

Our Ref: 17836

Your Ref:

Contact: Elliot Sampson

26th March 2025

Castell Construction Ltd
Unit 5 Dyffryn Court
Moorhen Close
Riverside Business Park
Swansea
SA7 0AP

For the attn. of Matthew Evans

Dear Matthew

COVER SOILS THICKNESS ASSESSMENT: FORMER SKEWEN SNOOKER CLUB, CAE NANT TERRACE, NEATH SA10 6UP

1.0 Introduction

Castell Construction Ltd has completed the construction of residential buildings at Cae Nant Terrace, Neath SA10 6UP. Previous investigations by Spectrum Geoservices has cited a BRE cover system assessment however is not available for review.

TFW Group Ltd have been commissioned by Castell Construction Ltd to undertake a cover soils thickness assessment to confirm the validity of the assessment prepared by Spectrum. They concluded a 400mm capping would be adequate but did not present the associated assessment on how they derived the value.

This report should be read in conjunction with the Spectrum Geoservices reports referenced: 2094/R2 CAE NANT TERRACE, SKEWEN – COVER THICKNESS REPORT.
2094/R1 CAE NANT TERRACE, SKEWEN – ADDITIONAL SITE INVESTIGATION REPORT.

1.1 Limitations and Exceptions of Investigation

The report has been conducted and this report has been prepared for the sole internal reliance of Castell Construction Ltd and its design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of TFW Group Limited. If an unauthorised third party comes into possession of this report, they rely on it at their peril and the authors owe them no duty of care and skill.

The report represents the findings and opinions of experienced geotechnical and geoenvironmental consultants. TFW Group Limited does not provide legal advice and the advice of lawyers may also be required. The subsurface geological profiles, any contamination and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

2.0 COVER SOILS INVESTIGATION & ASSESSMENT

This capping soil thickness assessment is carried out in accordance with 'Cover Systems For Land Regeneration – Thickness Design of Cover Systems for Contaminated Land, BRE465, March 2004'. It should be noticed that this guidance has since been archived.

Site investigation works were undertaken on 25th and 26th February 2025 and comprised the excavation of twelve hand-dug trial pits to facilitate soils sampling and testing for a broad range of potential contaminants. Additional testing was undertaken at this time under a separate scope of works to investigate an adjacent asbestos hotspot, details of which are reported separately.

The fieldworks were supervised by TFW Group on a full-time basis, who also logged the trial pits to the requirements of BS5930.

Trial pits referenced TP01 to TP12, were excavated using hand tools.

Representative disturbed samples were taken and retained in airtight containers for environmental testing.

On completion all trial pits were backfilled with materials arising compacted in layers.

The trial pit logs are presented in **Annex A**. The location of the trial pits can be seen within **Figure 01**.

