

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132118	2132119	2132120	2132121	2132122	2132123
Sample ID	BH106	BH106	BH106	BH106	BH106	BH104
Depth	0.20	2.00	3.00	5.00	16.00	5.00
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	21/02/2023	21/02/2023	21/02/2023	22/02/2023	23/02/2023	20/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Moisture Content	DETSC 1004	0.1	%	10	15	12	6.9	16	9.5
Metals									
Antimony	DETSC 2301*	1	mg/kg	2.1	2.1	1.4	1.1	< 1.0	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	11	13	12	9.9	3.7	10
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.4	0.8	0.3	0.3	< 0.2	0.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	0.4	0.4	0.5	0.1	0.6
Chromium	DETSC 2301#	0.15	mg/kg	37	19	18	13	6.2	14
Chromium III	DETSC 2301*	0.15	mg/kg	37	19	18	13	6.2	14
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	39	34	25	23	10	34
Lead	DETSC 2301#	0.3	mg/kg	110	95	56	46	12	52
Mercury	DETSC 2325#	0.05	mg/kg	0.22	0.11	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	20	20	21	20	7.2	20
Selenium	DETSC 2301#	0.5	mg/kg	0.7	< 0.5	< 0.5	< 0.5	< 0.5	0.5
Zinc	DETSC 2301#	1	mg/kg	200	140	84	95	23	99
Inorganics									
pH	DETSC 2008#		pH	9.4	8.3	8.1	8.5	8.8	8.3
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2	0.3	< 0.1	< 0.1	< 0.1	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Organic Carbon	DETSC 2084#	0.5	%	5.2	4.4	2.0	0.5	< 0.5	0.8
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	4.7	5.0	3.4	2.4	2.3	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	200	120	85	52	55	84
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5			
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2			
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5			
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4			
Aliphatic C35-C44	DETSC 3072*	3.4	mg/kg	< 3.4	< 3.4	< 3.4			
Aliphatic C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10	< 10			
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01			
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9			
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5			
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6			
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	< 1.4			
Aromatic C35-C44	DETSC 3072*	1.4	mg/kg	< 1.4	< 1.4	< 1.4			
Aromatic C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10	< 10			

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Soil Samples

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Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132118	2132119	2132120	2132121	2132122	2132123
Sample ID	BH106	BH106	BH106	BH106	BH106	BH104
Depth	0.20	2.00	3.00	5.00	16.00	5.00
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	21/02/2023	21/02/2023	21/02/2023	22/02/2023	23/02/2023	20/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Ali/Aro C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10	< 10			
PAHs									
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	0.1	< 0.1			
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
Phenanthrene	DETSC 3301	0.1	mg/kg	0.4	0.2	< 0.1			
Anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
Fluoranthene	DETSC 3301	0.1	mg/kg	0.8	0.4	0.2			
Pyrene	DETSC 3301	0.1	mg/kg	0.8	0.5	0.2			
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	0.6	0.4	< 0.1			
Chrysene	DETSC 3301	0.1	mg/kg	0.5	0.2	< 0.1			
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.3	0.2	< 0.1			
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.2	0.1	< 0.1			
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	0.5	0.3	< 0.1			
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1			
PAH 16 Total	DETSC 3301	1.6	mg/kg	4.3	2.6	< 1.6			

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132124	2132125
Sample ID	BH105	BH105
Depth	0.20	1.00
Other ID		
Sample Type	ES	ES
Sampling Date	23/02/2023	23/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
Moisture Content	DETSC 1004	0.1	%	13	10
Metals					
Antimony	DETSC 2301*	1	mg/kg	2.5	3.7
Arsenic	DETSC 2301#	0.2	mg/kg	12	12
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.8	0.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.6	0.5
Chromium	DETSC 2301#	0.15	mg/kg	46	220
Chromium III	DETSC 2301*	0.15	mg/kg	46	220
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	42	59
Lead	DETSC 2301#	0.3	mg/kg	590	120
Mercury	DETSC 2325#	0.05	mg/kg	0.16	0.13
Nickel	DETSC 2301#	1	mg/kg	17	22
Selenium	DETSC 2301#	0.5	mg/kg	0.8	1.1
Zinc	DETSC 2301#	1	mg/kg	150	130
Inorganics					
pH	DETSC 2008#		pH	8.0	8.4
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1	< 0.1
Total Organic Carbon	DETSC 2084#	0.5	%	6.0	2.0
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	6.7	3.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	200	35
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4
Aliphatic C35-C44	DETSC 3072*	3.4	mg/kg	< 3.4	< 3.4
Aliphatic C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4
Aromatic C35-C44	DETSC 3072*	1.4	mg/kg	< 1.4	< 1.4
Aromatic C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10

Summary of Chemical Analysis Soil Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132124	2132125
Sample ID	BH105	BH105
Depth	0.20	1.00
Other ID		
Sample Type	ES	ES
Sampling Date	23/02/2023	23/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Ali/Aro C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10
PAHs					
Naphthalene	DETSC 3301	0.1	mg/kg	0.1	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	0.6	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	0.2	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	0.4	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	2.5	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	0.8	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	4.5	0.3
Pyrene	DETSC 3301	0.1	mg/kg	4.3	0.4
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	3.0	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	2.5	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	1.7	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	1.2	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	2.8	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	1.8	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.2	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	2.2	< 0.1
PAH 16 Total	DETSC 3301	1.6	mg/kg	29	< 1.6

