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RAN/ME/AML/41623-061

6 June 2025

Dear Joe

Parcel 15, Hogwood Farm, Finchampstead Capping Verification – Plots 509, 510, 511, 512 & 515

We are writing to report on the verification of capping in Plot 509, 510, 511, 512 & 515 at the above site. The Geotechnical and Geo-Environmental Report for this site (referenced 41623-026 Issue 8, dated 15 May 2025) states that where made ground is present, a clean capping layer of 600 mm including a minimum of 100 mm of topsoil should be placed in all gardens and landscaped areas within the vicinity of the barn area, this was to cover plots 504 to 506, 509 to 512 and 515. Verification of the installation of the capping layer is required, with verification pits excavated at a rate of one in three plots. Verification of the capping layer in Plots 504 to 506 was covered in a previous verification report (ref 41623/060, dated 8 May 2025).

Verification of Capping Thickness

We visited site on 28 May 2025 and excavated a verification pit within the rear garden of plots 509 and 515 to verify the depth of the capping layer.

The table below details the depth of the verification pits and the materials encountered:

Plot	Description	Thickness (mm)	Total Thickness (mm)
509	TOPSOIL: Dark brown slightly silty fine to medium sand with occasional to frequent rootlets.	450	>700
	SUBSOIL: Firm orangish brown and grey mottled slightly gravelly sandy micaceous silty CLAY with frequent pockets of silty fine to medium sand and rare rootlets. Gravel is fine to medium of chert and mudstone.	>250	

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Plot	Description	Thickness (mm)	Total Thickness (mm)
515	TOPSOIL: Dark brown slightly silty fine to medium sand with occasional to frequent rootlets and grass.	430	>665
	SUBSOIL: Firm orangish brown and grey mottled slightly gravelly micaceous silty CLAY with frequent pockets of silty fine to medium sand and rare rootlets. Gravel is fine to medium of chert and mudstone.	>235	

The presence of natural ground was confirmed in the base of the verification pits.

The above table demonstrates that the capping layer in plots 509 and 515 was found meet the remedial requirements.

Photographs of the gardens and verification pits are enclosed.

Verification of Chemical Suitability

Topsoil

The topsoil placed in plots 509 to 512 and 515 is site-won topsoil and Eastwood Consulting Engineers tested thirty samples of the topsoil collected from trial pits undertaken during the site investigation issued in November 2023. Each of these was sent for analysis of a generic suite of contaminants. Twenty-five of the samples did not record any elevated concentrations of contaminants compared to their respective assessment values for a residential end-use with home-grown produce, and no asbestos fibres were detected.

Five of these recorded elevated concentrations of PAH compounds however subsequent detailed quantitative risk assessment confirmed that these did not pose a significant risk to human health and the topsoil was deemed suitable for re-use.

Based on the chemical testing previously undertaken by ECE and the visual consistency of the material, the topsoil is considered chemically suitable for use within the capping layer.

Subsoil

The subsoil in plots 509 to 512 and 515 was natural in-situ material and Eastwood Consulting Engineers tested eighteen samples of the subsoil collected from trial pits undertaken during the site investigation issued in November 2023. Each of these was sent for analysis of a generic suite

of contaminants. Sixteen of the samples did not record any elevated concentrations of contaminants compared to their respective assessment values for a residential end-use with home-grown produce.

Two samples of natural subsoil did record elevated concentrations of some PAH compounds, however these hotspots were delineated and not located within the current extent of the Parcel 15 development. As such, all natural soil within the current Parcel 15 area was considered suitable for re-use.

Based on recommendations in section 9.1 of issue 8 of the Geotechnical and Geo-Environmental Site Investigation (ref 41623-026 Issue 8, dated 15 May 2025) chemical samples were collected from the natural ground within plots 509 and 510 and despatched for chemical testing. The chemical test results (i2 Laboratories reference no, 25-028148, copy enclosed) confirm that the natural ground in these locations does not contain any elevated concentrations of PAH compounds or metals/metalloids.

Based on the chemical testing undertaken both recently and previously by ECE and the visual consistency of the material, the subsoil is considered chemically suitable for use within the capping layer.

Conclusion

The capping within the gardens of plot 509, 510, 511, 512 & 515 is considered to meet the requirements outlined within the Geotechnical and Geo-Environmental Site Investigation (ref 41623-026 Issue 8, dated 15 May 2025).

Yours sincerely,



Ruth Noble

Enc. Verification Pit Photographs
 Chemical Testing results - 25-028148



Plot 509 – Capping depth



Plot 509 – Base of verification pit



Plot 509 – Rear garden



Plot 509 – Verification pit



Plot 515 – Capping depth



Plot 515 – Base of verification pit



Plot 515 – Rear garden



Plot 515 – Verification pit

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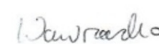
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Analytical Report Number : 25-028148

Project / Site name:	Hogwood Farm, Finchampstead	Samples received on:	30/05/2025
Your job number:	41623	Samples instructed on/ Analysis started on:	30/05/2025
Your order number:		Analysis completed by:	06/06/2025
Report Issue Number:	1	Report issued on:	06/06/2025
Samples Analysed:	2 soil samples		



Signed:

Joanna Wawrzeczko
Senior 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
air	- once the analysis is complete

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

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

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: 25-028148

Project / Site name: Hogwood Farm, Finchampstead

Lab Sample Number				563335	563336
Sample Reference				Plot 509	Plot 510
Sample Number				None Supplied	None Supplied
Water Matrix				N/A	N/A
Depth (m)				0.5	0.6
Date Sampled				27/05/2025	27/05/2025
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	19
Total mass of sample received	kg	0.1	NONE	0.1	0.1

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8.6	7.9
Total Sulphate as SO ₄	%	0.005	MCERTS	0.224	0.07
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	930	650
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.464	0.326
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	464	326
Total Sulphur	mg/kg	50	MCERTS	850	350
Total Sulphur	%	0.005	MCERTS	0.085	0.035

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.06	0.1
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.17	0.28
Pyrene	mg/kg	0.05	MCERTS	0.17	0.22
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.06	0.15
Chrysene	mg/kg	0.05	MCERTS	0.08	0.11
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.07	0.14
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.07
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.08	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.12

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	1.29
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.8	25
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	14	49
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	18
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.7	1.2
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	61	52

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

Analytical Report Number : 25-028148

Project / Site name: Hogwood Farm, Finchampstead

* 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 *
563335	Plot 509	None Supplied	0.5	Brown clay and sand with gravel
563336	Plot 510	None Supplied	0.6	Brown clay and sand with gravel

Analytical Report Number : 25-028148

Project / Site name: Hogwood Farm, Finchampstead

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)

Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
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.	L019B	D	NONE
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	L038B	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazine followed by colorimetry	In-house method	L080-PL	W	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
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

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

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

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

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

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution