

Summary of Chemical Analysis

Soil Samples

Our Ref 22-20772

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2072155	2072156	2072157	2072158	2072159
Sample ID	BH102	BH102	BH102	BH102	BH102
Depth	0.10	0.50	1.00	3.00	5.00
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
Aromatic C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10
Ali/Aro C10-C44	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	14	< 10
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	0.05	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.07	0.28	< 0.03	< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.08	< 0.03	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.17	0.90	0.05	< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.17	0.84	0.06	< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.07	0.35	< 0.03	< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.11	0.43	0.04	< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.13	0.50	0.06	< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.05	0.21	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.07	0.31	0.03	< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.04	0.13	< 0.03	< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04	0.16	< 0.03	< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.93	4.3	0.21	< 0.10	< 0.10

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Lab No	2072155	2072156	2072157	2072158	2072159
Sample ID	BH102	BH102	BH102	BH102	BH102
Depth	0.10	0.50	1.00	3.00	5.00
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
VOCs								
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

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Lab No	2072155	2072156	2072157	2072158	2072159
Sample ID	BH102	BH102	BH102	BH102	BH102
Depth	0.10	0.50	1.00	3.00	5.00
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units					
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
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	0.8	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 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

Summary of Chemical Analysis Soil Samples

Our Ref 22-20772

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2072155	2072156	2072157	2072158	2072159
Sample ID	BH102	BH102	BH102	BH102	BH102
Depth	0.10	0.50	1.00	3.00	5.00
Other ID					
Sample Type	ES	ES	ES	ES	ES
Sampling Date	12/10/2022	12/10/2022	12/10/2022	12/10/2022	12/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s

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

Summary of Chemical Analysis

Leachate Samples

Our Ref 22-20772

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2072160	2072161
Sample ID	BH102	BH102
Depth	0.50	1.00
Other ID		
Sample Type	ES	ES
Sampling Date	12/10/2022	12/10/2022
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETSC 1009*			Y	Y
Metals					
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.80	0.27
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.5	0.78
Barium, Dissolved	DETSC 2306	0.26	ug/l	6.4	3.3
Boron, Dissolved	DETSC 2306*	12	ug/l	< 12	< 12
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Chromium III, Dissolved	DETSC 2306*	1	ug/l	< 1.0	< 1.0
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.3	1.0
Lead, Dissolved	DETSC 2306	0.09	ug/l	2.1	1.6
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5	< 0.5
Selenium, Dissolved	DETSC 2306	0.25	ug/l	0.49	0.30
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.1	1.0
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.8	2.3
Inorganics					
Conductivity	DETSC 2009	1	uS/cm	59.7	35.0
pH	DETSC 2008		pH	7.8	8.7
Dissolved Organic Carbon	DETSC 2085	2	mg/l	3.1	2.9
Total Hardness as CaCO3	DETSC 2303	0.1	mg/l	19.5	7.91
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.038	0.022
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C35-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0

Summary of Chemical Analysis

Leachate Samples

Our Ref 22-20772

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2072160	2072161
Sample ID	BH102	BH102
Depth	0.50	1.00
Other ID		
Sample Type	ES	ES
Sampling Date	12/10/2022	12/10/2022
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Ali/Aro C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0
PAHs					
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	0.02	0.02
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	< 0.01	0.06
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.03
Fluoranthene	DETSC 3304	0.01	ug/l	0.01	0.09
Pyrene	DETSC 3304	0.01	ug/l	0.01	0.11
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	0.05
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	0.07
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.07
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.04
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	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	< 0.01	0.07
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	0.67

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 22-20772

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Sample Id BH102 0.50

Sample Numbers 2072156 2072162

Date Analysed 24/10/2022

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	12.0
DETSC 2003# Loss On Ignition	%	7.7
DETSC3321# BTEX	mg/kg	
DETSC3401# PCB's (7 congeners)	mg/kg	
DETSC3311# TPH (C10 - C40)	mg/kg	
DETSC3301/DETSC3303 PAH's	mg/kg	
DETSC2008# pH	pH Units	
DETSC 2073* Acid Neutralisation Capacity (pH4)	mol/kg	< 1.0
DETSC 2073* Acid Neutralisation Capacity (pH7)	mol/kg	< 1.0

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	2.5	0.025
DETSC 2306 Barium as Ba	6.4	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	0.52	< 0.1
DETSC 2306 Copper as Cu	1.8	< 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	3.2	< 0.05
DETSC 2306 Antimony as Sb	0.69	< 0.05
DETSC 2306 Selenium as Se	0.31	< 0.03
DETSC 2306 Zinc as Zn	4.4	0.044
DETSC 2055 Chloride as Cl	1100	< 100
DETSC 2055* Fluoride as F	240	2.4
DETSC 2055 Sulphate as SO4	3800	< 100
DETSC 2009* Total Dissolved Solids	42000	420
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	3400	< 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	8.0
DETSC 2009 Conductivity uS/cm	60.1
* Temperature*	18.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.096

Stage 1

Volume of Leachant L2*	0.946
Volume of Eluate VE1*	0.897

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 22-20772

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2072155	BH102 0.10	SOIL	NAD	none	Lee Kerridge
2072156	BH102 0.50	SOIL	NAD	none	Lee Kerridge

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 22-20772
 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				
2072155	BH102 0.10 SOIL	12/10/22		GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days)	
2072156	BH102 0.50 SOIL	12/10/22		GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days)	
2072157	BH102 1.00 SOIL	12/10/22		GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days)	
2072158	BH102 3.00 SOIL	12/10/22		GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days)	
2072159	BH102 5.00 SOIL	12/10/22		GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days)	
2072160	BH102 0.50 LEACHATE	12/10/22		GJ 250ml, GJ 60ml, PT 1L		
2072161	BH102 1.00 LEACHATE	12/10/22		GJ 250ml, GJ 60ml, PT 1L		
2072162	BH102 0.50 LEACHATE	12/10/22		GJ 250ml, 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 22-21858

Issued: 10-Nov-22

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

Our Reference 22-21858

Client Reference PN224453

Order No ON34994

Contract Title Wrexham AFC - KOP Stand Redevelopment

Description 6 Soil samples, 8 Leachate samples.