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132118	2132119	2132120	2132124	2132125
Sample ID	BH106	BH106	BH106	BH105	BH105
Depth	0.20	2.00	3.00	0.20	1.00
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	21/02/2023	21/02/2023	21/02/2023	23/02/2023	23/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
SVOCs								
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	0.4	< 0.1	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132118	2132119	2132120	2132124	2132125
Sample ID	BH106	BH106	BH106	BH105	BH105
Depth	0.20	2.00	3.00	0.20	1.00
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	21/02/2023	21/02/2023	21/02/2023	23/02/2023	23/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Carbazole	DETSC 3433*	0.1	mg/kg	0.4	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132126	2132127	2132128	2132129	2132130	2132131
Sample ID	BH106	BH106	BH106	BH106	BH106	BH104
Depth	0.20	2.00	3.00	5.00	16.00	5.00
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	21/02/2023	21/02/2023	21/02/2023	22/02/2023	23/02/2023	20/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
BS EN 12457 10:1	DETS 1009*			Y	Y	Y	Y	Y	Y
Metals									
Antimony, Dissolved	DETS 2306	0.17	ug/l	0.51	0.22	< 0.17	0.41	0.42	0.39
Arsenic, Dissolved	DETS 2306	0.16	ug/l	1.2	0.68	0.33	0.26	0.18	0.21
Boron, Dissolved	DETS 2306*	12	ug/l	< 12	< 12	< 12	< 12	< 12	< 12
Cadmium, Dissolved	DETS 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chromium, Dissolved	DETS 2306	0.25	ug/l	2.7	0.57	3.1	0.80	0.69	0.63
Chromium III, Dissolved	DETS 2306*	1	ug/l	2.7	< 1.0	3.1	< 1.0	< 1.0	< 1.0
Chromium, Hexavalent	DETS 2203	7	ug/l	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	4.0	3.2	2.8	2.6	0.7	2.3
Lead, Dissolved	DETS 2306	0.09	ug/l	2.6	0.68	0.37	0.16	< 0.09	< 0.09
Mercury, Dissolved	DETS 2306	0.01	ug/l	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nickel, Dissolved	DETS 2306	0.5	ug/l	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 0.5
Selenium, Dissolved	DETS 2306	0.25	ug/l	0.29	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Zinc, Dissolved	DETS 2306	1.3	ug/l	3.4	1.5	< 1.3	< 1.3	< 1.3	< 1.3
Inorganics									
Conductivity	DETS 2009	1	uS/cm	71.5	86.5	90.8	32.0	50.7	78.4
pH	DETS 2008		pH	6.7	6.6	7.0	7.4	7.0	6.8
Dissolved Organic Carbon	DETS 2085	2	mg/l	3.7	3.9	2.9	4.0	2.8	2.8
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.23	0.055	0.030	0.022	0.030	0.033
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3322	0.1	ug/l	< 0.1	18	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C5-C7	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ali/Aro C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PAHs									

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132126	2132127	2132128	2132129	2132130	2132131
Sample ID	BH106	BH106	BH106	BH106	BH106	BH104
Depth	0.20	2.00	3.00	5.00	16.00	5.00
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	21/02/2023	21/02/2023	21/02/2023	22/02/2023	23/02/2023	20/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	0.10	0.07	0.13	0.15	0.12
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.03	0.01	0.02	< 0.01	< 0.01	< 0.01
Anthracene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.08	0.02	0.02	< 0.01	< 0.01	< 0.01
Pyrene	DETSC 3304	0.01	ug/l	0.07	0.02	0.02	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.03	0.01	0.01	< 0.01	< 0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.04	0.02	0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	0.37	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132132	2132133
Sample ID	BH105	BH105
Depth	0.20	1.00
Other ID		
Sample Type	ES	ES
Sampling Date	23/02/2023	23/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETS 1009*			Y	Y
Metals					
Antimony, Dissolved	DETS 2306	0.17	ug/l	0.46	0.38
Arsenic, Dissolved	DETS 2306	0.16	ug/l	1.3	1.1
Boron, Dissolved	DETS 2306*	12	ug/l	< 12	< 12
Cadmium, Dissolved	DETS 2306	0.03	ug/l	< 0.03	< 0.03
Chromium, Dissolved	DETS 2306	0.25	ug/l	1.4	2.9
Chromium III, Dissolved	DETS 2306*	1	ug/l	1.4	2.9
Chromium, Hexavalent	DETS 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	2.0	1.5
Lead, Dissolved	DETS 2306	0.09	ug/l	3.2	2.1
Mercury, Dissolved	DETS 2306	0.01	ug/l	< 0.01	0.03
Nickel, Dissolved	DETS 2306	0.5	ug/l	< 0.5	0.6
Selenium, Dissolved	DETS 2306	0.25	ug/l	0.55	0.26
Zinc, Dissolved	DETS 2306	1.3	ug/l	3.5	2.0
Inorganics					
Conductivity	DETS 2009	1	uS/cm	105	44.2
pH	DETS 2008		pH	7.0	6.9
Dissolved Organic Carbon	DETS 2085	2	mg/l	3.7	3.6
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.088	0.089
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C7	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Ali/Aro C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
PAHs					

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2132132	2132133
Sample ID	BH105	BH105
Depth	0.20	1.00
Other ID		
Sample Type	ES	ES
Sampling Date	23/02/2023	23/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Naphthalene	DETSC 3304	0.05	ug/l	0.07	0.11
Acenaphthylene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.06	0.02
Anthracene	DETSC 3304	0.01	ug/l	0.02	0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.20	0.11
Pyrene	DETSC 3304	0.01	ug/l	0.20	0.11
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.09	0.04
Chrysene	DETSC 3304	0.01	ug/l	0.11	0.05
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.10	0.06
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.05	0.03
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.10	0.06
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.06	0.05
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.05	0.05
PAH Total	DETSC 3304	0.2	ug/l	1.1	0.71

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH106 0.20

Sample Numbers 2132118 2132134

Date Analysed 08/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	5.2
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	< 10
DETSC 3301 PAHs	mg/kg	4.3
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	1.6	0.016
DETSC 2306 Barium as Ba	10	0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	1.6	< 0.1
DETSC 2306 Copper as Cu	3.8	0.038
DETSC 2306 Mercury as Hg	0.024	< 0.002
DETSC 2306 Molybdenum as Mo	5.9	< 0.1
DETSC 2306 Nickel as Ni	< 0.50	< 0.1
DETSC 2306 Lead as Pb	2.4	< 0.05
DETSC 2306 Antimony as Sb	1	< 0.05
DETSC 2306 Selenium as Se	0.43	< 0.03
DETSC 2306 Zinc as Zn	4	0.04
DETSC 2055 Chloride as Cl	1800	< 100
DETSC 2055* Fluoride as F	280	2.8
DETSC 2055 Sulphate as SO4	31000	310
DETSC 2009* Total Dissolved Solids	56000	560
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	6300	63

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	8.3
DETSC 2009 Conductivity uS/cm	79.9
* Temperature*	16.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.099

