Certificate of Analysis

Certificate Number 23-30345-0-1 *Issued:* 27-Feb-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference 23-30345-0-1

Client Reference M23-045

Order No MID-0130

Contract Title Knostrop, Leeds

Description 3 Soil samples, 3 Leachate prepared by DETS samples.

Date Received 22-Dec-23

Date Started 22-Dec-23

Date Completed 27-Feb-24

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

Notes **This report supersedes 23-30345, amendments made**
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

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 23-30345-0-1
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2282331	2282332	2282333
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001	< 0.001	
Metals						
Aluminium	DETSC 2301*	1	mg/kg	860	5600	5600
Arsenic	DETSC 2301#	0.2	mg/kg	0.8	5.6	4.8
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1	0.8	0.3
Chromium	DETSC 2301#	0.15	mg/kg	10	520	37
Copper	DETSC 2301#	0.2	mg/kg	5.2	170	23
Iron	DETSC 2301	25	mg/kg	3100	17000	17000
Lead	DETSC 2301#	0.3	mg/kg	15	32	48
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0	1.4	1.2
Nickel	DETSC 2301#	1	mg/kg	3.5	510	16
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	1.7	< 0.5
Tin	DETSC 2301	1	mg/kg	< 1.0	3.1	1.3
Vanadium	DETSC 2301#	0.8	mg/kg	4.5	36	15
Zinc	DETSC 2301#	1	mg/kg	22	240	90
Inorganics						
pH	DETSC 2008#		pH	11.1	10.7	8.8
Organic matter	DETSC 2002#	0.1	%	2.3	1.4	0.9
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	< 0.50	< 0.50	< 0.50
Nitrate as NO3	DETSC 2055	1	mg/kg	21	12	9.8
Nitrite as NO2	DETSC 2055	1	mg/kg	1.4	< 1.0	< 1.0
Petroleum Hydrocarbons						
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	56
Aliphatic C35-C40: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg	< 3.4	< 3.4	18
Aliphatic C5-C40: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	< 10	< 10	74
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	2.4
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	23
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	130
Aromatic C35-C40: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg	< 1.4	< 1.4	39
Aromatic C5-C40: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	< 10	< 10	200
TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	< 10	< 10	270

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 23-30345-0-1
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2282331	2282332	2282333
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Organics						
DEM	DETSC 3001*	50	mg/kg	800	640	490
Subcontracted Analysis						
ethanediol (ethylene glycol)	$*	10	mg/kg	< 10.0	< 10.0	< 10.0
methanethiol (methyl mercaptan)	$*	0.1	mg/kg	< 0.1	< 0.1	< 0.1

Summary of Chemical Analysis
Leachate Samples

Our Ref 23-30345-0-1
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2282441	2282442	2282443
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Preparation						
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y	Y	Y
Metals						
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.1	0.89	0.64
Boron, Dissolved	DETSC 2306*	12	ug/l	57	59	70
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03
Chromium III, Dissolved	DETSC 2306*	1	ug/l	< 1.0	1.0	< 1.0
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.1	1.4	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	180	64	31
Lead, Dissolved	DETSC 2306	0.09	ug/l	2.2	0.49	0.22
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5	< 0.5	< 0.5
Selenium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25	< 0.25	< 0.25
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.5	0.9	0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.6	< 1.3	< 1.3
Inorganics						
pH	DETSC 2008		pH	7.0	7.9	7.6
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20

Key: * -not accredited. n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 23-30345-0-1
Client Ref M23-045
Contract Title Knostrop, Leeds

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2282331	TP01A 0.50-0.60	SOIL	Chrysotile	Chrysotile present as bitumen debris	Josh Best
2282332	TP02A 0.10-0.20	SOIL	Amosite	Amosite present as microscopic board debris	Josh Best
2282333	WS01 0.50-0.80	SOIL	NAD	none	Josh Best

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 23-30345-0-1
Client Ref M23-045
Contract Title Knostrop, Leeds

		Lab No	2282331	2282332
		.Sample ID	TP01A	TP02A
		Depth	0.50-0.60	0.10-0.20
		Other ID		
		Sample Type	ES	ES
		Sampling Date	18/12/2023	18/12/2023
		Sampling Time		
Test	**Method**	**Units**		
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	**< 0.001**	**< 0.001**
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.000	0.000
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na	na
Breakdown of Gravimetric Analysis (a)				
Mass of Sample		g	163.65	137.53
ACMs present*		type	Bitumen	Board
Mass of ACM in sample		g	0.00	0.00
% ACM by mass		%	0.00	0.00
% asbestos in ACM		%	8	40
% asbestos in sample		%	0.000	0.000
Breakdown of Detailed Gravimetric Analysis (b)				
% Amphibole bundles in sample		Mass %	na	na
% Chrysotile bundles in sample		Mass %	na	na
Breakdown of PCOM Analysis (c)				
% Amphibole fibres in sample		Mass %	na	na
% Chrysotile fibres in sample		Mass %	na	na
Breakdown of Potentially Respirable Fibre Analysis (d)				
Amphibole fibres		Fibres/g	na	na
Chrysotile fibres		Fibres/g	na	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 23-30345-0-1
Client Ref M23-045
Contract Knostrop, Leeds

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2282331	TP01A 0.50-0.60 SOIL	18/12/23	GJ 250ml, PT 1L	Ammonia (3 days)	BTEX / C5-C10
2282332	TP02A 0.10-0.20 SOIL	18/12/23	GJ 250ml, PT 1L	Ammonia (3 days)	BTEX / C5-C10
2282333	WS01 0.50-0.80 SOIL	18/12/23	GJ 250ml, PT 1L	Ammonia (3 days)	BTEX / C5-C10
2282441	TP01A 0.50-0.60 LEACHATE	18/12/23	GJ 250ml, PT 1L		
2282442	TP02A 0.10-0.20 LEACHATE	18/12/23	GJ 250ml, PT 1L		
2282443	WS01 0.50-0.80 LEACHATE	18/12/23	GJ 250ml, 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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C35-C40	EH_CU_1D_AL
Aliphatic C5-C40	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C35-C40	EH_CU_1D_AR
Aromatic C5-C40	EH_CU+HS_1D_AR
TPH Ali/Aro C5-C40	EH_CU+HS_1D_Total

End of Report

Certificate of Analysis

Certificate Number 24-00368-0 *Issued:* 27-Feb-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference 24-00368-0

Client Reference M23-045

Order No MID-0130

Contract Title Knostrop, Leeds

Description 3 Soil samples.

Date Received 22-Dec-23

Date Started 09-Jan-24

Date Completed 27-Feb-24

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

Notes **This report supersedes 24-00368, amendments made**

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Approved By

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

	Lab No	2284236	2284237	2284238
	.Sample ID	TP01A	TP02A	WS01
	Depth	0.50-0.60	0.10-0.20	0.50-0.80
	Other ID			
	Sample Type	ES	ES	ES
	Sampling Date	18/12/2023	18/12/2023	18/12/2023
	Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
Asbestos Quantification	DETSC 1102	0.001	%		0.006	
Metals						
Arsenic	DETSC 2301#	0.2	mg/kg	7.8	6.5	5.1
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.7	6.2	1.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.7	0.6	0.3
Chromium	DETSC 2301#	0.15	mg/kg	92	570	37
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	46	190	24
Iron	DETSC 2301	25	mg/kg	27000	19000	18000
Lead	DETSC 2301#	0.3	mg/kg	120	36	48
Mercury	DETSC 2325#	0.05	mg/kg	0.08	< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	30	580	17
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	2.1	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	39	36	16
Zinc	DETSC 2301#	1	mg/kg	160	260	94
Inorganics						
pH	DETSC 2008#		pH	11.2	10.4	8.9
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1	5.8	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Cyanide, Complex	DETSC 2130*	0.2	mg/kg	< 0.2	5.8	< 0.2
Organic matter	DETSC 2002#	0.1	%	1.8	1.0	0.6
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	0.78	0.66	0.87
Nitrate as NO3	DETSC 2055	1	mg/kg	19	12	< 1.0
Nitrite as NO2	DETSC 2055	1	mg/kg	1.3	< 1.0	< 1.0
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.12	0.23	0.32
Petroleum Hydrocarbons						
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	0.09	0.09	< 0.01
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4
Aliphatic C35-C40: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg	< 3.4	< 3.4	< 3.4
Aliphatic C5-C40: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	< 10	< 10	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	34	< 1.4	< 1.4

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2284236	2284237	2284238
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Aromatic C35-C40: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg	< 1.4	< 1.4	5.1
Aromatic C5-C40: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	34	< 10	< 10
TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	34	< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3321	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PAHs						
Naphthalene	DETSC 3301	0.1	mg/kg	0.2	< 0.1	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	0.4	< 0.1	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	0.3	< 0.1	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	0.3	< 0.1	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	2.6	0.3	0.4
Anthracene	DETSC 3301	0.1	mg/kg	0.7	< 0.1	< 0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	4.0	0.5	0.8
Pyrene	DETSC 3301	0.1	mg/kg	3.9	0.6	0.8
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	1.8	0.3	0.5
Chrysene	DETSC 3301	0.1	mg/kg	1.7	0.2	0.4
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	1.0	0.2	0.2
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.7	0.1	0.2
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	1.6	0.3	0.3
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.9	0.3	0.3
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.2	< 0.1	< 0.1
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	1.0	0.2	0.2
PAH 16 Total	DETSC 3301	1.6	mg/kg	21	3.5	4.9
PCBs						
PCB 77	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 81	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 105	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 114	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 118	DETSC 3401#	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 123	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 126	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 156	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 157	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 167	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 169	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
PCB 189	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01	< 0.01

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2284236	2284237	2284238
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	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
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2284236	2284237	2284238
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01
SVOCs						
Phenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2284236	2284237	2284238
			.Sample ID	TP01A	TP02A	WS01
			Depth	0.50-0.60	0.10-0.20	0.50-0.80
			Other ID			
			Sample Type	ES	ES	ES
			Sampling Date	18/12/2023	18/12/2023	18/12/2023
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Di-n-octylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	0.3	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	0.1	< 0.1	< 0.1

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2284236	TP01A 0.50-0.60	SOIL	NAD	none	Pierce Booth
2284237	TP02A 0.10-0.20	SOIL	Amosite	Amosite present in microscopic board debris	Pierce Booth
2284238	WS01 0.50-0.80	SOIL	NAD	none	Pierce Booth

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 24-00368-0
Client Ref M23-045
Contract Title Knostrop, Leeds

Lab No	2284237
.Sample ID	TP02A
Depth	0.10-0.20
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	

Test	**Method**	**Units**	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	**0.006**
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.006
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	22.73
ACMs present*		type	Board
Mass of ACM in sample		g	0.00
% ACM by mass		%	0.01
% asbestos in ACM		%	40
% asbestos in sample		%	0.006
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
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 24-00368-0
Client Ref M23-045
Contract Knostrop, Leeds

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2284236	TP01A 0.50-0.60 SOIL	18/12/23	GJ 250ml, PT 1L	Ammonia (3 days)	BTEX / C5-C10, VOC
2284237	TP02A 0.10-0.20 SOIL	18/12/23	GJ 250ml, PT 1L	Ammonia (3 days)	BTEX / C5-C10, VOC
2284238	WS01 0.50-0.80 SOIL	18/12/23	GJ 250ml, PT 1L	Ammonia (3 days)	BTEX / C5-C10, VOC

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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C35-C40	EH_CU_1D_AL
Aliphatic C5-C40	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C35-C40	EH_CU_1D_AR
Aromatic C5-C40	EH_CU+HS_1D_AR
TPH Ali/Aro C5-C40	EH_CU+HS_1D_Total

End of Report

Certificate of Analysis

Certificate Number 24-00803 *Issued:* 02-Feb-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference 24-00803

Client Reference M23-045

Order No SOL-7985

Contract Title KNOSTROP,LEEDS

Description 7 Soil samples, 6 Leachate prepared by DETS samples.