Date Received 28-Oct-22

Date Started 28-Oct-22

Date Completed 10-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

Soil Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077874	2077875	2077876	2077877	2077878	2077879
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Asbestos Quantification	DETSC 1102	0.001	%				< 0.001		
Preparation									
Moisture Content	DETSC 1004	0.1	%	6.6	12	14	8.4	15	18
Metals									
Antimony	DETSC 2301*	1	mg/kg	2.2	3.1	3.0	5.2	3.4	1.8
Arsenic	DETSC 2301#	0.2	mg/kg	11	20	7.8	11	21	7.4
Barium	DETSC 2301#	1.5	mg/kg	130	320	170	310	150	83
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.4	0.4	0.3	0.3	0.2	< 0.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	0.7	0.3	0.7	0.8	0.4
Chromium III	DETSC 2301*	0.15	mg/kg	78	32	180	220	95	20
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32	79	20	50	33	18
Lead	DETSC 2301#	0.3	mg/kg	76	81	36	130	76	46
Mercury	DETSC 2325#	0.05	mg/kg	0.06	0.13	< 0.05	0.07	0.12	< 0.05
Nickel	DETSC 2301#	1	mg/kg	18	40	21	29	22	14
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	0.6	0.6	0.6	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	36	48	56	64	35	28
Zinc	DETSC 2301#	1	mg/kg	440	530	250	480	390	210
Inorganics									
pH	DETSC 2008#		pH	8.9	8.0	9.3	9.4	8.6	7.3
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2	0.5	0.2	0.8	0.3	0.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2
Total Organic Carbon	DETSC 2084#	0.5	%	4.5	4.5	2.0	6.8	3.4	1.4
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	2.1	2.9	2.9	1.9	3.5	5.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	87	39	55	35	70	14
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	1.8	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	4.9	< 1.2	< 1.2	1.4	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	3.8	< 1.5	< 1.5	9.4	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	160	< 3.4	< 3.4	54	29	< 3.4
Aliphatic C35-C44	DETSC 3072*	3.4	mg/kg	110	< 3.4	< 3.4	38	19	< 3.4
Aliphatic C10-C44	DETSC 3072*	10	mg/kg	280	< 10	< 10	100	48	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	2.3	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.8	< 0.5	< 0.5	4.8	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	8.3	2.6	< 0.6	21	4.2	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	320	23	< 1.4	110	110	< 1.4

Summary of Chemical Analysis

Soil Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077874	2077875	2077876	2077877	2077878	2077879
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Aromatic C35-C44	DETSC 3072*	1.4	mg/kg	250	50	< 1.4	110	100	< 1.4
Aromatic C10-C44	DETSC 3072*	10	mg/kg	580	77	< 10	250	220	< 10
Ali/Aro C10-C44	DETSC 3072*	10	mg/kg	850	77	< 10	350	270	< 10
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.22	0.33	< 0.03	0.30	0.21	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.07	< 0.03	< 0.03	0.04	0.04
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.36	0.56	0.04	0.50	0.43	0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.35	0.52	0.04	0.54	0.44	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.15	0.22	< 0.03	0.20	0.21	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.22	0.27	< 0.03	0.29	0.24	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.21	0.27	< 0.03	0.31	0.24	0.04
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.11	0.12	< 0.03	0.14	0.10	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.15	0.24	< 0.03	0.23	0.18	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.07	0.06	< 0.03	0.08	0.07	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.10	0.08	< 0.03	0.11	0.11	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.9	2.7	< 0.10	2.7	2.3	< 0.10

Summary of Chemical Analysis Soil Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077874	2077875	2077876	2077877	2077878	2077879
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
VOCs									
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Summary of Chemical Analysis Soil Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077874	2077875	2077876	2077877	2077878	2077879
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
SVOCs									
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Bis(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 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	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis Soil Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077874	2077875	2077876	2077877	2077878	2077879
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Leachate Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077880	2077881	2077882	2077883	2077884	2077885
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
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	< 0.17	1.4	2.3	1.1	1.2	1.2
Arsenic, Dissolved	DETS 2306	0.16	ug/l	0.90	1.1	3.0	1.6	1.7	1.0
Barium, Dissolved	DETS 2306	0.26	ug/l	3.3	8.0	22	22	9.0	5.4
Boron, Dissolved	DETS 2306*	12	ug/l	< 12	< 12	16	< 12	< 12	< 12
Cadmium, Dissolved	DETS 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chromium III, Dissolved	DETS 2306*	1	ug/l	< 1.0	< 1.0	4.8	< 1.0	1.9	2.4
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	2.4	0.8	1.0	2.3	1.4	1.0
Lead, Dissolved	DETS 2306	0.09	ug/l	0.84	1.6	1.2	2.8	4.5	3.9
Mercury, Dissolved	DETS 2306	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01
Nickel, Dissolved	DETS 2306	0.5	ug/l	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6
Selenium, Dissolved	DETS 2306	0.25	ug/l	< 0.25	< 0.25	0.29	< 0.25	< 0.25	< 0.25
Vanadium, Dissolved	DETS 2306	0.6	ug/l	1.9	0.7	0.7	2.1	0.9	0.6
Zinc, Dissolved	DETS 2306	1.3	ug/l	4.1	3.8	< 1.3	3.2	4.8	2.6
Inorganics									
Conductivity	DETS 2009	1	uS/cm	35.5	36.8	72.3	53.9	55.5	40.6
pH	DETS 2008		pH	7.7	7.2	7.6	8.2	7.8	8.4
Dissolved Organic Carbon	DETS 2085	2	mg/l	< 2.0	2.9	3.3	2.7	3.6	3.6
Total Hardness as CaCO ₃	DETS 2303	0.1	mg/l	14.4	21.9	27.2	17.1	17.8	11.6
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	< 0.015	< 0.015	0.049	0.043	0.026	0.11
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 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	14	< 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