Stage 1

Volume of Leachant L2*	0.974
Volume of Eluate VE1*	0.922

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH106 2.00

Sample Numbers 2132119 2132135

Date Analysed 08/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	4.4
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	120.0
DETSC 3301 PAHs	mg/kg	2.6
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	0.51	< 0.01
DETSC 2306 Barium as Ba	8.2	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	< 0.25	< 0.1
DETSC 2306 Copper as Cu	1.4	< 0.02
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	1.8	< 0.1
DETSC 2306 Nickel as Ni	< 0.50	< 0.1
DETSC 2306 Lead as Pb	0.97	< 0.05
DETSC 2306 Antimony as Sb	0.41	< 0.05
DETSC 2306 Selenium as Se	0.31	< 0.03
DETSC 2306 Zinc as Zn	3.4	0.034
DETSC 2055 Chloride as Cl	1700	< 100
DETSC 2055* Fluoride as F	130	1.3
DETSC 2055 Sulphate as SO4	19000	190
DETSC 2009* Total Dissolved Solids	64000	640
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	5800	58

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	8.0
DETSC 2009 Conductivity uS/cm	92.0
* Temperature*	16.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.094

Stage 1

Volume of Leachant L2*	0.925
Volume of Eluate VE1*	0.879

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH106 3.00

Sample Numbers 2132120 2132136

Date Analysed 08/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	2.0
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	< 10
DETSC 3301 PAHs	mg/kg	< 1.6
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	0.26	< 0.01
DETSC 2306 Barium as Ba	4.9	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	< 0.25	< 0.1
DETSC 2306 Copper as Cu	0.82	< 0.02
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1
DETSC 2306 Nickel as Ni	< 0.50	< 0.1
DETSC 2306 Lead as Pb	0.41	< 0.05
DETSC 2306 Antimony as Sb	< 0.17	< 0.05
DETSC 2306 Selenium as Se	< 0.25	< 0.03
DETSC 2306 Zinc as Zn	1.5	0.015
DETSC 2055 Chloride as Cl	1500	< 100
DETSC 2055* Fluoride as F	< 100	< 0.1
DETSC 2055 Sulphate as SO4	18000	180
DETSC 2009* Total Dissolved Solids	47000	470
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	4600	< 50

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	7.8
DETSC 2009 Conductivity uS/cm	66.4
* Temperature*	16.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.097

Stage 1

Volume of Leachant L2*	0.956
Volume of Eluate VE1*	0.908

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH105 0.20

Sample Numbers 2132124 2132137

Date Analysed 08/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	6.0
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	120.0
DETSC 3301 PAHs	mg/kg	29.0
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	1.2	0.012
DETSC 2306 Barium as Ba	10	0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	< 0.25	< 0.1
DETSC 2306 Copper as Cu	3.7	0.037
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1
DETSC 2306 Nickel as Ni	< 0.50	< 0.1
DETSC 2306 Lead as Pb	3.7	< 0.05
DETSC 2306 Antimony as Sb	0.38	< 0.05
DETSC 2306 Selenium as Se	0.29	< 0.03
DETSC 2306 Zinc as Zn	4.8	0.048
DETSC 2055 Chloride as Cl	1400	< 100
DETSC 2055* Fluoride as F	120	1.2
DETSC 2055 Sulphate as SO4	19000	190
DETSC 2009* Total Dissolved Solids	54000	540
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	5000	50

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	8.3
DETSC 2009 Conductivity uS/cm	76.6
* Temperature*	16.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.095

Stage 1

Volume of Leachant L2*	0.938
Volume of Eluate VE1*	0.89

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH105 1.00

Sample Numbers 2132125 2132138

Date Analysed 08/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	2.0
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	< 10
DETSC 3301 PAHs	mg/kg	< 1.6
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	0.83	< 0.01
DETSC 2306 Barium as Ba	4.9	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	< 0.25	< 0.1
DETSC 2306 Copper as Cu	1.3	< 0.02
DETSC 2306 Mercury as Hg	0.026	< 0.002
DETSC 2306 Molybdenum as Mo	2.9	< 0.1
DETSC 2306 Nickel as Ni	< 0.50	< 0.1
DETSC 2306 Lead as Pb	2.2	< 0.05
DETSC 2306 Antimony as Sb	0.29	< 0.05
DETSC 2306 Selenium as Se	< 0.25	< 0.03
DETSC 2306 Zinc as Zn	2.5	0.025
DETSC 2055 Chloride as Cl	750	< 100
DETSC 2055* Fluoride as F	410	4.1
DETSC 2055 Sulphate as SO4	2300	< 100
DETSC 2009* Total Dissolved Solids	32000	320
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	4900	< 50

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	8.2
DETSC 2009 Conductivity uS/cm	46.0
* Temperature*	16.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.099

Stage 1

Volume of Leachant L2*	0.974
Volume of Eluate VE1*	0.922

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

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Summary of Asbestos Analysis Soil Samples

Our Ref 23-04867

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2132118	BH106 0.20	SOIL	NAD	none	Michael Kay
2132119	BH106 2.00	SOIL	NAD	none	Michael Kay
2132124	BH105 0.20	SOIL	NAD	none	Michael Kay
2132125	BH105 1.00	SOIL	NAD	none	Michael Kay

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 23-04867
 Client Ref PN224453
 Contract Wrexham AFC - KOP STAND REDEVELOPMENT

Containers Received & Deviating Samples

Lab No	Sample ID	Date	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
		Sampled			
2132118	BH106 0.20 SOIL	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132119	BH106 2.00 SOIL	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132120	BH106 3.00 SOIL	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132121	BH106 5.00 SOIL	22/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132122	BH106 16.00 SOIL	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132123	BH104 5.00 SOIL	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days)	
2132124	BH105 0.20 SOIL	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132125	BH105 1.00 SOIL	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2132126	BH106 0.20 LEACHATE	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132127	BH106 2.00 LEACHATE	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132128	BH106 3.00 LEACHATE	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132129	BH106 5.00 LEACHATE	22/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132130	BH106 16.00 LEACHATE	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132131	BH104 5.00 LEACHATE	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132132	BH105 0.20 LEACHATE	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132133	BH105 1.00 LEACHATE	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132134	BH106 0.20 LEACHATE	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132135	BH106 2.00 LEACHATE	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132136	BH106 3.00 LEACHATE	21/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132137	BH105 0.20 LEACHATE	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2132138	BH105 1.00 LEACHATE	23/02/23	GJ 250ml x2, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Certificate of Analysis

Certificate Number 23-04487

Issued: 08-Mar-23

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 23-04487

Client Reference PN224453

Order No ON34994

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Description 2 Soil samples, 4 Leachate samples.