Date Received 16-Jan-24

Date Started 16-Jan-24

Date Completed 02-Feb-24

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

Kirk Bridgewood
General Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

			Lab No	2286570	2286571	2286572	2286573	2286574	2286575	2286576
			.Sample ID	RBH01	RBH01	RBH01	RBH02	RBH02	RBH03	RBH03
			Depth	0.10	0.50	2.00	3.00	0.10	0.50	4.60
			Other ID							
			Sample Type	ES	ES	ES	ES	ES	ES	ES
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Asbestos Quantification	DETSC 1102	0.001	%					0.092		
Metals										
Aluminium	DETSC 2301*	1	mg/kg		5700	8400	3600	4600	4100	3500
Arsenic	DETSC 2301#	0.2	mg/kg	7.9	4.3	7.5	2.6	6.5	5.1	2.9
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	1.1	1.0			0.4	0.5	
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	0.3	1.0	0.3	0.4	0.5	0.2
Chromium	DETSC 2301#	0.15	mg/kg	29	370	21	12	18	27	22
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0			< 1.0	< 1.0	
Copper	DETSC 2301#	0.2	mg/kg	48	30	40	9.3	20	21	8.2
Iron	DETSC 2301	25	mg/kg	34000	17000	25000	9600	13000	13000	11000
Lead	DETSC 2301#	0.3	mg/kg	95	46	130	7.7	32	23	11
Mercury	DETSC 2325#	0.05	mg/kg	0.10	0.10	0.07	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg		1.0	2.2	0.5	0.9	0.9	1.5
Nickel	DETSC 2301#	1	mg/kg	17	12	15	7.0	9.7	10	9.5
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tin	DETSC 2301	1	mg/kg		1.7	2.9	< 1.0	2.6	1.4	< 1.0
Vanadium	DETSC 2301#	0.8	mg/kg	63	16	26	8.0	14	11	7.3
Zinc	DETSC 2301#	1	mg/kg	170	89	280	47	81	78	50
Inorganics										
pH	DETSC 2008#		pH	9.9	9.3	10.4	11.8	10.5	11.2	10.3
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1			0.3	0.2	
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1			< 0.1	< 0.1	
Cyanide, Complex	DETSC 2130*	0.2	mg/kg	< 0.2	< 0.2			0.3	< 0.2	
Organic matter	DETSC 2002#	0.1	%	1.4	0.7	1.5	0.3	1.3	0.6	0.2
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	0.77	0.84	1.3	< 0.50	1.4	0.50	1.0
Nitrate as NO3	DETSC 2055	1	mg/kg	13	5.1	11	42	17	39	6.4
Nitrite as NO2	DETSC 2055	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	2.4	1.7	< 1.0
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.28	0.08			0.12	0.12	
Petroleum Hydrocarbons										
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C35-C40: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C40: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

			Lab No	2286570	2286571	2286572	2286573	2286574	2286575	2286576
			.Sample ID	RBH01	RBH01	RBH01	RBH02	RBH02	RBH03	RBH03
			Depth	0.10	0.50	2.00	3.00	0.10	0.50	4.60
			Other ID							
			Sample Type	ES	ES	ES	ES	ES	ES	ES
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Aromatic C35-C40: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Aromatic C5-C40: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	< 10
TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
MTBE	DETSC 3321	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PAHs										
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1			< 0.1	< 0.1	
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1			< 0.1	< 0.1	
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1	< 0.1			< 0.1	< 0.1	
Fluorene	DETSC 3301	0.1	mg/kg	0.2	< 0.1			0.1	< 0.1	
Phenanthrene	DETSC 3301	0.1	mg/kg	0.9	2.0			0.6	< 0.1	
Anthracene	DETSC 3301	0.1	mg/kg	0.2	0.4			0.2	< 0.1	
Fluoranthene	DETSC 3301	0.1	mg/kg	1.9	4.5			1.4	< 0.1	
Pyrene	DETSC 3301	0.1	mg/kg	1.8	4.0			1.3	< 0.1	
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	0.9	1.6			0.7	< 0.1	
Chrysene	DETSC 3301	0.1	mg/kg	0.9	1.7			0.7	< 0.1	
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.5	0.9			0.4	< 0.1	
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.3	0.6			0.2	< 0.1	
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	0.8	1.5			0.6	< 0.1	
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.6	0.9			0.5	< 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	0.5	0.9			0.3	< 0.1	
PAH 16 Total	DETSC 3301	1.6	mg/kg	9.4	19			7.3	< 1.6	

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

			Lab No	2286570	2286571	2286572	2286573	2286574	2286575	2286576
			.Sample ID	RBH01	RBH01	RBH01	RBH02	RBH02	RBH03	RBH03
			Depth	0.10	0.50	2.00	3.00	0.10	0.50	4.60
			Other ID							
			Sample Type	ES	ES	ES	ES	ES	ES	ES
			Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
PCBs										
PCB 77	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 81	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 105	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 114	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 118	DETSC 3401#	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 123	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 126	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 156	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 157	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 167	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 169	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
PCB 189	DETSC 3401*	0.01	mg/kg	< 0.01	< 0.01			< 0.01	< 0.01	
Organics										
DEM	DETSC 3001*	50	mg/kg		390	670	190	270	76	< 50
Subcontracted Analysis										
ethanediol (ethylene glycol)	$*	10	mg/kg		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
methanethiol (methyl mercaptan)	$*	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

			Lab No	2286570	2286571	2286574	2286575
			.Sample ID	RBH01	RBH01	RBH02	RBH03
			Depth	0.10	0.50	0.10	0.50
			Other ID				
			Sample Type	ES	ES	ES	ES
			Sampling Date	n/s	n/s	n/s	n/s
			Sampling Time	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
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 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
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 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
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 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
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 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
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 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
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 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
Toluene	DETSC 3431	0.01	mg/kg	< 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
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 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
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 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
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 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
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 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
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 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
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 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
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

			Lab No	2286570	2286571	2286574	2286575
			.Sample ID	RBH01	RBH01	RBH02	RBH03
			Depth	0.10	0.50	0.10	0.50
			Other ID				
			Sample Type	ES	ES	ES	ES
			Sampling Date	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 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
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 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
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 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
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 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
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
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	0.8
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

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Soil VOC/SVOC Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

			Lab No	2286570	2286571	2286574	2286575
			.Sample ID	RBH01	RBH01	RBH02	RBH03
			Depth	0.10	0.50	0.10	0.50
			Other ID				
			Sample Type	ES	ES	ES	ES
			Sampling Date	n/s	n/s	n/s	n/s
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
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	< 0.1	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 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
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	2.1

Key: * -not accredited. n/s -not supplied.

Summary of Chemical Analysis
Leachate Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

	Lab No	2286577	2286578	2286579	2286580	2286581	2286582
	.Sample ID	RBH01	RBH01	RBH01	RBH02	RBH02	RBH03
	Depth	0.10	0.50	2.00	3.00	0.10	0.50
	Other ID						
	Sample Type	ES	ES	ES	ES	ES	ES
	Sampling Date	n/s	n/s	n/s	n/s	n/s	n/s
	Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Preparation							
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y	Y	Y	Y	Y	Y
Metals							
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.44	2.1	2.9	1.2	2.4	2.0
Boron, Dissolved	DETSC 2306*	12	ug/l	64	52	42	< 12	< 12	< 12
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.05	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Chromium III, Dissolved	DETSC 2306*	1	ug/l	1.1	1.4	1.7	3.1	5.6	1.2
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.8	1.8	5.2	6.4	5.8	2.7
Iron, Dissolved	DETSC 2306	5.5	ug/l	< 5.5	40	380	160	620	91
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09	0.42	4.5	0.64	3.4	0.63
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02	< 0.01	0.01	0.03	0.02	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5	< 0.5	< 0.5	1.3	1.4	< 0.5
Selenium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25	< 0.25	0.26	0.29	0.32	0.44
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.8	1.3	2.8	4.5	3.9	1.2
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.6	2.3	5.8	< 1.3	9.2	2.5
Inorganics							
pH	DETSC 2008		pH	6.4	6.7	6.9	11.3	8.6	8.3
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20	< 20	< 20	< 20

Key: * -not accredited. n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2286570	RBH01 0.10	SOIL	NAD	none	Michael Kay
2286571	RBH01 0.50	SOIL	NAD	none	Michael Kay
2286574	RBH02 0.10	SOIL	Amosite	Amosite present in microscopic board fragment	Michael Kay
2286575	RBH03 0.50	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.

Summary of Asbestos Quantification Analysis
Soil Samples

Our Ref 24-00803
Client Ref M23-045
Contract Title KNOSTROP,LEEDS

Lab No	2286574
.Sample ID	RBH02
Depth	0.10
Other ID	
Sample Type	ES
Sampling Date	n/s
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	**0.092**
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.092
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	136.34
ACMs present*		type	Board
Mass of ACM in sample		g	0.31
% ACM by mass		%	0.23
% asbestos in ACM		%	40
% asbestos in sample		%	0.092
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
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 24-00803
Client Ref M23-045
Contract KNOSTROP,LEEDS

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2286570	RBH01 0.10 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), Boron (365 days), BTEX / C5-C10 (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Total Sulphate ICP (30 days), ICP WS Boron (182 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Kone Cr6 (30 days), Naphthalene (14 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), PAH FID (14 days), PCB (30 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (14 days), SVOC (14 days)	BTEX / C5-C10, VOC
2286571	RBH01 0.50 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), Boron (365 days), BTEX / C5-C10 (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Total Sulphate ICP (30 days), ICP WS Boron (182 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Kone Cr6 (30 days), Naphthalene (14 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), PAH FID (14 days), PCB (30 days), pH + Conductivity (7 days), SEM (14 days), Cyanide/Mono pHoh (14 days), SVOC (14 days)	BTEX / C5-C10, VOC

Information in Support of the Analytical Results

Our Ref 24-00803
Client Ref M23-045
Contract KNOSTROP,LEEDS

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2286572	RBH01 2.00 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), BTEX / C5-C10 (14 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days), SEM (14 days)	BTEX / C5-C10
2286573	RBH02 3.00 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), BTEX / C5-C10 (14 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days), SEM (14 days)	BTEX / C5-C10
2286574	RBH02 0.10 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), Boron (365 days), BTEX / C5-C10 (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Total Sulphate ICP (30 days), ICP WS Boron (182 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Kone Cr6 (30 days), Naphthalene (14 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), PAH FID (14 days), PCB (30 days), pH + Conductivity (7 days), SEM (14 days), Cyanide/Mono pHoh (14 days), SVOC (14 days)	BTEX / C5-C10, VOC

Information in Support of the Analytical Results

Our Ref 24-00803
Client Ref M23-045
Contract KNOSTROP,LEEDS

2286575	RBH03 0.50 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), Boron (365 days), BTEX / C5-C10 (14 days), Chromium, Hexavalent (365 days), Mercury (28 days), Total Sulphate ICP (30 days), ICP WS Boron (182 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Kone Cr6 (30 days), Naphthalene (14 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), PAH FID (14 days), PCB (30 days), pH + Conductivity (7 days), SEM (14 days), Cyanide/Mono pHoh (14 days), SVOC (14 days)	BTEX / C5-C10, VOC
2286576	RBH03 4.60 SOIL		GJ 250ml, PT 1L	Sample date not supplied, Aliphatics/Aromatics (14 days), Ammonia (3 days), BTEX / C5-C10 (14 days), Mercury (28 days), Metals ICP (182 days), Metals ICP Prep (182 days), Anions (30 days), Ammoniacal Nitrogen as N (365 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days), SEM (14 days)	BTEX / C5-C10
2286577	RBH01 0.10 LEACHATE		GJ 250ml, PT 1L	Sample date not supplied	
2286578	RBH01 0.50 LEACHATE		GJ 250ml, PT 1L	Sample date not supplied	
2286579	RBH01 2.00 LEACHATE		GJ 250ml, PT 1L	Sample date not supplied	
2286580	RBH02 3.00 LEACHATE		GJ 250ml, PT 1L	Sample date not supplied	
2286581	RBH02 0.10 LEACHATE		GJ 250ml, PT 1L	Sample date not supplied	
2286582	RBH03 0.50 LEACHATE		GJ 250ml, PT 1L	Sample date not supplied	

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.

Information in Support of the Analytical Results

Our Ref 24-00803
Client Ref M23-045
Contract KNOSTROP,LEEDS

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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C35-C40	EH_CU_1D_AL
Aliphatic C5-C40	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C35-C40	EH_CU_1D_AR
Aromatic C5-C40	EH_CU+HS_1D_AR
TPH Ali/Aro C5-C40	EH_CU+HS_1D_Total

End of Report

Certificate of Analysis

Certificate Number 24-01767 *Issued:* 12-Feb-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference 24-01767

Client Reference M23-045

Order No (not supplied)

Contract Title Knostrop, Leeds

Description 3 Other Water samples.

Date Received 29-Jan-24

Date Started 29-Jan-24

Date Completed 12-Feb-24

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

Kirk Bridgewood
General Manager

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Summary of Chemical Analysis
Water Samples

Our Ref 24-01767
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2292082	2292083	2292084
			.Sample ID	RBH01	RBH02	RBH03
			Depth	3.35	3.08	3.07
			Other ID			
			Sample Type	WATER OTHER	WATER OTHER	WATER OTHER
			Sampling Date	26/01/2024	26/01/2024	26/01/2024
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	350	< 10	12
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	6.1	0.46	1.3
Boron, Dissolved	DETSC 2306*	12	ug/l	93	77	93
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	22	130	84
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.80	1.1	< 0.25
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.3	3.5	1.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	15	6.8	12
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.11	0.10	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	2.1	16	7.7
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.23	< 0.01	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	59	5.3	13
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.1	2.4	3.1
Potassium, Dissolved	DETSC 2306	0.08	mg/l	11	7.1	9.4
Selenium, Dissolved	DETSC 2306	0.25	ug/l	8.4	0.46	0.72
Sodium, Dissolved	DETSC 2306	0.07	mg/l	92	50	57
Tin, Dissolved	DETSC 2306*	0.4	ug/l	2.2	1.5	1.4
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	4.5	< 0.6	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	13	39	33
Inorganics						
Conductivity	DETSC 2009	1	uS/cm	605	954	888
pH	DETSC 2008		pH	8.9	7.5	7.3
Alkalinity, Bicarbonate as CaCO3	DETSC 2030*	10	mg/l	91	140	140
Biochemical Oxygen Demand, Total	DETSC 2031	1	mg/l	3.4	7.3	140
Chemical Oxygen Demand, Total	DETSC 2032	10	mg/l	42	110	1600
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20
Cyanide, Complex	DETSC 2130*	40	ug/l	< 40	< 40	< 40
Redox Potential	DETSC 2016*	-500	mV	220	190	190
Ammoniacal Nitrogen as NH4	DETSC 2207	0.0193	mg/l	1.2	0.66	0.70
Ammoniacal Nitrogen as NH3	DETSC 2207	0.0183	mg/l	1.1	0.62	0.66
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.94	0.51	0.54
Chloride	DETSC 2055	0.1	mg/l	29	72	44
Nitrate as NO3	DETSC 2055	0.1	mg/l	1.9	62	61
Nitrite as NO2	DETSC 2055	0.1	mg/l	3.7	0.11	5.8
Nitrogen, Total	DETSC 2085*	0.5	mg/l	4.1	21	31
Sulphate as SO4	DETSC 2055	0.1	mg/l	110	160	160
Sulphide	DETSC 2208	10	ug/l	38	52	32
Total Organic Carbon	DETSC 2085	1	mg/l	15	64	300
Petroleum Hydrocarbons						

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 24-01767
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2292082	2292083	2292084
			.Sample ID	RBH01	RBH02	RBH03
			Depth	3.35	3.08	3.07
			Other ID			
			Sample Type	WATER OTHER	WATER OTHER	WATER OTHER
			Sampling Date	26/01/2024	26/01/2024	26/01/2024
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Aliphatic C5-C6: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	26	< 1.0
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	820	< 1.0
Aliphatic C5-C35: EH_CU+HS_1D_AL	DETSC 3072*	10	ug/l	< 10	840	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C35: EH_CU+HS_1D_AR	DETSC 3072*	10	ug/l	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total	DETSC 3072*	10	ug/l	< 10	850	< 10
Oils & Fats, Unsaponifiable	*	1000	ug/l	80000	< 1000	18000
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	0.11	13	24
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	1.3	1.9
Acenaphthene	DETSC 3304	0.01	ug/l	0.02	3.6	4.8
Fluorene	DETSC 3304	0.01	ug/l	0.06	6.7	8.6
Phenanthrene	DETSC 3304	0.01	ug/l	0.37	46	48
Anthracene	DETSC 3304	0.01	ug/l	0.02	3.9	4.6
Fluoranthene	DETSC 3304	0.01	ug/l	0.19	54	64
Pyrene	DETSC 3304	0.01	ug/l	0.14	40	48
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.06	16	23
Chrysene	DETSC 3304	0.01	ug/l	0.05	11	16
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.10	20	34
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.03	7.0	13
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.07	17	33
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.07	13	24
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.01	2.1	4.3
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.08	11	18
PAH Total	DETSC 3304	0.2	ug/l	1.4	260	370
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100
Subcontracted Analysis						
Ethylene Glycol	$*	0.1	mg/l	< 1.0	< 1.0	< 1.0
Methyl Mercaplan	$*	0.1	mg/l	< 0.1	< 0.1	< 0.1

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 24-01767
Client Ref M23-045
Contract Title Knostrop, Leeds

				Lab No	2292082	2292083	2292084
				.Sample ID	RBH01	RBH02	RBH03
				Depth	3.35	3.08	3.07
				Other ID			
				Sample Type	WATER OTHER	WATER OTHER	WATER OTHER
				Sampling Date	26/01/2024	26/01/2024	26/01/2024
				Sampling Time	n/s	n/s	n/s
Test			**Method**	**LOD**	**Units**			
Total coliforms			$*	0	cfu/100ml	0	22	0
Faecal Coliforms			$*	0		> 100	> 100	9.00

2292082, 2292083, 2292084 - WATER OTHER
testing is not accredited

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 24-01767
Client Ref M23-045
Contract Knostrop, Leeds

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2292082	RBH01 3.35 WATER	26/01/24	GB 1L x2, GV	BOD (2 days), pH/Cond (1 days)	
2292083	RBH02 3.08 WATER	26/01/24	GB 1L x2, GV	BOD (2 days), pH/Cond (1 days)	
2292084	RBH03 3.07 WATER	26/01/24	GB 1L x2, GV	BOD (2 days), pH/Cond (1 days)	

Key: G-Glass B-Bottle V-Vial

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

Disposal

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

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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C5-C35	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C5-C35	EH_CU+HS_1D_AR
TPH Ali/Aro Total C5-C35	EH_CU+HS_1D_Total

End of Report

Certificate of Analysis

Certificate Number	24-02344	*Issued:*	22-Feb-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference	24-02344
Client Reference	M23-045
Order No	MID-0130
Contract Title	Knostrop, Leeds
Description	3 Other Water samples.
Date Received	05-Feb-24
Date Started	05-Feb-24
Date Completed	22-Feb-24
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

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Water Samples

Our Ref 24-02344
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2295413	2295414	2295415
			.Sample ID	RBH01	RBH02	RBH03
			Depth	2.93	2.72	2.70
			Other ID			
			Sample Type	W	W	W
			Sampling Date	01/02/2024	01/02/2024	01/02/2024
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Subcon to Mountain-Liquid	$	0		Y	Y	Y
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	220	13	17
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	6.0	1.9	0.46
Boron, Dissolved	DETSC 2306*	12	ug/l	80	90	77
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	25	87	110
Chromium, Dissolved	DETSC 2306	0.25	ug/l	7.9	0.57	4.0
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.5	2.0	2.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	8.9	13	19
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09	< 0.09	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	2.5	8.3	15
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.19	< 0.01	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	44	17	2.5
Nickel, Dissolved	DETSC 2306	0.5	ug/l	3.6	3.4	2.2
Potassium, Dissolved	DETSC 2306	0.08	mg/l	11	9.8	6.3
Selenium, Dissolved	DETSC 2306	0.25	ug/l	6.5	0.95	0.33
Sodium, Dissolved	DETSC 2306	0.07	mg/l	85	66	44
Tin, Dissolved	DETSC 2306*	0.4	ug/l	4.8	< 0.4	0.4
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	4.2	< 0.6	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	200	57	190
Inorganics						
Conductivity	DETSC 2009	1	uS/cm	626	860	962
pH	DETSC 2008		pH	9.6	7.8	7.6
Alkalinity, Bicarbonate as CaCO3	DETSC 2030*	10	mg/l	91	180	150
Biochemical Oxygen Demand, Total	DETSC 2031	1	mg/l	1.4	4.5	5.9
Chemical Oxygen Demand, Total	DETSC 2032	10	mg/l	350	26000	4000
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20
Cyanide, Complex	DETSC 2130*	40	ug/l	< 40	< 40	< 40
Redox Potential	DETSC 2016*	-500	mV	170	180	190
Ammoniacal Nitrogen as NH4	DETSC 2207	0.0193	mg/l	0.90	0.61	0.20
Ammoniacal Nitrogen as NH3	DETSC 2207	0.0183	mg/l	0.85	0.58	0.19
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.70	0.47	0.15
Chloride	DETSC 2055	0.1	mg/l	31	38	67
Nitrate as NO3	DETSC 2055	0.1	mg/l	1.8	45	56
Nitrite as NO2	DETSC 2055	0.1	mg/l	4.1	< 2.00	
Nitrite as N	DETSC 2201	0.035	mg/l			< 0.035
Nitrogen, Total	DETSC 2085*	0.5	mg/l	13	13	15
Sulphate as SO4	DETSC 2055	0.1	mg/l	120	140	150
Sulphide	DETSC 2208	10	ug/l	< 10	19	12

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 24-02344
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2295413	2295414	2295415
			.Sample ID	RBH01	RBH02	RBH03
			Depth	2.93	2.72	2.70
			Other ID			
			Sample Type	W	W	W
			Sampling Date	01/02/2024	01/02/2024	01/02/2024
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Total Organic Carbon	DETSC 2085	1	mg/l	8.7	49	19
Petroleum Hydrocarbons						
Aliphatic C5-C6: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	12	< 1.0
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	92	< 1.0
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	270	< 1.0
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	1700	< 1.0
Aliphatic C5-C35: EH_CU+HS_1D_AL	DETSC 3072*	10	ug/l	< 10	2100	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	100	< 1.0
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	260	< 1.0
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	700	< 1.0
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	2800	< 1.0
Aromatic C5-C35: EH_CU+HS_1D_AR	DETSC 3072*	10	ug/l	< 10	3800	< 10
TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total	DETSC 3072*	10	ug/l	< 10	5900	< 10
Oils & Fats, Unsaponifiable	*	1000	ug/l	< 1000	< 1000	< 1000
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	0.06	3.3	< 0.50
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	0.22	< 0.10
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	0.61	< 0.10
Fluorene	DETSC 3304	0.01	ug/l	0.03	0.94	< 0.10
Phenanthrene	DETSC 3304	0.01	ug/l	0.20	5.5	< 0.10
Anthracene	DETSC 3304	0.01	ug/l	0.01	0.59	< 0.10
Fluoranthene	DETSC 3304	0.01	ug/l	0.08	7.0	< 0.10
Pyrene	DETSC 3304	0.01	ug/l	0.07	5.9	0.11
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	0.03	2.7	< 0.10
Chrysene	DETSC 3304	0.01	ug/l	0.02	2.3	< 0.10
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.05	4.1	< 0.10
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.02	1.5	< 0.10
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.04	3.2	< 0.10
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.03	2.5	< 0.10
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.36	< 0.10
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.03	1.7	< 0.10
PAH Total	DETSC 3304	0.2	ug/l	0.68	42	< 2.00
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 24-02344
Client Ref M23-045
Contract Title Knostrop, Leeds

			Lab No	2295413	2295414	2295415
			.Sample ID	RBH01	RBH02	RBH03
			Depth	2.93	2.72	2.70
			Other ID			
			Sample Type	W	W	W
			Sampling Date	01/02/2024	01/02/2024	01/02/2024
			Sampling Time	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Subcontracted Analysis						
methanethiol (methyl mercaptan)	$*	0.1	mg/l	< 0.1	< 0.1	< 0.1
Ethylene Glycol	$*	1	mg/l	< 1.0	< 1.0	< 1.0
Total coliforms	$*	0	cfu/100ml	>100	>100	>100
Faecal Coliforms	$*	0		1.00	1.00	1.00

2295413, 2295414, 2295415 - WATER OTHER

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 24-02344
Client Ref M23-045
Contract Knostrop, Leeds

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2295413	RBH01 2.93 WATER	01/02/24	GB to 500ml x4, GV	BOD (2 days), pH/Cond (1 days)	
2295414	RBH02 2.72 WATER	01/02/24	GB to 500ml x4, GV	BOD (2 days), pH/Cond (1 days)	
2295415	RBH03 2.70 WATER	01/02/24	GB to 500ml x4, GV	BOD (2 days), pH/Cond (1 days)	

Key: G-Glass B-Bottle V-Vial

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

Disposal

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

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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C5-C35	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C5-C35	EH_CU+HS_1D_AR
TPH Ali/Aro Total C5-C35	EH_CU+HS_1D_Total

End of Report

Certificate of Analysis

Certificate Number	24-02725-0	*Issued:*	21-Mar-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference	24-02725-0
Client Reference ~	M23-045
Order No ~	MID-0204/LR/M23-045
Contract Title ~	Knostrop, Leeds
Description	3 Other Water samples.
Date Received	08-Feb-24
Date Started	08-Feb-24
Date Completed	21-Mar-24
Test Procedures	Identified by prefix DETSn (details on request).

Notes **This report supersedes 24-02725, amendments made**

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

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Water Samples

Our Ref 24-02725-0
Client Ref ~ M23-045
Contract Title ~ Knostrop, Leeds

			Lab No	2297547	2297548	2297549
			Sample ID ~	RBH01	RBH02	RBH03
			Depth ~	2.85	2.72	2.70
			Other ID ~			
			Sample Type ~	W	W	W
			Sampling Date ~	06/02/2024	06/02/2024	06/02/2024
			Sampling Time ~	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	250	18	15
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	5.7	5.3	0.50
Boron, Dissolved	DETSC 2306*	12	ug/l	93	95	68
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.11	0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	26	70	110
Chromium, Dissolved	DETSC 2306	0.25	ug/l	9.8	26	6.6
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.4	5.0	2.9
Iron, Dissolved	DETSC 2306	5.5	ug/l	27	18	18
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.93	0.21	0.17
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	2.9	5.9	14
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.18	0.02	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	45	35	2.9
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.1	3.3	2.7
Potassium, Dissolved	DETSC 2306	0.08	mg/l	13	9.4	6.0
Selenium, Dissolved	DETSC 2306	0.25	ug/l	6.1	1.8	0.67
Sodium, Dissolved	DETSC 2306	0.07	mg/l	87	53	41
Tin, Dissolved	DETSC 2306*	0.4	ug/l	0.8	0.8	0.7
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	5.6	1.2	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	16	43	100
Inorganics						
Conductivity	DETSC 2009	1	uS/cm	628	835	950
pH	DETSC 2008		pH	9.5	7.9	7.6
Alkalinity, Bicarbonate as CaCO3	DETSC 2030*	10	mg/l	750	30	150
Biochemical Oxygen Demand, Total	DETSC 2031	1	mg/l	2.6	< 2.0	< 2.0
Chemical Oxygen Demand, Total	DETSC 2032	10	mg/l	24	57	31
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20
Cyanide, Complex	DETSC 2130*	40	ug/l	< 40	< 40	< 40
Redox Potential	DETSC 2016*	-500	mV	74	110	120
Ammoniacal Nitrogen as NH4	DETSC 2207	0.0193	mg/l	1.0	1.1	0.45
Ammoniacal Nitrogen as NH3	DETSC 2207	0.0183	mg/l	0.97	1.0	0.43
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.80	0.84	0.35
Chloride	DETSC 2055	0.1	mg/l	30	32	< 2.00
Nitrate as NO3	DETSC 2055	0.1	mg/l	1.3	40	
Nitrate as N	*	0.1	mg/l			16
Nitrite as NO2	DETSC 2055	0.1	mg/l	2.6	1.0	
Nitrite as N	DETSC 2201	0.035	mg/l			< 0.035
Nitrogen, Total	DETSC 2085*	0.5	mg/l	2.3	14	17
Sulphate as SO4	DETSC 2055	0.1	mg/l	< 0.10	< 0.10	110
Sulphide	DETSC 2208	10	ug/l	22	19	26

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 24-02725-0
Client Ref ~ M23-045
Contract Title ~ Knostrop, Leeds

	Lab No	2297547	2297548	2297549
	Sample ID ~	RBH01	RBH02	RBH03
	Depth ~	2.85	2.72	2.70
	Other ID ~			
	Sample Type ~	W	W	W
	Sampling Date ~	06/02/2024	06/02/2024	06/02/2024
	Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Total Organic Carbon	DETSC 2085	1	mg/l	7.0	3.9	1.9
Petroleum Hydrocarbons						
Aliphatic C5-C6: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10: HS_1D_AL	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C5-C35: EH_CU+HS_1D_AL	DETSC 3072*	10	ug/l	< 10	< 10	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10: HS_1D_AR	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C35: EH_CU+HS_1D_AR	DETSC 3072*	10	ug/l	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total	DETSC 3072*	10	ug/l	< 10	< 10	< 10
Oils & Fats, Unsaponifiable	*	1000	ug/l	< 1000	< 1000	< 1000
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	0.32	0.06
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	0.02	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.01	0.04	0.02
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	0.07	0.03
Phenanthrene	DETSC 3304	0.01	ug/l	< 0.01	0.36	0.19
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.04	0.02
Fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.31	0.13
Pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.29	0.13
Benzo(a)anthracene	DETSC 3304*	0.01	ug/l	< 0.01	0.13	0.03
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	0.12	0.03
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.16	0.04
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.06	0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.12	0.02
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.13	0.02
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.02	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	0.09	0.02
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	2.3	0.76
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100
Subcontracted Analysis						

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Summary of Chemical Analysis
Water Samples

Our Ref 24-02725-0
Client Ref ~ M23-045
Contract Title ~ Knostrop, Leeds

	Lab No	2297547	2297548	2297549
	Sample ID ~	RBH01	RBH02	RBH03
	Depth ~	2.85	2.72	2.70
	Other ID ~			
	Sample Type ~	W	W	W
	Sampling Date ~	06/02/2024	06/02/2024	06/02/2024
	Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Ethylene Glycol	$*	0.1	mg/l	< 1.0	< 1.0	< 1.0
methanethiol (methyl mercaptan)	$*	0.1	mg/l	< 0.1	< 0.1	< 0.1
Total coliforms	$*	0	cfu/100ml	0	>201	9
Faecal Coliforms	$*	0		2.00	13.0	16.0

2297547, 2297548, 2297549 - WATER OTHER
testing is not accredited

Key: * -not accredited. $ -subcontracted. n/s -not supplied.

Information in Support of the Analytical Results

Our Ref 24-02725-0
Client Ref ~ M23-045
Contract ~ Knostrop, Leeds

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2297547	RBH01 2.85 WATER	06/02/24	GB to 500ml x4, GV	pH/Cond (1 days)	
2297548	RBH02 2.72 WATER	06/02/24	GB to 500ml x4, GV	pH/Cond (1 days)	
2297549	RBH03 2.70 WATER	06/02/24	GB to 500ml x4, GV	pH/Cond (1 days)	

Key: G-Glass B-Bottle V-Vial

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

Disposal

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

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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C5-C35	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C5-C35	EH_CU+HS_1D_AR
TPH Ali/Aro Total C5-C35	EH_CU+HS_1D_Total

Key:

~ Sample details are provided by the client and can affect the validity of the results

***** -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 24-00744-0 *Issued:* 27-Feb-24

Client SOLMEK
12 Yarm Road
Stockton On Tees
Cleveland
TS18 3NA

Our Reference 24-00744-0

Client Reference M23-045

Order No MID-0130

Contract Title KNOSTROP, LEEDS

Description 1 Soil sample, 1 Leachate prepared by DETS sample.

Date Received 15-Jan-24

Date Started 15-Jan-24

Date Completed 27-Feb-24

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

Notes **This report supersedes 24-00744, amendments made**
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

Kirk Bridgewood
General Manager

2139

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	2286244
.Sample ID	TP01A
Depth	0.10-0.30
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Arsenic	DETSC 2301#	0.2	mg/kg	8.4
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	41
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	66
Iron	DETSC 2301	25	mg/kg	38000
Lead	DETSC 2301#	0.3	mg/kg	95
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Nickel	DETSC 2301#	1	mg/kg	21
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	34
Zinc	DETSC 2301#	1	mg/kg	150
Inorganics				
pH	DETSC 2008#		pH	8.9
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Complex	DETSC 2130*	0.2	mg/kg	< 0.2
Organic matter	DETSC 2002#	0.1	%	2.5
Ammoniacal Nitrogen as N	DETSC 2119#	0.5	mg/kg	2.9
Nitrate as NO3	DETSC 2055	1	mg/kg	6.0
Nitrite as NO2	DETSC 2055	1	mg/kg	< 1.0
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.08
Petroleum Hydrocarbons				
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C35-C40: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg	< 3.4
Aliphatic C5-C40: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C35-C40: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg	< 1.4

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	2286244
.Sample ID	TP01A
Depth	0.10-0.30
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Aromatic C5-C40: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	< 10
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01
MTBE	DETSC 3321	0.01	mg/kg	< 0.01
PAHs				
Naphthalene	DETSC 3301	0.1	mg/kg	< 0.1
Acenaphthylene	DETSC 3301	0.1	mg/kg	< 0.1
Acenaphthene	DETSC 3301	0.1	mg/kg	< 0.1
Fluorene	DETSC 3301	0.1	mg/kg	< 0.1
Phenanthrene	DETSC 3301	0.1	mg/kg	0.4
Anthracene	DETSC 3301	0.1	mg/kg	0.1
Fluoranthene	DETSC 3301	0.1	mg/kg	1.1
Pyrene	DETSC 3301	0.1	mg/kg	1.0
Benzo(a)anthracene	DETSC 3301	0.1	mg/kg	0.6
Chrysene	DETSC 3301	0.1	mg/kg	0.5
Benzo(b)fluoranthene	DETSC 3301	0.1	mg/kg	0.4
Benzo(k)fluoranthene	DETSC 3301	0.1	mg/kg	0.2
Benzo(a)pyrene	DETSC 3301	0.1	mg/kg	0.6
Indeno(1,2,3-c,d)pyrene	DETSC 3301	0.1	mg/kg	0.5
Dibenzo(a,h)anthracene	DETSC 3301	0.1	mg/kg	0.2
Benzo(g,h,i)perylene	DETSC 3301	0.1	mg/kg	0.2
PAH 16 Total	DETSC 3301	1.6	mg/kg	6.4
PCBs				
PCB 77	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 81	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 105	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 114	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 118	DETSC 3401#	0.01	mg/kg	< 0.01
PCB 123	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 126	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 156	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 157	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 167	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 169	DETSC 3401*	0.01	mg/kg	< 0.01
PCB 189	DETSC 3401*	0.01	mg/kg	< 0.01

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	2286244
.Sample ID	TP01A
Depth	0.10-0.30
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	n/s

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

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Summary of Chemical Analysis
Soil Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	2286244
.Sample ID	TP01A
Depth	0.10-0.30
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	n/s

Test	Method	LOD	Units	
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1

Key: * -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). n/s -not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	2286244
.Sample ID	TP01A
Depth	0.10-0.30
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	n/s

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

Summary of Chemical Analysis
Leachate Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	2286245
.Sample ID	TP01A
Depth	0.10-0.30
Other ID	
Sample Type	ES
Sampling Date	18/12/2023
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.67
Boron, Dissolved	DETSC 2306*	12	ug/l	< 12
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium III, Dissolved	DETSC 2306*	1	ug/l	< 1.0
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.1
Iron, Dissolved	DETSC 2306	5.5	ug/l	300
Lead, Dissolved	DETSC 2306	0.09	ug/l	2.1
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5
Selenium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.9
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.8
Inorganics				
pH	DETSC 2008		pH	8.4
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20

Key: * -not accredited. n/s -not supplied.

Summary of Asbestos Analysis
Soil Samples

Our Ref 24-00744-0
Client Ref M23-045
Contract Title KNOSTROP, LEEDS

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2286244	TP01A 0.10-0.30	SOIL	NAD	none	D Wilkinson

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 24-00744-0
Client Ref M23-045
Contract KNOSTROP, LEEDS

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
2286244	TP01A 0.10-0.30 SOIL	18/12/23	GJ 250ml, PT 1L	Aliphatics/Aromatics (14 days), Ammonia (3 days), BTEX / C5-C10 (14 days), Naphthalene (14 days), PAH FID (14 days), pH + Conductivity (7 days), Cyanide/Mono pHoh (14 days), SVOC (14 days)	BTEX / C5-C10, VOC
2286245	TP01A 0.10-0.30 LEACHATE	18/12/23	GJ 250ml, 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

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
Aliphatic C5-C6	HS_1D_AL
Aliphatic C6-C8	HS_1D_AL
Aliphatic C8-C10	HS_1D_AL
Aliphatic C10-C12	EH_CU_1D_AL
Aliphatic C12-C16	EH_CU_1D_AL
Aliphatic C16-C21	EH_CU_1D_AL
Aliphatic C21-C35	EH_CU_1D_AL
Aliphatic C35-C40	EH_CU_1D_AL
Aliphatic C5-C40	EH_CU+HS_1D_AL
Aromatic C5-C7	HS_1D_AR
Aromatic C7-C8	HS_1D_AR
Aromatic C8-C10	HS_1D_AR
Aromatic C10-C12	EH_CU_1D_AR
Aromatic C12-C16	EH_CU_1D_AR
Aromatic C16-C21	EH_CU_1D_AR
Aromatic C21-C35	EH_CU_1D_AR
Aromatic C35-C40	EH_CU_1D_AR
Aromatic C5-C40	EH_CU+HS_1D_AR
TPH Ali/Aro C5-C40	EH_CU+HS_1D_Total

End of Report

Appendix D

UK BACKGROUND

Environmental Protection Act 1990: Part 2A Revised Statutory Guidance (April 2012)

This revised document explains how the Local Authority should decide if land, based on a legal interpretation, is contaminated. The document replaces the previous guidance given in Annex 3 of DEFRA Circular 01/2006, issued in accordance with section 78YA of the 1990 Environmental Protection Act.

The main objectives of the Part 2A regime are to *"identify and remove unacceptable risks to human health and the environment" and* to *"seek to ensure that contaminated land is made suitable for its current use".*

Part 2A uses a risk based approach to defining contaminated land whereby the "risk" is interpreted as *"the likelihood that harm, or pollution of water, will occur as a result of contaminants in, on or under the land"* and by *"the scale and seriousness of such harm or pollution if it did occur".*

For a relevant risk to exist a contaminant, pathway and receptor linkage must be present before the land can be considered to be contaminated. The document explains that *"for a risk to exist there must be contaminants present in, on or under the land in a form and quantity that poses a hazard, and one or more pathways by which they might significantly harm people, the environment, or property; or significantly pollute controlled waters."*

A conceptual model is used to develop and communicate the risks associated with a particular site.

To determine if land is contaminated the local authority use various categories from 1 to 4. Categories 1 and 2 include *"land which is capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health."*

Categories 3 and 4 *"encompass land which is not capable of being determined on such grounds".*

PRELIMINARY CONCEPTUAL MODEL

Preliminary Conceptual Models are undertaken in accordance with CIRIA C552. The Preliminary Conceptual Model assesses the consequence and the likelihood of a risk being realised to provide a risk classification, using the tables detailed below.

CONSEQUENCE OF RISK BEING REALISED (Based on C552 CIRIA, 2001)

Classification	Definition	Example
Severe	Short-term (acute) risk to human health, the environment, an element of the development or other aspect with is likely to result in *significant harm*, damage or both.	High concentrations of cyanide on the surface of an informal recreational area. Major spills of contaminants from site into controlled water. High concentrations of explosive gas in the subsurface environment that have a clear unobstructed pathway into buildings.
Moderate	Chronic damage to human health, a plausible chance that an event will occur, although the timeline is not immediate to be in the short-term.	Appreciable concentration of contamination that over the longer-term will cause significant harm i.e. high lead concentration in topsoil. Shallow mine workings that are potentially unstable but may remain in a satisfactory or stable conditions for a number of years.
Mild	Low level pollution of non-sensitive water, a feasible hazardous scenario although the timeline of such occurring can probably be considered in 10's of years.	The effect of high sulphate concentrations on structural concrete. Pollution of non-classified groundwater.
Minor	Harm, although not necessarily significant to human health, or with respect to other aspects of the development, which are considered implausible in terms of occurrence, or will have little consequential impact.	The presence of contaminants at such low concentrations that protective equipment is required during site works. Any damage to structures is minimal and will not be structural in characteristics.

PROBABILITY OF RISK BEING REALISED (C552 CIRIA, 2001)

Classification	Definition
High Likelihood	There is a viable pollutant linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence that the receptor has been harmed or polluted.
Likely	There is a viable pollutant linkage and all elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	There is a viable pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Unlikely	There is a viable pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

RISK CLASSIFICATION MATRIX (C552 CIRIA, 2001)

Risk = Probability x Consequence		Consequence			
		Severe	Moderate	Mild	Minor
Probability	High likelihood	Very high risk	High risk	Moderate risk	Moderate/low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low likelihood	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

HUMAN RECEPTORS

Human exposure to contaminants present in soils can occur via several pathways. Direct exposure pathways include dermal absorption after contact with contaminated ground, inhalation of soil or dust, inhalation of volatised compounds, and inadvertent soil ingestion (or deliberate soil ingestion in the case of some children). Other indirect pathways include human ingestion of plants grown in contaminated soil or contaminated ground or surface water. Contaminants associated with wind blown dust can affect humans on surrounding sites.

VEGETATION

Plants can be affected by soil contamination in a number of ways resulting in growth inhibition, nutrient deficiencies and yellowing of leaves. Contaminants are taken up by plants through the roots and through foliage. Contaminants identified as being highly phytotoxic include boron, cadmium, copper, lead, nickel, and zinc.

To establish if the levels of contaminants present on a site may pose a risk to vegetation the results of the contamination testing are compared to a series of threshold values published in 'Code of Good Agricultural Practice for the Protection of Soil'.

GROUNDWATER AND SURFACE WATER RECEPTORS

The principal pathway by which soil contamination may reach the water environment is through a slow seepage or leaching to groundwater or surface water. The potential for contaminants to migrate along such pathways is dependent on the chemical and physical characteristics of the contaminants and the local hydrogeology. Surface watercourses may also accumulate contamination as contaminated sediments are deposited within the water body.

Where the site investigated overlies major/principal aquifers (and in some cases minor/secondary aquifers depending on certain conditions), groundwater Source Protection Zones and areas in close proximity to groundwater abstractions, contamination test results have been compared with the Water Supply (Water Quality) Regulations 1989 and The Water Supply (Water Quality) Regulations 2000.

Should a surface water receptor, such as a fresh water environment (river, canal, stream, lake etc), or marine environment be considered sensitive in relation to a site, then test results are compared with DEFRA & SEPA Environmental Quality Standards (2004). Many of the Environmental Quality Standards are hardness ($CaCO_3$) depended. Where no hardness values are available, Solmek assume conservative values (of between 0 and 50mg/l).

In the absence of vulnerable ground and surface water environments, Solmek may compare any test results with the Environment Agency Leachate Quality Threshold Values.

DETAILED QUANTITATIVE RISK ASSESSMENT (DQRA)

In line with Environment Agency's guidance document Environment Agency *Land Contamination Risk Management*, which replaced the now-withdrawn *Contaminated Land Report 11 – Model Procedures for the Management of Land Contamination (2004)*, a DQRA for groundwater/human health may be required following a Phase 2 investigation and before the preparation of a Phase 3 Remediation Strategy. For human health DQRA, a site specific assessment criteria is undertaken using CLEA Software Version 1.06. For groundwater DQRA, the Environment Agency Remedial Targets Worksheet Version 3.1 is used.

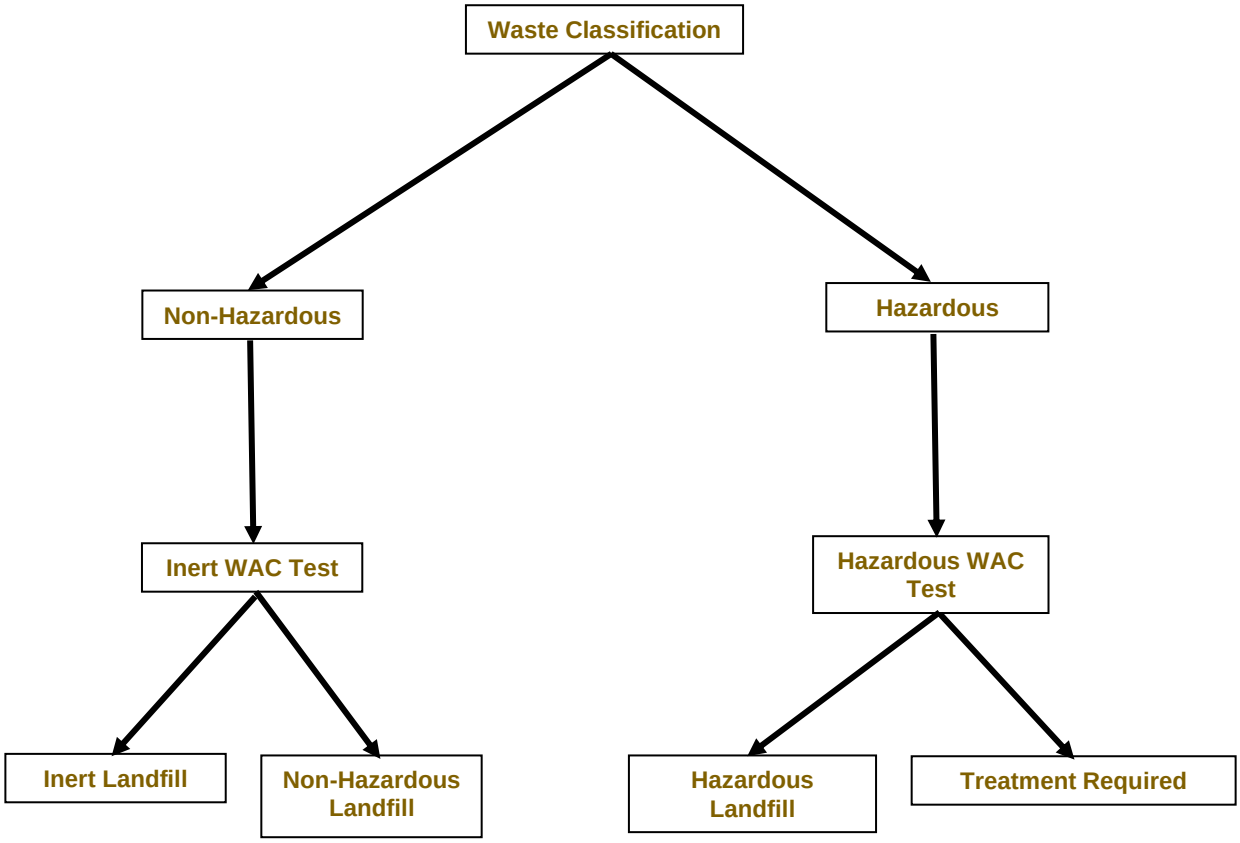
WASTE CLASSIFICATION AND WASTE ACCEPTANCE CRITERIA

During the site strip and construction activities, material may be required to be removed from site. Any such material would require classification, in line with Environment Agency Technical Guidance *Waste Classification: Guidance on the classification and assessment of waste (2015)*. This would classify the material as either Non-Hazardous or Hazardous Waste.

Once the material has been classified, determining the suitable landfill for disposal is governed by landfill directive Waste Acceptance Criteria (WAC) testing, with landfills categorized as Inert Waste, Stable Non-Reactive Hazardous Waste and Hazardous Waste. The WAC testing relates to materials that are to be exported from a site/development to landfill, and do not directly relate to human health specifically. The testing results are generally presented as certificates which can be used by site owners/contractors etc, which should be presented to the accepting waste facility or waste contractor.

If waste classification and/or WAC testing are not undertaken, material taken off site may be subject to WAC testing by the appropriate waste disposal company. The decision on whether or not to accept waste, or whether further testing is required, is at the discretion of the waste disposal company.

The below flow chart provides further information on the waste classification process.



CONSTRUCTION MATERIALS

Materials at risk from possible soil contaminants include inorganic matrices such as cement and concrete and also organic material such as plastics and rubbers. Acid ground conditions and high levels of sulphates can accelerate the corrosion of building materials. Where pH and soluble sulphate analysis has been undertaken, Solmek compare the test results with the guidelines presented within BRE Special Digest 1, 2005 (3rd Edition) 'Concrete in Aggressive Ground'. Plastics and rubbers are generally used for piping and service ducts and are potentially attacked by a range of chemicals, most of which are organic, particularly petroleum based substances. Drinking water supplies can be tainted by substances that can penetrate piping and water companies enforce stringent threshold values.

The levels of potential contaminants should be compared to thresholds supplied in the UK Water Industry Research (UKWIR) publication "Guidance for the selection of Water Supply Pipes to be used in Brownfield Sites" (January 2011). A Brownfield Site is defined in the document as "Land or premises that have not previously been used or developed that may be vacant or derelict". It should be noted that Brownfield sites may not be contaminated. The guidance does not apply to Greenfield Sites however water companies may have their own assessment criteria which should be checked by the developer. The table below outlines the pipe material selection threshold concentrations.

	Pipe Material (Threshold concentrations in mg/kg)					
Parameter group	**PE**	**PVC**	**Barrier pipe (PE-AL-PE)**	**Wrapped Steel**	**Wrapped Ductile Iron**	**Copper**
Extended VOC suite by purge and trap or head space and GC-MS with TIC	0.5	0.125	Pass	Pass	Pass	Pass
+ BTEX + MTBE	0.1	0.03	Pass	Pass	Pass	Pass
SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic C5-C10)	2	1.4	Pass	Pass	Pass	Pass
+ Phenols	2	0.4	Pass	Pass	Pass	Pass
+ Cresols and chlorinated phenols	2	0.04	Pass	Pass	Pass	Pass
Mineral oil C11-C20	10	Pass	Pass	Pass	Pass	Pass
Mineral oil C21-C40	500	Pass	Pass	Pass	Pass	Pass
Corrosive (Conductivity, Redox and pH)	Pass	Pass	Pass	Corrosive if pH <7 and conductivity >400µS/cm	Corrosive if pH <5, Eh not neutral and conductivity >400µS/cm	Corrosive if pH <5 or >8 and Eh positive
Specific suite identified as relevant following site investigation						
Ethers	0.5	1	Pass	Pass	Pass	Pass
Nitrobenzene	0.5	0.4	Pass	Pass	Pass	Pass
Ketones	0.5	0.02	Pass	Pass	Pass	Pass
Aldehydes	0.5	0.02	Pass	Pass	Pass	Pass
Amines	Fail	Pass	Pass	Pass	Pass	Pass

REQUIREMENTS OF PARTIES WITHIN THE DEVELOPMENT PROCESS

Interested parties involved in the development process may use the data in different ways and there may be varying views and interpretation of the factual data. Local Authority staff may have a view on contamination and human health and the wider environment. The Environment Agency are concerned principally with the protection of Controlled waters. Building insurers, funders and purchasers may be primarily concerned with issues of potential commercial blight. Purchasers are also not always fully informed, and perceptions on issues associated with risk can affect the decision to purchase. Developers and construction organisations will focus on financial aspects of dealing with the contamination in the context of the development and construction programme.

RISKS & LIABILITIES FROM CONTAMINATION

In simple terms, risks associated with contamination may be considered in terms of 1) statutory risks and 2) development related risks. If contamination is severe or forms a potential hazard based on its potential to affect groundwater, surface water or human health, a statutory risk may be present, and as such, if the risk is not reduced, criminal proceedings may be instigated by a government body or local authority.

If the contamination is less severe or not considered to be mobile, it may be considered a commercial liability which could, in theory remain untreated, but which may at a later date affect the value of the property, or, with changing legislation, become a statutory risk. Commercial liabilities could give rise to civil proceedings by third parties if there are grounds for action.

♣Solmek conditions of offer, notes on limitations & basis for contract (ref: version1/2024)

These conditions accompany our tender and supercede any previous conditions issued. Solmek will prepare a report solely for the use of the Client (the party invoiced) and its agent(s). No reliance should be placed on the contents of this report, in whole or in part by 3rd parties. The report, its content and format and associated data are copyright, and the property of Solmek. Photocopying of part or all of the contents, transfer or reproduction of any kind is forbidden without written permission from Solmek. A charge may be levied against such approval, the same to be made at the discretion of Solmek.

Solmek cannot be held liable and do not warrant, or otherwise guarantee the validity of information provided by third parties and subsequently used in our reports. Solmek are not responsible for the action negligent of otherwise of subcontractors or third parties.

Site investigation is a process of sampling. The scope and size of an investigation may be considered proportional to levels of confidence regarding the ground and groundwater conditions. The exploratory holes undertaken investigate only a small volume of the ground in relation to the overall size of the site, and can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions as encountered within each of the exploratory holes. There may be different ground conditions elsewhere on the site which have not been identified by this investigation and which therefore have not been taken into account in this report. Reports are generally subject to the comments of the local authority and Environment Agency. The comments made on groundwater conditions are based on observations made at the time that site work was carried out. It should be noted that mobile contamination, ground gas levels and groundwater levels may vary owing to seasonal, tidal and/or weather related effects. Solmek cannot be held liable for any unrecorded or unforeseen obstructions between exploratory boreholes and trial pits. This includes instances where previous structures on the site (buried man made structures) or the presence of boulder clay (cobbles and/or boulder obstructions) have been anticipated. All types of piling operations should make allowance for obstructions within the construction budget to accommodate this. Unrecorded ancient mining may occur anywhere where seams that have been worked and influence the rock and soil above. Dissolution cavities can occur where gypsum or chalk is present. Rotary drilling is the recommended technique to prove the integrity of the rock.

Where the scope of the investigation is limited via access to information, time constraints, equipment limitations, testing, interpretation or by the client or his agents budgetary constraints, elements not set out in the proposal and excluded from the report are deemed to be omitted from the scope of the investigation.

Desk studies are generally prepared in accordance with RICS guidelines. Environmental site investigations are generally undertaken as 'exploratory investigations' in accordance with the definitions provided in paragraph 5.4 of BS 10175:2011 in order to confirm the conceptual assumptions. You are advised to familiarize yourself with the typical scope of such an investigation. No pumping of water will be undertaken unless a licence or facilities/equipment have been arranged by others.

Where the type, number or/and depth of exploratory hole is specified by others, Solmek cannot and will not be responsible for any subsequent shortfall or inadequacy in data, and any consequent shortfall in interpretation of environmental and geotechnical aspects which may be required at a later date in order to facilitate the design of permanent or temporary works.

All information acquired by Solmek in the course of investigation is the property of Solmek, and, only also becomes the joint property of the Client only on the complete settlement of all invoices relating to the project. Solmek reserve the right to use the information in commercial tendering and marketing, unless the Client expressly wishes otherwise in writing. The quoted rates do not include VAT, and payment terms are 30 days from dispatch of invoice from our offices. Quotes are subject to a site visit.

We have allowed for 1 mobilisation and normal working hours unless otherwise stated. The scope of the investigation may be reviewed following the desk study and/or fieldwork. The presence or otherwise of Japanese Knotweed or other invasive plants can be difficult to identify especially during winter months. If Japanese Knotweed or other invasive species are suspect, it should be confirmed by an ecologist. We have not allowed for acquiring services information, and cannot be responsible for damage to underground services or pipes not shown to us or not clearly shown on plans. Costs incurred will be passed on to you, and in commissioning Solmek you understand and accept that you/your agent have a contractual relationship with Solmek & you accept this. Our rates assume unobstructed, reasonably level and firm access to the exploratory positions and adequate clear working areas and headroom. We have priced on the basis that you or your client have the necessary permissions, wayleaves and approvals to access land. All boreholes and pits are backfilled with arisings except where gas monitoring pipes are installed with stopcock covers. Solmek are not responsible for any uneven surfaces as a result of siteworks and rutting and backfilled excavations may require re-levelling and/or making good by others after fieldwork is complete, and Solmek has not allowed for this. No price has been provided or requested for a return visit to remove pipework and covers. Hourly rates apply to consultancy only and do not include expenses unless otherwise shown. If warranties are required, legal costs incurred will be passed on to you assuming Solmek agree to complete such warranties, modified or otherwise and you understand and agree to pay all costs.

We reserve the right to pursue full payment of the invoice prior to release of any information including reports. We advise you/your client that we may elect to pursue our statutory rights under late payment legislation, and will apply 8% to the base rate for unreasonably late payments. Solmek are exempt from the CIS Scheme. Solmek offer to undertake work only in strict accordance with conditions covered by our current insurances, which are available for inspection. Solmek are not responsible for acts, negligent or otherwise of subcontractors and as a matter of policy cannot indemnify any other parties. Professional indemnity Insurance is limited to ten times the invoice net total except where stated otherwise by Solmek. Solmek give notice that consequential loss as a direct or indirect result of Solmek's activities or omission of the same are excluded.

Appendix C. Baseline data: minimum & maximum concentrations

Table C-1 Maximum and Minimum Groundwater Contaminant Concentrations

Constituents	Units	No. of Samples	Minimum	Maximum
Metals				
Aluminium, Dissolved	ug/l	9	< 10	350
Arsenic, Dissolved	ug/l	9	0.46	6.1
Cadmium, Dissolved	ug/l	9	< 0.03	0.11
Chromium, Dissolved	ug/l	9	< 0.25	26
Chromium, Hexavalent	ug/l	9	< 7.0	< 7.0
Copper, Dissolved	ug/l	9	1.2	5
Iron, Dissolved	ug/l	9	6.8	27
Lead, Dissolved	ug/l	9	< 0.09	0.93
Magnesium, Dissolved	mg/l	9	2.1	16
Mercury, Dissolved	ug/l	9	< 0.01	0.23
Molybdenum, Dissolved	ug/l	9	2.5	59
Nickel, Dissolved	ug/l	9	2.2	4.1
Selenium, Dissolved	ug/l	9	0.33	8.4
Tin, Dissolved	ug/l	9	< 0.4	4.8
Vanadium, Dissolved	ug/l	9	< 0.6	5.6
Zinc, Dissolved	ug/l	9	13	200
Inorganics				
pH	pH	9	7.3	9.6
Ammoniacal Nitrogen as NH4	mg/l	9	0.2	1.2
Ammoniacal Nitrogen as NH3	mg/l	9	0.19	1.1
Ammoniacal Nitrogen as N	mg/l	9	0.15	0.94
Nitrite as NO2	mg/l	7	0.11	5.8
Nitrite as N	mg/l	2	< 0.035	< 0.035
Total Organic Carbon	mg/l	9	1.9	300
Petroleum Hydrocarbons				
Aliphatic C5-C6: HS_1D_AL	ug/l	9	< 0.1	< 0.1
Aliphatic C6-C8: HS_1D_AL	ug/l	9	< 0.1	< 0.1

Constituents	Units	No. of Samples	Minimum	Maximum
Aliphatic C8-C10: HS_1D_AL	ug/l	9	< 0.1	< 0.1
Aliphatic C10-C12: EH_CU_1D_AL	ug/l	9	< 1.0	12
Aliphatic C12-C16: EH_CU_1D_AL	ug/l	9	< 1.0	92
Aliphatic C16-C21: EH_CU_1D_AL	ug/l	9	< 1.0	270
Aliphatic C21-C35: EH_CU_1D_AL	ug/l	9	< 1.0	1700
Aliphatic C5-C35: EH_CU+HS_1D_AL	ug/l	9	< 10	2100
Aromatic C5-C7: HS_1D_AR	ug/l	9	< 0.1	< 0.1
Aromatic C7-C8: HS_1D_AR	ug/l	9	< 0.1	< 0.1
Aromatic C8-C10: HS_1D_AR	ug/l	9	< 0.1	< 0.1
Aromatic C10-C12: EH_CU_1D_AR	ug/l	9	< 1.0	100
Aromatic C12-C16: EH_CU_1D_AR	ug/l	9	< 1.0	260
Aromatic C16-C21: EH_CU_1D_AR	ug/l	9	< 1.0	700
Aromatic C21-C35: EH_CU_1D_AR	ug/l	9	< 1.0	2800
Aromatic C5-C35: EH_CU+HS_1D_AR	ug/l	9	< 10	3800
TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total	ug/l	9	< 10	5900
Oils & Fats, Unsaponifiable	ug/l	9	< 1000	80000
Other				
Ethylene Glycol	mg/l	9	< 1.0	< 1.0

Table C-2 Maximum and Minimum Soil Contaminant Concentrations

Constituents	Units	Number of Samples	Minimum	Maximum
Metals				
Aluminium	mg/kg	8	860	8400
Arsenic	mg/kg	12	0.8	8.4
Cadmium	mg/kg	12	< 0.1	1.0
Chromium	mg/kg	12	10	570
Chromium, Hexavalent	mg/kg	9	< 1.0	< 1.0
Copper	mg/kg	12	5.2	190
Iron	mg/kg	12	3100	38000
Lead	mg/kg	12	7.7	130
Mercury	mg/kg	12	< 0.05	0.1
Molybdenum	mg/kg	8	0.5	2.2
Nickel	mg/kg	12	3.5	580
Selenium	mg/kg	12	< 0.5	2.1
Tin	mg/kg	8	< 1.0	3.1
Vanadium	mg/kg	12	4.5	63
Zinc	mg/kg	12	22	280
Inorganics				
pH	pH	12	8	11.8
Organic matter	%	12	0.2	2.5
Ammoniacal Nitrogen as N	mg/kg	12	< 0.5	2.9
Nitrite as NO2	mg/kg	12	< 1.0	2.4
Petroleum Hydrocarbons				
Aliphatic C5-C6: HS_1D_AL	mg/kg	12	0.1	0.09
Aliphatic C6-C8: HS_1D_AL	mg/kg	12	< 0.01	< 0.01
Aliphatic C8-C10: HS_1D_AL	mg/kg	12	< 0.01	< 0.01
Aliphatic C10-C12: EH_CU_1D_AL	mg/kg	12	< 1.5	< 1.5
Aliphatic C12-C16: EH_CU_1D_AL	mg/kg	12	< 1.2	< 1.2
Aliphatic C16-C21: EH_CU_1D_AL	mg/kg	12	< 1.5	< 1.5

