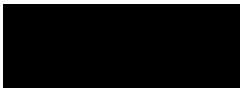
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- Appendix 2** Trial Pit Logs (TP16 to TP17 and TP728 to TP754)
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- Appendix 3** Groundwater Monitoring Report
- Appendix 4** Chemical Test Results (23-65430, 23-65286 and 17-19872)
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- Appendix 5** Geotechnical Test Results (GEO/39232)

1.0 EXECUTIVE SUMMARY

1. This report presents the findings of a Geotechnical and Geo-environmental Site Investigation carried out by Eastwood Consulting Engineers.
2. The site is part of the wider Finchwood Park Development, accessed off Park Lane, around 1 km to the south of Arborfield Garrison in Berkshire.
3. The site comprises former agricultural land surfaced with grass and scrub vegetation. A number of spoil heaps are also present in the north and south of the site.
4. The solid geology is shown to comprise the London Clay Formation. No superficial deposits are indicated to be present.
5. The bedrock is classified as Unproductive Strata and the site does not lie within a groundwater Source Protection Zone.
6. No radon precautions or ground gas protective measures are considered to be required.
7. The ground conditions comprise a topsoil surface covering in the north of the site and placed re-worked natural soils, to depths of up to 1.9 m bgl, in the southern half of the site. The topsoil or placed fill is underlain by firm to stiff clay deposits of the weathered London Clay Formation, becoming unweathered with depth.
8. Groundwater was not encountered during the investigation, however previous groundwater monitoring has suggested that shallow groundwater may be present, particularly during wetter months.
9. For the majority of the site, traditional strip and trench fill foundations are expected to be appropriate, founded at an expected minimum depth of 900 mm in undisturbed natural clay strata.
10. Foundations will require deepening where within the influence of trees, in accordance with NHBC Standards Chapter 4.2. Heave precautions will be required wherever the foundation depth exceeds 1.5 m due to the influence of past or present trees, or for piled plots within the influence of trees.
11. Plots near to the perimeter of the site will likely need to be piled due to the proximity of mature trees. This is also likely to be the case where site levels have been raised

significantly in the south of the site. Analysis has shown that conventional driven piles should be sufficient.

12. It is assumed that precast concrete floors with a minimum 150 mm high ventilated void beneath will be used. The ventilated void height will need to be increased to 250 mm where heave precautions are required.
13. Soakaways are not considered to be a viable form of surface water drainage due to the presence of cohesive strata.
14. No elevated concentrations of contaminants have been identified within the soil at the site. Therefore, no remedial measures are considered necessary and the topsoil and natural ground across the site are suitable for reuse.
15. No sulphate precautions are required for concrete in contact with the weathered London Clay Formation, however concrete in contact with the unweathered London Clay Formation will require DS-4 AC-4 sulphate precautions and concrete in contact with the placed fill will require DS-2 AC-2 sulphate precautions.
16. The conclusions made in this report are subject to agreement by the approving bodies and your warranty provider.

2.0 INTRODUCTION

2.1 Terms of Reference

This report presents the findings of a Geotechnical and Geo-environmental Site Investigation carried out by Eastwood Consulting Engineers (ECE) for, and on the instructions of, CALA Homes Thames and Legal & General Homes Limited. Any other parties using the information in this report do so at their own risk and any duty of care is excluded.

2.2 Context

ECE (then Eastwood & Partners) undertook a broader site investigation that encompasses Parcel 5 in 2017. The resulting report, reference CAT/RAN/SAE/41623-002, dated 21 August 2017, should therefore be read in conjunction with this report.

No other intrusive site investigations are known to have been undertaken on the site in the past.

2.3 Aims and Objectives

The aims and objectives of this investigation were as follows.

- Detail the ground conditions and their geotechnical properties enabling outline foundation proposals to be made for the proposed development;
- Carry out tiered risk assessment to establish the likely risks to future receptors, involving the use of generic assessment criteria and where unacceptable risks are identified, site specific assessment criteria within a detailed quantitative risk assessment;
- Identify feasible remediation options if unacceptable risks are highlighted; and
- Develop an appropriate remediation strategy where remediation is required.

2.4 Scope of Investigation

The investigation consisted of intrusive site works and laboratory analysis. The findings were used to test the conceptual model and produce a final risk assessment.

The intrusive works comprised the excavation of trial pits which were excavated to enable:

- Examination of the upper few metres of ground;
- In situ description of soils, enabling any localised lateral and vertical changes in soil conditions to be logged;

- Assessment of any contamination identified using visual and olfactory methods; and
- Collection of soil samples for geotechnical and chemical testing.

Two cable percussion boreholes were also undertaken for the purposes of determining the ground conditions at depth to assist with pile design.

2.5 Limitations of Investigation

This report is based on the assumption that the site will be developed with low-rise conventional housing with private gardens, areas of soft landscaping and associated infrastructure including roads and driveways. It is not thought that existing ground levels will be modified significantly. If this is not the case, then the advice given in this report may not be appropriate.

Where assessments of site areas affected in particular ways are given, these are approximate. All information, comments and opinions given in this report are based on the ground conditions encountered during the site work, on the results of laboratory testing carried out as part of the investigation and information gained from a geological and historical desk study. However, there may be conditions at the site that have not been taken into account, such as unpredictable soil strata and water conditions between or below investigation points. It should be noted that groundwater levels vary due to seasonal or other effects, and may at times differ from those measured during the investigation.

This report considers the ground and groundwater and does not cover any buildings or their fabric or the constituents of any existing hardstanding materials. Generally, testing has only been carried out for contaminants identified as potentially present with no assessment made of biological contamination. Risks to ecological receptors, such as bats, have not been considered.

3.0 THE SITE

3.1 Description

Land parcel 5 makes up the south-western corner of the wider Finchwood Park development. It is located around 1.6 km to the south of Arborfield Garrison in Berkshire. The partially constructed Phase 2 Development is located approximately 125 m to the north. The site is centred on grid reference 476544, 164145. Access to the site at the time of the most recent site visit is from the north via the haul road connecting the site entrance to the Phase 2 construction area.

The site has an area of approximately 4.8 hectares and is roughly rectangular on plan. Reference to Ordnance Survey maps indicate the original ground levels at the site to be 60 m above ordnance (AOD) in the north of the site and 55 mm AOD in the south of the site. However, following recent cut and fill works undertaken at the site, it is now relatively level.

The site comprises former agricultural land covered with grass and other scrub vegetation. A haul road that runs east to west before turning north and exiting the site is located adjacent to the northern boundary. Several large spoil heaps are located to the north of the centre of the site and a further vegetated spoil heap is located adjacent to the southern boundary. A newly constructed foul pumping station is located in the south east of the site. A haul road runs from the pumping station, parallel to the sites eastern boundary before turning east into Parcel 6 approximately a third of the way along the boundary.

The site is bordered by Parcel 4 to the north, open farmland to the south and west and parcel 6 to the east.

The information presented in this report relates solely to Parcel 5, (herein referred to as "The Site"), except where specifically stated otherwise.

4.0 SUMMARY OF PHASE 1 ASSESSMENT

A Phase 1 assessment of the broader site (of which the subject site is a part of) was undertaken as part of our initial wider site investigation in 2017, reference CAT/RAN/SAE/41623-002, and should be read in conjunction with this Phase 2 report. The pertinent points specifically relevant to Parcel 5 are summarised in the sections below.

4.1 History

Historical Ordnance Survey maps obtained as part of the Envirocheck Report have been studied to assess the previous use of the site. Copies of the maps are presented in Appendix 2.

4.1.1 The Site

The historical mapping shows that the site has remained undeveloped throughout the course of the mapping period.

4.1.2 The Surrounding Area

The surrounding area predominantly comprises agricultural land, although a clay pit and brickworks are shown to the north-east of the site and a clay pit to the west. By the early 20th Century, a brickworks is also present around 250 m south of Hogwood Farm, and gravel pits are shown approximately 150 m south (greater than 250 m away from the current subject site) and 750 m west of Hogwood Farm.

By 1932 Arborfield Remount Depot is labelled around 750 m north of the site, although its full extent and proximity to the site is unclear. By 1938 two additional brickworks are shown around 500 m to the north and north east of the site, the latter later developed as Hogwood Industrial Estate.

The 1961 historical map shows Arborfield Remount Depot has been renamed Arborfield Garrison, and extended up to the northern boundary of Hogwood Farm.

The 1984 map shows Hogwood Farm Industrial Estate in its current layout around 500 m to the east, with a possible tank immediately to the west. By 1988 the attenuation pond between the two industrial estates is also shown.

4.2 Geology

The site is shown to be underlain by the London Clay Formation. Superficial deposits are not mapped across the site area. No faults are shown to cross the site.

4.3 Hydrogeology

The Envirocheck identifies that the underlying solid bedrock below the site is primarily classified as Unproductive Strata. These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

The site is not recorded as being within a groundwater Source Protection Zone.

4.4 Hydrology

Reference to Ordnance Survey maps indicate the nearest surface water feature to be a drain approximately 200 m east of the site.

4.5 Ground Gas

The updated UK Radon maps, issued in December 2022, have been consulted. These confirm that the site is located in a 1km grid square where less than 1% of homes are estimated to lie at or above the action level. Therefore no radon precautions are required at the site.

No landfill sites are identified within 250 m of the site.

A number of infilled ponds are shown on historical maps of the wider Hogwood Farm site and are presumed to have been backfilled. The ponds were small features and are expected to have been shallow, and therefore the risk of significant gas generation and subsequent migration is considered to be low.

There is one area of potentially infilled land identified within 250 m of the site in the Envirocheck. This is located to the north of the site, and is thought to refer to Hogwood Shaw brickworks which were shown to be present on the 1938 historical map. No pits are however, shown in conjunction with this brickworks, but a pond is later shown immediately to the north-west of the brickworks. This is assumed to be the former clay pit. The pond is present on the most recent mapping indicating that it has not been backfilled.

A significant depth of made ground (>2 m) is not anticipated beneath the site.

Ground gas protective measures are therefore not considered to be necessary at this stage.

4.6 Potential Pollutant Linkages

The table overleaf details the possible sources and associated contaminants of concern, pathways and receptors which were identified by the Phase 1 report:

Source	Potential Contaminants	Potential Pathways	Potential Receptors
Made ground	- Heavy metals/metalloids - polycyclic aromatic hydrocarbons (PAHs) - Asbestos	Ingestion, inhalation, direct contact	- Future site occupants and visitors - Site construction workers - Plants
		Direct contact	Water supply pipes
		Migration through ground	Controlled waters
Topsoil	Pesticides	Ingestion, inhalation, direct contact	- Future site occupants and visitors - Site construction workers - Plants
Natural ground	Naturally occurring contaminants	Ingestion, inhalation, direct contact	- Future site occupants and visitors - Site construction workers - Plants - Water supply pipes
Made ground/natural ground	Sulphates	Direct contact	Sub-surface concrete structures

5.0 GROUND INVESTIGATION

5.1 Site Works

Eastwood Consulting Engineers (ECE) visited site between 25 and 26 July 2017 and excavated two trial pits (TP16 and TP17) as part of the broader site investigation. A further twenty-seven trial pits (TP727 to TP754) and two cable percussion boreholes (BH201 and BH202) were completed on between 25 and 27 October 2023.

A further seven trial pits were proposed at the site, however due to the presence of stockpiles in the north and south of the site, these were not able to be completed. Although the ground conditions would not be expected to vary significantly, it is recommended that some additional investigation is undertaken following removal of the stockpiles, particularly in the north where a large area was unavailable for investigation.

Copies of all trial pit logs are presented in Appendix 2, and their locations are plotted on the Exploratory Hole Location Plan, Drawing number 41623/026 revision A in Appendix 1.

5.2 Laboratory Testing

One sample of topsoil was dispatched for chemical testing following the wider 2017 site investigation and a further ten samples of topsoil, eight samples of made ground and fourteen samples of natural ground were dispatched for testing in October 2023.

Soil samples were taken in 250 ml amber glass jars and analysed at i2 Group Laboratories, Cambridge using MCERTs accredited methodologies where available. The sample tested in 2017 was analysed at Chemtest Laboratories, Newmarket. Laboratory testing results are presented in Appendix 4 and discussed further in Section 8.

Twenty samples of natural clay were dispatched for geotechnical testing at Geolabs Limited in Watford, test results are presented in Appendix 5 and discussed further in Section 7.

6.0 GROUND CONDITIONS

6.1 Surface Covering

The majority of the site is soft landscaped. The northern half of the site is surfaced with topsoil comprising sandy clay to between 0.2 and 0.5 m below ground level (bgl). The southern half of the site is surfaced with made ground comprising recently placed material used to raise levels. This is discussed in the made ground section below.

6.2 Made Ground

The material placed across the south of the site to raise levels was found to comprise gravelly clay. The gravel included flint, plastic, tiles, brick and concrete. Rare glass was observed to be present within the made ground in one location, TP748. The material was deepest along the southern boundary where a thickness of up to 1.9 m was recorded. It was then noted to thin towards the north before feathering out completely.

6.3 Natural Ground

Natural ground of the weathered London Clay Formation was encountered beneath the topsoil or made ground. This comprised firm to stiff, orangish brown mottled grey sandy clay. This then became unweathered stiff grey clay from between 2.95 and 5.5 m bgl. The unweathered London Clay was found to become very stiff in the cable percussion boreholes from between 12 and 17 m bgl, this then continued to the base of the holes. The trial pits were terminated at between 2.5 and 3.3 m bgl and the boreholes were terminated at 20 m bgl.

6.4 Obstructions

No subsurface obstructions were encountered during the site investigation.

6.5 Groundwater

Groundwater was not observed in any of the trial pits while they remained open.

Eastwood Consulting Engineers undertook a programme of groundwater monitoring across the wider Hogwood Farm site between July 2018 and June 2019. The results of this were reported on in our Groundwater Monitoring Report, reference 41623/007, dated 21 August 2019. A copy of this report is enclosed in Appendix 3. One monitoring well was installed in Parcel 5, WS9. The shallowest groundwater levels recorded in this well was 0.54 m bgl. Therefore, shallow groundwater may impact the excavation of trenches, particularly during wetter months.

6.6 Evidence of Contamination

Visual or olfactory evidence of possible contamination was not identified in any of the exploratory holes.

7.0 GEOTECHNICAL APPRAISAL

The site is proposed for development with residential properties of conventional construction.

Our investigations indicate that the ground conditions beneath site are relatively homogenous. They generally comprise topsoil over natural deposits of the London Clay Formation. Groundwater was not recorded in any of the trial pits whilst they remained open, however previous groundwater monitoring has indicated the presence of shallow groundwater.

7.1 Laboratory Geotechnical Testing

Sixteen samples of the natural cohesive ground from the weathered London Clay Formation were sent for geotechnical laboratory testing following the field work. The full results are included in Appendix 5 and are summarised in the table below.

Exploratory Hole	Depth (m)	Moisture Content	Liquid Limit	0.4 x Liquid Limit	Potentially Desiccated?	Modified Plasticity Index (%)	Volume Change Potential
TP728	1	26.8	49	19.6	No	29	Medium
TP730	1.3	22.7	44	17.6	No	25	Medium
TP731	1	13.2	30	12	No	10.9	Low
TP731	2.5	23.6	43	17.2	No	24	Medium
TP734	0.9	20.2	39	15.6	No	21.6	Medium
TP736	2.1	25.1	52	20.8	No	35	Medium
TP738	2.3	25.8	48	19.2	No	29	Medium
TP742	2.8	24.8	44	17.6	No	23	Medium
TP743	1.2	23.5	51	20.4	No	33	Medium
TP745	1.9	25.7	57	22.8	No	35	Medium
TP746	1	22.6	47	18.8	No	29	Medium
TP748	1.6	26.1	55	22	No	35	Medium
TP748	3.3	25.5	48	19.2	No	27.7	Medium
TP749	1.6	22.7	53	21.2	No	36	Medium
TP751	2.1	21.6	49	19.6	No	33	Medium
TP752	1.5	19.5	45	18	No	28	Medium

The samples recorded modified plasticity indices of 10.9 to 36% which corresponds to low to medium volume change potential soils. It is therefore recommended that a medium volume change potential should be adopted for the cohesive soils across the site. None of the samples are indicated to be potentially significantly desiccated as the water content of the samples is greater

than 40% of the liquid limit. Previous testing of the unweathered London Clay Formation on adjoining parcels confirms that this also has a medium volume change potential.

Following the drilling work in October 2023, four undisturbed U100 samples were recovered and scheduled for undrained triaxial testing.

Location	Depth (m bgl)	Cell Pressure (kPa)	Deviator Stress (kPa)	Shear Stress (kPa)
BH201	6.0 to 6.45	120	233	117
BH202	10.0 to 10.45	200	435	218
BH201	14.0 to 14.55	280	321	160
BH202	18.0 to 18.45	360	85	42

The result from BH202 at 18.0 to 18.45 m appears to be anomalous and does not fit with the observations of the material around this depth within the borehole, nor with the SPT values which were recorded both a short distance above and below this sample and suggest the clay is very stiff at this depth. The result was queried with the testing laboratory who have confirmed that it has been reported correctly, however it is considered that this result should be assumed to be anomalous and not representative of the material at this depth.

7.2 In-Situ Testing

In-situ hand shear vane testing undertaken on the site in the weathered London Clay Formation during October 2023 recorded shear strength values of between 45 and 169 kN/m², with an average reading of 101 kN/m².

Standard penetration tests (SPTs) were completed every 1.0 to 1.5 m in BH201 to BH202, the test results are summarised in the table below.

Strata	Average N Value Recorded	
	BH201	BH202
Weathered London Clay Formation	15.5	12
London Clay <10 m bgl	21	19.8
London Clay >10 m bgl	28.7	34.2

The above table shows that the average N-value increased with depth, as anticipated and in accordance with the engineer's field observations.

The full hand shear vane and SPT results can be seen in the trial pit and borehole logs included in Appendix 2.

7.3 Foundations

For the majority of the dwellings, it is expected that traditional strip and trench fill foundations, taken onto undisturbed natural non-desiccated cohesive strata of the weathered London Clay Formation, are expected to be appropriate. The geotechnical testing has shown that the soils should be assigned a medium volume change potential and therefore a minimum founding depth of 900 mm below existing or finished ground level (whichever the deeper) will apply. An allowable bearing capacity of 125 kN/m² is likely to be achievable at the minimum foundation depth in the northern third of the site, however this increases to 175 kN/m² in the southern third of the site.

Foundations within clay soils will need to be deepened in accordance with NHBC Standards, Chapter 4.2 where past, present or proposed trees are within influencing distance of the foundation. Heave precautions should be included where the footing depth due to past or present trees is in excess of 1500 mm or for piled plots within tree influence.

Consideration should be given to tree influence at an early stage. Buildings are likely to need to be piled wherever the depth due to trees exceeds 2.5 m. Piling will also be required where the site levels have been raised significantly in the south of the site, particularly where this also intersects with plots requiring deepening due to trees.

Piling is therefore expected to be required towards the perimeter of the site where mature trees are present, and in the south of the site where the thickness of backfill is greatest. Given the site is generally surfaced with topsoil, and as no significant obstructions were encountered, it is expected that driven piles will be appropriate. Specific pile design will need to be undertaken by the piling contractor using the information provided in this report.

Due to the possibility of shallow groundwater, particularly during wetter months, excavations should not be left open for prolonged periods. Methods such as dig and pour or sump and pump may be required to mitigate against shallow groundwater.

7.4 Ground Floors

Where less than 600 mm of made ground is present, ground bearing slabs will be appropriate. Elsewhere, reinforced suspended slabs or precast concrete floors with a minimum 150 mm high ventilated void should be used.

If the footings require heave precautions due to trees, a precast concrete floor with a ventilated void will be required. This void should be a minimum of 250 mm high.

7.5 Superstructure Precautions

No additional superstructure precautions will be required due to the ground conditions encountered.

7.6 Excavation Problems

All of the trial pits remained dry and stable whilst open. Nonetheless, support will be required in accordance with current Health & Safety Regulations wherever access is required to trenches deeper than 1.2 m or less, where there is risk of collapse.

7.7 Obstructions

No obstructions were encountered within the exploratory holes during the investigation, and due to the lack of previous development, none are anticipated to be present.

7.8 Roads

A CBR value of at least 2% is likely to be appropriate for road design. The ground should be assumed to be frost susceptible and a minimum construction thickness of 450 mm will therefore apply. It is recommended that CBR tests are undertaken along any proposed roads prior to construction so that more accurate CBR values can be obtained.

7.9 Surface Water Drainage

Given the cohesive nature of the natural strata encountered, surface water drainage via ground soakage is unlikely to be viable for the proposed development.

8.0 REFINEMENT OF OUTLINE CONCEPTUAL MODEL

8.1 Source Characterisation

An outline conceptual model, detailing the possible sources and associated contaminants of concern, potential pathways and receptors identified in the phase 1 study was detailed in section 4.6.

This section of the report documents the works undertaken to obtain information to test and refine this model enabling a risk assessment to be produced and, where significant risks are expected, remediation recommendations.

8.2 Ground Conditions

Our investigations indicate that the site is surfaced with topsoil in the north of the site and made ground in the south of the site. Any surface covering is underlain by weathered deposits of the London Clay Formation, followed by unweathered London Clay Formation with depth.

8.3 Gas Precautions

No radon precautions are required at the site and no landfill sites were identified within 250 m.

The placed fill across the southern half of the site and primarily comprises reworked natural ground with occasional non-degradable extraneous material, placed in accordance with an engineering specification. As such, this is not considered to present a risk of gas generation and migration.

One area of potentially infilled ground is indicated to be located to the north of the site, and is thought to refer to Hogwood Shaw brickworks, this is assumed to be the former clay pit. However, this is not considered to present a risk of gas generation and migration. Therefore, ground gas precautions are not considered to be necessary in the construction of new dwellings.

8.4 Unexpected Contamination

Visual and olfactory evidence of possible significant contamination was not encountered in any of the exploratory holes.

8.5 Chemical Testing

Over the two phases of investigation eleven samples of topsoil, eight samples of made ground and fourteen samples of natural ground were sent for testing. Each of the samples was analysed for the suite of contaminants listed overleaf.

Contaminant Type	Actual Contaminants
Metals/Metalloids	Arsenic, cadmium, chromium, lead, mercury, nickel, selenium, copper and zinc
pH	pH
PAHs	Speciated PAH
Sulphates*	Water soluble sulphate, acid soluble sulphate, total sulphur

*made and natural ground samples only

Three samples of topsoil were also tested for pesticides, four samples of natural ground and one sample of made ground were also tested for Benzene, toluene, ethylbenzene, xylenes (BTEX) and Methyl tert-Butyl Ether (MTBE), and three samples of made ground were screened for asbestos.

Testing was undertaken by i2 Group and Chemtest, using MCERTs accredited methodologies, where available.

8.6 Assessment Criteria

As the site is to be developed with conventional residential dwellings with private gardens the assessment criteria for 'residential end-use with homegrown produce' has been adopted.

Tables detailing the relevant assessment concentrations used are included in Appendix 4.

8.7 Chemical Test Results

Copies of the chemical test results (23-65286, 23-65430 and 17-19872) are included in Appendix 4. Some preliminary risk assessment is undertaken in this section of the report where determinants can be readily discounted.

8.7.1 Topsoil

None of the samples of topsoil recorded any elevated concentrations of determinants when compared to the residential with home grown produce assessment values.

Of the samples tested, none recorded pesticide concentrations above the detection limit.

8.7.2 Made Ground

None of the samples of made ground recorded determinant concentrations above the residential with homegrown produce assessment values.

8.7.3 Natural Ground

None of the natural ground samples recorded elevated concentrations of any of the determinants when compared to the residential with homegrown produce assessment values.

8.7.4 Sulphates

In accordance with BRE Special Digest 1, the site comes under the classification of 'brownfield' and groundwater is expected to be mobile.

The following table displays the results of the made ground and natural ground samples tested:

Made Ground	Range of Results	Characteristic Value	Sulphate Classification
Water Soluble Sulphate (mg/l)	251 to 1030	909	DS-2 AC-2
Total Sulphur (%)	0.043 to 0.11	0.103	
Total Potential Sulphate (%)	0.129 to 0.33	0.309	
pH	7.8 to 8.4	7.8	
Weathered London Clay Formation			
Water Soluble Sulphate (mg/l)	<1.3 to 385	228	DS-1 AC-1
Total Sulphur (%)	0.005 to 0.079	0.063	
Total Potential Sulphate (%)	0.015 to 0.237	0.189	
pH	7.3 to 8.2	7.3	
Unweathered London Clay Formation			
Water Soluble Sulphate (mg/l)	35 to 790	615	DS-5 AC-5
Total Sulphur (%)	0.60 to 0.95	0.88	
Total Potential Sulphate (%)	1.8 to 2.85	2.64	
pH	8.1 to 9	8.1	

Based on both the water soluble sulphate and total potential sulphate values, a design sulphate class of DS-1 would be appropriate for the weathered London Clay Formation, present to depths of between 2.95 and 5.5 m bgl. The pH values dictate an ACEC class of AC-1 is appropriate and as such no sulphate precautions would be required for below ground concrete in contact with shallow natural ground only. For concrete in contact with the placed fill in the south of the site, sulphate precautions in accordance with a design sulphate class of DS-2 and ACEC class of AC-2 should be adopted.

The total potential sulphate values in the underlying unweathered London Clay Formation, dictate a design sulphate class of DS-5 and ACEC class of AC-5 to be required. However, within BRE SD1 it is stated that '*a limitation can be applied if the sulfate class for the total potential sulfate is initially found to be Sulfate Class 5, but sulfate classes for groundwater and the water extracts tests are Sulfate Class 3 or less. In this case, the Design Sulfate Class for the site location can be limited to DS-4.*' Therefore, where the concrete is in contact with deeper natural ground, DS-4 AC-4 sulphate precautions will need to be incorporated.

8.8 Significant Pollutant Linkages

The significant pollutant linkages consequently identified are thus documented in the following table.

Source	Pathway	Receptor
Sulphates in the made ground and Unweathered London Clay Formation.	Direct contact	Below ground concrete

9.0 RISK ASSESSMENT

9.1 Human Health: Future Site Users

None of the samples tested recorded any elevated concentrations of the determinants when compared to the residential with homegrown produce assessment values. Therefore, no remedial measures are required and the topsoil and natural ground can be considered chemically and physically suitable for reuse on site.

9.2 Human Health: During Construction

Groundworkers employed during the construction phase of the development are most at risk of harm due to them having direct contact with the affected soils. However, the contact is generally of short duration, and all competent ground workers will be aware of the potential risks associated with contact with potentially contaminated soils. Therefore, the overall risk to the health of construction workers is considered to be low.

Normal site procedures, such as the wearing of gloves when handling soils and the washing of hands prior to eating, should be implemented at all times.

9.3 Plants

No samples recorded any phytotoxic concentrations of contaminants.

9.4 Ground Gas

Radon precautions are not required.

Ground gas precautions are not considered necessary.

9.5 Construction Materials

Based upon the results of the pH and sulphate testing discussed in Section 8, no sulphate precautions will be required for below ground concrete in contact with the weathered London Clay Formation only.

However, where below ground concrete is in contact with the unweathered London Clay Formation sulphate precautions equivalent to DS-4 and AC-4 will be required and for the made ground sulphate precautions equivalent to DS-2 and AC-2 will be required.

The results of the chemical testing will need to be forwarded to the water company so that appropriate water supply pipes can be selected.

9.6 Controlled Waters

The underlying bedrock is primarily classified as unproductive strata. Groundwater has not been encountered as part of this investigation and no significantly elevated concentrations of contaminants have been detected.

Therefore, no significant risk to controlled waters has been identified during the course of this investigation.

Standard good site practice during the construction phase of the development must still be adhered to in terms of surface water run-off control measures, to ensure there is no risk to controlled waters.

9.7 Unexpected Contamination

Should any unusual, brightly coloured, ashy, fibrous or odorous material or material suspected of containing asbestos be encountered during construction this should be brought to the attention of the site staff and investigated.

9.8 Disposal of Material

If material needs to be removed, it should to be taken to a suitably licensed landfill or waste treatment facility. The costs of disposal and landfill tax can be substantial. The disposal of material should therefore be seen as a last resort with options such as treatment and reuse either on-site or off-site considered where possible.

The category of landfill which can accept the waste (inert, non-hazardous or hazardous) would need to be determined and will also have a significant effect on the costs. Additional testing may be required by the landfill operator and the acceptance of material is generally at their discretion.

Appendix 1

Exploratory Hole Location Plan, drawing reference 41623/026



INFORMATION WITHIN THIS DRAWING IS NOT NECESSARILY PRODUCED TO SCALE.
ALWAYS USE FIGURED DIMENSIONS AND CO-ORDINATES - IF IN DOUBT, ASK.

NOTES

KEY:

- Approximate location of trial pit completed by ECE on 25 and 26 October 2023.
- Approximate location of cable percussion borehole completed on behalf of ECE between 23 and 24 October 2023.
- Approximate location of trial pit excavated by Eastwood and Partners between 25 and 27 July 2017.
- Approximate location of haul road.

A	First Issue.			
REV	DESCRIPTION	SIG	CHK	DATE

CALA HOMES THAMES & LEGAL AND
GENERAL HOMES LTD

PARCEL 05, HOGWOOD FARM

EXPLORATORY HOLE LOCATION PLAN

Eastwood & Partners
CONSULTING ENGINEERS
St. Andrew's House
23 Kingfield Road
Sheffield
S11 9AS
Tel 0114 255 4554
Fax 0114 255 4330

mail@eastwoodandpartners.com
www.eastwoodandpartners.com

SCALE WHEN PLOTTED AT A1			DRAWING STATUS		
1:750			PRELIMINARY		
DRAWN	CHECKED	DATE	DRAWING NUMBER	REV	
DW	ME	08.12.2023	41623/026	A	

Appendix 2

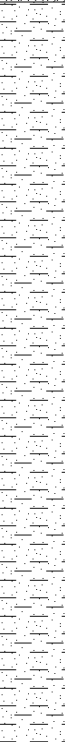
Trial Pit Logs (TP16 to TP17 and TP727 to TP754)

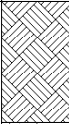
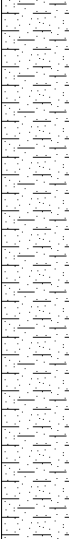
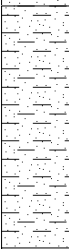
Cable Percussion Borehole Logs (BH205 to BH206)

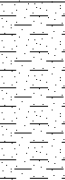




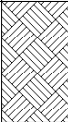
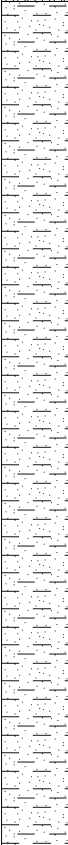
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Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 24/11/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20			0.40			TOPSOIL: Brown very sandy slightly gravelly CLAY. Gravel is subangular fine to coarse flint.	
1.00						Firm orangish brown sandy CLAY. (Weathered London Clay Formation)	
2.60							
			2.80			Stiff orangish brown sandy CLAY. (Weathered London Clay Formation)	
			3.00			Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

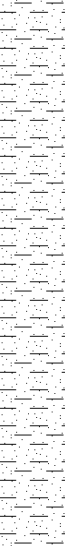
Eastwood CONSULTING ENGINEERS						TrialPit No TP728 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.20m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.15			0.20			TOPSOIL: Soft brown very sandy CLAY with frequent rootlets.	
						Firm orangish brown mottled grey sandy CLAY. (Weathered London Clay Formation)	
1.00 1.00 1.00 1.00		HVP=45 HVP=48 HVP=54					
			2.70			Firm to stiff orangish brown sandy CLAY. (Weathered London Clay Formation)	
			3.20			Trialpit Complete at 3.200m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP729 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10			0.40			TOPSOIL: Soft brown very sandy CLAY with frequent rootlets.	
						Firm orangish brown mottled grey sandy CLAY. (Weathered London Clay Formation)	
1.40 1.40 1.40		HVP=54 HVP=54 HVP=80	2.20			Firm to stiff orangish brown sandy CLAY. (Weathered London Clay Formation)	
			3.00			Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

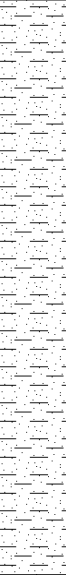
Eastwood CONSULTING ENGINEERS						TrialPit No TP730 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.20m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.50			0.40			TOPSOIL: Soft brown very sandy CLAY with frequent rootlets.	
						Stiff orangish brown mottled grey sandy CLAY. (Weathered London Clay Formation)	
1.30							
2.50 2.50 2.50		HVP=100 HVP=59 HVP=87	2.60			Stiff orangish brown mottled brown sandy CLAY. (Weathered London Clay Formation)	
			3.20			Trialpit Complete at 3.200m	
Remarks:							
Stability: Good							