Date Received 23-Feb-23

Date Started 23-Feb-23

Date Completed 08-Mar-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2129907	2129908
Sample ID	BH104	BH104
Depth	0.20	2.00
Other ID		
Sample Type	ES	ES
Sampling Date	20/02/2023	20/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
Moisture Content	DETSC 1004	0.1	%	15	14
Metals					
Antimony	DETSC 2301*	1	mg/kg	4.8	1.9
Arsenic	DETSC 2301#	0.2	mg/kg	13	12
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.4	1.1
Cadmium	DETSC 2301#	0.1	mg/kg	2.9	0.8
Chromium	DETSC 2301#	0.15	mg/kg	17	18
Chromium III	DETSC 2301*	0.15	mg/kg	17	18
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	93	44
Lead	DETSC 2301#	0.3	mg/kg	1300	150
Mercury	DETSC 2325#	0.05	mg/kg	1.1	0.15
Nickel	DETSC 2301#	1	mg/kg	20	21
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	0.5
Zinc	DETSC 2301#	1	mg/kg	520	150
Inorganics					
pH	DETSC 2008#		pH	9.0	8.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	4.1	11
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.3	0.9
Total Organic Carbon	DETSC 2084#	0.5	%	6.1	2.6
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	3.5	3.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	68	110
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg	< 1.20	< 1.20
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40
Aliphatic >EC35-EC40	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40
Aliphatic >EC40-EC44	DETSC 3521*	3.4	mg/kg	< 3.40	< 3.40
Aliphatic C5-C44	DETSC 3521*	10	mg/kg	< 10.00	< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg	< 0.90	< 0.90
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg	< 0.50	< 0.50
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg	5.38	3.53
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg	8.55	5.23
Aromatic >EC35-EC40	DETSC 3521*	1.4	mg/kg	< 1.40	< 1.40

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2129907	2129908
Sample ID	BH104	BH104
Depth	0.20	2.00
Other ID		
Sample Type	ES	ES
Sampling Date	20/02/2023	20/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Aromatic >EC40-EC44	DETSC 3521*	1.4	mg/kg	< 1.40	< 1.40
Aromatic C5-C44	DETSC 3521*	10	mg/kg	13.93	< 10.00
TPH Ali/Aro C5-C44	DETSC 3521*	10	mg/kg	13.93	< 10.00
PAHs					
Naphthalene	DETSC 3301	0.1	mg/kg	0.1	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	0.4	0.3
Anthracene	DETSC 3301	0.1	mg/kg	0.2	0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	1.7	0.8
Pyrene	DETSC 3301	0.1	mg/kg	1.9	0.9
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	1.0	0.5
Chrysene	DETSC 3301	0.1	mg/kg	1.2	0.5
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.7	0.4
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.5	0.2
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	1.4	0.7
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	1.1	0.7
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.4	0.3
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.8	0.3
PAH 16 Total	DETSC 3301	1.6	mg/kg	11	5.7
SVOCs					
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis Soil Samples

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2129907	2129908
Sample ID	BH104	BH104
Depth	0.20	2.00
Other ID		
Sample Type	ES	ES
Sampling Date	20/02/2023	20/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2129909	2129910
Sample ID	BH104	BH104
Depth	0.20	2.00
Other ID		
Sample Type	ES	ES
Sampling Date	20/02/2023	20/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETS 1009*			Y	Y
Metals					
Antimony, Dissolved	DETS 2306	0.17	ug/l	4.9	3.4
Arsenic, Dissolved	DETS 2306	0.16	ug/l	3.7	1.2
Boron, Dissolved	DETS 2306*	12	ug/l	< 12	27
Cadmium, Dissolved	DETS 2306	0.03	ug/l	0.05	< 0.03
Chromium, Dissolved	DETS 2306	0.25	ug/l	2.7	2.4
Chromium III, Dissolved	DETS 2306*	1	ug/l	< 1.0	2.4
Chromium, Hexavalent	DETS 2203	7	ug/l	27	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	8.1	2.4
Lead, Dissolved	DETS 2306	0.09	ug/l	30	12
Mercury, Dissolved	DETS 2306	0.01	ug/l	0.15	0.03
Nickel, Dissolved	DETS 2306	0.5	ug/l	< 0.5	0.6
Selenium, Dissolved	DETS 2306	0.25	ug/l	0.66	0.45
Zinc, Dissolved	DETS 2306	1.3	ug/l	7.3	3.9
Inorganics					
Conductivity	DETS 2009	1	uS/cm	191	178
pH	DETS 2008		pH	7.8	7.7
Dissolved Organic Carbon	DETS 2085	2	mg/l	4.7	3.8
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.078	0.035
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETS 3322	0.1	ug/l	35	< 0.1
Aliphatic C6-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C7	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Ali/Aro C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
PAHs					

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2129909	2129910
Sample ID	BH104	BH104
Depth	0.20	2.00
Other ID		
Sample Type	ES	ES
Sampling Date	20/02/2023	20/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.07	0.02
Anthracene	DETSC 3304	0.01	ug/l	0.04	0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.25	0.06
Pyrene	DETSC 3304	0.01	ug/l	0.29	0.07
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.10	0.03
Chrysene	DETSC 3304	0.01	ug/l	0.14	0.04
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.16	0.06
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.08	0.02
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.14	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.13	0.04
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.02	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.09	0.03
PAH Total	DETSC 3304	0.2	ug/l	1.5	0.46

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH104 0.20

Sample Numbers 2129907 2129911

Date Analysed 06/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	6.1
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	79.0
DETSC 3301 PAHs	mg/kg	11.0
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	1.8	0.018
DETSC 2306 Barium as Ba	16	0.16
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	8.2	< 0.1
DETSC 2306 Copper as Cu	4.4	0.044
DETSC 2306 Mercury as Hg	0.076	< 0.002
DETSC 2306 Molybdenum as Mo	11	0.11
DETSC 2306 Nickel as Ni	2.1	< 0.1
DETSC 2306 Lead as Pb	17	0.17
DETSC 2306 Antimony as Sb	1.6	< 0.05
DETSC 2306 Selenium as Se	0.47	< 0.03
DETSC 2306 Zinc as Zn	3.8	0.038
DETSC 2055 Chloride as Cl	5200	< 100
DETSC 2055* Fluoride as F	130000	1300
DETSC 2055 Sulphate as SO4	13000	130
DETSC 2009* Total Dissolved Solids	51000	510
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	5000	50

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	9.0
DETSC 2009 Conductivity uS/cm	73.2
* Temperature*	17.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.094

Stage 1

Volume of Leachant L2*	0.92
Volume of Eluate VE1*	0.876

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH104 2.00

Sample Numbers 2129908 2129912

Date Analysed 08/03/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	2.6
DETSC2003# Loss On Ignition	%	
DETSC 3321# BTEX	mg/kg	< 0.04
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01
DETSC 3311# TPH (C10 - C40)	mg/kg	< 10
DETSC 3301 PAHs	mg/kg	5.7
DETSC2008# pH	pH Units	
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg	
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg	

WAC Limit Values		
Inert Waste	SNRHW	Hazardous Waste
3	5	6
n/a	n/a	10
6	n/a	n/a
1	n/a	n/a
500	n/a	n/a
100	n/a	n/a
n/a	>6	n/a
n/a	TBE	TBE
n/a	TBE	TBE

Test Results On Leachate		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg
	10:1	LS10
DETSC 2306 Arsenic as As	0.33	< 0.01
DETSC 2306 Barium as Ba	15	0.15
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	2	< 0.1
DETSC 2306 Copper as Cu	3.2	0.032
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	1.3	< 0.1
DETSC 2306 Nickel as Ni	0.74	< 0.1
DETSC 2306 Lead as Pb	0.63	< 0.05
DETSC 2306 Antimony as Sb	0.17	< 0.05
DETSC 2306 Selenium as Se	0.26	< 0.03
DETSC 2306 Zinc as Zn	3.4	0.034
DETSC 2055 Chloride as Cl	11000	110
DETSC 2055* Fluoride as F	200	2
DETSC 2055 Sulphate as SO4	30000	300
DETSC 2009* Total Dissolved Solids	85000	850
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	3700	< 50

WAC Limit Values		
Limit values for LS10 Leachate		
Inert Waste	SNRHW	Hazardous Waste
0.5	2	25
20	100	300
0.04	1	5
0.5	10	70
2	50	100
0.01	0.2	2
0.5	10	30
0.4	10	40
0.5	10	50
0.06	0.7	5
0.1	0.5	7
4	50	200
800	15,000	25,000
10	150	500
1000	20,000	50,000
4000	60,000	100,000
1	n/a	n/a
500	800	1000

Additional Information

DETSC 2008 pH	8.6
DETSC 2009 Conductivity uS/cm	121.0
* Temperature*	17.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.095

Stage 1

Volume of Leachant L2*	0.936
Volume of Eluate VE1*	0.892

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

Summary of Asbestos Analysis Soil Samples

Our Ref 23-04487

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2129907	BH104 0.20	SOIL	NAD	none	Steven Lambert
2129908	BH104 2.00	SOIL	NAD	none	Steven Lambert

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * - not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 23-04487
 Client Ref PN224453
 Contract Wrexham AFC - KOP STAND REDEVELOPMENT

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2129907	BH104 0.20 SOIL	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2129908	BH104 2.00 SOIL	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2129909	BH104 0.20 LEACHATE	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2129910	BH104 2.00 LEACHATE	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2129911	BH104 0.20 LEACHATE	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2129912	BH104 2.00 LEACHATE	20/02/23	GJ 250ml x2, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.
 Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.
 The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Certificate of Analysis

Certificate Number 23-05136

Issued: 16-Mar-23

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 23-05136

Client Reference PN224453

Order No ON34994

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Description 2 Soil samples, 3 Leachate samples.

Date Received 02-Mar-23

Date Started 02-Mar-23

Date Completed 16-Mar-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgwood".

Kirk Bridgwood
General Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2133731	2133732
Sample ID	BH105	BH105
Depth	5.00	13.00
Other ID		
Sample Type	ES	ES
Sampling Date	24/02/2023	24/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
Moisture Content	DETSC 1004	0.1	%	6.1	16
Metals					
Antimony	DETSC 2301*	1	mg/kg	< 1.0	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	4.9	2.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	< 0.2	< 0.2
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	7.6	5.2
Chromium III	DETSC 2301*	0.15	mg/kg	7.6	5.2
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	10	8.0
Lead	DETSC 2301#	0.3	mg/kg	17	8.5
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	11	7.5
Selenium	DETSC 2301#	0.5	mg/kg	0.7	< 0.5
Zinc	DETSC 2301#	1	mg/kg	32	18
Inorganics					
pH	DETSC 2008#		pH	8.4	8.8
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1
Total Organic Carbon	DETSC 2084#	0.5	%	< 0.5	< 0.5
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	< 0.50	< 0.50
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	38	19
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	
Aliphatic C35-C44	DETSC 3072*	3.4	mg/kg	< 3.4	
Aliphatic C10-C44	DETSC 3072*	10	mg/kg	< 10	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	
Aromatic C35-C44	DETSC 3072*	1.4	mg/kg	< 1.4	
Aromatic C10-C44	DETSC 3072*	10	mg/kg	< 10	

Summary of Chemical Analysis

Soil Samples

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2133731	2133732
Sample ID	BH105	BH105
Depth	5.00	13.00
Other ID		
Sample Type	ES	ES
Sampling Date	24/02/2023	24/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units	
Ali/Aro C10-C44	DETSC 3072*	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	< 0.1
Anthracene	DETSC 3301	0.1	mg/kg	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1
Pyrene	DETSC 3301	0.1	mg/kg	< 0.1
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	< 0.1
Chrysene	DETSC 3301	0.1	mg/kg	< 0.1
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	< 0.1
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	< 0.1
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	< 0.1
PAH 16 Total	DETSC 3301	1.6	mg/kg	< 1.6

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2133731
Sample ID	BH105
Depth	5.00
Other ID	
Sample Type	ES
Sampling Date	24/02/2023
Sampling Time	n/s

Test	Method	LOD	Units	
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1

Summary of Chemical Analysis

Soil VOC/SVOC Samples

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2133731
Sample ID	BH105
Depth	5.00
Other ID	
Sample Type	ES
Sampling Date	24/02/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2133733	2133734
Sample ID	BH105	BH105
Depth	5.00	13.00
Other ID		
Sample Type	ES	ES
Sampling Date	24/02/2023	24/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETS 1009*			Y	Y
Metals					
Antimony, Dissolved	DETS 2306	0.17	ug/l	< 0.17	< 0.17
Arsenic, Dissolved	DETS 2306	0.16	ug/l	0.29	< 0.16
Boron, Dissolved	DETS 2306*	12	ug/l	< 12	< 12
Cadmium, Dissolved	DETS 2306	0.03	ug/l	< 0.03	< 0.03
Chromium, Dissolved	DETS 2306	0.25	ug/l	0.48	1.9
Chromium III, Dissolved	DETS 2306*	1	ug/l	< 1.0	1.9
Chromium, Hexavalent	DETS 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	1.9	1.4
Lead, Dissolved	DETS 2306	0.09	ug/l	0.31	0.25
Mercury, Dissolved	DETS 2306	0.01	ug/l	< 0.01	< 0.01
Nickel, Dissolved	DETS 2306	0.5	ug/l	< 0.5	0.6
Selenium, Dissolved	DETS 2306	0.25	ug/l	< 0.25	< 0.25
Zinc, Dissolved	DETS 2306	1.3	ug/l	< 1.3	< 1.3
Inorganics					
Conductivity	DETS 2009	1	uS/cm	47.0	50.6
pH	DETS 2008		pH	9.8	9.1
Dissolved Organic Carbon	DETS 2085	2	mg/l	3.1	3.2
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.18	0.20
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C7	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
Ali/Aro C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0
PAHs					

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2133733	2133734
Sample ID	BH105	BH105
Depth	5.00	13.00
Other ID		
Sample Type	ES	ES
Sampling Date	24/02/2023	24/02/2023
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Naphthalene	DETSC 3304	0.05	ug/l	0.09	0.10
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.01	0.06
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	0.04
Phenanthrene	DETSC 3304	0.01	ug/l	0.01	0.21
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.05
Fluoranthene	DETSC 3304	0.01	ug/l	0.01	0.24
Pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.20
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	0.07
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	0.12
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.14
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.04
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.09
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.08
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	0.08
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	1.5

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-05136

Client Ref PN224453

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id BH105 5.00

Sample Numbers 2133731 2133735

Date Analysed 13/03/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	< 0.5	3	5	6
DETSC2003# Loss On Ignition	%		n/a	n/a	10
DETSC 3321# BTEX	mg/kg	< 0.04	6	n/a	n/a
DETSC 3401# PCBs (7 congeners)	mg/kg	< 0.01	1	n/a	n/a
DETSC 3311# TPH (C10 - C40)	mg/kg	< 10	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	< 1.6	100	n/a	n/a
DETSC2008# pH	pH Units		n/a	>6	n/a
DETS073* Acid Neutralisation Capacity (pH4)	mol/kg		n/a	TBE	TBE
DETS073* Acid Neutralisation Capacity (pH7)	mol/kg		n/a	TBE	TBE

Test Results On Leachate			WAC Limit Values		
Determinand and Method Reference	Conc in Eluate ug/l	Amount Leached* mg/kg	Limit values for LS10 Leachate		
	10:1	LS10	Inert Waste	SNRHW	Hazardous Waste
DETSC 2306 Arsenic as As	0.19	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	7.3	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	2.5	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	1.8	< 0.02	2	50	100
DETSC 2306 Mercury as Hg	< 0.010	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	2.6	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	0.89	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.6	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	< 0.17	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	< 0.25	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	1.5	0.015	4	50	200
DETSC 2055 Chloride as Cl	1000	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	200	2	10	150	500
DETSC 2055 Sulphate as SO4	2800	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	29000	290	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	3300	< 50	500	800	1000

Additional Information	
DETSC 2008 pH	7.4
DETSC 2009 Conductivity uS/cm	41.1
* Temperature*	17.0
Mass of Sample Kg*	0.100
Mass of dry Sample Kg*	0.094
Stage 1	
Volume of Leachant L2*	0.934
Volume of Eluate VE1*	0.884

TBE - To Be Evaluated
SNRHW - Stable Non-Reactive
Hazardous Waste

Disclaimer: The WAC limit values are provided for guidance only. DETS does not accept responsibility for errors or omissions. Values are correct at time of issue.

* DETS are accredited for the testing of leachates and not the leachate preparation stage which is unaccredited.

Information in Support of the Analytical Results

Our Ref 23-05136
 Client Ref PN224453
 Contract Wrexham AFC - KOP STAND REDEVELOPMENT

Containers Received & Deviating Samples

					Inappropriate container for tests
		Date			
Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	tests
2133731	BH105 5.00 SOIL	24/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2133732	BH105 13.00 SOIL	24/02/23	GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2133733	BH105 5.00 LEACHATE	24/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2133734	BH105 13.00 LEACHATE	24/02/23	GJ 250ml x2, GJ 60ml, PT 1L		
2133735	BH105 5.00 LEACHATE	24/02/23	GJ 250ml x2, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

APPENDIX 10

Laboratory Test Results - Contamination (Groundwater)



Certificate of Analysis

Certificate Number 22-23681

Issued: 24-Nov-22

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 22-23681

Client Reference PN22453

Order No ON34994

Contract Title Wrexham AFC - KOP Stand Redevelopment

Description 4 Water samples.