Aliphatic C21-C35: EH_CU_1D_AL	mg/kg	12	< 3.4	<3.4
Aliphatic C35-C40: EH_CU_1D_AL	mg/kg	12	< 3.4	<3.4
Aliphatic C5-C40: EH_CU+HS_1D_AL	mg/kg	12	< 10	<10
Aromatic C5-C7: HS_1D_AR	mg/kg	12	< 0.01	< 0.01
Aromatic C7-C8: HS_1D_AR	mg/kg	12	< 0.01	< 0.01
Aromatic C8-C10: HS_1D_AR	mg/kg	12	< 0.01	< 0.01
Aromatic C10-C12: EH_CU_1D_AR	mg/kg	12	< 0.9	< 0.9
Aromatic C12-C16: EH_CU_1D_AR	mg/kg	12	< 0.5	<0.5
Aromatic C16-C21: EH_CU_1D_AR	mg/kg	12	< 0.6	<0.6
Aromatic C21-C35: EH_CU_1D_AR	mg/kg	12	< 1.4	34.0
Aromatic C35-C40: EH_CU_1D_AR	mg/kg	12	< 1.4	<1.4
Aromatic C5-C40: EH_CU+HS_1D_AR	mg/kg	12	< 10	34.0
TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total	mg/kg	12	< 10	34.0
Organics				
DEM (unsaponificated oil and grease)	mg/kg	8	< 50	800
Subcontracted Analysis				
Ethanediol (ethylene glycol)	mg/kg	8	<10.0	<10.0

Appendix D. Drawings

The following Figures are provided in Appendix D:

Figure D-1: Biomethane to Grid Plant Site Layout and Boundary Plan.
Figure D-2: Location of the Biomethane to Grid Plant Boundary Relative to the YWS STF Boundary.
Figure D-3: Indicative Location Plan
Figure D-4: Location of Shared Services.
Figure D-5: Location of Emission and Transfer Points.
Figure D-6: Indicative Drainage Plan.
Figure D-7: Substances Location Plan.

Figure D-1: Biomethane to Grid Plant Site Layout and Boundary Plan

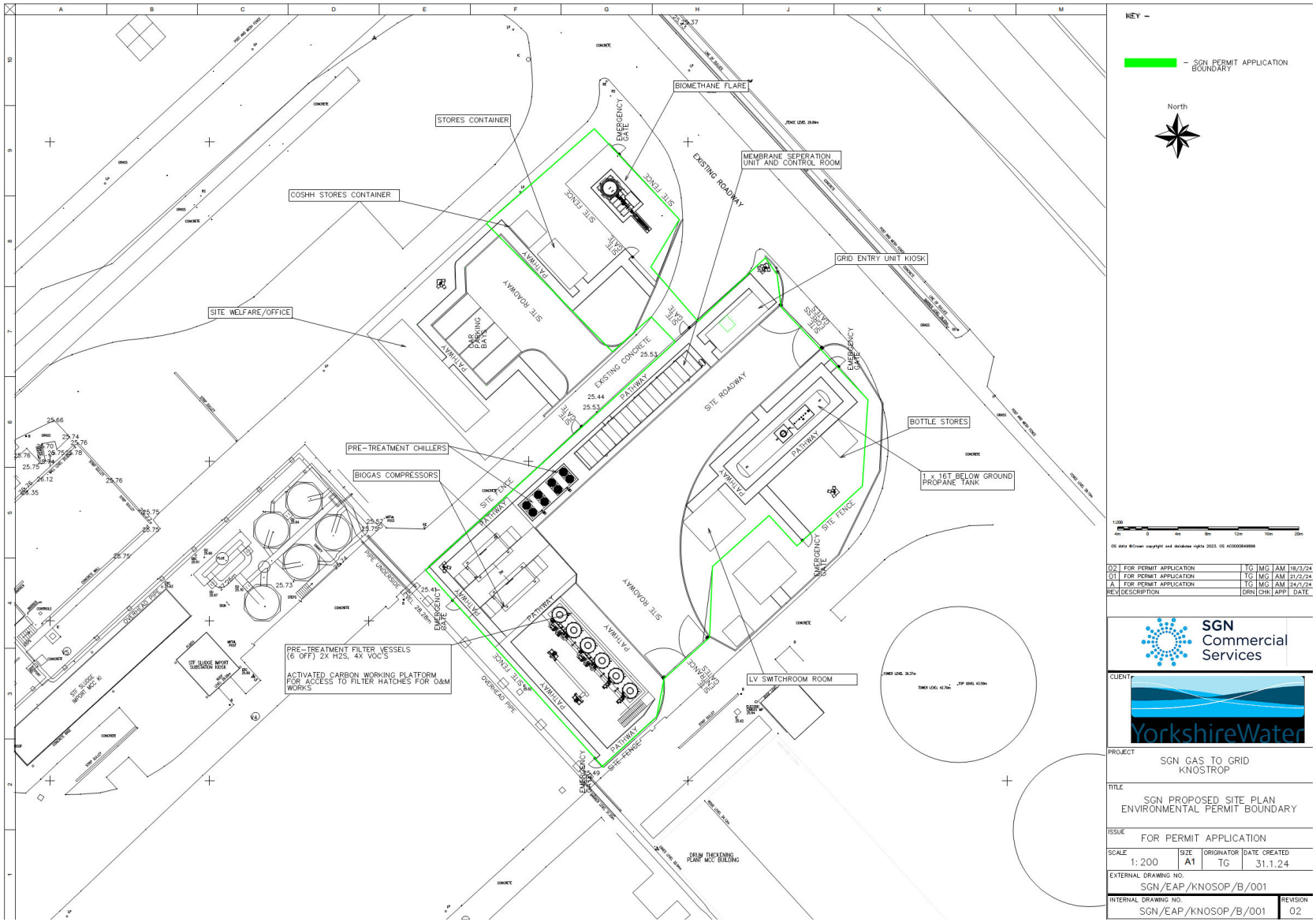


Figure D-2: Location of the BtG Plant Boundary Relative to the YWS STF Boundary

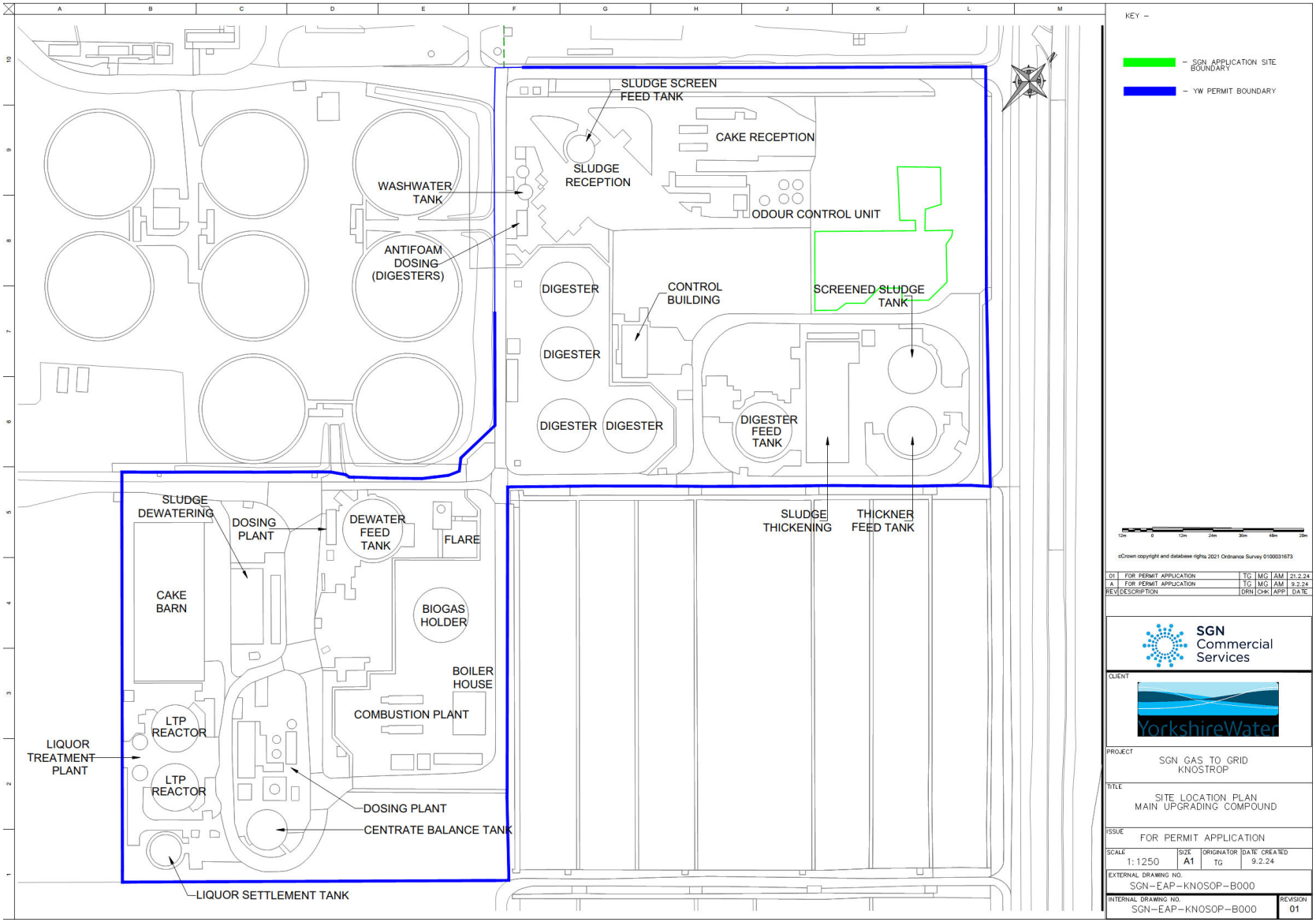


Figure D-3: Indicative Location Plan (Reproduced Courtesy of Yorkshire Water Services)