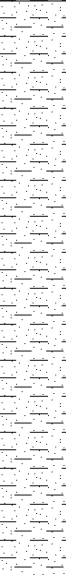
Eastwood CONSULTING ENGINEERS						TrialPit No TP731 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.30m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10			0.20			TOPSOIL: Soft brown very sandy CLAY with frequent rootlets.	
1.00			Orangish brown locally mottled grey clayey SAND. (Weathered London Clay Formation)				
			Firm to stiff orangish brown sandy, locally very sandy CLAY. (Weathered London Clay Formation)				
2.50			Trialpit Complete at 3.300m				
3.30							
Remarks:							
Stability: Good							

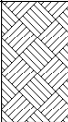
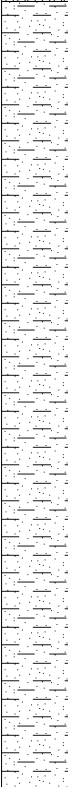
Eastwood CONSULTING ENGINEERS						TrialPit No TP732 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.20m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10			0.40			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
0.90						Firm to stiff orangish brown mottled brown sandy, locally very sandy, CLAY. (Weathered London Clay Formation)	
			3.20			Trialpit Complete at 3.200m	
Remarks:							
Stability: Good							

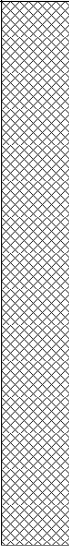
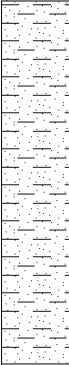
Eastwood CONSULTING ENGINEERS						TrialPit No TP733 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 2.70m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.40 1.40 1.40		HVP=100 HVP=103 HVP=114	0.30			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
			0.50			Firm orangish brown mottled light brown and yellow very sandy CLAY. (Weathered London Clay Formation)	
						Stiff orangish brown mottled grey sandy CLAY. (Weathered London Clay Formation)	
			2.70			Trialpit Complete at 2.700m	
Remarks:							
Stability: Good							

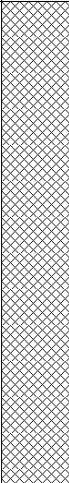
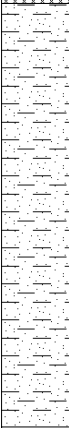
Eastwood CONSULTING ENGINEERS						TrialPit No TP734 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 2.90m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30			0.60			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick.	
0.90 0.90 0.90 0.90		HVP=106 HVP=81 HVP=95				Stiff orangish brown mottled grey sandy CLAY. (Weathered London Clay Formation)	
			2.90			Trialpit Complete at 2.900m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP735 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 2.50m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.30 1.30 1.30		HVP=106 HVP=110 HVP=98	0.60			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
						Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			2.50			Trialpit Complete at 2.500m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP736 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.30m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.00			1.40			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
1.60						Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
2.10			3.30				
						Trialpit Complete at 3.300m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP737 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20			0.40			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
						Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
1.80 1.80 1.80		HVP=111 HVP=99 HVP=99	3.00				
						Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

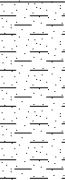
Eastwood CONSULTING ENGINEERS						TrialPit No TP738 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.70			1.80			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
2.20 2.20 2.20 2.30		HVP=100 HVP=136 HVP=73	3.00			Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
						Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

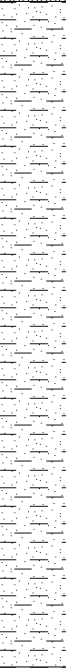
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Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.50			1.60			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
1.70 1.70 1.70 1.70		HVP=100 HVP=100 HVP=84 HVP=84				Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			3.00			Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

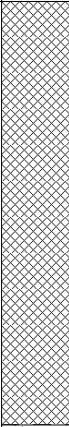
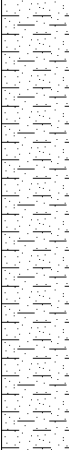
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Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 2.70m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.40			0.90			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
1.40 1.40 1.40 1.40		HVP=106 HVP=84 HVP=92				Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			2.70			Trialpit Complete at 2.700m	
Remarks:							
Stability: Good							

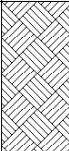
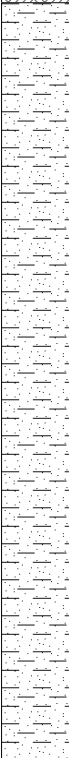
Eastwood CONSULTING ENGINEERS						TrialPit No TP741 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 25/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			0.30			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
						Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
1.60		HVP=100	3.00			Trialpit Complete at 3.000m	
1.60		HVP=106					
1.60		HVP=120					
							1
							2
							3
							4
Remarks:							
Stability: Good							

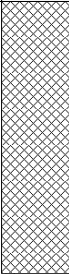
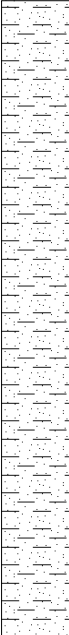
Eastwood CONSULTING ENGINEERS						TrialPit No TP742 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 26/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 2.80m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20			0.40			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
0.80 0.80 0.80		HVP=103 HVP=120 HVP=87				Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
2.80			2.80			Trialpit Complete at 2.800m	
Remarks:							
Stability: Good							

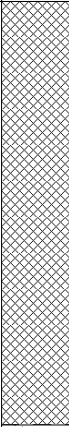
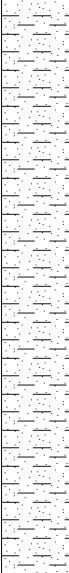
Eastwood CONSULTING ENGINEERS						TrialPit No TP743 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 27/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.20m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.20			0.22			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
1.20						Stiff orangish brown sandy CLAY. (Weathered London Clay Formation)	
			2.60			Stiff orangish brown mottled brown slightly sandy CLAY. (Weathered London Clay Formation)	
			3.20			Trialpit Complete at 3.200m	
Remarks:							
Stability: Good							

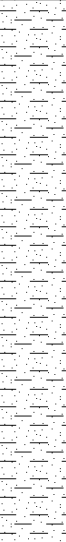
Eastwood CONSULTING ENGINEERS						TrialPit No TP744 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 28/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.10m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.50			0.80			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
1.80 1.80 1.80		HVP=102 HVP=117 HVP=98				Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			3.00			Stiff grey slightly sandy CLAY. (London Clay Formation)	
			3.10			Trialpit Complete at 3.100m	
Remarks:							
Stability: Good							

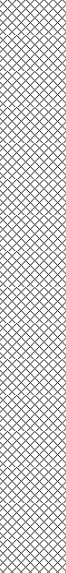
Eastwood CONSULTING ENGINEERS						TrialPit No TP745 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 29/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 2.90m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.00			1.40			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, brick and concrete.	
1.90 1.90 1.90 1.90		HVP=111 HVP=114 HVP=128				Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			2.90			Trialpit Complete at 2.900m	
Remarks:							
Stability: Good							

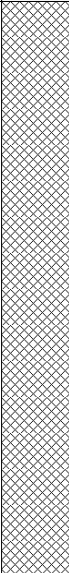
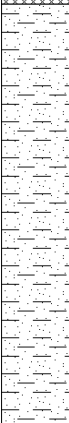
Eastwood CONSULTING ENGINEERS						TrialPit No TP746 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 30/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.30			0.50			TOPSOIL: Soft brown sandy CLAY with frequent rootlets.	
1.00						Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			3.00			Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP747 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 31/10/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.00m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.96 1.96 1.96		HVP=59 HVP=76 HVP=89	0.90			REWORKED GROUND: Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular flint and occasional brick.	
						Stiff orangish brown slightly sandy CLAY. (Weathered London Clay Formation)	
			3.00			Trialpit Complete at 3.000m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP748 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 01/11/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.30m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.00			1.40			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, tiles, brick and rare glass.	
1.60					Stiff mottled orangish brown and grey slightly sandy CLAY. (Weathered London Clay Formation)		
1.80 1.80 1.80		HVP=106 HVP=114 HVP=87					
3.30 3.30 3.30 3.30		HVP=111 HVP=128 HVP=169	3.30			Trialpit Complete at 3.300m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP749 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 02/11/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.10m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
1.20			1.30			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, tiles brick. Organic odour.	
1.60 1.60 1.60 1.60		HVP=102 HVP=106 HVP=109	3.10			Stiff mottled orangish brown and grey slightly sandy CLAY. (Weathered London Clay Formation)	
						Trialpit Complete at 3.100m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS						TrialPit No TP750 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 03/11/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.20m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
			1.90			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, tiles and brick.	
						Firm to stiff mottled orangish brown and grey slightly sandy CLAY. (Weathered London Clay Formation)	
			3.20			Trialpit Complete at 3.200m	
Remarks:							
Stability: Good							

Eastwood CONSULTING ENGINEERS							TrialPit No TP751 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:			Date 04/11/2023
Location: Arborfield					Dimensions: 1.50m			Scale 1:25
Client: Legal & General Homes					Depth: 3.30m			Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
Depth (m)	Type	Results						
1.40			1.90			MADE GROUND: Brown and dark grey sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, tiles and brick.		1
2.10 2.10 2.10		HVP=102 HVP=114 HVP=87				Stiff mottled orangish brown and grey slightly sandy CLAY. (Weathered London Clay Formation)		2
2.40								3
3.30 3.30 3.30		HVP=103 HVP=106 HVP=117	3.30			Trialpit Complete at 3.300m		4
Remarks:								
Stability: Good								

Eastwood CONSULTING ENGINEERS							TrialPit No TP752 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 05/11/2023	
Location: Arborfield					Dimensions: 1.50m		Scale 1:25	
Client: Legal & General Homes					Depth: 3.00m		Logged ME	
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
Depth (m)	Type	Results						
0.90			1.20			MADE GROUND: Brown and dark grey sandy gravelly CLAY. Gravel is fine to coarse angular to subangular flint, plastic, tile and brick.		
1.50 1.50 1.50 1.50		HVP=103 HVP=125 HVP=87				Stiff mottled orangish brown and grey slightly sandy CLAY. (Weathered London Clay Formation)		
3.00 3.00 3.00		HVP=139 HVP=139 HVP=142		3.00		Trialpit Complete at 3.000m		
Remarks:								
Stability: Good								

Eastwood CONSULTING ENGINEERS						TrialPit No TP753 Sheet 1 of 1	
Project Name Hogwood Farm			Project No. 41623		Co-ords: - Level:		Date 06/11/2023
Location: Arborfield					Dimensions: 1.50m		Scale 1:25
Client: Legal & General Homes					Depth: 3.20m		Logged ME
Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10		HVP=111 HVP=114 HVP=156	0.25			TOPSOIL: Soft brown sandy CLAY.	
0.80 0.80 0.80						Stiff mottled orangish brown and grey slightly sandy CLAY. (Weathered London Clay Formation)	
2.80 2.80 2.80						HVP=100 HVP=102 HVP=106	
			3.20			Trialpit Complete at 3.200m	
Remarks:							
Stability: Good							

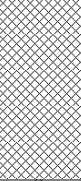
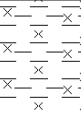
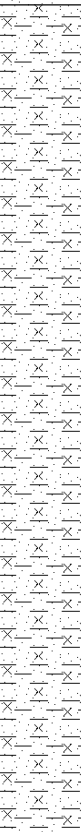
Date _____

07/11/2023

Scale

Logged
ME

Remarks:	
Stability: Good	

Eastwood CONSULTING ENGINEERS					Borehole Log			Borehole No. BH201 Sheet 1 of 2		
Project Name: Hogwood Farm					Project No. 41623		Co-ords: -		Hole Type CP	
Location: Arborfield					Level:			Scale 1:50		
Client: Legal & General Homes					Dates: 24/10/2023 - 24/10/2023			Logged By ME		
Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		1.20		N=9 (1,1/2,2,2,3)	1.20			MADE GROUND: Brown gravelly CLAY. Gravel is fine to coarse angular brick, pottery and wood.	1	
		2.00		N=19 (2,3/4,4,5,6)	2.00			Firm brown mottled grey silty CLAY. (Weathered London Clay Formation)	2	
		3.00		N=18 (2,3/4,4,5,5)	4.50			Stiff brown mottled grey sandy CLAY. (Weathered London Clay Formation)	3	
		4.00		N=16 (2,3/3,4,4,5)				Stiff grey silty sandy CLAY. (London Clay Formation)	4	
		5.00		N=18 (3,3/4,4,5,5)					5	
		7.00		N=20 (2,3/4,5,5,6)					7	
		8.00		N=22 (3,4/5,5,6,6)				8		
		9.00		N=24 (3,4/5,6,7,6)				9		
		10.00		N=21 (3,3/4,5,5,7)				10		
		Continued on next sheet								
Remarks										

Borehole Log

Borehole No.

BH201

Sheet 2 of 2

Project Name: Hogwood Farm

Project No.
41623

Co-ords: -

Hole Type
CP

Location: Arborfield

Level:

Scale
1:50

Client: Legal & General Homes

Dates: 24/10/2023 - 24/10/2023

Logged By
ME

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		11.00		N=24 (3,4/5,6,6,7)					11
		12.00		N=24 (4,4/5,6,6,7)					12
		13.00		N=27 (4,5/6,6,7,8)					13
		15.00		N=26 (4,5/6,6,7,7)					15
		16.00		N=29 (4,5/6,7,8,8)					16
		17.00		N=30 (5,6/7,7,8,8)	17.00				17
		18.00		N=30 (5,5/6,7,8,9)					18
		19.00		N=33 (5,6/7,8,9,9)					19
		20.00		N=35 (6,5/7,8,9,11)	20.00				20

Very stiff grey silty sandy CLAY. (London Clay Formation)

End of borehole at 20.00 m

Remarks

Borehole Log

Borehole No.

BH202

Sheet 1 of 2

Project Name: Hogwood Farm

Project No.
41623

Co-ords: -

Hole Type
CP

Location: Arborfield

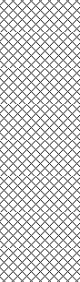
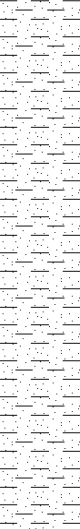
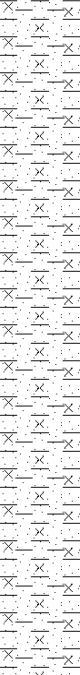
Level:

Scale
1:50

Client: Legal & General Homes

Dates: 24/10/2023 - 25/10/2023

Logged By
ME

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.20		N=6 (1,1/1,1,2,2)	1.90			MADE GROUND: Brown sandy gravelly CLAY. Gravel is fine to coarse angular brick, pottery and wood.	1
		2.00		N=8 (1,2/2,2,2,2)				Firm brown silty sandy CLAY. (Weathered London Clay Formation)	2
		3.00		N=9 (1,2/2,2,2,3)	5.50		Stiff grey silty sandy CLAY. (London Clay Formation)	3	
		4.00		N=14 (2,2/3,3,4,4)				4	
		5.00		N=17 (2,2/3,4,5,5)				5	
		6.00		N=17 (3,3/3,4,5,5)				6	
		7.00		N=19 (2,3/4,4,5,6)				7	
		8.00		N=21 (3,4/4,5,6,6)				8	
		9.00		N=22 (3,4/4,6,6,6)	9				
		Continued on next sheet							

Remarks

Borehole Log

Borehole No.

BH202

Sheet 2 of 2

Project Name: Hogwood Farm

Project No.
41623

Co-ords: -

Hole Type
CP

Location: Arborfield

Level:

Scale
1:50

Client: Legal & General Homes

Dates: 24/10/2023 - 25/10/2023

Logged By
ME

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		11.00		N=28 (4,5/6,7,7,8)					11
		12.00		N=30 (4,6/7,7,8,8)	12.00			Very stiff grey silty CLAY. (London Clay Formation)	12
		13.00		N=30 (4,5/6,7,8,9)					13
		14.00		N=33 (5,7/7,8,9,9)					14
		15.00		N=34 (4,6/7,8,9,10)					15
		16.00		N=36 (5,6/8,8,9,11)					16
		17.00		N=36 (5,7/7,8,10,11)					17
		18.00							18
		19.00		N=38 (5,7/8,9,10,11)					19
		20.00		N=43 (6,7/8,9,12,14)	20.00			End of borehole at 20.00 m	20

Remarks

Appendix 3

Groundwater monitoring report

Nick Jordan
Legal & General Homes Communities
One Coleman Street
London
EC2R 5AA

CAT/RAN/41623-007

21 August 2019

Dear Nick,

Hogwood Farm, Arborfield – Groundwater Monitoring Report

We are writing to report on the groundwater monitoring which was undertaken at this site between July 2018 and June 2019.