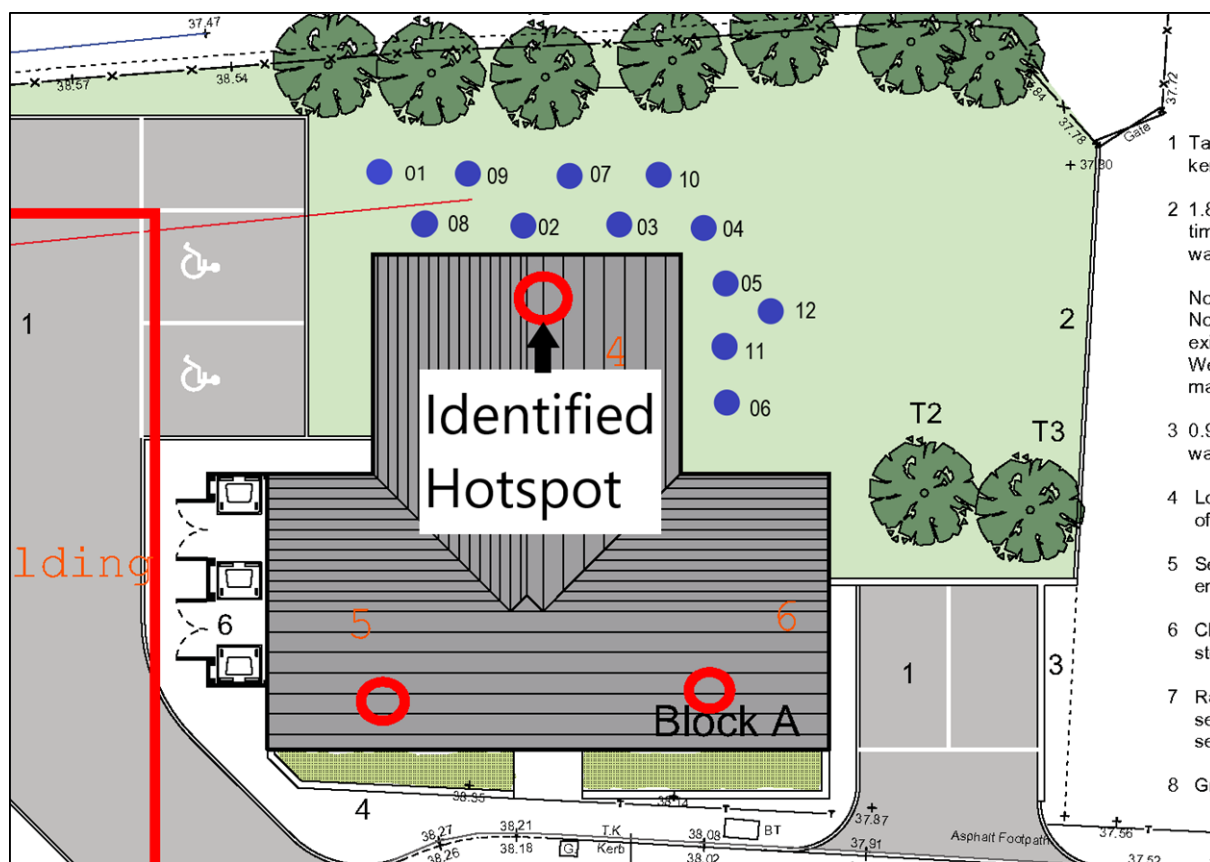


Figure 01 – Trial Pit Locations.

The ground conditions encountered by the exploratory holes can in general be summarised as shown in **Table 2.1**.

Table 2.1 Summary of Typical Ground Conditions

Depth (m)			Thickness (m)	Stratum
0.00	-	0.4	0.4	Grass over soft orangish brown slightly sandy CLAY [Imported Capping Soils]
0.4	-	>1.2	>0.8	Black clayey SAND and GRAVEL /gravelly CLAY . [MADE GROUND]

Testing of the in-situ made ground soils for a broad range of contaminants was undertaken by Spectrum Geoservices, results found within the 2094/R1 additional site investigation report and summarised within **Table 2.3**, with the only exceedances being lead and arsenic.

Capping soils from two locations were sampled and similarly tested by TFW Group Ltd and despatched to the accredited laboratories of Eurofins Chemtest for laboratory chemical testing. Soil samples were tested for the determinands listed in **Table 2.2**.

Table 2.2 Soil Laboratory Analysis

Metals & Metalloids	In-Organics	Organics	Others
Arsenic	Cyanide	Phenols	pH (acidity)
Cadmium	Sulphate	PAH	Asbestos
Chromium III		Petroleum Hydrocarbons	
Chromium VI			
Copper			
Lead			
Mercury			
Nickel			
Selenium			
Zinc			

The laboratory test results certificates may be found in **Annex B**.

The results of the exceeding values of arsenic and lead compared against capping soils is summarised in **Table 2.3**

Table 2.3 Soil Concentrations and Threshold Values

Substance	TV-Threshold Value (mg/kg)	Source	A – Highest Recorded Concentration in Made Ground Soils (mg/Kg)	B – Highest Concentration in Capping Soils (mg/Kg)
Arsenic	79	LQM/CIEH	185.00	26
Lead	630	pC4SL	1460.00	110

The assessment model assumes that over time there will be a complete intermixing of made ground soils with overlying cover materials. The mixed zone thickness (cover + made ground soils) is considered to be 600mm which is the default thickness as stipulated by BRE465, which equates to the depth of two spades height. The guideline values (Tv) for the site has been assessed as public open space – residential, as the site is an apartment complex which is centrally managed, the space not being used for individual use.

Capping thickness assessments for the site is assessed in **Table 2.4** and **Figure 02** using data acquired from the above section.

Table 2.4 BRE465 Capping Thickness Assessment.

Determinand	A - Recorded Concentration in Soils (mg/Kg)	B - Concentration in Capping Soils (mg/Kg)	Tv - Adopted Target Guideline Value for Capping Soils (mg/Kg)	Cc - Contaminant Concentration of Cover (B/Tv)	Cg - Contaminant Concentration of Existing Ground (A/Tv)	X - Cover Thickness (600*(Cg-1)/Cg-Cc)
Arsenic	185.00	26	79	0.33	2.34	400.00
Lead	1460.00	110	630	0.17	2.32	368.89