Date Received 18-Nov-22

Date Started 18-Nov-22

Date Completed 24-Nov-22

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Water Samples

Our Ref 22-23681

Client Ref PN22453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2087265	2087266	2087267	2087268
Sample ID	BH100	BH101	BH102	BH103
Depth				
Other ID				
Sample Type	EW	EW	EW	EW
Sampling Date	16/11/2022	16/11/2022	16/11/2022	16/11/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Preparation							
BS EN 12457 10:1	DETS 1009*			Y	Y	Y	Y
Metals							
Antimony, Dissolved	DETS 2306	0.17	ug/l	1.3	0.35	0.27	1.6
Arsenic, Dissolved	DETS 2306	0.16	ug/l	0.65	0.53	0.35	0.84
Barium, Dissolved	DETS 2306	0.26	ug/l	65	86	72	16
Boron, Dissolved	DETS 2306*	12	ug/l	54	51	50	< 12
Cadmium, Dissolved	DETS 2306	0.03	ug/l	< 0.03	0.12	0.06	< 0.03
Chromium III, Dissolved	DETS 2306*	1	ug/l	< 1.0	1.4	< 1.0	6.1
Chromium, Hexavalent	DETS 2203	7	ug/l	< 7.0	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	1.2	2.8	6.3	4.0
Lead, Dissolved	DETS 2306	0.09	ug/l	< 0.09	1.2	0.38	0.37
Mercury, Dissolved	DETS 2306	0.01	ug/l	< 0.01	0.03	< 0.01	< 0.01
Nickel, Dissolved	DETS 2306	0.5	ug/l	2.0	4.1	2.1	0.6
Selenium, Dissolved	DETS 2306	0.25	ug/l	0.92	1.8	0.84	0.28
Vanadium, Dissolved	DETS 2306	0.6	ug/l	1.4	1.2	< 0.6	8.3
Zinc, Dissolved	DETS 2306	1.3	ug/l	4.7	8.5	22	1.3
Inorganics							
Conductivity	DETS 2009	1	uS/cm	639	831	716	103
pH	DETS 2008		pH	6.7	7.3	6.9	8.6
Dissolved Organic Carbon	DETS 2085	2	mg/l	4.3	< 2.0	< 2.0	< 2.0
Total Hardness as CaCO3	DETS 2303	0.1	mg/l	137	301	290	14.5
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.18	0.022	0.052	0.056
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C10-C44	DETS 3072*	1	ug/l	16	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETS 3072*	1	ug/l	15	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C5-C7	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref 22-23681

Client Ref PN22453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2087265	2087266	2087267	2087268
Sample ID	BH100	BH101	BH102	BH103
Depth				
Other ID				
Sample Type	EW	EW	EW	EW
Sampling Date	16/11/2022	16/11/2022	16/11/2022	16/11/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Ali/Aro C10-C44	DETSC 3072*	1	ug/l	16	< 1.0	< 1.0	< 1.0
PAHs							
Naphthalene	DETSC 3304	0.05	ug/l	0.11	< 0.05	< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.01	0.01
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.02	0.01
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	< 0.20	< 0.20	< 0.20

Information in Support of the Analytical Results

Our Ref 22-23681
 Client Ref PN22453
 Contract Wrexham AFC - KOP Stand Redevelopment

Containers Received & Deviating Samples

					Inappropriate container for tests
		Date			
Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	
2087265	BH100 WATER	16/11/22	GB 1L, GB to 500ml x2, PB 1L	pH/Cond/TDS (1 days)	
2087266	BH101 WATER	16/11/22	GB 1L, GB to 500ml x2, PB 1L	pH/Cond/TDS (1 days)	
2087267	BH102 WATER	16/11/22	GB 1L, GB to 500ml x2, PB 1L	pH/Cond/TDS (1 days)	
2087268	BH103 WATER	16/11/22	GB 1L, GB to 500ml x2, PB 1L	pH/Cond/TDS (1 days)	

Key: G-Glass P-Plastic B-Bottle

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Certificate of Analysis

Certificate Number 22-25552

Issued: 03-Jan-23

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 22-25552

Client Reference PN224453

Order No ON34994

Contract Title Wrexham AFC - KOP Stand Redevelopment

Description 4 Water samples.

Date Received 09-Dec-22

Date Started 09-Dec-22

Date Completed 03-Jan-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Water Samples

Our Ref 22-25552

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2096794	2096795	2096796	2096797
Sample ID	BH100	BH101	BH102	BH103
Depth				
Other ID				
Sample Type	WATER	WATER	WATER	WATER
Sampling Date	07/12/2022	07/12/2022	07/12/2022	07/12/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Preparation							
BS EN 12457 10:1	DETSC 1009*			Y	Y	Y	Y
Metals							
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.46	< 0.17	< 0.17	0.35
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.81	< 0.16	0.17	0.17
Barium, Dissolved	DETSC 2306	0.26	ug/l	66	66	68	60
Boron, Dissolved	DETSC 2306*	12	ug/l	61	46	54	29
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03	< 0.03
Chromium III, Dissolved	DETSC 2306*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.9	0.9	1.2	1.6
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.11	< 0.09	< 0.09	< 0.09
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	3.6	1.7	0.8	0.6
Selenium, Dissolved	DETSC 2306	0.25	ug/l	1.0	0.53	0.34	< 0.25
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.9	< 0.6	< 0.6	0.8
Zinc, Dissolved	DETSC 2306	1.3	ug/l	7.3	5.9	19	12
Inorganics							
Conductivity	DETSC 2009	1	uS/cm	598	745	676	570
pH	DETSC 2008		pH	7.6	6.6	7.4	7.4
Dissolved Organic Carbon	DETSC 2085	2	mg/l	5.2	< 2.0	< 2.0	< 2.0
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l	138	354	310	211
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.18	0.025	0.016	0.054

Summary of Chemical Analysis

Water Samples

Our Ref 22-25552

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2096794	2096795	2096796	2096797
Sample ID	BH100	BH101	BH102	BH103
Depth				
Other ID				
Sample Type	WATER	WATER	WATER	WATER
Sampling Date	07/12/2022	07/12/2022	07/12/2022	07/12/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C10-C44	DETSC 3072*	1	ug/l	11	< 1.0	< 1.0	25
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	6.7	< 1.0	< 1.0	18
Aliphatic C21-C35	DETSC 3072*	1	ug/l	3.6	< 1.0	< 1.0	6.1
Aliphatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Ali/Aro C10-C44	DETSC 3072*	1	ug/l	11	< 1.0	< 1.0	25
PAHs							
Naphthalene	DETSC 3304	0.05	ug/l	0.09	< 0.05	< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01	< 0.01
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	< 0.20	< 0.20	< 0.20