Monitoring visits

Monthly visits were undertaken by E&P during which, monitoring of the water depth in each of the twenty-two installed monitoring wells was undertaken. WS22, located in the SANG area in the southern part of the site could not be located and was not monitored during any of the visits. All remaining wells (WS1 to WS21 and WS23) were monitored on at least one occasion. The occasions during which monitoring could not be undertaken are listed in the table below, along with the corresponding reasons.

Monitoring well	Dates not monitored	Reason
WS2	June 2019	Well destroyed/buried by ongoing construction works in the vicinity
WS4	July to August 2018	Could not locate
WS11	December 2018 to June 2019	Well destroyed/buried during archaeological works in the vicinity
WS15	June 2019	Well monitored but found to be dry and silted up to 1.15 m
WS22	All	Could not locate well, suspect it was not installed
WS223	December 2018 to June 2019	Well destroyed/buried during archaeological works in the vicinity

In addition to the above, no monitoring was undertaken during November 2018.

Monitoring Results

The monitoring commenced in July 2018 where the water level was recorded to be between 1.2 m and 2.1 m below ground level (bgl) across the site. The water levels then dropped to

their deepest in September 2018 where they were found to be between 1.2 m and 2.7 m bgl. The levels then rose to a peak in March 2019 where the levels were found to be between 0.0 m and 0.96 m bgl. As expected, the levels then fell towards June 2019, although small rises were recorded in a few wells between May and June.

A copy of the spreadsheet outlining the monitoring results is attached along with a graph demonstrating the annual cyclical nature of the water levels.

Interpretation of Results

From the results recorded we have produced two plans showing the groundwater contours across the site;

- Drawing 41623/005 – Groundwater Monitoring Locations with Highest Water Depths; and
- Drawing 41623/006 – Groundwater Monitoring Locations with Lowest Water Depths

Copies of the plans are enclosed. These both show a similar trend with water levels being highest in the north west and north east, falling south east and south west respectively, towards the centre of the southern area of the site.

The enclosed Ordnance Survey (OS) plan shows a large number of surface watercourses and ponds both on the site and in the surrounding area. The OS extract which covers a wider area also shows a large number of surface water features, including the Blackwater River located around 550 m south of the site. A surface water drain/stream is indicated to run through the site, exiting at the centre of the southern boundary of the site. This then turns south west and flows directly to the Blackwater River. This is therefore consistent with the contours plotted from the water monitoring, which indicate the water levels to fall towards the drain/stream.

The elevation of the site is between around 52 m AOD in the south and east to around 60 m AOD in the north. The Blackwater River lies at an elevation of around 50 m AOD. It is therefore not unexpected that the groundwater is encountered at shallow depth below the site. The water depths recorded are therefore considered to represent the true groundwater level, and not a perched water table.

Conclusion

Water monitoring of twenty-two monitoring wells across the site over twelve months between July 2018 and June 2019 has demonstrated an annual cyclical pattern with water levels being

shallowest towards the end of the winter period/beginning of spring and deepest towards the end of the summer period/beginning of autumn. The water levels were observed to be relatively shallow, with water recorded at the surface on a few occasions in a small number of wells. Contour plans have been produced which indicate the groundwater is flowing towards a surface water drain/stream which exits the centre of the southern boundary of the site and flows towards the Blackwater River. The values recorded are considered to be representative of the true groundwater, and not a perched water table.

Yours sincerely



Catherine Topliss

Enc. Monitoring results spreadsheet
 Graph of monitoring results
 Drawings 41623/005 and 41623/006
 Ordnance Survey Plan and Ordnance Survey Extract

Groundwater Monitoring Results Table

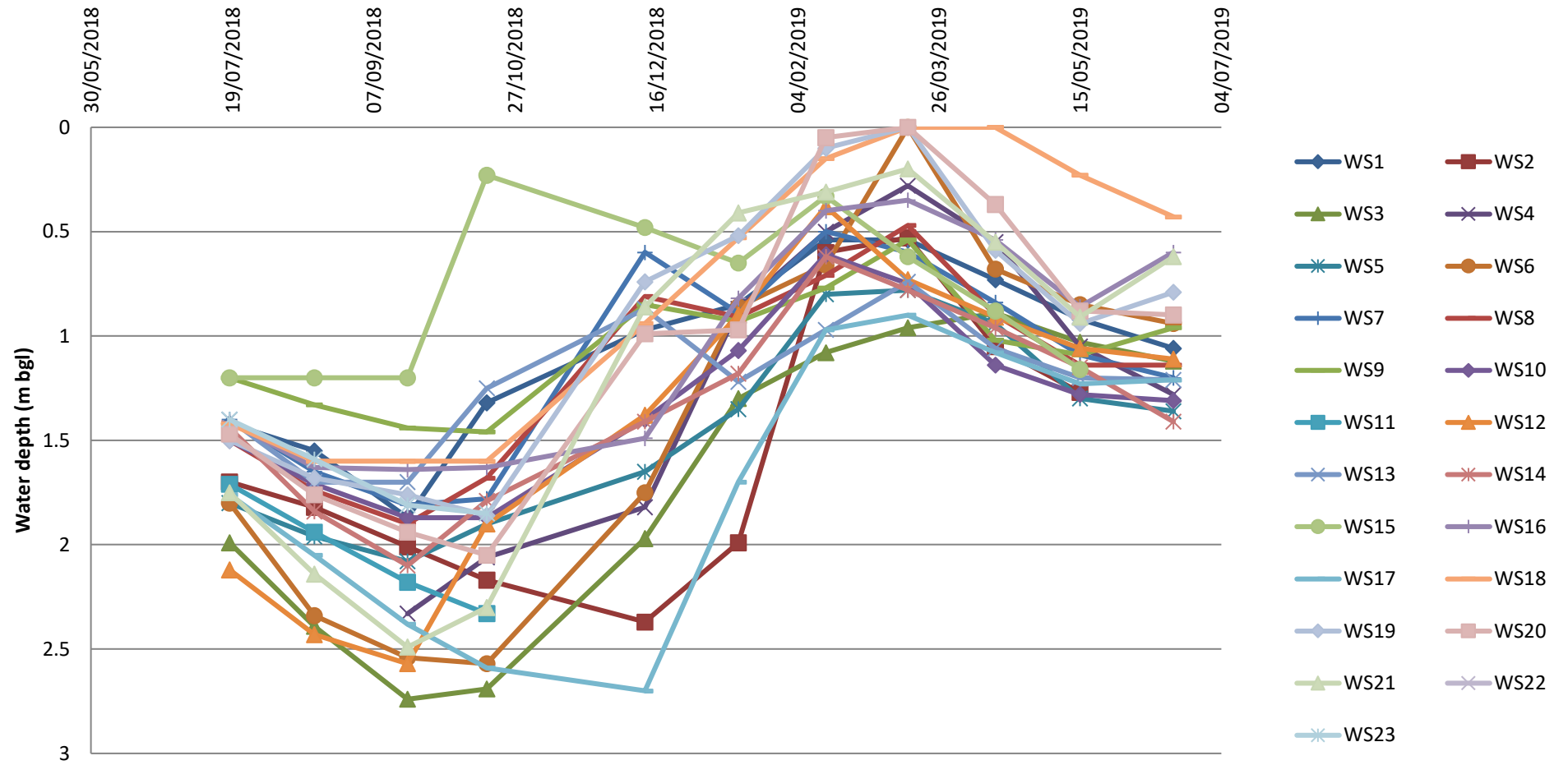
Monitoring well	Water level (mbgl)											Depth (m bgl)
	18/07/2018	17/08/2018	19/09/2018	17/10/2018	12/12/2018	14/01/2019	14/02/2019	15/03/2019	15/04/2019	15/05/2019	17/06/2019	
WS1	1.42	1.55	1.87	1.32	0.97	0.85	0.54	0.54	0.73	0.92	1.06	2.9
WS2	1.7	1.82	2.01	2.17	2.37	1.99	0.6	0.53	1.05	1.27		2.8
WS3	1.99	2.39	2.74	2.69	1.97	1.3	1.08	0.96	0.89	1.03	1.12	3
WS4			2.33	2.06	1.82	0.87	0.5	0.28	0.55	1.05	1.28	3.7
WS5	1.8	1.96	2.08	1.9	1.65	1.35	0.8	0.78	0.94	1.3	1.36	3.6
WS6	1.8	2.34	2.54	2.57	1.75	0.86	0.66	0	0.68	0.85	0.94	3.8
WS7	1.4	1.65	1.81	1.78	0.6	0.89	0.5	0.6	0.84	1.09	1.2	3.6
WS8	1.5	1.74	1.9	1.68	0.81	0.91	0.71	0.47	0.9	1.14	1.14	2.8
WS9	1.2	1.33	1.44	1.46	0.85	0.93	0.77	0.54	1.02	1.09	0.96	3.9
WS10	1.5	1.71	1.87	1.87	1.4	1.07	0.61	0.75	1.14	1.28	1.31	2.8
WS11	1.71	1.94	2.18	2.33								2.5
WS12	2.12	2.43	2.57	1.9	1.38	0.9	0.38	0.73	0.91	1.06	1.11	2.9
WS13	1.4	1.7	1.7	1.25	0.87	1.22	0.97	0.74	1.06	1.2	1.21	1.8
WS14	1.44	1.84	2.1	1.79	1.41	1.18	0.62	0.78	0.96	1.15	1.41	2.9
WS15	1.2	1.2	1.2	0.23	0.48	0.65	0.33	0.62	0.88	1.16		1.3
WS16	1.41	1.63	1.64	1.63	1.49	0.82	0.4	0.35	0.54	0.86	0.6	1.6
WS17	1.76	2.05	2.38	2.59	2.7	1.7	0.97	0.9	1.08	1.23	1.21	2.7
WS18	1.42	1.6	1.6	1.6	0.94	0.53	0.15	0	0	0.23	0.43	2.7
WS19	1.5	1.68	1.76	1.86	0.74	0.52	0.1	0	0.59	0.94	0.79	3.5
WS20	1.47	1.76	1.94	2.05	0.99	0.97	0.05	0	0.37	0.88	0.9	2.9
WS21	1.75	2.14	2.49	2.3	0.86	0.41	0.31	0.2	0.55	0.91	0.62	3.3
WS22												3.6
WS23	1.4	1.59	1.81	1.85								2.9

17/06/2019

WS2 - Destroyed/buried

WS15 - Dry (silted up to 1.15 m)

Water depth over time





INFORMATION WITHIN THIS DRAWING IS NOT NECESSARILY PRODUCED TO SCALE.
ALWAYS USE FIGURED DIMENSIONS AND CO-ORDINATES - IF IN DOUBT, ASK.

- 1.5 Highest water depth recorded throughout the monitoring period in metres below ground level.
- 50.50 Highest water depth recorded throughout the monitoring period in metres above Ordnance Datum.
- GWM Standpipe location
- Groundwater level contour line
- Groundwater level contour line - extrapolated

A	First Issue.			
REV	DESCRIPTION	SIG	CHK	DATE

LEGAL AND GENERAL HOMES

HOGWOOD FARM, ARBORFIELD

GROUND WATER MONITORING
LOCATIONS WITH HIGHEST WATER
DEPTHS

Eastwood & Partners
CONSULTING ENGINEERS

EOP

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SCALE WHEN PLOTTED AT A3 1:5000			DRAWING STATUS INFORMATION	
DRAWN TC	CHECKED RAN	DATE 24.07.19	DRAWING NUMBER 41623/005	REV A



INFORMATION WITHIN THIS DRAWING IS NOT NECESSARILY PRODUCED TO SCALE.
ALWAYS USE FIGURED DIMENSIONS AND CO-ORDINATES - IF IN DOUBT, ASK.

- 0.5 Lowest water depth recorded throughout the monitoring period in metres below ground level.
- 55.50 Lowest water depth recorded throughout the monitoring period in metres above Ordnance Datum.
- GWM Standpipe location
- Groundwater level contour line
- Groundwater level contour line - extrapolated

A	First Issue.			
REV	DESCRIPTION	SIG	CHK	DATE

LEGAL AND GENERAL HOMES

HOGWOOD FARM, ARBORFIELD

GROUND WATER MONITORING
LOCATIONS WITH LOWEST WATER
DEPTHS

Eastwood & Partners
CONSULTING ENGINEERS

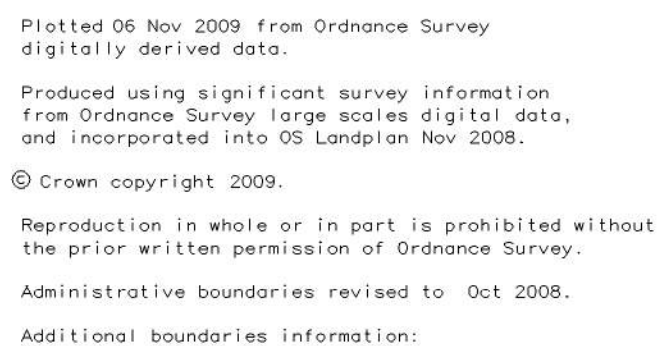
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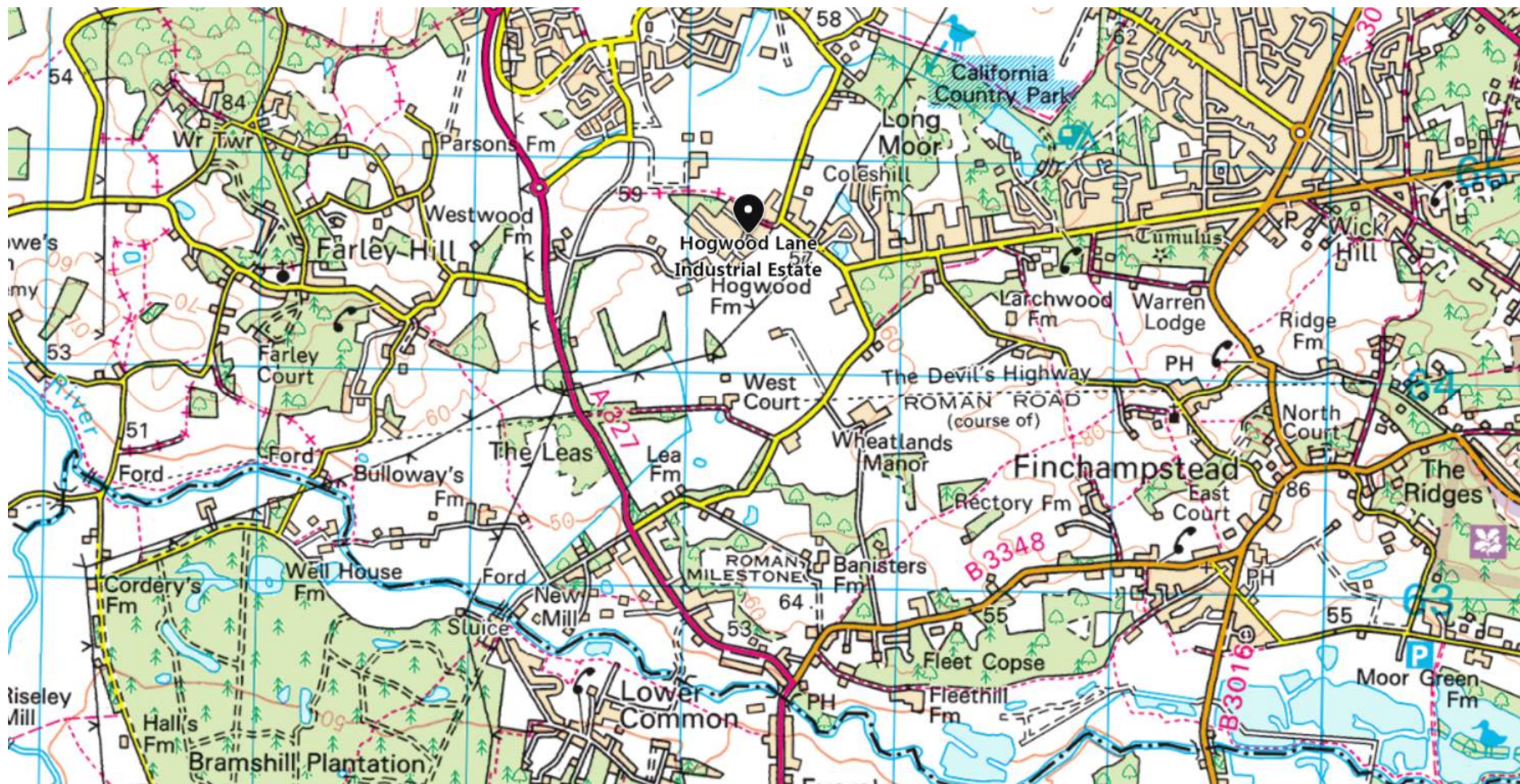
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SCALE WHEN PLOTTED AT A3 1:5000			DRAWING STATUS INFORMATION	
DRAWN TC	CHECKED RAN	DATE 24.07.19	DRAWING NUMBER 41623/006	REV A



Plot centre coordinates: 477000 164000
Supplied by: Thames Print Room
Plot serial number: 00145800



Appendix 4

Chemical Test Results (23-65430, 23-65286 and 17-19872)

Table of Assessment Values – Residential with homegrown produce

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Analytical Report Number : 23-65286

Replaces Analytical Report Number: 23-65286, issue no. 1
Additional analysis undertaken.
Pesticides Added As Requested By Client.