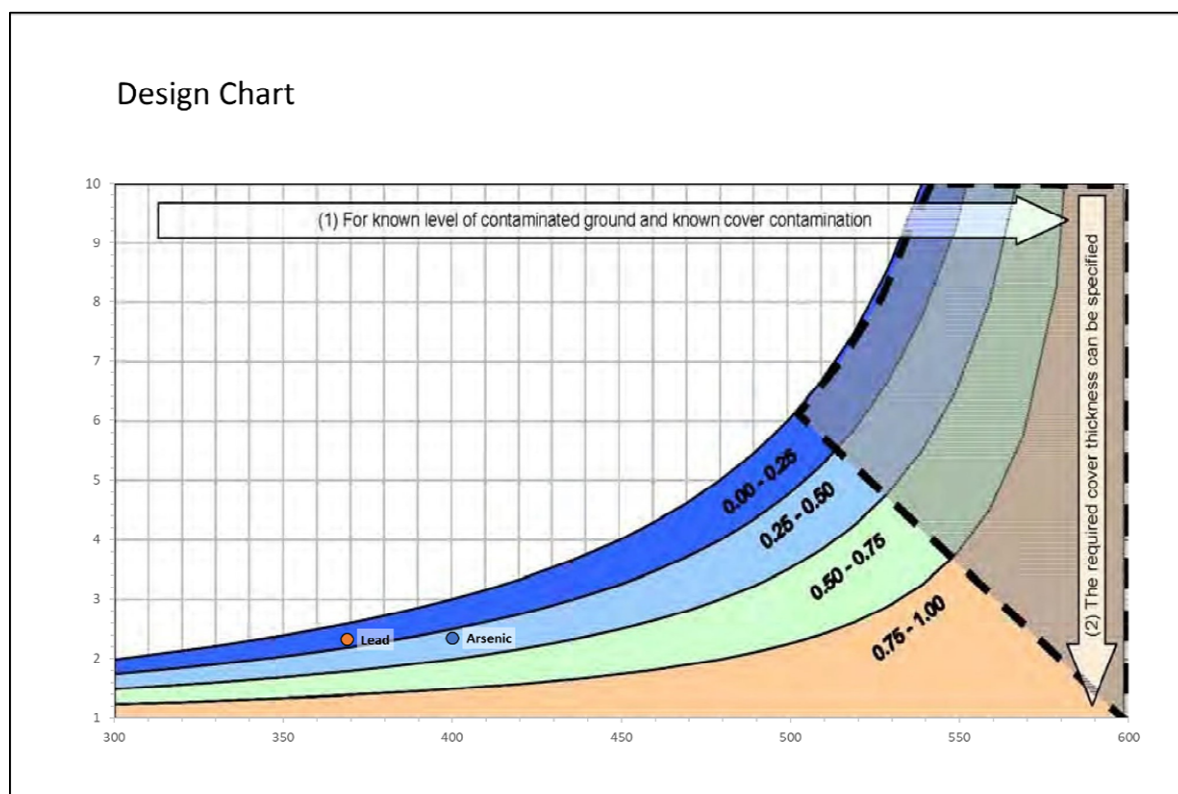


Figure 02 – BRE Capping Thickness Design Chart.

It is therefore considered that a capping layer of 400mm would be suitable to sever the pathway between the contaminant source and receptor at the development site.

Incidentally the depth of capping observed in locations tested showed a capping thickness of 400mm.

We trust that the above is to your satisfaction, however, if you have any queries or require any further information, please do not hesitate to contact us.

Yours sincerely
for: TFW Group Ltd



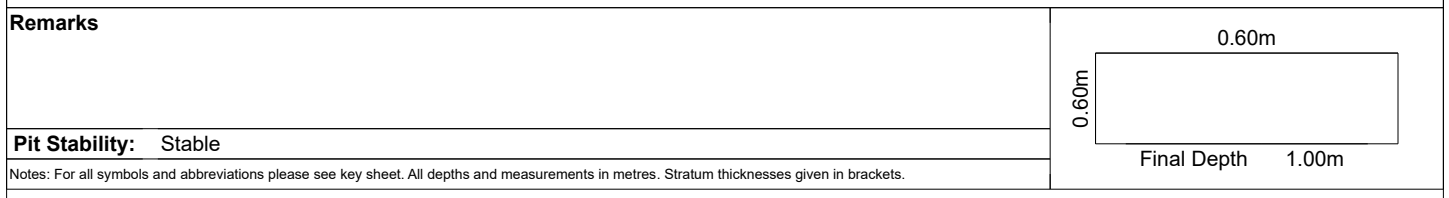
Mr E. Sampson

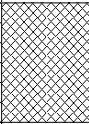
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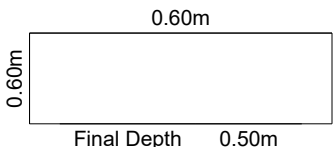
Annex A – Trial Pit Logs

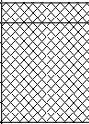
Annex B – Geoenvironmental Test Results

ANNEX A
Trial Pit Logs

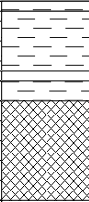


		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP02 Sheet 1 of 1	
Project Name Former Snooker Club				Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP	
Client Castell				Co-ords E: N: L:		Water Strike Details				Logged By ES	
Contractor						Depth Strike		Remarks		Approved By	
Plant Used										Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description					Legend	
Results	Type	Depth									
			(0.05) 0.05 (0.35) 0.40 (0.60) 1 1.00		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] ()						
					MADE GROUND. [Medium dense] Black clayey sandy GRAVEL with occasional fragments of slag, brick, concrete and miscellaneous metal. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. ()						
					End of Trial Pit at 1.00m						
Remarks Pit Stability: Stable Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											
										0.60m 0.60m Final Depth 1.00m	

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP04 Sheet 1 of 1	
Project Name Former Snooker Club				Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP	
Client Castell				Co-ords E: N: L:		Water Strike Details				Logged By ES	
Contractor						Depth Strike		Remarks		Approved By	
Plant Used										Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description					Legend	
Results	Type	Depth									
			(0.15) 0.15 (0.25) 0.40 (0.10) 0.50		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] ()						
					MADE GROUND. Grey subangular coarse GRAVEL of sandstone. Possible chippings () End of Trial Pit at 0.50m						
			1								
			2								
			3								
			4								
Remarks											
Pit Stability: Stable											
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP05 Sheet 1 of 1	
Project Name Former Snooker Club				Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP	
Client Castell				Co-ords E: N: L:		Water Strike Details				Logged By ES	
Contractor						Depth Strike		Remarks		Approved By	
Plant Used										Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description						Legend
Results	Type	Depth									
			(0.05) 0.05 (0.35) 0.40 (0.10) 0.50 (0.50) 1 1.00		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] ()						
					MADE GROUND. [Medium dense] Black clayey sandy GRAVEL with occasional fragments of slag, brick, concrete and miscellaneous metal. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. () MADE GROUND. [Stiff]. Black cslightly sandy gravelly CLAY with occasional fragments of slag and brick. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. ()						
					End of Trial Pit at 1.00m						
Remarks Pit Stability: Stable Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											
0.60m 0.60m Final Depth 1.00m											

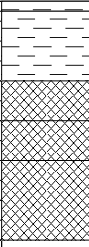
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Project Name Former Snooker Club						Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP		
Client Castell						Co-ords E: N: L:		Water Strike Details				Logged By ES		
Contractor								Depth Strike		Remarks		Approved By		
Plant Used												Scale 1:50		
Samples and Results			Depth, (Thickness)	Level	Stratum Description							Legend		
Results	Type	Depth												
			(0.25)		Grass over soft orangish brown CLAY. [Subsoil] ()									
			0.25		MADE GROUND. Grey subangular coarse GRAVEL of sandstone. Possible chippings ()									
			(0.35)											
			0.60											
			1											
			2											
			3											
			4											
Remarks													0.60m 0.60m Final Depth m	
Pit Stability: Stable														
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.														

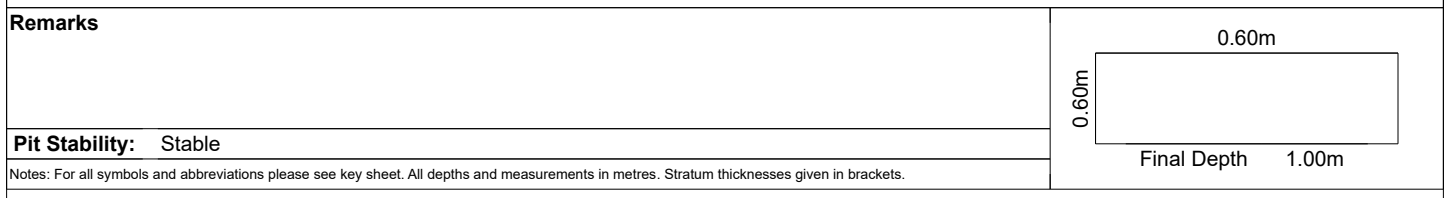
			Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors			Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP07 Sheet 1 of 1	
Project Name Former Snooker Club						Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP	
Client Castell						Co-ords E: N: L:		Water Strike Details				Logged By ES	
Contractor								Depth Strike		Remarks		Approved By	
Plant Used												Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description							Legend	
Results	Type	Depth											
			(0.05) 0.05 (0.30) 0.35 (0.05) 0.40 (0.10) 0.50 (0.50) 1 1.00		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] () Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] () MADE GROUND. [Medium dense] Black clayey sandy GRAVEL with occasional fragments of slag, brick, concrete and miscellaneous metal. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. () End of Trial Pit at 1.00m								
Remarks													
Pit Stability: Stable													
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.													

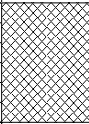
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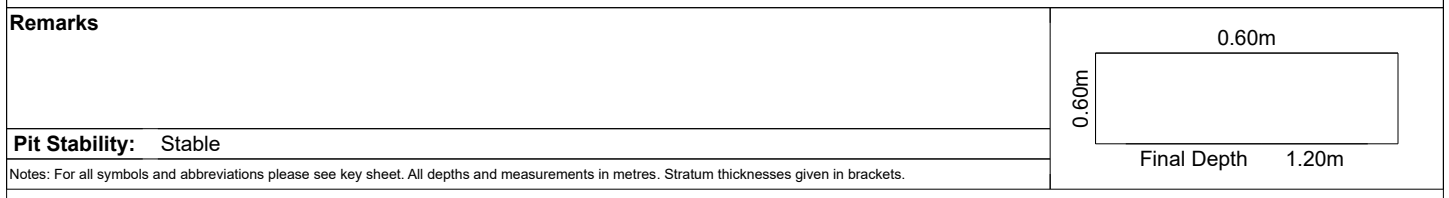
0.60m

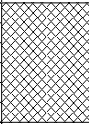
Final Depth 1.00m

		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP08 Sheet 1 of 1	
Project Name Former Snooker Club				Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP	
Client Castell				Co-ords E: N: L:		Water Strike Details				Logged By ES	
Contractor						Depth Strike		Remarks		Approved By	
Plant Used										Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description						Legend
Results	Type	Depth									
			(0.05) 0.05 (0.35) 0.40 (0.20) 0.60 (0.20) 0.80 1 (0.40) 1.20		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] () MADE GROUND. [Medium dense] Black clayey sandy GRAVEL with occasional fragments of slag, brick, concrete and miscellaneous metal. 1 No. Railway sleeper timber. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. () MADE GROUND. [Stiff] Black slightly sandy gravelly CLAY with occasional fragments of slag, brick, concrete and miscellaneous metal. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. () MADE GROUND. [Medium dense]. Black clayey gravelly SAND with occasional fragments of slag and brick. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. () End of Trial Pit at 1.20m						
Remarks											
Pit Stability: Stable											
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											
0.60m 0.60m Final Depth 1.20m											



			Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors Phone: 033 022 36380 Email: hello@tfwgroup.co.uk			Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA			Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP			Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA			Borehole No. TP10 Sheet 1 of 1		
Project Name Former Snooker Club							Project No. 17836		Date 25/02/2025 to 26/02/2025					Hole Type TP			
Client Castell							Co-ords E: N: L:		Water Strike Details					Logged By ES			
Contractor									Depth Strike		Remarks			Approved By			
Plant Used														Scale 1:50			
Samples and Results			Depth, (Thickness)	Level	Stratum Description								Legend				
Results	Type	Depth															
			(0.05) 0.05 (0.35) 0.40 (0.60) 1 1.00		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] ()												
					MADE GROUND. [Medium dense] Black clayey sandy GRAVEL with occasional fragments of slag, brick, concrete and miscellaneous metal. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. ()												
					End of Trial Pit at 1.00m												
Remarks																	
0.60m 0.60m Final Depth 1.00m																	
Pit Stability: Stable																	
Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.																	



		Consulting Geotechnical, Geo-Environmental Engineers & Site Investigation Contractors		Cardiff Office 5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		Exeter Office The Slate Barn Lower Lowley Dunsford Exeter EX6 7BP		Portsmouth Office Technopole Kingston Crescent North End Portsmouth PO2 8FA		Borehole No. TP12 Sheet 1 of 1	
Project Name Former Snooker Club				Project No. 17836		Date 25/02/2025 to 26/02/2025				Hole Type TP	
Client Castell				Co-ords E: N: L:		Water Strike Details				Logged By ES	
Contractor						Depth Strike		Remarks		Approved By	
Plant Used										Scale 1:50	
Samples and Results			Depth, (Thickness)	Level	Stratum Description					Legend	
Results	Type	Depth									
			(0.05) 0.05 (0.35) 0.40 (0.60) 1 1.00		Grass over firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies. () Soft orangish brown CLAY. [Subsoil] ()						
					MADE GROUND. [Medium dense] Black clayey sandy GRAVEL with occasional fragments of slag, brick, concrete and miscellaneous metal. Sand is fine to coarse. Gravel is angular subangular fine to coarse of mixed lithologies. ()						
					End of Trial Pit at 1.00m						
Remarks											
Pit Stability: Stable Notes: For all symbols and abbreviations please see key sheet. All depths and measurements in metres. Stratum thicknesses given in brackets.											
0.60m 0.60m Final Depth 1.00m											

ANNEX B
Geoenvironmental Test Results



Final Report

Report No.: 25-07603-1

Initial Date of Issue: 13-Mar-2025

Re-Issue Details:

Client Terra Firma

Client Address: 5 Deryn Court
Wharfedale Road
Pentwyn
Cardiff
CF23 7HA

Contact(s): elliot@terrafirmawales.co.uk

Project Skewen

Quotation No.: **Date Received:** 06-Mar-2025

Order No.: 17836 **Date Instructed:** 06-Mar-2025

No. of Samples: 29

Turnaround (Wkdays): 5 **Results Due:** 12-Mar-2025

Date Approved: 13-Mar-2025

Approved By:

Details: David Smith, Technical Director

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

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:		25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:		1942721	1942722	1942723	1942724	1942725	1942726	1942727	1942728	1942728	1942728
		Client Sample ID.:		ES1	ES2	ES3	ES4	ES1	ES2	ES3	ES1	ES1	ES1
		Sample Location:		TP01	TP01	TP01	TP01	TP02	TP02	TP02	TP02	TP03	TP03
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.05	0.2	0.5	0.9	0.2	0.5	0.9	0.2	0.2	0.2
		Bottom Depth (m):		0.05	0.2	0.5	0.9	0.2	0.5	0.9	0.2	0.2	0.2
		Date Sampled:		05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:		NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD								
ACM Type		N	2192		N/A	-	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage		U	2192		N/A	-	-						
Moisture		N	2030	%	0.020	17	17						
Soil Colour		N	2040		N/A	Black	Brown						
Other Material		N	2040		N/A	Stones	Stones						
Soil Texture		N	2040		N/A	Sand	Clay						
pH at 20C		M	2010		4.0	7.3	8.4						
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40	0.41	< 0.40						
Cyanide (Total)		M	2300	mg/kg	0.50	< 0.50	< 0.50						
Sulphate (Acid Soluble)		U	2430	%	0.010	0.033	0.077						
Arsenic		M	2455	mg/kg	0.5	7.3	13						
Cadmium		M	2455	mg/kg	0.10	0.24	0.53						
Chromium		M	2455	mg/kg	0.5	15	30						
Mercury Low Level		N	2450	mg/kg	0.05	< 0.05	0.08						
Copper		M	2455	mg/kg	0.50	21	32						
Nickel		M	2455	mg/kg	0.50	31	38						
Lead		M	2455	mg/kg	0.50	24	110						
Selenium		M	2455	mg/kg	0.25	0.34	0.98						
Zinc		M	2455	mg/kg	0.50	94	170						
Chromium (Trivalent)		N	2490	mg/kg	1.0	15	30						
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50						
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05						
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05						
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05						
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10	< 0.10						
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05	< 0.05						
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25	< 0.25						
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0						
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00	< 1.0	< 1.0						
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00	< 2.0	< 2.0						
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00	3.5	< 3.0						
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10						
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00	5.3	< 5.0						
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00	< 10	< 10						

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:		25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:		1942721	1942722	1942723	1942724	1942725	1942726	1942727	1942728
		Client Sample ID.:		ES1	ES2	ES3	ES4	ES1	ES2	ES3	ES1
		Sample Location:		TP01	TP01	TP01	TP01	TP02	TP02	TP02	TP03
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.05	0.2	0.5	0.9	0.2	0.5	0.9	0.2
		Bottom Depth (m):		0.05	0.2	0.5	0.9	0.2	0.5	0.9	0.2
		Date Sampled:		05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:		NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05				
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05				
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05	< 0.05				
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25	< 0.25				
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0				
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00	< 1.0	< 1.0				
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	4.2	3.1				
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00	6.1	< 2.0				
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00	8.7	5.2				
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00	10	< 5.0				
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00	19	< 10				
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50	< 0.50				
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00	16	< 10				
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00	24	< 10				
Naphthalene		M	2700	mg/kg	0.10	< 0.10	< 0.10				
Acenaphthylene		M	2700	mg/kg	0.10	< 0.10	< 0.10				
Acenaphthene		M	2700	mg/kg	0.10	< 0.10	< 0.10				
Fluorene		M	2700	mg/kg	0.10	< 0.10	< 0.10				
Phenanthrene		M	2700	mg/kg	0.10	< 0.10	0.38				
Anthracene		M	2700	mg/kg	0.10	< 0.10	< 0.10				
Fluoranthene		M	2700	mg/kg	0.10	0.17	0.39				
Pyrene		M	2700	mg/kg	0.10	0.41	0.48				
Benzo[a]anthracene		M	2700	mg/kg	0.10	< 0.10	0.18				
Chrysene		M	2700	mg/kg	0.10	0.42	0.55				
Benzo[b]fluoranthene		M	2700	mg/kg	0.10	< 0.10	0.32				
Benzo[k]fluoranthene		M	2700	mg/kg	0.10	< 0.10	0.25				
Benzo[a]pyrene		M	2700	mg/kg	0.10	< 0.10	0.18				
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10	< 0.10	0.18				
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10	< 0.10	0.14				
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10	< 0.10	0.26				
Total Of 16 PAH's		M	2700	mg/kg	2.0	< 2.0	3.3				
Total Phenols		M	2920	mg/kg	0.10	< 0.10	< 0.10				
Organic Matter BS1377		N	2930	%	0.10	4.2	0.40				

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:		25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:		1942729	1942730	1942731	1942732	1942733	1942734	1942735	1942736	1942736
		Client Sample ID.:		ES2	ES3	ES1	ES2	ES1	ES2	ES3	ES4	ES4
		Sample Location:		TP03	TP03	TP04	TP04	TP05	TP05	TP05	TP05	TP05
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.5	0.9	0.1	0.3	0.4	0.6	0.8	1	1
		Bottom Depth (m):		0.5	0.9	0.1	0.3	0.4	0.6	0.8	1	1
		Date Sampled:		05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:		NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
ACM Type		N	2192		N/A	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage		U	2192		N/A			-	-			
Moisture		N	2030	%	0.020			18	16			
Soil Colour		N	2040		N/A			Brown	Brown			
Other Material		N	2040		N/A			Stones	Stones			
Soil Texture		N	2040		N/A			Sand	Clay			
pH at 20C		M	2010		4.0			8.2	8.1			
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40			0.40	< 0.40			
Cyanide (Total)		M	2300	mg/kg	0.50			< 0.50	< 0.50			
Sulphate (Acid Soluble)		U	2430	%	0.010			0.063	0.068			
Arsenic		M	2455	mg/kg	0.5			7.6	26			
Cadmium		M	2455	mg/kg	0.10			0.37	0.69			
Chromium		M	2455	mg/kg	0.5			14	29			
Mercury Low Level		N	2450	mg/kg	0.05			0.13	0.05			
Copper		M	2455	mg/kg	0.50			33	39			
Nickel		M	2455	mg/kg	0.50			27	36			
Lead		M	2455	mg/kg	0.50			68	100			
Selenium		M	2455	mg/kg	0.25			0.37	0.94			
Zinc		M	2455	mg/kg	0.50			140	250			
Chromium (Trivalent)		N	2490	mg/kg	1.0			14	29			
Chromium (Hexavalent)		N	2490	mg/kg	0.50			< 0.50	< 0.50			
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05			< 0.05	< 0.05			
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05			< 0.05	< 0.05			
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05			< 0.05	< 0.05			
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10			< 0.10	< 0.10			
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05			< 0.05	< 0.05			
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25			< 0.25	< 0.25			
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00			< 2.0	< 2.0			
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00			< 1.0	< 1.0			
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00			< 2.0	< 2.0			
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00			< 3.0	4.0			
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00			< 10	< 10			
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00			< 5.0	< 5.0			
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00			< 10	< 10			