Summary of Chemical Analysis

Leachate Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077880	2077881	2077882	2077883	2077884	2077885
Sample ID	IP100	IP100	IP100	IP101	IP101	IP101
Depth	0.30	0.80	1.20	0.20	1.00	1.20
Other ID						
Sample Type	ES	ES	ES	ES	ES	ES
Sampling Date	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022	20/10/2022
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Ali/Aro C10-C44	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
PAHs									
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
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	0.03	< 0.01	0.01	< 0.01	< 0.01	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.05	0.02	< 0.01	0.02	0.02	0.01
Anthracene	DETSC 3304	0.01	ug/l	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.04	0.03	< 0.01	0.02	0.02	< 0.01
Pyrene	DETSC 3304	0.01	ug/l	0.03	0.03	< 0.01	0.02	0.02	< 0.01
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	0.02	< 0.01	< 0.01	0.02	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.02	< 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	< 0.01	0.01	< 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	< 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	0.02	< 0.01	0.01	0.02	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	0.21	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Sample Id IP100 0.80

Sample Numbers 2077875 2077886

Date Analysed 07/11/2022

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	4.5
DETSC 2003# Loss On Ignition	%	5.0
DETSC3321# BTEX	mg/kg	
DETSC3401# PCB's (7 congeners)	mg/kg	
DETSC3311# TPH (C10 - C40)	mg/kg	
DETSC3301/DETSC3303 PAH's	mg/kg	
DETSC2008# pH	pH Units	
DETSC 2073* Acid Neutralisation Capacity (pH4)	mol/kg	< 1.0
DETSC 2073* Acid Neutralisation Capacity (pH7)	mol/kg	< 1.0

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	0.5	< 0.01
DETSC 2306 Barium as Ba	7.5	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	1.3	< 0.1
DETSC 2306 Copper as Cu	2.3	0.023
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	2.1	< 0.1
DETSC 2306 Nickel as Ni	0.59	< 0.1
DETSC 2306 Lead as Pb	0.97	< 0.05
DETSC 2306 Antimony as Sb	0.3	< 0.05
DETSC 2306 Selenium as Se	< 0.25	< 0.03
DETSC 2306 Zinc as Zn	7.6	0.076
DETSC 2055 Chloride as Cl	1900	< 100
DETSC 2055* Fluoride as F	290	2.9
DETSC 2055 Sulphate as SO4	5100	< 100
DETSC 2009* Total Dissolved Solids	29000	290
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	2100	< 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	7.3
DETSC 2009 Conductivity uS/cm	41.2
* Temperature*	17.0

Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.096

Stage 1

Volume of Leachant L2*	0.949
Volume of Eluate VE1*	0.901

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 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Sample Id IP101 1..00

Sample Numbers 2077878 2077887

Date Analysed 10/11/2022

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	1.4
DETSC 2003# Loss On Ignition	%	3.7
DETSC3321# BTEX	mg/kg	
DETSC3401# PCB's (7 congeners)	mg/kg	
DETSC3311# TPH (C10 - C40)	mg/kg	
DETSC3301/DETSC3303 PAH's	mg/kg	
DETSC2008# pH	pH Units	
DETSC 2073* Acid Neutralisation Capacity (pH4)	mol/kg	< 1.0
DETSC 2073* Acid Neutralisation Capacity (pH7)	mol/kg	< 1.0

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	0.01
DETSC 2306 Barium as Ba	6.6	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	1.3	< 0.1
DETSC 2306 Copper as Cu	1.2	< 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	0.76	< 0.1
DETSC 2306 Lead as Pb	0.78	< 0.05
DETSC 2306 Antimony as Sb	0.95	< 0.05
DETSC 2306 Selenium as Se	< 0.25	< 0.03
DETSC 2306 Zinc as Zn	5.4	0.054
DETSC 2055 Chloride as Cl	840	< 100
DETSC 2055* Fluoride as F	120	1.2
DETSC 2055 Sulphate as SO4	4100	< 100
DETSC 2009* Total Dissolved Solids	25000	250
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	< 2000	< 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	36.3
* Temperature*	17.0

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

Stage 1

Volume of Leachant L2*	0.924
Volume of Eluate VE1*	0.879

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 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2077874	IP100 0.30	SOIL	NAD	none	Michael Kay
2077875	IP100 0.80	SOIL	NAD	none	Michael Kay
2077876	IP100 1.20	SOIL	NAD	none	Michael Kay
2077877	IP101 0.20	SOIL	Chrysotile	bundle of chrysotile	Michael Kay
2077878	IP101 1.00	SOIL	NAD	none	Michael Kay
2077879	IP101 1.20	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.

Summary of Asbestos Quantification Analysis

Soil Samples

Our Ref 22-21858

Client Ref PN224453

Contract Title Wrexham AFC - KOP Stand Redevelopment

Lab No	2077877
Sample ID	IP101
Depth	0.20
Other ID	
Sample Type	ES
Sampling Date	20/10/2022
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETS 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETS 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETS 1102	Mass %	<0.001
Quantification by PCOM (c)	DETS 1102	Mass %	na
Potentially Respirable Fibres (d)	DETS 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	541.35
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

* Denotes test or material description outside of UKAS accreditation.
 % asbestos in Asbestos Containing Materials (ACMs) is determined by
 by reference to HSG 264.
 Recommended sample size for quantification is approximately 1kg
 # denotes deviating sample

Information in Support of the Analytical Results

Our Ref 22-21858
 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
2077874	IP100 0.30 SOIL	20/10/22	GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days), VOC (7 days)	
2077875	IP100 0.80 SOIL	20/10/22	GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days), VOC (7 days)	
2077876	IP100 1.20 SOIL	20/10/22	GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days), VOC (7 days)	
2077877	IP101 0.20 SOIL	20/10/22	GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days), VOC (7 days)	
2077878	IP101 1.00 SOIL	20/10/22	GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days), VOC (7 days)	
2077879	IP101 1.20 SOIL	20/10/22	GJ 250ml, GJ 60ml, PT 1L	Ammonia (3 days), pH + Conductivity (7 days), VOC (7 days)	
2077880	IP100 0.30 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077881	IP100 0.80 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077882	IP100 1.20 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077883	IP101 0.20 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077884	IP101 1.00 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077885	IP101 1.20 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077886	IP100 0.80 LEACHATE	20/10/22	GJ 250ml, GJ 60ml, PT 1L		
2077887	IP101 1.00 LEACHATE	20/10/22	GJ 250ml, 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 23-04211

Issued: 01-Mar-23

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

Our Reference 23-04211

Client Reference PN224455

Order No ON34994

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Description 10 Soil samples, 20 Leachate samples.

Date Received 21-Feb-23

Date Started 21-Feb-23

Date Completed 01-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 blue ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128135	2128136	2128137	2128138	2128139	2128140
Sample ID	TP100	TP100	TP101	TP101	TP102	TP102
Depth	0.05	1.20	0.25	0.90	0.50	0.70
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Preparation									
Moisture Content	DETS 1004	0.1	%	9.3	7.9	8.0	8.2	13	20
Metals									
Antimony	DETS 2301*	1	mg/kg	6.1	1.2	1.4	1.9	2.4	2.2
Arsenic	DETS 2301#	0.2	mg/kg	8.3	12	5.7	12	12	15
Boron, Water Soluble	DETS 2311#	0.2	mg/kg	< 0.2	< 0.2	0.3	< 0.2	0.7	1.9
Cadmium	DETS 2301#	0.1	mg/kg	0.3	0.3	0.6	1.0	5.6	1.2
Chromium	DETS 2301#	0.15	mg/kg	440	18	16	18	16	16
Chromium III	DETS 2301*	0.15	mg/kg	440	18	16	18	16	16
Chromium, Hexavalent	DETS 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETS 2301#	0.2	mg/kg	30	26	22	25	60	51
Lead	DETS 2301#	0.3	mg/kg	95	59	120	90	200	250
Mercury	DETS 2325#	0.05	mg/kg	0.09	< 0.05	0.08	0.06	0.18	0.35
Nickel	DETS 2301#	1	mg/kg	22	23	9.6	22	16	19
Selenium	DETS 2301#	0.5	mg/kg	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Zinc	DETS 2301#	1	mg/kg	77	73	120	93	940	300
Inorganics									
pH	DETS 2008#		pH	10.2	7.8	9.9	8.0	8.2	6.7
Cyanide, Total	DETS 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.8	0.3
Cyanide, Free	DETS 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2
Total Organic Carbon	DETS 2084#	0.5	%	2.9	0.5	3.3	0.8	9.8	6.0
Ammoniacal Nitrogen as N	DETS 2119#	0.5	mg/kg	4.8	3.3	1.8	4.2	3.2	14
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l	52	11	1500	82	86	180
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg	22	< 3.4	< 3.4	< 3.4	14	20
Aliphatic C35-C44	DETS 3072*	3.4	mg/kg	14	< 3.4	< 3.4	< 3.4	3.6	< 3.4
Aliphatic C10-C44	DETS 3072*	10	mg/kg	37	< 10	< 10	< 10	18	20
Aromatic C5-C7	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETS 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETS 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETS 3072#	0.6	mg/kg	5.7	< 0.6	1.2	< 0.6	9.6	< 0.6
Aromatic C21-C35	DETS 3072#	1.4	mg/kg	160	< 1.4	58	< 1.4	77	42
Aromatic C35-C44	DETS 3072*	1.4	mg/kg	180	< 1.4	79	< 1.4	74	27
Aromatic C10-C44	DETS 3072*	10	mg/kg	350	< 10	140	< 10	160	69

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128135	2128136	2128137	2128138	2128139	2128140
Sample ID	TP100	TP100	TP101	TP101	TP102	TP102
Depth	0.05	1.20	0.25	0.90	0.50	0.70
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Ali/Aro C10-C44	DETC 3072*	10	mg/kg	390	< 10	140	< 10	180	89
PAHs									
Naphthalene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.2
Acenaphthene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1	0.4	0.8
Anthracene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.3
Fluoranthene	DETC 3301	0.1	mg/kg	0.2	< 0.1	0.4	< 0.1	1.0	2.0
Pyrene	DETC 3301	0.1	mg/kg	0.5	< 0.1	0.4	< 0.1	1.0	2.1
Benzo(a)anthracene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	0.1	< 0.1	0.6	1.1
Chrysene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	0.2	< 0.1	0.6	1.1
Benzo(b)fluoranthene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.4	0.7
Benzo(k)fluoranthene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.2	0.4
Benzo(a)pyrene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.6	1.3
Indeno(1,2,3-c,d)pyrene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.5	0.8
Dibenzo(a,h)anthracene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1
Benzo(g,h,i)perylene	DETC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.4	0.7
PAH 16 Total	DETC 3301	1.6	mg/kg	< 1.6	< 1.6	< 1.6	< 1.6	6.2	12
SVOCs									
Phenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
3-Nitroaniline	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.3	< 0.1
Dibenzofuran	DETC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128135	2128136	2128137	2128138	2128139	2128140
Sample ID	TP100	TP100	TP101	TP101	TP102	TP102
Depth	0.05	1.20	0.25	0.90	0.50	0.70
Other ID						
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023
Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 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	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 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	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128141	2128142	2128143	2128144
Sample ID	TP103	TP103	TP104	TP104
Depth	0.20	0.40	0.25	1.50
Other ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	15/02/2023	15/02/2023	16/02/2023	16/02/2023
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Preparation							
Moisture Content	DETS 1004	0.1	%	7.7	16	11	11
Metals							
Antimony	DETS 2301*	1	mg/kg	1.4	3.1	2.2	1.4
Arsenic	DETS 2301#	0.2	mg/kg	7.4	16	10	13
Boron, Water Soluble	DETS 2311#	0.2	mg/kg	0.8	1.8	0.3	0.7
Cadmium	DETS 2301#	0.1	mg/kg	0.9	2.5	0.4	0.4
Chromium	DETS 2301#	0.15	mg/kg	28	20	20	16
Chromium III	DETS 2301*	0.15	mg/kg	28	20	20	16
Chromium, Hexavalent	DETS 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETS 2301#	0.2	mg/kg	28	57	32	26
Lead	DETS 2301#	0.3	mg/kg	78	240	150	150
Mercury	DETS 2325#	0.05	mg/kg	0.08	0.76	0.80	0.07
Nickel	DETS 2301#	1	mg/kg	15	23	18	23
Selenium	DETS 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Zinc	DETS 2301#	1	mg/kg	180	1500	410	290
Inorganics							
pH	DETS 2008#		pH	10.9	7.1	9.5	7.5
Cyanide, Total	DETS 2130#	0.1	mg/kg	0.1	0.9	0.3	< 0.1
Cyanide, Free	DETS 2130#	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
Total Organic Carbon	DETS 2084#	0.5	%	2.7	4.7	4.6	2.0
Ammoniacal Nitrogen as N	DETS 2119#	0.5	mg/kg	3.1	15	4.5	5.2
Sulphate Aqueous Extract as SO4	DETS 2076#	10	mg/l	190	61	410	110
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.02
Aliphatic C8-C10	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.05
Aliphatic C10-C12	DETS 3072#	1.5	mg/kg	< 1.5	< 1.5	5.3	6.1
Aliphatic C12-C16	DETS 3072#	1.2	mg/kg	< 1.2	< 1.2	3.0	8.6
Aliphatic C16-C21	DETS 3072#	1.5	mg/kg	< 1.5	< 1.5	3.7	22
Aliphatic C21-C35	DETS 3072#	3.4	mg/kg	61	< 3.4	88	1300
Aliphatic C35-C44	DETS 3072*	3.4	mg/kg	21	< 3.4	18	86
Aliphatic C10-C44	DETS 3072*	10	mg/kg	83	< 10	120	1400
Aromatic C5-C7	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.02
Aromatic C8-C10	DETS 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.16
Aromatic C10-C12	DETS 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	1.9
Aromatic C12-C16	DETS 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	10
Aromatic C16-C21	DETS 3072#	0.6	mg/kg	9.3	< 0.6	1.0	50
Aromatic C21-C35	DETS 3072#	1.4	mg/kg	190	< 1.4	97	820
Aromatic C35-C44	DETS 3072*	1.4	mg/kg	170	< 1.4	81	120
Aromatic C10-C44	DETS 3072*	10	mg/kg	370	< 10	180	1000

Summary of Chemical Analysis

Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128141	2128142	2128143	2128144
Sample ID	TP103	TP103	TP104	TP104
Depth	0.20	0.40	0.25	1.50
Other ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	15/02/2023	15/02/2023	16/02/2023	16/02/2023
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Ali/Aro C10-C44	DETSC 3072*	10	mg/kg	450	< 10	300	2400
PAHs							
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.5
Acenaphthylene	DETSC 3301	0.1	mg/kg	0.1	< 0.1	0.2	0.7
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1	0.4	1.0
Phenanthrene	DETSC 3301	0.1	mg/kg	0.4	0.7	0.4	0.5
Anthracene	DETSC 3301	0.1	mg/kg	0.1	0.2	0.1	1.8
Fluoranthene	DETSC 3301	0.1	mg/kg	1.0	1.6	1.1	0.9
Pyrene	DETSC 3301	0.1	mg/kg	1.1	1.6	1.3	2.0
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	0.7	1.2	1.2	5.7
Chrysene	DETSC 3301	0.1	mg/kg	0.7	1.1	3.2	5.3
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.4	0.8	0.8	< 0.1
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.3	0.5	0.5	1.6
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	0.7	1.2	1.0	0.6
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.4	0.7	0.7	< 0.1
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.4	0.7	1.1	0.4
PAH 16 Total	DETSC 3301	1.6	mg/kg	6.3	10	12	21
SVOCs							
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 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
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 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
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 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
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 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
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 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
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 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
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128141	2128142	2128143	2128144
Sample ID	TP103	TP103	TP104	TP104
Depth	0.20	0.40	0.25	1.50
Other ID				
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	15/02/2023	15/02/2023	16/02/2023	16/02/2023
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 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
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 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
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 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
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	0.4	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	0.9	5.2
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 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
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 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
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 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
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128145	2128146	2128147	2128148	2128149	2128150
Sample ID	TP100	TP100	TP101	TP101	TP102	TP102
Depth	0.05	1.20	0.25	0.90	0.50	0.70
Other ID						
Sample Type	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Sampling Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023
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	0.21	< 0.17	0.60	0.29	0.58	0.82
Arsenic, Dissolved	DETS 2306	0.16	ug/l	0.66	0.25	0.79	0.31	1.5	1.2
Boron, Dissolved	DETS 2306*	12	ug/l	< 12	< 12	< 12	< 12	< 12	49
Cadmium, Dissolved	DETS 2306	0.03	ug/l	< 0.03	< 0.03	0.05	< 0.03	0.17	< 0.03
Chromium, Dissolved	DETS 2306	0.25	ug/l	5.0	6.3	6.4	5.5	5.5	5.7
Chromium III, Dissolved	DETS 2306*	1	ug/l	< 1.0	6.3	6.4	5.5	5.4	5.7
Chromium, Hexavalent	DETS 2203	7	ug/l	15	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	2.7	1.0	2.2	0.9	4.7	2.0
Lead, Dissolved	DETS 2306	0.09	ug/l	3.7	1.1	3.2	0.96	7.0	4.2
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	1.8	2.6	1.5	2.1	2.2	2.5
Selenium, Dissolved	DETS 2306	0.25	ug/l	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Zinc, Dissolved	DETS 2306	1.3	ug/l	4.6	1.5	2.8	3.0	32	17
Inorganics									
Conductivity	DETS 2009	1	uS/cm	174	145	488	151	223	236
pH	DETS 2008		pH	7.0	6.8	6.9	6.9	7.4	7.0
Dissolved Organic Carbon	DETS 2085	2	mg/l	6.1	4.2	3.4	5.3	5.9	3.7
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.47	0.13	0.084	0.079	0.077	0.19
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETS 3322	0.1	ug/l	< 0.1	< 0.1	< 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 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128145	2128146	2128147	2128148	2128149	2128150
Sample ID	TP100	TP100	TP101	TP101	TP102	TP102
Depth	0.05	1.20	0.25	0.90	0.50	0.70
Other ID						
Sample Type	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Sampling Date	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023	15/02/2023
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	< 0.05	< 0.05	< 0.05	0.07	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01	0.07	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.01	0.04	0.02	< 0.01	0.02	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	0.03	0.01	< 0.01	0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.04	0.06	0.03	0.02	0.16	0.02
Anthracene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01	0.06	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.12	0.02	0.03	< 0.01	0.47	< 0.01
Pyrene	DETSC 3304	0.01	ug/l	0.13	0.01	0.02	< 0.01	0.42	< 0.01
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.06	< 0.01	< 0.01	< 0.01	0.22	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.07	< 0.01	< 0.01	< 0.01	0.28	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.10	< 0.01	0.02	< 0.01	0.40	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01	< 0.01	0.17	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.08	< 0.01	< 0.01	< 0.01	0.34	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.06	< 0.01	< 0.01	< 0.01	0.34	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01	< 0.01	0.08	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.07	< 0.01	< 0.01	< 0.01	0.32	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	0.78	< 0.20	< 0.20	< 0.20	3.4	< 0.20

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128151	2128152	2128153	2128154
Sample ID	TP103	TP103	TP104	TP104
Depth	0.20	0.40	0.25	1.50
Other ID				
Sample Type	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Sampling Date	15/02/2023	15/02/2023	16/02/2023	16/02/2023
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	0.87	1.5	0.87	0.36
Arsenic, Dissolved	DETS 2306	0.16	ug/l	1.3	1.6	0.96	0.74
Boron, Dissolved	DETS 2306*	12	ug/l	18	31	< 12	22
Cadmium, Dissolved	DETS 2306	0.03	ug/l	0.06	< 0.03	< 0.03	0.04
Chromium, Dissolved	DETS 2306	0.25	ug/l	4.1	5.0	3.4	2.8
Chromium III, Dissolved	DETS 2306*	1	ug/l	4.0	5.0	3.4	2.8
Chromium, Hexavalent	DETS 2203	7	ug/l	< 7.0	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETS 2306	0.4	ug/l	3.7	2.5	1.8	0.6
Lead, Dissolved	DETS 2306	0.09	ug/l	6.0	2.3	1.8	1.2
Mercury, Dissolved	DETS 2306	0.01	ug/l	0.01	< 0.01	< 0.01	< 0.01
Nickel, Dissolved	DETS 2306	0.5	ug/l	1.7	2.2	1.4	1.3
Selenium, Dissolved	DETS 2306	0.25	ug/l	< 0.25	< 0.25	< 0.25	< 0.25
Zinc, Dissolved	DETS 2306	1.3	ug/l	13	9.1	11	7.3
Inorganics							
Conductivity	DETS 2009	1	uS/cm	64.7	41.8	72.1	87.4
pH	DETS 2008		pH	8.0	7.7	7.3	6.3
Dissolved Organic Carbon	DETS 2085	2	mg/l	6.6	3.9	4.5	7.9
Ammoniacal Nitrogen as N	DETS 2207	0.015	mg/l	0.15	0.089	0.086	0.082
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	< 1.0	< 1.0	< 1.0	270
Aliphatic C12-C16	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	300
Aliphatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	2.4
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	3.3
Aromatic C16-C21	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	19
Aromatic C21-C35	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	190
Aromatic C35-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	28
Aromatic C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	240
Ali/Aro C10-C44	DETS 3072*	1	ug/l	< 1.0	< 1.0	< 1.0	510
PAHs							

Summary of Chemical Analysis

Leachate Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	2128151	2128152	2128153	2128154
Sample ID	TP103	TP103	TP104	TP104
Depth	0.20	0.40	0.25	1.50
Other ID				
Sample Type	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Sampling Date	15/02/2023	15/02/2023	16/02/2023	16/02/2023
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	< 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	0.03	< 0.01	< 0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	0.02	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.03	0.12	0.03	< 0.01
Anthracene	DETSC 3304	0.01	ug/l	0.01	0.02	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.09	0.08	0.05	0.02
Pyrene	DETSC 3304	0.01	ug/l	0.09	0.07	0.05	0.14
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.04	0.03	0.03	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.05	0.04	0.02	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.06	0.03	0.05	0.04
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.02	< 0.01	0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.05	0.02	0.04	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.05	0.02	0.04	0.12
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	0.05	0.02	0.06	0.26
PAH Total	DETSC 3304	0.2	ug/l	0.55	0.50	0.37	0.63

WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP100 0.05

Sample Numbers 2128135 2128155

Date Analysed 28/02/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	2.9	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	440.0	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	0.74	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	8.3	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	4.8	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	3	0.03	2	50	100
DETSC 2306 Mercury as Hg	0.018	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	1.2	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	1.6	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	1.4	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.25	< 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	2.1	0.021	4	50	200
DETSC 2055 Chloride as Cl	870	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	310	3.1	10	150	500
DETSC 2055 Sulphate as SO4	3600	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	34000	340	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	4200	< 50	500	800	1000

Additional Information	
DETSC 2008 pH	7.7
DETSC 2009 Conductivity uS/cm	47.9
* Temperature*	17.0
Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.100
Stage 1	
Volume of Leachant L2*	0.987
Volume of Eluate VE1*	0.94

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP100 1.20

Sample Numbers 2128136 2128156

Date Analysed 28/02/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	0.5
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	0.35	< 0.01
DETSC 2306 Barium as Ba	0.85	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	4.5	< 0.1
DETSC 2306 Copper as Cu	2.3	0.023
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1
DETSC 2306 Nickel as Ni	1.8	< 0.1
DETSC 2306 Lead as Pb	0.76	< 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	< 1.3	< 0.01
DETSC 2055 Chloride as Cl	820	< 100
DETSC 2055* Fluoride as F	< 100	< 0.1
DETSC 2055 Sulphate as SO4	1500	< 100
DETSC 2009* Total Dissolved Solids	5500	55
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	3500	< 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	8.0
DETSC 2009 Conductivity uS/cm	7.8
* Temperature*	17.0

Mass of Sample Kg*	0.100
Mass of dry Sample Kg*	0.092

Stage 1

Volume of Leachant L2*	0.913
Volume of Eluate VE1*	0.869

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP101 0.25

Sample Numbers 2128137 2128157

Date Analysed 28/02/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	3.3	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	120.0	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	0.64	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	20	0.2	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	5.9	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	2.9	0.029	2	50	100
DETSC 2306 Mercury as Hg	< 0.010	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	1.7	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.3	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.73	< 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	< 1.3	< 0.01	4	50	200
DETSC 2055 Chloride as Cl	960	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	< 100	< 0.1	10	150	500
DETSC 2055 Sulphate as SO4	210000	2100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	340000	3400	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	3000	< 50	500	800	1000

Additional Information	
DETSC 2008 pH	7.1
DETSC 2009 Conductivity uS/cm	482.0
* Temperature*	17.0
Mass of Sample Kg*	0.100
Mass of dry Sample Kg*	0.092
Stage 1	
Volume of Leachant L2*	0.913
Volume of Eluate VE1*	0.865

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP101 0.90

Sample Numbers 2128138 2128158

Date Analysed 28/02/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	0.8
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	0.21	< 0.01
DETSC 2306 Barium as Ba	2.8	< 0.1
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02
DETSC 2306 Chromium as Cr	4.4	< 0.1
DETSC 2306 Copper as Cu	3.3	0.033
DETSC 2306 Mercury as Hg	< 0.010	< 0.002
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1
DETSC 2306 Nickel as Ni	1.8	< 0.1
DETSC 2306 Lead as Pb	0.33	< 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	< 1.3	< 0.01
DETSC 2055 Chloride as Cl	1200	< 100
DETSC 2055* Fluoride as F	< 100	< 0.1
DETSC 2055 Sulphate as SO4	15000	150
DETSC 2009* Total Dissolved Solids	30000	300
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	3500	< 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	7.5
DETSC 2009 Conductivity uS/cm	43.2
* Temperature*	17.0

Mass of Sample Kg*	0.100
Mass of dry Sample Kg*	0.092

Stage 1

Volume of Leachant L2*	0.91
Volume of Eluate VE1*	0.865

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP102 0.50

Sample Numbers 2128139 2128159

Date Analysed 28/02/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	9.8	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	140.0	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	6.2	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	1.6	0.016	0.5	2	25
DETSC 2306 Barium as Ba	12	0.12	20	100	300
DETSC 2306 Cadmium as Cd	0.11	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	< 0.25	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	2.9	0.029	2	50	100
DETSC 2306 Mercury as Hg	0.023	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	4.2	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	0.84	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	2.3	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.65	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	1.4	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	8.3	0.083	4	50	200
DETSC 2055 Chloride as Cl	1300	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	200	2	10	150	500
DETSC 2055 Sulphate as SO4	8800	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	51000	510	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	5600	56	500	800	1000

Additional Information	
DETSC 2008 pH	7.3
DETSC 2009 Conductivity uS/cm	72.2
* Temperature*	17.0
Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.095
Stage 1	
Volume of Leachant L2*	0.937
Volume of Eluate VE1*	0.89

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP102 0.70

Sample Numbers 2128140 2128160

Date Analysed 28/02/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	6.0	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	120.0	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	12.0	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	1.1	0.011	0.5	2	25
DETSC 2306 Barium as Ba	15	0.15	20	100	300
DETSC 2306 Cadmium as Cd	0.032	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	< 0.25	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	3	0.03	2	50	100
DETSC 2306 Mercury as Hg	< 0.010	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	0.8	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.28	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.59	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	0.57	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	7	0.07	4	50	200
DETSC 2055 Chloride as Cl	1100	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	140	1.4	10	150	500
DETSC 2055 Sulphate as SO4	31000	310	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	59000	590	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	4500	< 50	500	800	1000

Additional Information	
DETSC 2008 pH	7.1
DETSC 2009 Conductivity uS/cm	84.8
* Temperature*	17.0
Mass of Sample Kg*	0.120
Mass of dry Sample Kg*	0.096
Stage 1	
Volume of Leachant L2*	0.931
Volume of Eluate VE1*	0.884

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP103 0.20

Sample Numbers 2128141 2128161

Date Analysed 28/02/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	2.7	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	890.0	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	6.3	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	1.6	0.016	0.5	2	25
DETSC 2306 Barium as Ba	7.9	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	0.045	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	0.74	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	3.2	0.032	2	50	100
DETSC 2306 Mercury as Hg	0.018	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	1.2	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	5.6	0.06	0.5	10	50
DETSC 2306 Antimony as Sb	0.73	< 0.05	0.06	0.7	5
DETSC 2306 Selenium as Se	0.34	< 0.03	0.1	0.5	7
DETSC 2306 Zinc as Zn	14	0.14	4	50	200
DETSC 2055 Chloride as Cl	1400	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	110	1.1	10	150	500
DETSC 2055 Sulphate as SO4	4900	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	45000	450	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	8800	88	500	800	1000

Additional Information	
DETSC 2008 pH	7.3
DETSC 2009 Conductivity uS/cm	64.3
* Temperature*	17.0
Mass of Sample Kg*	0.100
Mass of dry Sample Kg*	0.092
Stage 1	
Volume of Leachant L2*	0.915
Volume of Eluate VE1*	0.87

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP103 0.40

Sample Numbers 2128142 2128162

Date Analysed 28/02/2023

Test Results On Waste		
Determinand and Method Reference	Units	Result
DETSC 2084# Total Organic Carbon	%	4.7
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	10.0
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	1.9	0.019
DETSC 2306 Barium as Ba	4.1	< 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	3.4	0.034
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	1.1	< 0.05
DETSC 2306 Antimony as Sb	0.73	< 0.05
DETSC 2306 Selenium as Se	< 0.25	< 0.03
DETSC 2306 Zinc as Zn	7.9	0.079
DETSC 2055 Chloride as Cl	710	< 100
DETSC 2055* Fluoride as F	210	2.1
DETSC 2055 Sulphate as SO4	6000	< 100
DETSC 2009* Total Dissolved Solids	22000	220
DETSC 2130 Phenol Index	< 100	< 1
DETSC 2085 Dissolved Organic Carbon	5600	56

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	7.4
DETSC 2009 Conductivity uS/cm	31.1
* Temperature*	17.0

Mass of Sample Kg*	0.120
Mass of dry Sample Kg*	0.101

Stage 1

Volume of Leachant L2*	0.995
Volume of Eluate VE1*	0.936

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP104 0.25

Sample Numbers 2128143 2128163

Date Analysed 01/03/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	4.6	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	1300.0	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	12.0	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	1	0.01	0.5	2	25
DETSC 2306 Barium as Ba	6	< 0.1	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	0.55	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	1.7	< 0.02	2	50	100
DETSC 2306 Mercury as Hg	< 0.010	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	< 1.1	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	1.1	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	1.6	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.44	< 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	6.7	0.067	4	50	200
DETSC 2055 Chloride as Cl	780	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	130	1.3	10	150	500
DETSC 2055 Sulphate as SO4	7100	< 100	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	33000	330	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	5200	52	500	800	1000

Additional Information	
DETSC 2008 pH	7.2
DETSC 2009 Conductivity uS/cm	47.1
* Temperature*	17.0
Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.098
Stage 1	
Volume of Leachant L2*	0.968
Volume of Eluate VE1*	0.92

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

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WASTE ACCEPTANCE CRITERIA TESTING ANALYTICAL REPORT

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Sample Id TP104 1.50

Sample Numbers 2128144 2128164

Date Analysed 28/02/2023

Test Results On Waste			WAC Limit Values		
Determinand and Method Reference	Units	Result	Inert Waste	SNRHW	Hazardous Waste
DETSC 2084# Total Organic Carbon	%	2.0	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	7000.0	500	n/a	n/a
DETSC 3301 PAHs	mg/kg	21.0	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	0.84	< 0.01	0.5	2	25
DETSC 2306 Barium as Ba	24	0.24	20	100	300
DETSC 2306 Cadmium as Cd	< 0.030	< 0.02	0.04	1	5
DETSC 2306 Chromium as Cr	< 0.25	< 0.1	0.5	10	70
DETSC 2306 Copper as Cu	0.61	< 0.02	2	50	100
DETSC 2306 Mercury as Hg	< 0.010	< 0.002	0.01	0.2	2
DETSC 2306 Molybdenum as Mo	1.2	< 0.1	0.5	10	30
DETSC 2306 Nickel as Ni	1.3	< 0.1	0.4	10	40
DETSC 2306 Lead as Pb	0.91	< 0.05	0.5	10	50
DETSC 2306 Antimony as Sb	0.3	< 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	5.4	0.054	4	50	200
DETSC 2055 Chloride as Cl	1000	< 100	800	15,000	25,000
DETSC 2055* Fluoride as F	150	1.5	10	150	500
DETSC 2055 Sulphate as SO4	24000	240	1000	20,000	50,000
DETSC 2009* Total Dissolved Solids	35000	350	4000	60,000	100,000
DETSC 2130 Phenol Index	< 100	< 1	1	n/a	n/a
DETSC 2085 Dissolved Organic Carbon	8400	84	500	800	1000

Additional Information	
DETSC 2008 pH	7.0
DETSC 2009 Conductivity uS/cm	49.5
* Temperature*	17.0
Mass of Sample Kg*	0.110
Mass of dry Sample Kg*	0.098
Stage 1	
Volume of Leachant L2*	0.964
Volume of Eluate VE1*	0.919

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

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Summary of Asbestos Analysis Soil Samples

Our Ref 23-04211

Client Ref PN224455

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2128135	TP100 0.05	SOIL	NAD	none	Michael Kay
2128136	TP100 1.20	SOIL	NAD	none	Michael Kay
2128137	TP101 0.25	SOIL	NAD	none	Michael Kay
2128138	TP101 0.90	SOIL	NAD	none	Michael Kay
2128139	TP102 0.50	SOIL	NAD	none	Michael Kay
2128140	TP102 0.70	SOIL	NAD	none	Michael Kay
2128141	TP103 0.20	SOIL	NAD	none	Michael Kay
2128142	TP103 0.40	SOIL	NAD	none	Michael Kay
2128143	TP104 0.25	SOIL	NAD	none	Michael Kay
2128144	TP104 1.50	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 23-04211
 Client Ref PN224455
 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				
2128135	TP100 0.05 SOIL	15/02/23		GJ 250ml x2, GJ 60ml	Ammonia (3 days)	
2128136	TP100 1.20 SOIL	15/02/23		GJ 250ml x2, GJ 60ml	Ammonia (3 days)	
2128137	TP101 0.25 SOIL	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128138	TP101 0.90 SOIL	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128139	TP102 0.50 SOIL	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128140	TP102 0.70 SOIL	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128141	TP103 0.20 SOIL	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128142	TP103 0.40 SOIL	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128143	TP104 0.25 SOIL	16/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128144	TP104 1.50 SOIL	16/02/23		GJ 250ml x2, GJ 60ml, PT 1L	Ammonia (3 days)	
2128145	TP100 0.05 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml		
2128146	TP100 1.20 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml		
2128147	TP101 0.25 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128148	TP101 0.90 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128149	TP102 0.50 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128150	TP102 0.70 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128151	TP103 0.20 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128152	TP103 0.40 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128153	TP104 0.25 LEACHATE	16/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128154	TP104 1.50 LEACHATE	16/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128155	TP100 0.05 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml		
2128156	TP100 1.20 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml		
2128157	TP101 0.25 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128158	TP101 0.90 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128159	TP102 0.50 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128160	TP102 0.70 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128161	TP103 0.20 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128162	TP103 0.40 LEACHATE	15/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128163	TP104 0.25 LEACHATE	16/02/23		GJ 250ml x2, GJ 60ml, PT 1L		
2128164	TP104 1.50 LEACHATE	16/02/23		GJ 250ml x2, GJ 60ml, PT 1L		

Key: G-Glass J-Jar P-Plastic 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.

Information in Support of the Analytical Results

Our Ref 23-04211
Client Ref PN224455
Contract Wrexham AFC - KOP STAND REDEVELOPMENT

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 23-04867

Issued: 08-Mar-23

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

Our Reference 23-04867

Client Reference PN224453

Order No ON34994

Contract Title Wrexham AFC - KOP STAND REDEVELOPMENT

Description 8 Soil samples, 13 Leachate samples.

Date Received 28-Feb-23

Date Started 28-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