Project / Site name:	Finchwood Park	Samples received on:	27/10/2023
Your job number:	41623	Samples instructed on/ Analysis started on:	27/10/2023
Your order number:	41623	Analysis completed by:	13/11/2023
Report Issue Number:	2	Report issued on:	21/11/2023
Samples Analysed:	31 soil samples		

Signed:

Dominika Warjan
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859863	2859864	2859865	2859866	2859867
Sample Reference				TP728	TP729	TP731	TP732	TP737
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.10	0.10	0.10	0.20
Date Sampled				25/10/2023	25/10/2023	25/10/2023	25/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	16	26	21	20
Total mass of sample received	kg	0.001	NONE	0.3	0.3	0.3	0.2	0.2

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7	6.9	7.6	7.3	6.6
Total Sulphate as SO ₄	%	0.005	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.07	0.07	0.16	0.06	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.09	0.09	0.36	0.12	0.07
Pyrene	mg/kg	0.05	MCERTS	0.07	0.09	0.29	0.11	0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.05	0.14	0.08	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.06	0.19	0.07	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.23	0.1	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.07	0.16	0.07	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.12	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.17	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	1.98	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.1	7.5	6.9	5.6	7.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	0.3	0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	22	21	18	22
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.6	11	15	15	10
Lead (aqua regia extractable)	mg/kg	1	MCERTS	42	22	37	24	26
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.6	7.9	8.2	6.9	7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	62	48	150	100	45

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number	2859863	2859864	2859865	2859866	2859867
Sample Reference	TP728	TP729	TP731	TP732	TP737
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	0.10	0.10	0.10	0.20
Date Sampled	25/10/2023	25/10/2023	25/10/2023	25/10/2023	25/10/2023
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics & Oxygenates

Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	5	MCERTS	-	-	-	-	-
o-xylene	µg/kg	5	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS, 1D, AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 _{HS, 1D, AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 _{HS, 1D, AL}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 _{EH, CU, 1D, AL}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 _{EH, CU, 1D, AL}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) _{EH, CU+HS, 1D, AL}	mg/kg	10	NONE	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7 _{HS, 1D, AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 _{HS, 1D, AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 _{HS, 1D, AR}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 _{EH, CU, 1D, AR}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 _{EH, CU, 1D, AR}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) _{EH, CU+HS, 1D, AR}	mg/kg	10	NONE	-	-	-	-	-

Pesticides

Alachlor	µg/kg	10	NONE	< 10	-	-	-	-
Aldrin	µg/kg	10	NONE	< 10	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	< 10	-	-	-	-
BHC-beta	µg/kg	10	NONE	< 10	-	-	-	-
BHC-delta	µg/kg	10	NONE	< 10	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	< 10	-	-	-	-
Bifenthrin	µg/kg	10	NONE	< 10	-	-	-	-
Carbophenothion	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	< 10	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	< 10	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	< 20	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	< 10	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	< 10	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	< 10	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	< 10	-	-	-	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859863	2859864	2859865	2859866	2859867
Sample Reference				TP728	TP729	TP731	TP732	TP737
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.10	0.10	0.10	0.20
Date Sampled				25/10/2023	25/10/2023	25/10/2023	25/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Deltamethrin	µg/kg	10	NONE	< 10	-	-	-	-
Demeton-O	µg/kg	10	NONE	< 10	-	-	-	-
Demeton-S	µg/kg	10	NONE	< 10	-	-	-	-
Diazinon	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorvos	µg/kg	10	NONE	< 10	-	-	-	-
Dieldrin	µg/kg	10	NONE	< 10	-	-	-	-
Dimethoate	µg/kg	10	NONE	< 10	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	< 10	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	< 10	-	-	-	-
Endrin	µg/kg	20	NONE	< 20	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	< 10	-	-	-	-
Endrin ketone	µg/kg	10	NONE	< 10	-	-	-	-
Ethion	µg/kg	10	NONE	< 10	-	-	-	-
Etrinfos	µg/kg	10	NONE	< 10	-	-	-	-
Fenitrothion	µg/kg	10	NONE	< 10	-	-	-	-
Fenthion	µg/kg	10	NONE	< 10	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	< 10	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	< 10	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	< 10	-	-	-	-
Isodrin	µg/kg	20	NONE	< 20	-	-	-	-
Malathion	µg/kg	10	NONE	< 10	-	-	-	-
Methacrifos	µg/kg	10	NONE	< 10	-	-	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	< 20	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	< 10	-	-	-	-
Omethoate	µg/kg	20	NONE	< 20	-	-	-	-
Parathion	µg/kg	10	NONE	< 10	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Pendimethalin	µg/kg	10	NONE	< 10	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	< 10	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	< 10	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	< 10	-	-	-	-
Phorate	µg/kg	10	NONE	< 10	-	-	-	-
Phosalone	µg/kg	10	NONE	< 10	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	< 10	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Propetamphos	µg/kg	10	NONE	< 10	-	-	-	-
Propyzamide	µg/kg	10	NONE	< 10	-	-	-	-
Tecnazene	µg/kg	10	NONE	< 10	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	< 10	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	< 10	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	< 10	-	-	-	-
Trifluralin	µg/kg	10	NONE	< 10	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859868	2859869	2859870	2859871	2859872
Sample Reference				TP742	TP743	TP746	TP753	TP754
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.30	0.10	0.10
Date Sampled				26/10/2023	26/10/2023	26/10/2023	26/10/2023	26/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	14	10	13	17
Total mass of sample received	kg	0.001	NONE	0.3	0.4	0.3	0.4	0.3

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.4	7.1	6.9	7	7.3
Total Sulphate as SO ₄	%	0.005	MCERTS	-	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.11	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.08	0.17	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.05	0.16	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.09	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.09	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.07	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.6	6.9	6.9	6.7	6.8
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	21	22	22	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.1	7.9	6.8	7.2	9.6
Lead (aqua regia extractable)	mg/kg	1	MCERTS	22	23	23	24	25
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.7	7.4	7.4	7.2	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	33	34	33	32	35

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859868	2859869	2859870	2859871	2859872
Sample Reference				TP742	TP743	TP746	TP753	TP754
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.30	0.10	0.10
Date Sampled				26/10/2023	26/10/2023	26/10/2023	26/10/2023	26/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	5	MCERTS	-	-	-	-	-
o-xylene	µg/kg	5	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) _{EH,CU+HS,1D,AL}	mg/kg	10	NONE	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) _{EH,CU+HS,1D,AR}	mg/kg	10	NONE	-	-	-	-	-

Pesticides

Alachlor	µg/kg	10	NONE	< 10	-	< 10	-	-
Aldrin	µg/kg	10	NONE	< 10	-	< 10	-	-
Azinphos-ethyl	µg/kg	10	NONE	< 10	-	< 10	-	-
Azinphos-methyl	µg/kg	10	NONE	< 10	-	< 10	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	< 10	-	< 10	-	-
BHC-beta	µg/kg	10	NONE	< 10	-	< 10	-	-
BHC-delta	µg/kg	10	NONE	< 10	-	< 10	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	< 10	-	< 10	-	-
Bifenthrin	µg/kg	10	NONE	< 10	-	< 10	-	-
Carbophenothion	µg/kg	10	NONE	< 10	-	< 10	-	-
Chlordane-cis	µg/kg	10	NONE	< 10	-	< 10	-	-
Chlordane-trans	µg/kg	10	NONE	< 10	-	< 10	-	-
Chlorfenvinphos	µg/kg	10	NONE	< 10	-	< 10	-	-
Chlorothalonil	µg/kg	20	NONE	< 20	-	< 20	-	-
Chlorpyrifos	µg/kg	10	NONE	< 10	-	< 10	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	< 10	-	< 10	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	< 10	-	< 10	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	< 10	-	< 10	-	-
DDD-o,p'	µg/kg	10	NONE	< 10	-	< 10	-	-
DDD-p,p'	µg/kg	10	NONE	< 10	-	< 10	-	-
DDE-o,p'	µg/kg	10	NONE	< 10	-	< 10	-	-
DDE-p,p'	µg/kg	10	NONE	< 10	-	< 10	-	-
DDT-o,p'	µg/kg	10	NONE	< 10	-	< 10	-	-
DDT-p,p'	µg/kg	10	NONE	< 10	-	< 10	-	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859868	2859869	2859870	2859871	2859872
Sample Reference				TP742	TP743	TP746	TP753	TP754
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.20	0.30	0.10	0.10
Date Sampled				26/10/2023	26/10/2023	26/10/2023	26/10/2023	26/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Deltamethrin	µg/kg	10	NONE	< 10	-	< 10	-	-
Demeton-O	µg/kg	10	NONE	< 10	-	< 10	-	-
Demeton-S	µg/kg	10	NONE	< 10	-	< 10	-	-
Diazinon	µg/kg	10	NONE	< 10	-	< 10	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	< 10	-	< 10	-	-
Dichlorvos	µg/kg	10	NONE	< 10	-	< 10	-	-
Dieldrin	µg/kg	10	NONE	< 10	-	< 10	-	-
Dimethoate	µg/kg	10	NONE	< 10	-	< 10	-	-
Dimethylvinphos	µg/kg	10	NONE	< 10	-	< 10	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	< 10	-	< 10	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	< 10	-	< 10	-	-
Endosulfan sulfate	µg/kg	10	NONE	< 10	-	< 10	-	-
Endrin	µg/kg	20	NONE	< 20	-	< 20	-	-
Endrin aldehyde	µg/kg	10	NONE	< 10	-	< 10	-	-
Endrin ketone	µg/kg	10	NONE	< 10	-	< 10	-	-
Ethion	µg/kg	10	NONE	< 10	-	< 10	-	-
Etirimfos	µg/kg	10	NONE	< 10	-	< 10	-	-
Fenitrothion	µg/kg	10	NONE	< 10	-	< 10	-	-
Fenthion	µg/kg	10	NONE	< 10	-	< 10	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	< 10	-	< 10	-	-
Heptachlor	µg/kg	10	NONE	< 10	-	< 10	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	< 10	-	< 10	-	-
Hexachlorobenzene	µg/kg	10	NONE	< 10	-	< 10	-	-
Hexachlorobutadiene	µg/kg	10	NONE	< 10	-	< 10	-	-
Isodrin	µg/kg	20	NONE	< 20	-	< 20	-	-
Malathion	µg/kg	10	NONE	< 10	-	< 10	-	-
Methacrifos	µg/kg	10	NONE	< 10	-	< 10	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	< 20	-	< 20	-	-
Mevinphos, E+Z	µg/kg	10	NONE	< 10	-	< 10	-	-
Omethoate	µg/kg	20	NONE	< 20	-	< 20	-	-
Parathion	µg/kg	10	NONE	< 10	-	< 10	-	-
Parathion-methyl	µg/kg	10	NONE	< 10	-	< 10	-	-
Pendimethalin	µg/kg	10	NONE	< 10	-	< 10	-	-
Pentachlorobenzene	µg/kg	10	NONE	< 10	-	< 10	-	-
Permethrin, Cis-	µg/kg	10	NONE	< 10	-	< 10	-	-
Permethrin, Trans-	µg/kg	10	NONE	< 10	-	< 10	-	-
Phorate	µg/kg	10	NONE	< 10	-	< 10	-	-
Phosalone	µg/kg	10	NONE	< 10	-	< 10	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	< 10	-	< 10	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	< 10	-	< 10	-	-
Pirimiphos-methyl	µg/kg	10	NONE	< 10	-	< 10	-	-
Propetamphos	µg/kg	10	NONE	< 10	-	< 10	-	-
Propyzamide	µg/kg	10	NONE	< 10	-	< 10	-	-
Tecnazene	µg/kg	10	NONE	< 10	-	< 10	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	< 10	-	< 10	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	< 10	-	< 10	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	< 10	-	< 10	-	-
Trifluralin	µg/kg	10	NONE	< 10	-	< 10	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859873	2859874	2859875	2859876	2859877
Sample Reference				TP728	TP732	TP743	TP745	TP730
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.90	1.20	1.00	0.50
Date Sampled				25/10/2023	25/10/2023	26/10/2023	26/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	18	14	16	14	15
Total mass of sample received	kg	0.001	NONE	0.2	0.3	0.3	0.3	0.7

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.5	7.3	7.6	7.7	8.2
Total Sulphate as SO ₄	%	0.005	MCERTS	0.013	0.017	0.01	0.113	0.009
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0055	0.0127	0.0054	0.385	< 0.0013
Total Sulphur	%	0.005	MCERTS	0.005	0.006	0.005	0.047	0.005

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.24	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.07	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.57	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.51	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.31	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.48	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.1	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.3	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	2.87	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	13	13	11	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	40	44	44	27	40
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.2	12	17	14	8.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	10	12	12	22	10
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	14	38	14	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37	43	52	59	37

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859873	2859874	2859875	2859876	2859877
Sample Reference				TP728	TP732	TP743	TP745	TP730
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.90	1.20	1.00	0.50
Date Sampled				25/10/2023	25/10/2023	26/10/2023	26/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	-
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	-
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS 1D AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	-
TPH-CWG - Aliphatic >EC6 - EC8 HS 1D AL	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	-
TPH-CWG - Aliphatic >EC8 - EC10 HS 1D AL	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	-
TPH-CWG - Aliphatic >EC10 - EC12 EH CU 1D AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
TPH-CWG - Aliphatic >EC12 - EC16 EH CU 1D AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	-
TPH-CWG - Aliphatic >EC16 - EC21 EH CU 1D AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	-
TPH-CWG - Aliphatic >EC21 - EC35 EH CU 1D AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	16	-
TPH-CWG - Aliphatic (EC5 - EC35) EH CU+HS 1D AL	mg/kg	10	NONE	< 10	< 10	< 10	17	-

TPH-CWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	-
TPH-CWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	-
TPH-CWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	-
TPH-CWG - Aromatic >EC10 - EC12 EH CU 1D AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
TPH-CWG - Aromatic >EC12 - EC16 EH CU 1D AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	-
TPH-CWG - Aromatic >EC16 - EC21 EH CU 1D AR	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	-
TPH-CWG - Aromatic >EC21 - EC35 EH CU 1D AR	mg/kg	10	MCERTS	< 10	< 10	< 10	12	-
TPH-CWG - Aromatic (EC5 - EC35) EH CU+HS 1D AR	mg/kg	10	NONE	< 10	< 10	< 10	15	-

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859873	2859874	2859875	2859876	2859877
Sample Reference				TP728	TP732	TP743	TP745	TP730
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.90	1.20	1.00	0.50
Date Sampled				25/10/2023	25/10/2023	26/10/2023	26/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859878	2859879	2859880	2859881	2859882
Sample Reference				TP736	TP738	TP740	TP745	TP748
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	2.30	1.40	1.90	1.60
Date Sampled				25/10/2023	25/10/2023	25/10/2023	26/10/2023	26/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	18	15	16	15
Total mass of sample received	kg	0.001	NONE	0.3	0.2	0.6	0.4	0.3

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9	7.9	8.1	8.2	8.1
Total Sulphate as SO ₄	%	0.005	MCERTS	0.016	0.236	0.01	0.014	0.016
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0099	0.0713	0.0047	0.0139	0.0169
Total Sulphur	%	0.005	MCERTS	0.008	0.079	0.008	0.009	0.009