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:						25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:						1942729	1942730	1942731	1942732	1942733	1942734	1942735	1942736
		Client Sample ID.:						ES2	ES3	ES1	ES2	ES1	ES2	ES3	ES4
		Sample Location:						TP03	TP03	TP04	TP04	TP05	TP05	TP05	TP05
		Sample Type:						SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):						0.5	0.9	0.1	0.3	0.4	0.6	0.8	1
		Bottom Depth (m):						0.5	0.9	0.1	0.3	0.4	0.6	0.8	1
		Date Sampled:						05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:						12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:						NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD										
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05					< 0.05	< 0.05				
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05					< 0.05	< 0.05				
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05					< 0.05	< 0.05				
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25					< 0.25	< 0.25				
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00					< 1.0	< 1.0				
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00					< 1.0	< 1.0				
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00					3.1	3.5				
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00					3.0	2.6				
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00					5.9	5.1				
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00					6.1	6.1				
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00					12	11				
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50					< 0.50	< 0.50				
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00					< 10	10				
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00					< 10	15				
Naphthalene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Acenaphthylene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Acenaphthene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Fluorene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Phenanthrene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Anthracene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Fluoranthene		M	2700	mg/kg	0.10					0.24	0.12				
Pyrene		M	2700	mg/kg	0.10					0.33	0.24				
Benzo[a]anthracene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Chrysene		M	2700	mg/kg	0.10					0.48	0.37				
Benzo[b]fluoranthene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Benzo[k]fluoranthene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Benzo[a]pyrene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10					< 0.10	< 0.10				
Total Of 16 PAH's		M	2700	mg/kg	2.0					< 2.0	< 2.0				
Total Phenols		M	2920	mg/kg	0.10					< 0.10	< 0.10				
Organic Matter BS1377		N	2930	%	0.10					5.0	1.1				

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:		25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:		1942737	1942738	1942739	1942740	1942741	1942742	1942743	1942744	1942744
		Client Sample ID.:		ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2	ES2
		Sample Location:		TP06	TP07	TP07	TP08	TP08	TP08	TP09	TP09	TP09
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.4	0.6	1	0.4	0.6	0.8	0.5	0.8	0.8
		Bottom Depth (m):		0.4	0.6	1	0.4	0.6	0.8	0.5	0.8	0.8
		Date Sampled:		05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:		NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD							
ACM Type		N	2192		N/A	-	-	-	-	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage		U	2192		N/A							
Moisture		N	2030	%	0.020							
Soil Colour		N	2040		N/A							
Other Material		N	2040		N/A							
Soil Texture		N	2040		N/A							
pH at 20C		M	2010		4.0							
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40							
Cyanide (Total)		M	2300	mg/kg	0.50							
Sulphate (Acid Soluble)		U	2430	%	0.010							
Arsenic		M	2455	mg/kg	0.5							
Cadmium		M	2455	mg/kg	0.10							
Chromium		M	2455	mg/kg	0.5							
Mercury Low Level		N	2450	mg/kg	0.05							
Copper		M	2455	mg/kg	0.50							
Nickel		M	2455	mg/kg	0.50							
Lead		M	2455	mg/kg	0.50							
Selenium		M	2455	mg/kg	0.25							
Zinc		M	2455	mg/kg	0.50							
Chromium (Trivalent)		N	2490	mg/kg	1.0							
Chromium (Hexavalent)		N	2490	mg/kg	0.50							
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05							
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05							
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05							
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10							
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05							
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25							
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00							
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00							
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00							
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00							
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00							
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00							
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00							

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:						25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:						1942737	1942738	1942739	1942740	1942741	1942742	1942743	1942744
		Client Sample ID.:						ES1	ES1	ES2	ES1	ES2	ES3	ES1	ES2
		Sample Location:						TP06	TP07	TP07	TP08	TP08	TP08	TP09	TP09
		Sample Type:						SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):						0.4	0.6	1	0.4	0.6	0.8	0.5	0.8
		Bottom Depth (m):						0.4	0.6	1	0.4	0.6	0.8	0.5	0.8
		Date Sampled:						05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:						12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:						NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD										
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05										
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05										
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05										
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25										
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00										
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00										
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00										
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00										
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00										
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00										
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00										
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50										
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00										
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00										
Naphthalene		M	2700	mg/kg	0.10										
Acenaphthylene		M	2700	mg/kg	0.10										
Acenaphthene		M	2700	mg/kg	0.10										
Fluorene		M	2700	mg/kg	0.10										
Phenanthrene		M	2700	mg/kg	0.10										
Anthracene		M	2700	mg/kg	0.10										
Fluoranthene		M	2700	mg/kg	0.10										
Pyrene		M	2700	mg/kg	0.10										
Benzo[a]anthracene		M	2700	mg/kg	0.10										
Chrysene		M	2700	mg/kg	0.10										
Benzo[b]fluoranthene		M	2700	mg/kg	0.10										
Benzo[k]fluoranthene		M	2700	mg/kg	0.10										
Benzo[a]pyrene		M	2700	mg/kg	0.10										
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10										
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10										
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10										
Total Of 16 PAH's		M	2700	mg/kg	2.0										
Total Phenols		M	2920	mg/kg	0.10										
Organic Matter BS1377		N	2930	%	0.10										