Information in Support of the Analytical Results

Our Ref 22-25552
 Client Ref PN224453
 Contract Wrexham AFC - KOP Stand Redevelopment

Containers Received & Deviating Samples

Lab No	Sample ID	Date		Containers Received	Holding time exceeded for tests	Inappropriate container for tests
		Sampled				
2096794	BH100 WATER	07/12/22		GB 1L, GV x2, PB 1L	pH/Cond/TDS (1 days)	
2096795	BH101 WATER	07/12/22		GB 1L, GV x2, PB 1L	pH/Cond/TDS (1 days)	
2096796	BH102 WATER	07/12/22		GB 1L, GV x2, PB 1L	pH/Cond/TDS (1 days)	
2096797	BH103 WATER	07/12/22		GB 1L, GV x2, PB 1L	pH/Cond/TDS (1 days)	

Key: G-Glass P-Plastic B-Bottle V-Vial

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Certificate of Analysis

Certificate Number 23-06354

Issued: 30-Mar-23

Client Geotechnics LTD
The Geotechnical Centre
Unit 1B Borders Ind. Park
River Lane
Saltney
Chester
CH4 8RJ

Our Reference 23-06354

Client Reference PN224453

Order No ON34994

Contract Title Wrexham AFC - KOP Stand Redevelopment

Description 3 Water samples.

Date Received 16-Mar-23

Date Started 16-Mar-23

Date Completed 30-Mar-23

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Water Samples

Our Ref 23-06354

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2141405	2141406	2141407
Sample ID	BH104	BH105	BH106
Depth			
Other ID			
Sample Type	WATER	WATER	WATER
Sampling Date	14/03/2023	14/03/2023	14/03/2023
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
Metals						
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.2	1.0	1.4
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.30	0.32	0.32
Barium, Dissolved	DETSC 2306	0.26	ug/l	57	40	28
Boron, Dissolved	DETSC 2306*	12	ug/l	30	33	< 12
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.05	< 0.03	< 0.03
Chromium III, Dissolved	DETSC 2306*	1	ug/l	< 1.0	< 1.0	< 1.0
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.4	1.8	2.1
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09	< 0.09	< 0.09
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.5	1.3	1.3
Selenium, Dissolved	DETSC 2306	0.25	ug/l	1.1	3.0	0.54
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6	< 0.6	0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	31	20	65
Inorganics						
Conductivity	DETSC 2009	1	uS/cm	524	354	264
pH	DETSC 2008		pH	7.3	6.4	6.6
Dissolved Organic Carbon	DETSC 2085	2	mg/l	< 2.0	< 2.0	2.3
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l	223	122	90.1
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015	< 0.015	< 0.015
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Ali/Aro C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref 23-06354

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2141405	2141406	2141407
Sample ID	BH104	BH105	BH106
Depth			
Other ID			
Sample Type	WATER	WATER	WATER
Sampling Date	14/03/2023	14/03/2023	14/03/2023
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	< 0.01	0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.02	0.01	< 0.01
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.02	0.02	0.03
Pyrene	DETSC 3304	0.01	ug/l	0.02	0.02	0.04
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	< 0.01	0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	< 0.20	< 0.20

Summary of Chemical Analysis

Water Samples

Our Ref 23-06354

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2141405	2141406	2141407
Sample ID	BH104	BH105	BH106
Depth			
Other ID			
Sample Type	WATER	WATER	WATER
Sampling Date	14/03/2023	14/03/2023	14/03/2023
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
VOCs						
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
2,2-dichloropropane	DETSC 3432*	2	ug/l	< 2	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	3	7	9
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4	5
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	1	2
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1

Summary of Chemical Analysis

Water Samples

Our Ref 23-06354

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2141405	2141406	2141407
.Sample ID	BH104	BH105	BH106
Depth			
Other ID			
Sample Type	WATER	WATER	WATER
Sampling Date	14/03/2023	14/03/2023	14/03/2023
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1	< 1
SVOCs						
Phenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Aniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-chloroisopropyl)ether	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4-Dimethylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4-Dichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Chloro-3-methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4,6-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
3-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Dibenzofuran	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0

Summary of Chemical Analysis

Water Samples

Our Ref 23-06354

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2141405	2141406	2141407
Sample ID	BH104	BH105	BH106
Depth			
Other ID			
Sample Type	WATER	WATER	WATER
Sampling Date	14/03/2023	14/03/2023	14/03/2023
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Diethylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Diphenylamine	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Hexachlorobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Pentachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Dimethylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Azobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
Carbazole	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0	< 1.0

Information in Support of the Analytical Results

Our Ref 23-06354
Client Ref PN224453
Contract Wrexham AFC - KOP Stand Redevelopment

Containers Received & Deviating Samples

					Inappropriate container for tests
Lab No	Sample ID	Date	Containers Received	Holding time exceeded for tests	
		Sampled			
2141405	BH104 WATER	14/03/23	GB 1L, GV, PB 1L	pH/Cond/TDS (1 days)	
2141406	BH105 WATER	14/03/23	GB 1L	pH/Cond/TDS (1 days)	
2141407	BH106 WATER	14/03/23	GB 1L, GV x2, PB 1L x2	pH/Cond/TDS (1 days)	

Key: G-Glass P-Plastic B-Bottle V-Vial

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

APPENDIX II

Exploratory Hole Location Plan



- Locations By Type - CP+RC
- Locations By Type - IP
- Locations By Type - RO
- Locations By Type - TP

GEOTECHNICS
geotechnical and geoenvironmental specialists

Unit 1B Borders Industrial Park
River Lane
Saltney
Chester CH4 8RI

Phone: 01244 671117
Email: mail@geotechnics.co.uk
www.geotechnics.co.uk

Engineer:

Ramboll UK Limited

Client:

Wrexham AFC

Project:

Wrexham FC : New Kop Stand - Ground Investigation

Drawing Title:

Exploratory Hole Location Plan

Scale:

1:1000 at A3 27/02/2023

Project No.:

PN224453	Location Plan



APPENDIX 12

Investigation Techniques and General Notes