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	21	16	12	19
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41	41	50	48	45
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	23	16	19	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	12	16	14	14	14
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	34	30	39	29
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	54	52	60	63	65

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859878	2859879	2859880	2859881	2859882
Sample Reference				TP736	TP738	TP740	TP745	TP748
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	2.30	1.40	1.90	1.60
Date Sampled				25/10/2023	25/10/2023	25/10/2023	26/10/2023	26/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	5	MCERTS	-	-	-	-	-
o-xylene	µg/kg	5	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	NONE	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	NONE	-	-	-	-	-

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859878	2859879	2859880	2859881	2859882
Sample Reference				TP736	TP738	TP740	TP745	TP748
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	2.30	1.40	1.90	1.60
Date Sampled				25/10/2023	25/10/2023	25/10/2023	26/10/2023	26/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859883	2859884	2859885	2859886	2859887
Sample Reference				TP749	TP751	TP752	TP734	TP736
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	2.10	1.50	0.30	1.00
Date Sampled				26/10/2023	26/10/2023	26/10/2023	25/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	16	17	12	10
Total mass of sample received	kg	0.001	NONE	0.2	0.3	0.4	0.3	0.8

Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	MWI	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9	7.9	7.7	8.3	8.4
Total Sulphate as SO ₄	%	0.005	MCERTS	0.022	0.014	0.022	0.106	0.152
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0318	0.0197	0.0397	0.315	0.563
Total Sulphur	%	0.005	MCERTS	0.013	0.008	0.009	0.043	0.063

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.09	0.07
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	0.21
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.3	0.21
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.21	0.16
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.23	0.12
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.3	0.2
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.2	0.11
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.28	0.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.22	0.12
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.25	0.15

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	2.41	1.55
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	13	11	12	9.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	41	40	35	29	24
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	15	8.7	16	79
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	14	9.6	23	19
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	29	37	15	14	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	64	55	43	56	43

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859883	2859884	2859885	2859886	2859887
Sample Reference				TP749	TP751	TP752	TP734	TP736
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	2.10	1.50	0.30	1.00
Date Sampled				26/10/2023	26/10/2023	26/10/2023	25/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	5	MCERTS	-	-	-	-	-
o-xylene	µg/kg	5	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS, 1D, AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 _{HS, 1D, AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 _{HS, 1D, AL}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 _{EH, CU, 1D, AL}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 _{EH, CU, 1D, AL}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 _{EH, CU, 1D, AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) _{EH, CU+HS, 1D, AL}	mg/kg	10	NONE	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7 _{HS, 1D, AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 _{HS, 1D, AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 _{HS, 1D, AR}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 _{EH, CU, 1D, AR}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 _{EH, CU, 1D, AR}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 _{EH, CU, 1D, AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) _{EH, CU+HS, 1D, AR}	mg/kg	10	NONE	-	-	-	-	-

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859883	2859884	2859885	2859886	2859887
Sample Reference				TP749	TP751	TP752	TP734	TP736
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.60	2.10	1.50	0.30	1.00
Date Sampled				26/10/2023	26/10/2023	26/10/2023	25/10/2023	25/10/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859888	2859889	2859890	2859891	2859892
Sample Reference				TP738	TP744	TP745	TP751	TP752
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.50	1.00	1.40	0.90
Date Sampled				25/10/2023	26/10/2023	26/10/2023	26/10/2023	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	58	49	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	13	15	16	14
Total mass of sample received	kg	0.001	NONE	0.9	0.8	0.5	0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	MWI	MWI	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9	7.8	8.1	8.3	8.1
Total Sulphate as SO ₄	%	0.005	MCERTS	0.298	0.278	0.224	0.133	0.1
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	1.03	0.789	0.637	0.495	0.371
Total Sulphur	%	0.005	MCERTS	0.096	0.11	0.069	0.074	0.062

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.05	0.18	0.09	0.18	0.46
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.07	0.05	0.05	0.13
Fluoranthene	mg/kg	0.05	MCERTS	0.12	0.54	0.35	0.42	1.1
Pyrene	mg/kg	0.05	MCERTS	0.11	0.52	0.34	0.4	0.85
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.07	0.33	0.22	0.25	0.47
Chrysene	mg/kg	0.05	MCERTS	0.06	0.32	0.24	0.22	0.49
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.11	0.47	0.34	0.34	0.6
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.06	0.13	0.1	0.09	0.15
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.1	0.32	0.26	0.26	0.41
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.53	0.16	0.15	0.27
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.24	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.8	0.18	0.18	0.29

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	4.45	2.33	2.54	5.17
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.3	11	12	11	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	29	30	26	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.5	18	16	18	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	20	35	25	28
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.6	15	16	13	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	29	50	66	73	59

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859888	2859889	2859890	2859891	2859892
Sample Reference				TP738	TP744	TP745	TP751	TP752
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.50	1.00	1.40	0.90
Date Sampled				25/10/2023	26/10/2023	26/10/2023	26/10/2023	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	5	MCERTS	-	-	-	-	-
o-xylene	µg/kg	5	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS,1D,AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 _{HS,1D,AL}	mg/kg	0.02	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 _{HS,1D,AL}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 _{EH,CU,1D,AL}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 _{EH,CU,1D,AL}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 _{EH,CU,1D,AL}	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) _{EH,CU+HS,1D,AL}	mg/kg	10	NONE	-	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7 _{HS,1D,AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 _{HS,1D,AR}	mg/kg	0.01	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 _{HS,1D,AR}	mg/kg	0.05	NONE	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 _{EH,CU,1D,AR}	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 _{EH,CU,1D,AR}	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 _{EH,CU,1D,AR}	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) _{EH,CU+HS,1D,AR}	mg/kg	10	NONE	-	-	-	-	-

Pesticides

Alachlor	µg/kg	10	NONE	-	-	-	-	-
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Azinphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-	-	-	-	-
BHC-beta	µg/kg	10	NONE	-	-	-	-	-
BHC-delta	µg/kg	10	NONE	-	-	-	-	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-	-	-	-	-
Bifenthrin	µg/kg	10	NONE	-	-	-	-	-
Carbophenothion	µg/kg	10	NONE	-	-	-	-	-
Chlordane-cis	µg/kg	10	NONE	-	-	-	-	-
Chlordane-trans	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos	µg/kg	10	NONE	-	-	-	-	-
Chlorothalonil	µg/kg	20	NONE	-	-	-	-	-
Chlorpyrifos	µg/kg	10	NONE	-	-	-	-	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-	-	-	-	-
Cypermethrin (Sum)	µg/kg	10	NONE	-	-	-	-	-
DDD-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDD-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDE-p,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-o,p'	µg/kg	10	NONE	-	-	-	-	-
DDT-p,p'	µg/kg	10	NONE	-	-	-	-	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859888	2859889	2859890	2859891	2859892
Sample Reference				TP738	TP744	TP745	TP751	TP752
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.50	1.00	1.40	0.90
Date Sampled				25/10/2023	26/10/2023	26/10/2023	26/10/2023	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Deltamethrin	µg/kg	10	NONE	-	-	-	-	-
Demeton-O	µg/kg	10	NONE	-	-	-	-	-
Demeton-S	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
Dimethylvinphos	µg/kg	10	NONE	-	-	-	-	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-	-	-	-	-
Endosulfan sulfate	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	20	NONE	-	-	-	-	-
Endrin aldehyde	µg/kg	10	NONE	-	-	-	-	-
Endrin ketone	µg/kg	10	NONE	-	-	-	-	-
Ethion	µg/kg	10	NONE	-	-	-	-	-
Etrinfos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Fenvalerate (Sum)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Hexachlorobutadiene	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	20	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Methacrifos	µg/kg	10	NONE	-	-	-	-	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-	-	-	-	-
Mevinphos, E+Z	µg/kg	10	NONE	-	-	-	-	-
Omethoate	µg/kg	20	NONE	-	-	-	-	-
Parathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Pendimethalin	µg/kg	10	NONE	-	-	-	-	-
Pentachlorobenzene	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Cis-	µg/kg	10	NONE	-	-	-	-	-
Permethrin, Trans-	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phosalone	µg/kg	10	NONE	-	-	-	-	-
Phosphamidon (Sum)	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-ethyl	µg/kg	10	NONE	-	-	-	-	-
Pirimiphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Propetamphos	µg/kg	10	NONE	-	-	-	-	-
Propyzamide	µg/kg	10	NONE	-	-	-	-	-
Tecnazene	µg/kg	10	NONE	-	-	-	-	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-	-	-	-	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859893
Sample Reference				TP749
Sample Number				None Supplied
Depth (m)				1.20
Date Sampled				Deviating
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	15
Total mass of sample received	kg	0.001	NONE	0.3

Asbestos in Soil	Type	N/A	ISO 17025	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4
Total Sulphate as SO ₄	%	0.005	MCERTS	0.071
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.251
Total Sulphur	%	0.005	MCERTS	0.053

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.13
Anthracene	mg/kg	0.05	MCERTS	0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.32
Pyrene	mg/kg	0.05	MCERTS	0.31
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.18
Chrysene	mg/kg	0.05	MCERTS	0.21
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.29
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.07
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.18
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.14
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.14

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.02
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	22
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	74

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859893
Sample Reference				TP749
Sample Number				None Supplied
Depth (m)				1.20
Date Sampled				Deviating
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Monoaromatics & Oxygenates				
Benzene	µg/kg	5	MCERTS	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.02	NONE	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.02	NONE	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.05	NONE	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	NONE	< 10

TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	NONE	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	NONE	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.05	NONE	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	< 10
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	NONE	< 10

Pesticides

Alachlor	µg/kg	10	NONE	-
Aldrin	µg/kg	10	NONE	-
Azinphos-ethyl	µg/kg	10	NONE	-
Azinphos-methyl	µg/kg	10	NONE	-
BHC-alpha (benzene hexachloride)	µg/kg	10	NONE	-
BHC-beta	µg/kg	10	NONE	-
BHC-delta	µg/kg	10	NONE	-
BHC-gamma (Lindane, gamma HCH)	µg/kg	10	NONE	-
Bifenthrin	µg/kg	10	NONE	-
Carbophenothion	µg/kg	10	NONE	-
Chlordane-cis	µg/kg	10	NONE	-
Chlordane-trans	µg/kg	10	NONE	-
Chlorfenvinphos	µg/kg	10	NONE	-
Chlorothalonil	µg/kg	20	NONE	-
Chlorpyrifos	µg/kg	10	NONE	-
Cyfluthrin (Sum)	µg/kg	10	NONE	-
Cyhalothrin (Lambda)	µg/kg	10	NONE	-
Cypermethrin (Sum)	µg/kg	10	NONE	-
DDD-o,p'	µg/kg	10	NONE	-
DDD-p,p'	µg/kg	10	NONE	-
DDE-o,p'	µg/kg	10	NONE	-
DDE-p,p'	µg/kg	10	NONE	-
DDT-o,p'	µg/kg	10	NONE	-
DDT-p,p'	µg/kg	10	NONE	-

Analytical Report Number: 23-65286
Project / Site name: Finchwood Park
Your Order No: 41623

Lab Sample Number				2859893
Sample Reference				TP749
Sample Number				None Supplied
Depth (m)				1.20
Date Sampled				Deviating
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Deltamethrin	µg/kg	10	NONE	-
Demeton-O	µg/kg	10	NONE	-
Demeton-S	µg/kg	10	NONE	-
Diazinon	µg/kg	10	NONE	-
Dichlorobenzonitrile, 2,6-	µg/kg	10	NONE	-
Dichlorvos	µg/kg	10	NONE	-
Dieldrin	µg/kg	10	NONE	-
Dimethoate	µg/kg	10	NONE	-
Dimethylvinphos	µg/kg	10	NONE	-
Endosulfan I (alpha isomer)	µg/kg	10	NONE	-
Endosulfan II (beta isomer)	µg/kg	10	NONE	-
Endosulfan sulfate	µg/kg	10	NONE	-
Endrin	µg/kg	20	NONE	-
Endrin aldehyde	µg/kg	10	NONE	-
Endrin ketone	µg/kg	10	NONE	-
Ethion	µg/kg	10	NONE	-
Etrinfos	µg/kg	10	NONE	-
Fenitrothion	µg/kg	10	NONE	-
Fenthion	µg/kg	10	NONE	-
Fenvalerate (Sum)	µg/kg	10	NONE	-
Heptachlor	µg/kg	10	NONE	-
Heptachlor exo-epoxide	µg/kg	10	NONE	-
Hexachlorobenzene	µg/kg	10	NONE	-
Hexachlorobutadiene	µg/kg	10	NONE	-
Isodrin	µg/kg	20	NONE	-
Malathion	µg/kg	10	NONE	-
Methacrifos	µg/kg	10	NONE	-
Methoxychlor, p,p'-	µg/kg	20	NONE	-
Mevinphos, E+Z	µg/kg	10	NONE	-
Omethoate	µg/kg	20	NONE	-
Parathion	µg/kg	10	NONE	-
Parathion-methyl	µg/kg	10	NONE	-
Pendimethalin	µg/kg	10	NONE	-
Pentachlorobenzene	µg/kg	10	NONE	-
Permethrin, Cis-	µg/kg	10	NONE	-
Permethrin, Trans-	µg/kg	10	NONE	-
Phorate	µg/kg	10	NONE	-
Phosalone	µg/kg	10	NONE	-
Phosphamidon (Sum)	µg/kg	10	NONE	-
Pirimiphos-ethyl	µg/kg	10	NONE	-
Pirimiphos-methyl	µg/kg	10	NONE	-
Propetamphos	µg/kg	10	NONE	-
Propyzamide	µg/kg	10	NONE	-
Tecnazene	µg/kg	10	NONE	-
Tetrachlorobenzene, 1,2,4,5-	µg/kg	10	NONE	-
Trichlorobenzene, 1,2,3-	µg/kg	10	NONE	-
Trichlorobenzene, 1,3,5-	µg/kg	10	NONE	-
Trifluralin	µg/kg	10	NONE	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-65286
Project / Site name: Finchwood Park

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2859863	TP728	None Supplied	0.1	Brown loam and sand with gravel and vegetation.
2859864	TP729	None Supplied	0.1	Brown clay and sand with gravel.
2859865	TP731	None Supplied	0.1	Brown loam and sand with gravel and vegetation.
2859866	TP732	None Supplied	0.1	Brown clay and sand with gravel and vegetation.
2859867	TP737	None Supplied	0.2	Brown clay and loam with gravel and vegetation.
2859868	TP742	None Supplied	0.2	Brown loam and sand with gravel and vegetation.
2859869	TP743	None Supplied	0.2	Brown clay and loam with gravel and vegetation.
2859870	TP746	None Supplied	0.3	Brown loam and sand with gravel and vegetation.
2859871	TP753	None Supplied	0.1	Brown loam and sand with gravel and vegetation.
2859872	TP754	None Supplied	0.1	Brown clay and loam with vegetation.
2859873	TP728	None Supplied	1	Brown clay and sand.
2859874	TP732	None Supplied	0.9	Brown clay and sand.
2859875	TP743	None Supplied	1.2	Brown clay and sand.
2859876	TP745	None Supplied	1	Brown clay and sand with gravel.
2859877	TP730	None Supplied	0.5	Brown clay and sand.
2859878	TP736	None Supplied	1.6	Brown clay and sand.
2859879	TP738	None Supplied	2.3	Brown clay and sand.
2859880	TP740	None Supplied	1.4	Brown clay and sand.
2859881	TP745	None Supplied	1.9	Brown clay and sand.
2859882	TP748	None Supplied	1.6	Brown clay.
2859883	TP749	None Supplied	1.6	Brown clay.
2859884	TP751	None Supplied	2.1	Brown clay.
2859885	TP752	None Supplied	1.5	Brown clay and sand with vegetation.
2859886	TP734	None Supplied	0.3	Brown clay and sand with gravel.
2859887	TP736	None Supplied	1	Brown clay and sand with gravel.
2859888	TP738	None Supplied	1.7	Brown clay and sand with brick and stones.
2859889	TP744	None Supplied	0.5	Brown clay and sand with brick and stones.
2859890	TP745	None Supplied	1	Brown clay and sand with gravel and vegetation.
2859891	TP751	None Supplied	1.4	Brown clay and sand with gravel and vegetation.
2859892	TP752	None Supplied	0.9	Brown clay and sand with gravel.
2859893	TP749	None Supplied	1.2	Brown clay and sand with gravel.