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:		25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:		1942745	1942746	1942747	1942748	1942749
		Client Sample ID.:		ES1	ES2	ES1	ES1	ES2
		Sample Location:		TP10	TP10	TP11	TP12	TP12
		Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):		0.5	1	0.4	0.4	0.8
		Bottom Depth (m):		0.5	1	0.4	0.4	0.8
		Date Sampled:		05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:		12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:		NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD			
ACM Type		N	2192		N/A	-	-	-
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
ACM Detection Stage		U	2192		N/A			
Moisture		N	2030	%	0.020			
Soil Colour		N	2040		N/A			
Other Material		N	2040		N/A			
Soil Texture		N	2040		N/A			
pH at 20C		M	2010		4.0			
Boron (Hot Water Soluble)		M	2120	mg/kg	0.40			
Cyanide (Total)		M	2300	mg/kg	0.50			
Sulphate (Acid Soluble)		U	2430	%	0.010			
Arsenic		M	2455	mg/kg	0.5			
Cadmium		M	2455	mg/kg	0.10			
Chromium		M	2455	mg/kg	0.5			
Mercury Low Level		N	2450	mg/kg	0.05			
Copper		M	2455	mg/kg	0.50			
Nickel		M	2455	mg/kg	0.50			
Lead		M	2455	mg/kg	0.50			
Selenium		M	2455	mg/kg	0.25			
Zinc		M	2455	mg/kg	0.50			
Chromium (Trivalent)		N	2490	mg/kg	1.0			
Chromium (Hexavalent)		N	2490	mg/kg	0.50			
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05			
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05			
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05			
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10			
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05			
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25			
Aliphatic EPH >C10-C12 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00			
Aliphatic EPH >C12-C16 MC	EH_2D_AL_#1	M	2690	mg/kg	1.00			
Aliphatic EPH >C16-C21 MC	EH_2D_AL_#1	M	2690	mg/kg	2.00			
Aliphatic EPH >C21-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	3.00			
Aliphatic EPH >C35-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00			
Total Aliphatic EPH >C10-C35 MC	EH_2D_AL_#1	M	2690	mg/kg	5.00			
Total Aliphatic EPH >C10-C40 MC	EH_2D_AL_#1	N	2690	mg/kg	10.00			

Results - Soil

Project: Skewen

Client: Terra Firma		Chemtest Job No.:					25-07603	25-07603	25-07603	25-07603	25-07603
Quotation No.:		Chemtest Sample ID.:					1942745	1942746	1942747	1942748	1942749
		Client Sample ID.:					ES1	ES2	ES1	ES1	ES2
		Sample Location:					TP10	TP10	TP11	TP12	TP12
		Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):					0.5	1	0.4	0.4	0.8
		Bottom Depth (m):					0.5	1	0.4	0.4	0.8
		Date Sampled:					05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025	05-Mar-2025
		Time Sampled:					12:00	12:00	12:00	12:00	12:00
		Asbestos Lab:					NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB	NEW-ASB
Determinand	HWOL Code	Accred.	SOP	Units	LOD						
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05						
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05						
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05						
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25						
Aromatic EPH >C10-C12 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00						
Aromatic EPH >C12-C16 MC	EH_2D_AR_#1	U	2690	mg/kg	1.00						
Aromatic EPH >C16-C21 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00						
Aromatic EPH >C21-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	2.00						
Aromatic EPH >C35-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	1.00						
Total Aromatic EPH >C10-C35 MC	EH_2D_AR_#1	U	2690	mg/kg	5.00						
Total Aromatic EPH >C10-C40 MC	EH_2D_AR_#1	N	2690	mg/kg	10.00						
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50						
Total EPH >C10-C35 MC	EH_2D_Total_#1	U	2690	mg/kg	10.00						
Total EPH >C10-C40 MC	EH_2D_Total_#1	N	2690	mg/kg	10.00						
Naphthalene		M	2700	mg/kg	0.10						
Acenaphthylene		M	2700	mg/kg	0.10						
Acenaphthene		M	2700	mg/kg	0.10						
Fluorene		M	2700	mg/kg	0.10						
Phenanthrene		M	2700	mg/kg	0.10						
Anthracene		M	2700	mg/kg	0.10						
Fluoranthene		M	2700	mg/kg	0.10						
Pyrene		M	2700	mg/kg	0.10						
Benzo[a]anthracene		M	2700	mg/kg	0.10						
Chrysene		M	2700	mg/kg	0.10						
Benzo[b]fluoranthene		M	2700	mg/kg	0.10						
Benzo[k]fluoranthene		M	2700	mg/kg	0.10						
Benzo[a]pyrene		M	2700	mg/kg	0.10						
Indeno(1,2,3-c,d)Pyrene		M	2700	mg/kg	0.10						
Dibenz(a,h)Anthracene		M	2700	mg/kg	0.10						
Benzo[g,h,i]perylene		M	2700	mg/kg	0.10						
Total Of 16 PAH's		M	2700	mg/kg	2.0						
Total Phenols		M	2920	mg/kg	0.10						
Organic Matter BS1377		N	2930	%	0.10						

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
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	
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry	
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.	
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.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.	
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Heptane extraction / GCxGC FID detection	
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.	
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration	

Report Information

Key

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

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

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

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

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

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

All results are expressed on a dry weight basis.

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

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

All Asbestos testing is performed at the indicated laboratory .

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

NEW_ASB	Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL
DURHAM	Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

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

A - Date of sampling not supplied

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

C - Sample not received in appropriate containers

D - Broken Container

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

H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

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

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

Charges may apply to extended sample storage.

Report Information

Water Sample Category Key for Accreditation

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

Clean Up Codes

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

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com