Analytical Report Number : 23-65286
Project / Site name: Finchwood Park

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 °C)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260. Refer to CoA for analyte specific accreditation	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID. Refer to CoA for band specific accreditation.	In-house method with silica gel split/clean up.	L088/76-PL	D	MCERTS
Pesticides by GC-MS/MS	Determination of Pesticides in soil by GC MS/MS	In-house method	L055B-PL	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

Analytical Report Number : 23-65286
Project / Site name: Finchwood Park

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Analytical Report Number : 23-65286

Project / Site name: Finchwood Park

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP745	None Supplied	S	2859876	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
TP745	None Supplied	S	2859876	b	TPHCWG (Soil)	L088/76-PL	b
TP745	None Supplied	S	2859890	b	Speciated EPA-16 PAHs in soil	L064-PL	b
TP749	None Supplied	S	2859893	a	None Supplied	None Supplied	None Supplied
TP752	None Supplied	S	2859892	ab	Speciated EPA-16 PAHs in soil	L064-PL	b

Mel Ebling

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t: 01923 225404
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e: reception@i2analytical.com

Analytical Report Number : 23-65430

Project / Site name: 41623 Finchwood Test Schedule 2

Samples received on: 27/10/2023

Your job number:

**Samples instructed on/
Analysis started on:** 30/10/2023

Your order number:

Analysis completed by: 03/11/2023

Report Issue Number: 1

Report issued on: 03/11/2023

Samples Analysed: 1 soil sample

Signed:

Joanna Szwarzak
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-65430

Project / Site name: 41623 Finchwood Test Schedule 2

Lab Sample Number				2860633
Sample Reference				TP746
Sample Number				None Supplied
Depth (m)				1.00
Date Sampled				26/10/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	11
Total mass of sample received	kg	0.001	NONE	1.1

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4
Total Sulphate as SO ₄	%	0.005	MCERTS	0.049
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0481
Total Sulphur	%	0.005	MCERTS	0.021

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16
Lead (aqua regia extractable)	mg/kg	1	MCERTS	24
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	84

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-65430

Project / Site name: 41623 Finchwood Test Schedule 2

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2860633	TP746	None Supplied	1	Brown clay and sand with gravel.

Analytical Report Number : 23-65430

Project / Site name: 41623 Finchwood Test Schedule 2

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 °C)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphénylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

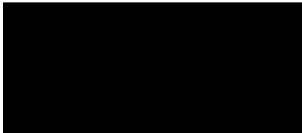
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



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Final Report

Report No.:	17-19872-1		
Initial Date of Issue:	07-Aug-2017		
Client	Eastwood & Partners		
Client Address:	St. Andrews House 23 Kingfield Road Sheffield South Yorkshire S11 9AS		
Contact(s):	Geo Stefani Ellis		
Project	41623 Hogwood Farm, Arborfield		
Quotation No.:		Date Received:	31-Jul-2017
Order No.:	41623/RN/SAE	Date Instructed:	31-Jul-2017
No. of Samples:	25		
Turnaround (Wkdays):	5	Results Due:	04-Aug-2017
Date Approved:	07-Aug-2017		
Approved By:			
			
Details:	Robert Monk, Technical Development Chemist		

Results - Soil

Client: Eastwood & Partners	Chemtest Job No.:				17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872
Quotation No.:	Chemtest Sample ID.:				490582	490583	490584	490585	490586	490588	490589	490590	490591
	Client Sample ID.:				TP2	TP3	TP6	TP7	TP11	TP14	TP17	TP18	TP20
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				1.70	0.10	0.10	0.10	0.10	0.10	0.10	0.80	0.20
	Date Sampled:				25-Jul-2017	25-Jul-2017	25-Jul-2017	27-Jul-2017	25-Jul-2017	26-Jul-2017	26-Jul-2017	26-Jul-2017	26-Jul-2017
	Asbestos Lab:					COVENTRY	COVENTRY	COVENTRY			COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A		-	-	-			-		-
Asbestos Identification	U	2192	%	0.001		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected			No Asbestos Detected		No Asbestos Detected
Moisture	N	2030	%	0.020	16	14	14	14	15	13	15	15	15
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	NONE	NONE	Roots	Roots	NONE	Roots	Stones	NONE	Stones
Soil Texture	N	2040		N/A	Clay	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		N/A	7.5	7.1	5.8	5.9		4.3	6.3	7.2	6.9
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.010	< 0.010							< 0.010	
Total Sulphur	M	2175	%	0.010	< 0.010							< 0.010	
Sulphate (Acid Soluble)	M	2430	%	0.010	< 0.010							< 0.010	
Arsenic	M	2450	mg/kg	1.0	15	10	8.2	8.3		5.4	7.2	13	6.8
Cadmium	M	2450	mg/kg	0.10	< 0.10	0.11	< 0.10	< 0.10		< 0.10	0.11	< 0.10	0.11
Chromium	M	2450	mg/kg	1.0	29	19	18	21		18	20	42	20
Copper	M	2450	mg/kg	0.50	15	8.1	8.6	9.7		7.4	9.2	15	9.2
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	39	10	8.1	9.1		7.9	9.0	22	9.1
Lead	M	2450	mg/kg	0.50	13	17	17	19		20	21	13	23
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20		< 0.20	< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	46	28	28	33		28	33	46	37
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Client: Eastwood & Partners	Chemtest Job No.:				17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872
Quotation No.:	Chemtest Sample ID.:				490582	490583	490584	490585	490586	490588	490589	490590	490591
	Client Sample ID.:				TP2	TP3	TP6	TP7	TP11	TP14	TP17	TP18	TP20
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				1.70	0.10	0.10	0.10	0.10	0.10	0.10	0.80	0.20
	Date Sampled:				25-Jul-2017	25-Jul-2017	25-Jul-2017	27-Jul-2017	25-Jul-2017	26-Jul-2017	26-Jul-2017	26-Jul-2017	26-Jul-2017
	Asbestos Lab:					COVENTRY	COVENTRY	COVENTRY			COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Demeton-O	N	2820	mg/kg	0.20					< 0.20				
Phorate	N	2820	mg/kg	0.20					< 0.20				
Demeton-S	N	2820	mg/kg	0.20					< 0.20				
Disulfoton	N	2820	mg/kg	0.20					< 0.20				
Fenthion	N	2820	mg/kg	0.20					< 0.20				
Trichloronate	N	2820	mg/kg	0.20					< 0.20				
Prothiofos	N	2820	mg/kg	0.20					< 0.20				
Fensulphothion	N	2820	mg/kg	0.20					< 0.20				
Sulprofos	N	2820	mg/kg	0.20					< 0.20				
Azinphos-Methyl	N	2820	mg/kg	0.20					< 0.20				
Coumaphos	N	2820	mg/kg	0.20					< 0.20				
Alpha-HCH	N	2840	mg/kg	0.20					< 0.20				
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20					< 0.20				
Beta-HCH	N	2840	mg/kg	0.20					< 0.20				
Delta-HCH	N	2840	mg/kg	0.20					< 0.20				
Heptachlor	N	2840	mg/kg	0.20					< 0.20				
Aldrin	N	2840	mg/kg	0.20					< 0.20				
Heptachlor Epoxide	N	2840	mg/kg	0.20					< 0.20				
Gamma-Chlordane	N	2840	mg/kg	0.20					< 0.20				
Alpha-Chlordane	N	2840	mg/kg	0.20					< 0.20				
Endosulfan I	N	2840	mg/kg	0.20					< 0.20				
4,4-DDE	N	2840	mg/kg	0.20					< 0.20				
Dieldrin	N	2840	mg/kg	0.20					< 0.20				
Endrin	N	2840	mg/kg	0.20					< 0.20				
4,4-DDD	N	2840	mg/kg	0.20					< 0.20				
Endosulfan II	N	2840	mg/kg	0.20					< 0.20				
Endrin Aldehyde	N	2840	mg/kg	0.20					< 0.20				
4,4-DDT	N	2840	mg/kg	0.20					< 0.20				
Endosulfan Sulphate	N	2840	mg/kg	0.20					< 0.20				
Methoxychlor	N	2840	mg/kg	0.20					< 0.20				
Endrin Ketone	N	2840	mg/kg	0.20					< 0.20				

Results - Soil

Client: Eastwood & Partners	Chemtest Job No.:				17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872
Quotation No.:	Chemtest Sample ID.:				490592	490593	490594	490595	490596	490597	490598	490599	490600
	Client Sample ID.:				TP21	TP23	TP25	TP27	TP27	TP29	TP30	TP31	TP35
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.70	0.10	0.30	0.10	0.60	1.30	0.10	0.40	0.10
	Date Sampled:				26-Jul-2017	26-Jul-2017	26-Jul-2017	27-Jul-2017	27-Jul-2017	26-Jul-2017	27-Jul-2017	27-Jul-2017	27-Jul-2017
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A				-			-		
Asbestos Identification	U	2192	%	0.001				No Asbestos Detected			No Asbestos Detected		
Moisture	N	2030	%	0.020	13	16	14	18	15	18	17	8.9	17
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Clay	Clay	Sand	Sand	Sand
pH	M	2010		N/A	7.2	6.6	6.6	6.3	6.6	7.4	6.7	7.2	6.0
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.010	< 0.010		< 0.010		< 0.010	< 0.010		< 0.010	
Total Sulphur	M	2175	%	0.010	< 0.010		0.026		< 0.010	< 0.010		< 0.010	
Sulphate (Acid Soluble)	M	2430	%	0.010	< 0.010		< 0.010		< 0.010	< 0.010		< 0.010	
Arsenic	M	2450	mg/kg	1.0	9.9	9.0	2.5	5.7	7.7	7.9	4.2	4.2	4.7
Cadmium	M	2450	mg/kg	0.10	< 0.10	0.12	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chromium	M	2450	mg/kg	1.0	32	22	8.9	16	19	23	7.7	10	14
Copper	M	2450	mg/kg	0.50	13	9.5	4.6	6.3	6.4	9.7	8.4	2.1	8.7
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	26	8.9	4.1	6.6	8.6	30	3.5	5.3	6.1
Lead	M	2450	mg/kg	0.50	11	17	9.1	15	9.7	8.3	22	6.8	23
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	43	34	16	23	23	27	36	14	33
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.16	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.94	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.20	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.7	< 0.10	< 0.10
Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.5	< 0.10	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10	< 0.10	0.73	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	0.10	< 0.10	< 0.10	0.70	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.98	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.24	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.79	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.45	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.48	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	9.0	< 2.0	< 2.0

Results - Soil

Client: Eastwood & Partners	Chemtest Job No.:				17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872
Quotation No.:	Chemtest Sample ID.:				490592	490593	490594	490595	490596	490597	490598	490599	490600
	Client Sample ID.:				TP21	TP23	TP25	TP27	TP27	TP29	TP30	TP31	TP35
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.70	0.10	0.30	0.10	0.60	1.30	0.10	0.40	0.10
	Date Sampled:				26-Jul-2017	26-Jul-2017	26-Jul-2017	27-Jul-2017	27-Jul-2017	26-Jul-2017	27-Jul-2017	27-Jul-2017	27-Jul-2017
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
Demeton-O	N	2820	mg/kg	0.20									
Phorate	N	2820	mg/kg	0.20									
Demeton-S	N	2820	mg/kg	0.20									
Disulfoton	N	2820	mg/kg	0.20									
Fenthion	N	2820	mg/kg	0.20									
Trichloronate	N	2820	mg/kg	0.20									
Prothiofos	N	2820	mg/kg	0.20									
Fensulphothion	N	2820	mg/kg	0.20									
Sulprofos	N	2820	mg/kg	0.20									
Azinphos-Methyl	N	2820	mg/kg	0.20									
Coumaphos	N	2820	mg/kg	0.20									
Alpha-HCH	N	2840	mg/kg	0.20									
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20									
Beta-HCH	N	2840	mg/kg	0.20									
Delta-HCH	N	2840	mg/kg	0.20									
Heptachlor	N	2840	mg/kg	0.20									
Aldrin	N	2840	mg/kg	0.20									
Heptachlor Epoxide	N	2840	mg/kg	0.20									
Gamma-Chlordane	N	2840	mg/kg	0.20									
Alpha-Chlordane	N	2840	mg/kg	0.20									
Endosulfan I	N	2840	mg/kg	0.20									
4,4-DDE	N	2840	mg/kg	0.20									
Dieldrin	N	2840	mg/kg	0.20									
Endrin	N	2840	mg/kg	0.20									
4,4-DDD	N	2840	mg/kg	0.20									
Endosulfan II	N	2840	mg/kg	0.20									
Endrin Aldehyde	N	2840	mg/kg	0.20									
4,4-DDT	N	2840	mg/kg	0.20									
Endosulfan Sulphate	N	2840	mg/kg	0.20									
Methoxychlor	N	2840	mg/kg	0.20									
Endrin Ketone	N	2840	mg/kg	0.20									

Results - Soil

Client: Eastwood & Partners	Chemtest Job No.:				17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872
Quotation No.:	Chemtest Sample ID.:				490601	490602	490603	490604	490605	490606	490607
	Client Sample ID.:				TP36	TP37	TP39	TP41	TP42	TP43	TP45
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.10	0.10	0.10	0.20	1.00	0.10	0.70
	Date Sampled:				27-Jul-2017	26-Jul-2017	26-Jul-2017	27-Jul-2017	27-Jul-2017	27-Jul-2017	27-Jul-2017
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD							
ACM Type	U	2192		N/A	-			-			
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected			No Asbestos Detected			
Moisture	N	2030	%	0.020	15	16	20	17	19	13	15
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	NONE	Stones	Stones	NONE	NONE	NONE, 490W06
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Clay	Sand	Clay
pH	M	2010		N/A	6.0	6.3		7.2	7.3	6.4	7.1
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010					< 0.010		< 0.010
Total Sulphur	M	2175	%	0.010					0.010		< 0.010
Sulphate (Acid Soluble)	M	2430	%	0.010					< 0.010		< 0.010
Arsenic	M	2450	mg/kg	1.0	7.7	6.2		8.3	31	5.3	13
Cadmium	M	2450	mg/kg	0.10	0.11	< 0.10		0.30	0.12	0.18	< 0.10
Chromium	M	2450	mg/kg	1.0	22	18		22	24	15	40
Copper	M	2450	mg/kg	0.50	7.4	7.7		20	13	14	16
Mercury	M	2450	mg/kg	0.10	< 0.10	< 0.10		0.11	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	7.7	7.8		9.4	53	8.5	19
Lead	M	2450	mg/kg	0.50	24	17		23	9.9	20	16
Selenium	M	2450	mg/kg	0.20	< 0.20	< 0.20		< 0.20	< 0.20	< 0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	31	28		49	43	33	49
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
Naphthalene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10	< 0.10		< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Client: Eastwood & Partners	Chemtest Job No.:				17-19872	17-19872	17-19872	17-19872	17-19872	17-19872	17-19872
Quotation No.:	Chemtest Sample ID.:				490601	490602	490603	490604	490605	490606	490607
	Client Sample ID.:				TP36	TP37	TP39	TP41	TP42	TP43	TP45
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.10	0.10	0.10	0.20	1.00	0.10	0.70
	Date Sampled:				27-Jul-2017	26-Jul-2017	26-Jul-2017	27-Jul-2017	27-Jul-2017	27-Jul-2017	27-Jul-2017
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD							
Demeton-O	N	2820	mg/kg	0.20			< 0.20				
Phorate	N	2820	mg/kg	0.20			< 0.20				
Demeton-S	N	2820	mg/kg	0.20			< 0.20				
Disulfoton	N	2820	mg/kg	0.20			< 0.20				
Fenthion	N	2820	mg/kg	0.20			< 0.20				
Trichloronate	N	2820	mg/kg	0.20			< 0.20				
Prothiofos	N	2820	mg/kg	0.20			< 0.20				
Fensulphothion	N	2820	mg/kg	0.20			< 0.20				
Sulprofos	N	2820	mg/kg	0.20			< 0.20				
Azinphos-Methyl	N	2820	mg/kg	0.20			< 0.20				
Coumaphos	N	2820	mg/kg	0.20			< 0.20				
Alpha-HCH	N	2840	mg/kg	0.20			< 0.20				
Gamma-HCH (Lindane)	N	2840	mg/kg	0.20			< 0.20				
Beta-HCH	N	2840	mg/kg	0.20			< 0.20				
Delta-HCH	N	2840	mg/kg	0.20			< 0.20				
Heptachlor	N	2840	mg/kg	0.20			< 0.20				
Aldrin	N	2840	mg/kg	0.20			< 0.20				
Heptachlor Epoxide	N	2840	mg/kg	0.20			< 0.20				
Gamma-Chlordane	N	2840	mg/kg	0.20			< 0.20				
Alpha-Chlordane	N	2840	mg/kg	0.20			< 0.20				
Endosulfan I	N	2840	mg/kg	0.20			< 0.20				
4,4-DDE	N	2840	mg/kg	0.20			< 0.20				
Dieldrin	N	2840	mg/kg	0.20			< 0.20				
Endrin	N	2840	mg/kg	0.20			< 0.20				
4,4-DDD	N	2840	mg/kg	0.20			< 0.20				
Endosulfan II	N	2840	mg/kg	0.20			< 0.20				
Endrin Aldehyde	N	2840	mg/kg	0.20			< 0.20				
4,4-DDT	N	2840	mg/kg	0.20			< 0.20				
Endosulfan Sulphate	N	2840	mg/kg	0.20			< 0.20				
Methoxychlor	N	2840	mg/kg	0.20			< 0.20				
Endrin Ketone	N	2840	mg/kg	0.20			< 0.20				

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
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*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2820	Organophosphorus (O-P) Pesticides in Soils by GC-MS	Organophosphorus pesticide representative suite including Parathion, Malathion etc, plus client specific determinands	Dichloromethane extraction / GC-MS
2840	Organochlorine (O-Cl) Pesticides in Soils by GC-MS	Organochlorine pesticide representative suite including DDT and its metabolites, 'drins' and HCH etc, plus client specific determinands	Dichloromethane extraction / GC-MS

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"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

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

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 45 days from the date of receipt

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

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk

Inorganic Compounds	Human Health - Residential with Homegrown Produce (mg/kg)
Arsenic	37
Cadmium	11
Chromium (III)	910
Chromium (VI)	6
Lead	200
Mercury	1.2
Nickel	180
Selenium	250
Copper	2400
Zinc	3700

Organic Compounds	Human Health - Residential with Homegrown Produce (mg/kg)		
	1% SOM	2.5% SOM	6% SOM
Naphthalene	2.3	5.6	13
Acenaphthene	210	510	1100
Acenaphthylene	170	420	920
Fluorene	170	400	860
Phenanthrene	95	220	440
Anthracene	2400	5400	11000
Fluoranthene	280	560	890
Pyrene	620	1200	2000
Benzo(a)anthracene	7.2	11	13
Chrysene	15	22	27
Benzo(b)fluoranthene	2.6	3.3	3.7
Benzo(k)fluoranthene	77	93	100
Benzo(a)pyrene	2.2	2.7	3.0
Dibenz(a,h)anthracene	0.24	0.28	0.3
Indeno(1,2,3-cd)pyrene	27	36	41
Benzo(g,h,i)perylene	320	340	350
Benzene	0.087	0.17	0.37
Toluene	130	290	660
Ethylbenzene	47	110	260
o-Xylene	60	140	330
m-Xylene	59	140	320
p-Xylene	56	130	310

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Prepared	KB	Checked	RAN	Date	27.09.2022	Job No	41623
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 Eastwood CONSULTING ENGINEERS St Andrew's House 23 Kingfield Road Sheffield S11 9AS Tel: (0114) 255 4554 Fax: (0114) 255 4330	PARCEL 15 HOGWOOD FARM (FINCHWOOD PARK) CALA HOMES THAMES AND LEGAL & GENERAL HOMES LIMITED ASSESSMENT CRITERIA – RESIDENTIAL WITH HOMEGROWN PRODUCE
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Contaminant	Phytotoxicity			
	pH	pH	pH	pH
	5.0 to 5.5	5.5 to 6.0	6.0 to 7.0	>7.0
Arsenic	50			
Cadmium	3			
Chromium	400			
Lead	300			
Mercury	1			
Nickel	50	60	75	110
Copper	80	100	135	200
Zinc	200	200	200	300

The assessment concentration for lead is the Category 4 Screening Level produced by Contaminated Land: Applications in Real Environments (CL:AIRE) and outlined in Appendix H of their report SP1010. The others have been taken from Nathanail, C. P., McCaffrey, C., Gillett, A., Ogden, R., and Nathanail, J., 2015, *'The LQM/CIEH S4ULs for Human Health Risk Assessment'*, Land Quality Press, Nottingham. The metals/metalloids are based on a sandy loam soil and 6% soil organic matter. The assessment values are not intended to be applied to individual sample results where materials are similar, as the levels of contaminants will have a natural variability across the site. Instead, the modified mean value should be compared with the assessment concentration.

The assessment values for phytotoxicity are the levels at which plant growth is thought to be affected. They are taken from the maximum permissible and advisable concentrations in soil after application of soil sludge given in the *'The Code of Good Agricultural Practice for the Protection of Soil'*, MAFF, 1998.

The assessment of sulphate, water soluble sulphate, elemental sulphur and sulphide is to determine the aggressive nature of the ground with respect to concrete and consequently the results are compared with BRE Special Digest 1:2005 *'Concrete in Aggressive Ground'*.

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Prepared	KB	Checked	RAN	Date	27.09.2022	Job No	41623
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 Eastwood CONSULTING ENGINEERS St Andrew's House 23 Kingfield Road Sheffield S11 9AS Tel: (0114) 255 4554 Fax: (0114) 255 4330	PARCEL 15 HOGWOOD FARM (FINCHWOOD PARK) CALA HOMES THAMES AND LEGAL & GENERAL HOMES LIMITED ASSESSMENT CRITERIA – RESIDENTIAL WITH HOMEGROWN PRODUCE
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TPH Fraction	Intended Land Use Residential (mg/kg)		
	1% SOM	2.5% SOM	6% SOM
Aliphatic EC 5-6	42	78	160
Aliphatic EC >6-8	100	230	530
Aliphatic EC >8-10	27	65	150
Aliphatic EC >10-12	130 (48) ^{vap}	330 (118) ^{vap}	760 (283) ^{vap}
Aliphatic EC >12-16	1100 (24) ^{sol}	2400 (59) ^{sol}	4,300 (142) ^{sol}
Aliphatic EC >16-35	65,000 (8.48) ^{f, sol}	92,000 (21) ^{f, sol}	110,000 ^f
Aliphatic EC >35-44	65,000 (8.48) ^{f, sol}	92,000 (21) ^{f, sol}	110,000 ^f
Aromatic EC 5-7	70	140	300
Aromatic EC >7-8	130	290	660
Aromatic EC >8-10	34	83	190
Aromatic EC >10-12	74	180	380
Aromatic EC >12-16	140	330	660
Aromatic EC >16-21	260 ^f	540 ^f	930 ^f
Aromatic EC >21-35	1,100 ^f	1,500 ^f	1,700 ^f
Aromatic EC >35-44	1,100 ^f	1,500 ^f	1,700 ^f

^f oral, dermal, and inhalation exposure compared with oral HCV

^{sol} S4UL presented exceeds the solubility saturation limit, which is presented in brackets

^{vap} S4UL presented exceed the vapour saturation limit, which is presented in brackets

The assessment criteria for each of the petroleum hydrocarbon fractions have been taken from Nathanail, C. P., McCaffrey, C., Gillett, A., Ogden, R., and Nathanail, J., 2015, *'The LQM/CIEH S4ULs for Human Health Risk Assessment'*, Land Quality Press, Nottingham. These are also all based on a sandy loam soil.

Within the Environment Agency Science Report P5-080/TR3, Askari, K. & Pollard, S., 2005 *'The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils'* it is stated that the assessment values should not be considered individually; instead the potential additive effects should be calculated. This is achieved by calculating an individual Hazard Quotient (HQ) for each fraction. The HQ is the proportion of the assessment concentration represented by the recorded concentration. The HQs are then added together to form a Hazard Index (HI) and where this exceeds unity a potential significant risk to human health may exist.

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Prepared	KB	Checked	RAN	Date	27.09.2022	Job No	41623
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 Eastwood CONSULTING ENGINEERS St Andrew's House 23 Kingfield Road Sheffield S11 9AS Tel: (0114) 255 4554 Fax: (0114) 255 4330	PARCEL 15 HOGWOOD FARM (FINCHWOOD PARK) CALA HOMES THAMES AND LEGAL & GENERAL HOMES LIMITED ASSESSMENT CRITERIA – RESIDENTIAL WITH HOMEGROWN PRODUCE
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Appendix 5

Geotechnical Test Results (GEO/39232)

GEOLABS Limited
Bucknalls Lane
Garston
Watford
Hertfordshire
WD25 9XX

Tel: +44(0) 1923 892 190
Fax: +44(0) 1923 892 191
email: admin@geolabs.co.uk
web: www.geolabs.co.uk

Eastwood and Partners (Consulting Engineers) Limited

Gander Down Barns
Rodfield Lane
Ovington
Alresford
SO24 0HS

27 November 2023

Report No : GEO/39232/01

Page 1 of 1

For the attention of Ms M Ebling

Our ref **GEO / 39232**

Your Ref **41623**

Date samples received 06/11/2023

Date written instructions received 06/11/2023

Date testing commenced 07/11/2023

Date of sample disposal 25/12/2023

Project **FINCHAMPSTEAD - PARCEL 5**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Geotechnical Test Summary
~	16	Water Content
~	16	Liquid & Plastic Limits
2	~	
~	7	BRE SD1 Suite B - Natural ground + pyrite
3	4	Unconsolidated Undrained Triaxial Compression

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully

on behalf of **GEOLABS Limited**

S Burke
Senior Technician

SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC	LL	PL	PI	<425 µm	Bulk	Dry	Condition	Cell Pressure	Deviator Stress	Shear Stress	pH	2:1 W/S SO4	W/S Mg	
					%	%	%	%	%	Mg/m³	Mg/m³		kPa	kPa	kPa		g/L	mg/L	
BH201	5.50		D																Chemical
BH201	6.00-6.45		U	Very stiff dark brown mottled dark grey silty CLAY.	23.4					2.07	1.68	Undisturbed	120	233	117				Chemical
BH201	8.00		D																Chemical
BH201	14.00		D																Chemical
BH201	14.00-14.45		U	Very stiff dark brown mottled dark grey silty CLAY with rare shell fragments.	25.0					2.09	1.67	Undisturbed	280	321	160				Chemical
BH202	10.00-10.45		U	Very stiff dark brown mottled dark grey silty CLAY.	22.5					2.09	1.71	Undisturbed	200	435	218				Chemical
BH202	18.00-18.45		U	Firm to stiff dark grey sandy silty CLAY. Sand is fine to medium.	24.9					2.11	1.69	Undisturbed	360	85	42				Chemical
TP728	1.00		D	Brown and orangish brown mottled CLAY.	26.8	49	20	29	100										
TP730	1.30		D	Brown and orangish brown mottled CLAY.	22.7	44	19	25	100										
TP731	1.00		D	Brown and orangish brown mottled slightly gravelly silty CLAY. Gravel is fine to medium.	13.2	30	19	11	99										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke - Senior Technician
08/12/2023

Project Number:

GEO / 39232

Project Name:

FINCHAMPSTEAD - PARCEL 5
41623

GEOLABS®

SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC	LL	PL	PI	<425 µm	Bulk	Dry	Condition	Cell Pressure	Deviator Stress	Shear Stress	pH	2:1 W/S SO4	W/S Mg	
					%	%	%	%	%	Mg/m³	Mg/m³		kPa	kPa	kPa		g/L	mg/L	
TP731	2.50		D	Brown and orangish brown mottled CLAY.	23.6	43	19	24	100										
TP734	0.90		D	Orangish brown slightly sandy CLAY. Sand is fine.	20.2	39	17	22	98										
TP736	2.10		D	Brown and orangish brown mottled CLAY.	25.1	52	17	35	100										
TP738	2.30		D	Brown and orangish brown mottled CLAY.	25.8	48	19	29	100										
TP742	2.80		D	Brown and orangish brown mottled CLAY.	24.8	44	21	23	100										
TP743	1.20		D	Brown mottled orangish brown CLAY.	23.5	51	18	33	100										
TP745	1.90		D	Brown and orangish brown mottled CLAY.	25.7	57	22	35	100										
TP746	1.00		D	Orangish brown CLAY.	22.6	47	18	29	100										
TP748	1.60		D	Orangish brown CLAY.	26.1	55	20	35	100										
TP748	3.30		D	Brown orangish brown slightly gravelly CLAY. Gravel is fine to medium.	25.5	48	20	28	99										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by S Burke - Senior Technician 08/12/2023	Project Number:	GEO / 39232 FINCHAMPSTEAD - PARCEL 5 41623	
	Project Name:		

SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC	LL	PL	PI	<425 µm	Bulk	Dry	Condition	Cell Pressure	Deviator Stress	Shear Stress	pH	2:1 W/S SO4	W/S Mg	
					%	%	%	%	%	Mg/m³	Mg/m³		kPa	kPa	kPa		g/L	mg/L	
TP749	1.60		D	Brown and orangish brown mottled CLAY.	22.7	53	17	36	100										
TP751	2.10		D	Brown and orangish brown mottled silty CLAY.	21.6	49	16	33	100										
TP752	1.50		D	Brown and orangish brown mottled silty CLAY.	19.5	45	17	28	100										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke - Senior Technician
08/12/2023

Project Number:

GEO / 39232

Project Name:

FINCHAMPSTEAD - PARCEL 5
41623



Tested by Eurofins Chemtest Ltd : MCERTS / UKAS No 2183

GEO / 39232

FINCHAMPSTEAD - PARCEL 5
41623



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

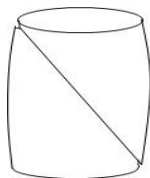
Location BH201
Depth (m) 6.00-6.45
Sample Type U

Description:

Very stiff dark brown mottled dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.0
Diameter (mm)	101.7
Water content (%)	23.4
Bulk density (Mg/m ³)	2.07
Dry density (Mg/m ³)	1.68
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.0
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	120
Strain at failure (%)	12.9
Maximum deviator stress (kPa)	233
Shear Stress Cu (kPa)	117

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

80

Tested by PS
Checked and Approved by



S Burke - Senior Technician
27/11/2023

Project Number:

GEO / 39232

Project Name:

**FINCHAMPSTEAD - PARCEL 5
41623**

GEOLABS



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

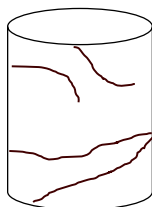
Location BH201
Depth (m) 14.00-14.45
Sample Type U

Description:

Very stiff dark brown mottled dark grey silty CLAY with rare shell fragments.

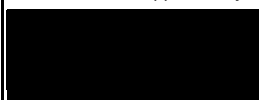
Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.0
Diameter (mm)	101.6
Water content (%)	25.0
Bulk density (Mg/m ³)	2.09
Dry density (Mg/m ³)	1.67
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.0
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	280
Strain at failure (%)	5.0
Maximum deviator stress (kPa)	321
Shear Stress Cu (kPa)	160

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	100

Tested by PS
Checked and Approved by



S Burke - Senior Technician
27/11/2023

Project Number:

GEO / 39232

Project Name:

**FINCHAMPSTEAD - PARCEL 5
41623**



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH202
Depth (m) 10.00-10.45
Sample Type U

Description:

Very stiff dark brown mottled dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.7
Diameter (mm)	101.6
Water content (%)	22.5
Bulk density (Mg/m ³)	2.09
Dry density (Mg/m ³)	1.71
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.7
Membrane correction (kPa)	1.1
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	200
Strain at failure (%)	19.9
Maximum deviator stress (kPa)	435
Shear Stress Cu (kPa)	218

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

80

Project Number:

GEO / 39232

Project Name:

**FINCHAMPSTEAD - PARCEL 5
41623**



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH202
Depth (m) 18.00-18.45
Sample Type U

Description:

Firm to stiff dark grey sandy silty CLAY. Sand is fine to medium.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.7
Diameter (mm)	100.8
Water content (%)	24.9
Bulk density (Mg/m ³)	2.11
Dry density (Mg/m ³)	1.69
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.2
Membrane correction (kPa)	1.1
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	360
Strain at failure (%)	20.0
Maximum deviator stress (kPa)	85
Shear Stress Cu (kPa)	42

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

100

Tested by PS



S Burke - Senior Technician
08/12/2023

Project Number:

GEO / 39232

Project Name:

**FINCHAMPSTEAD - PARCEL 5
41623**





Eastwood

CONSULTING ENGINEERS

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