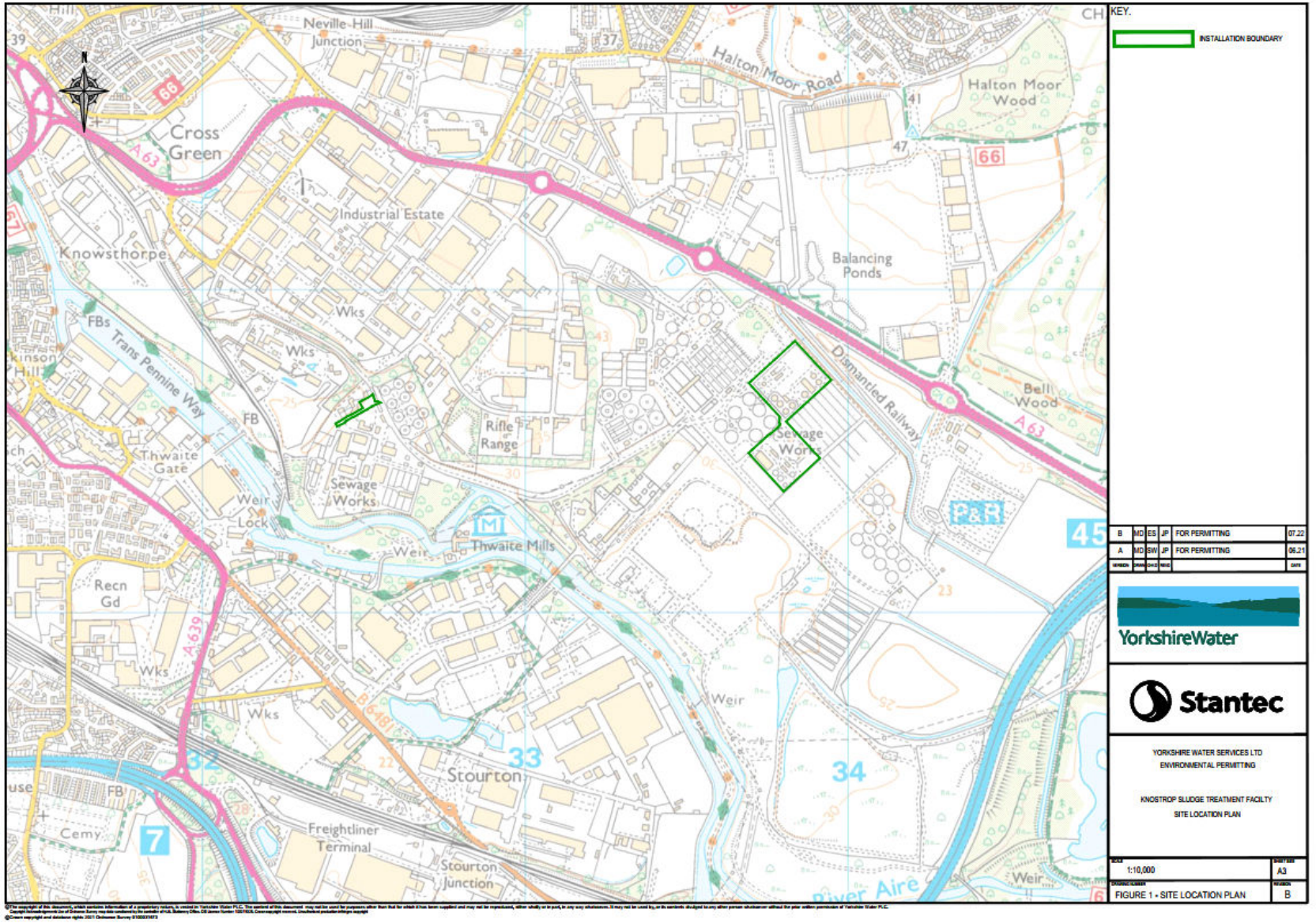


Figure D-4: Location of Shared Services

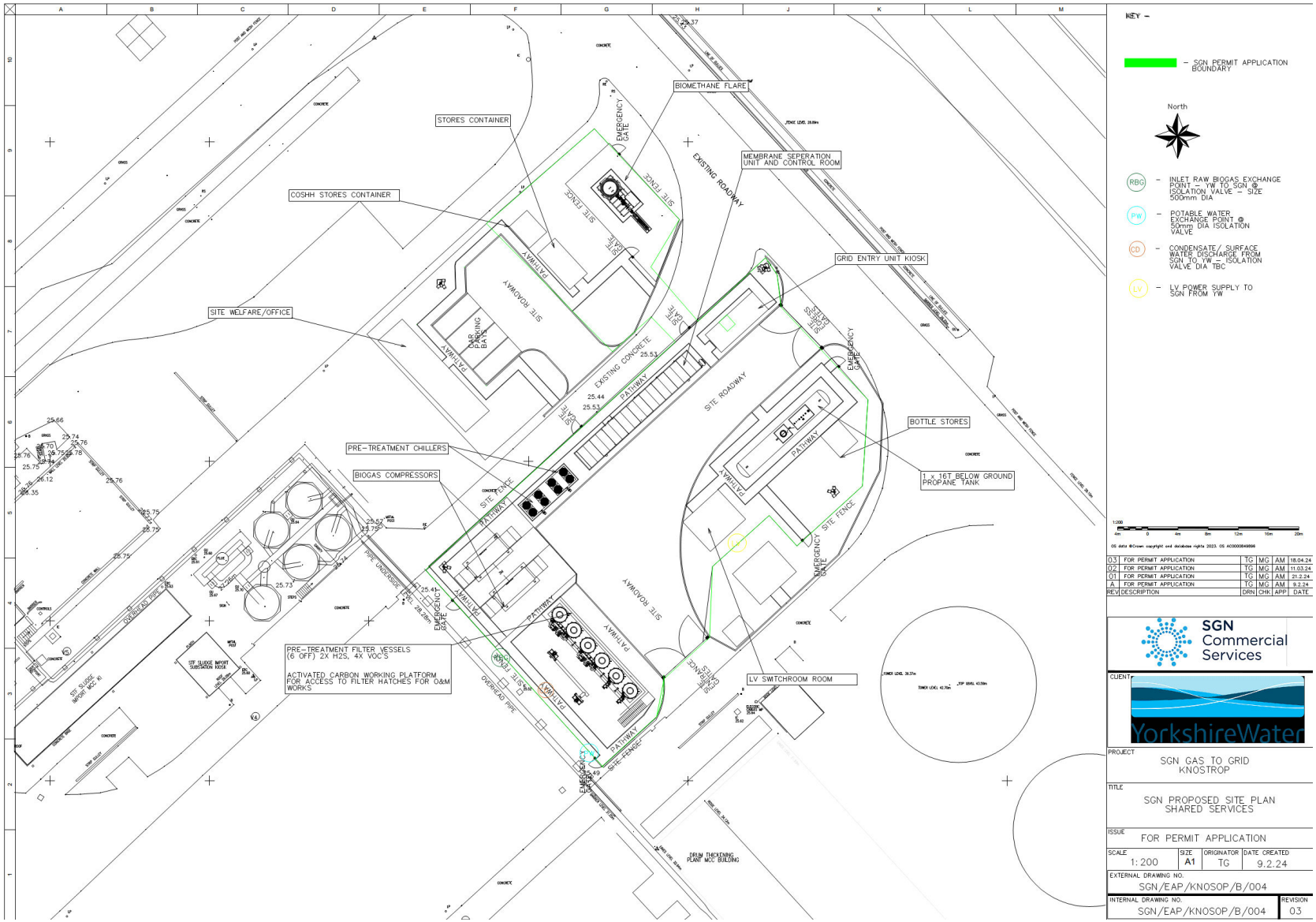


Figure D-5: Location of Emission and Transfer Points

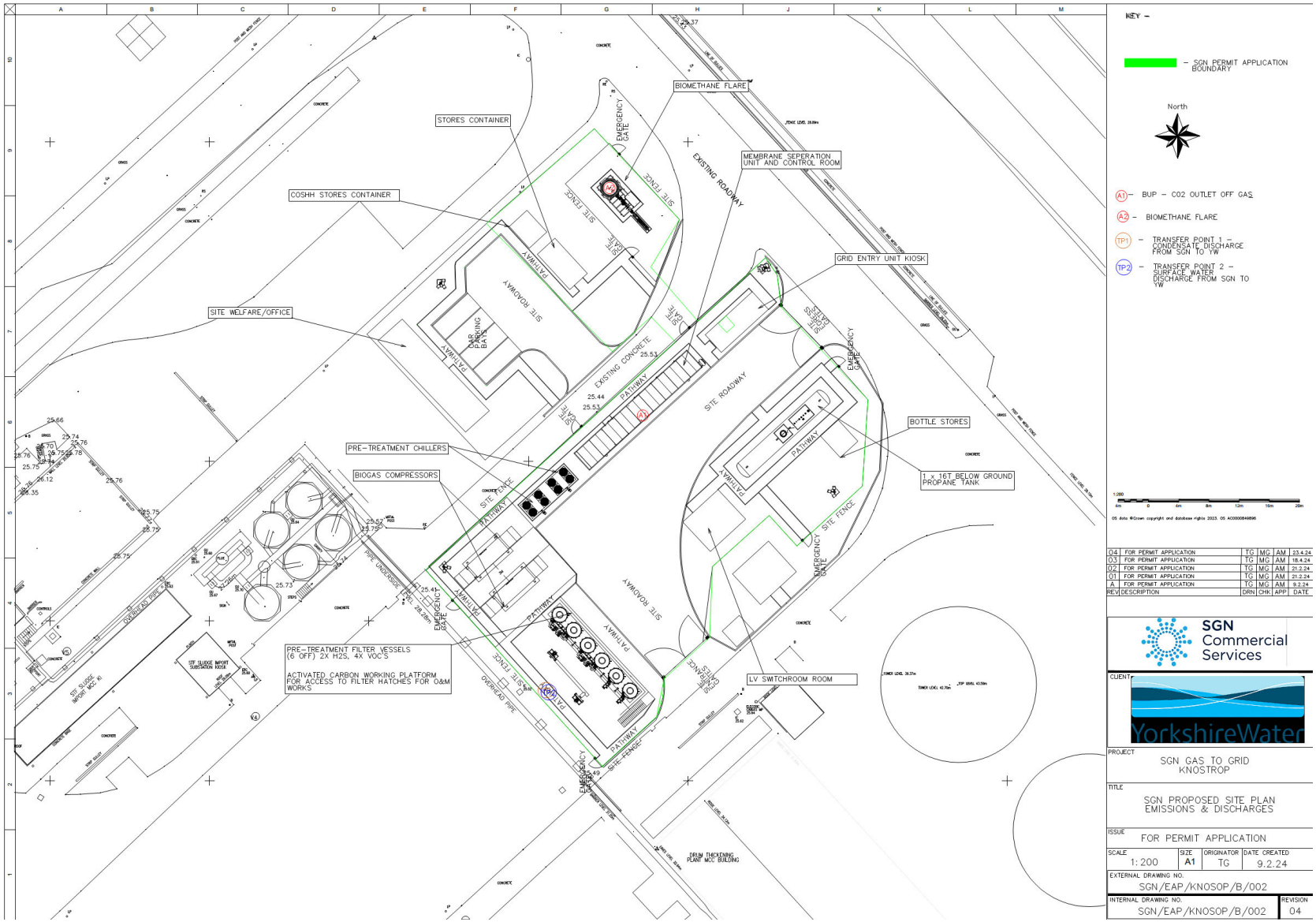


Figure D-6: Indicative Site Drainage Plan

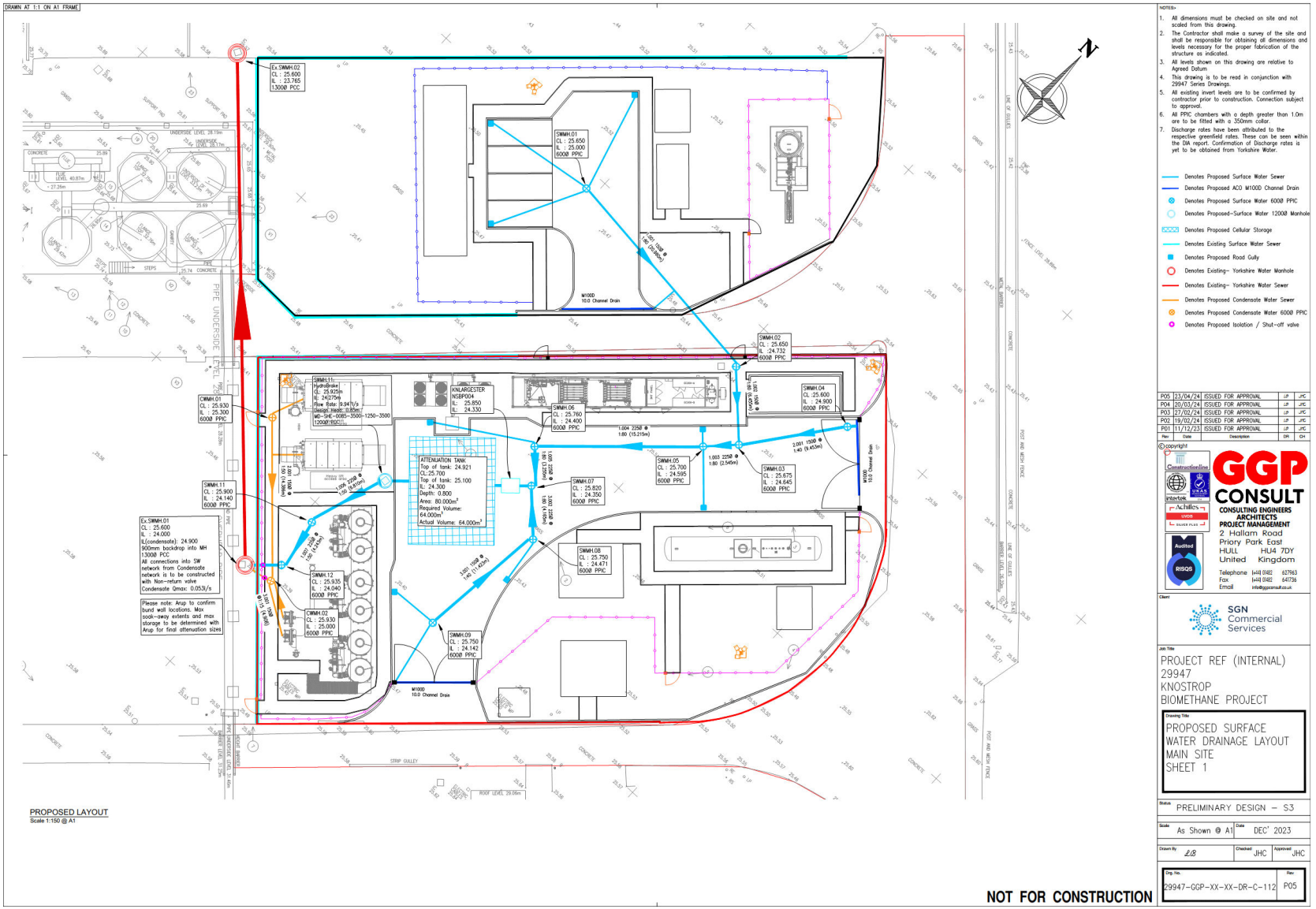
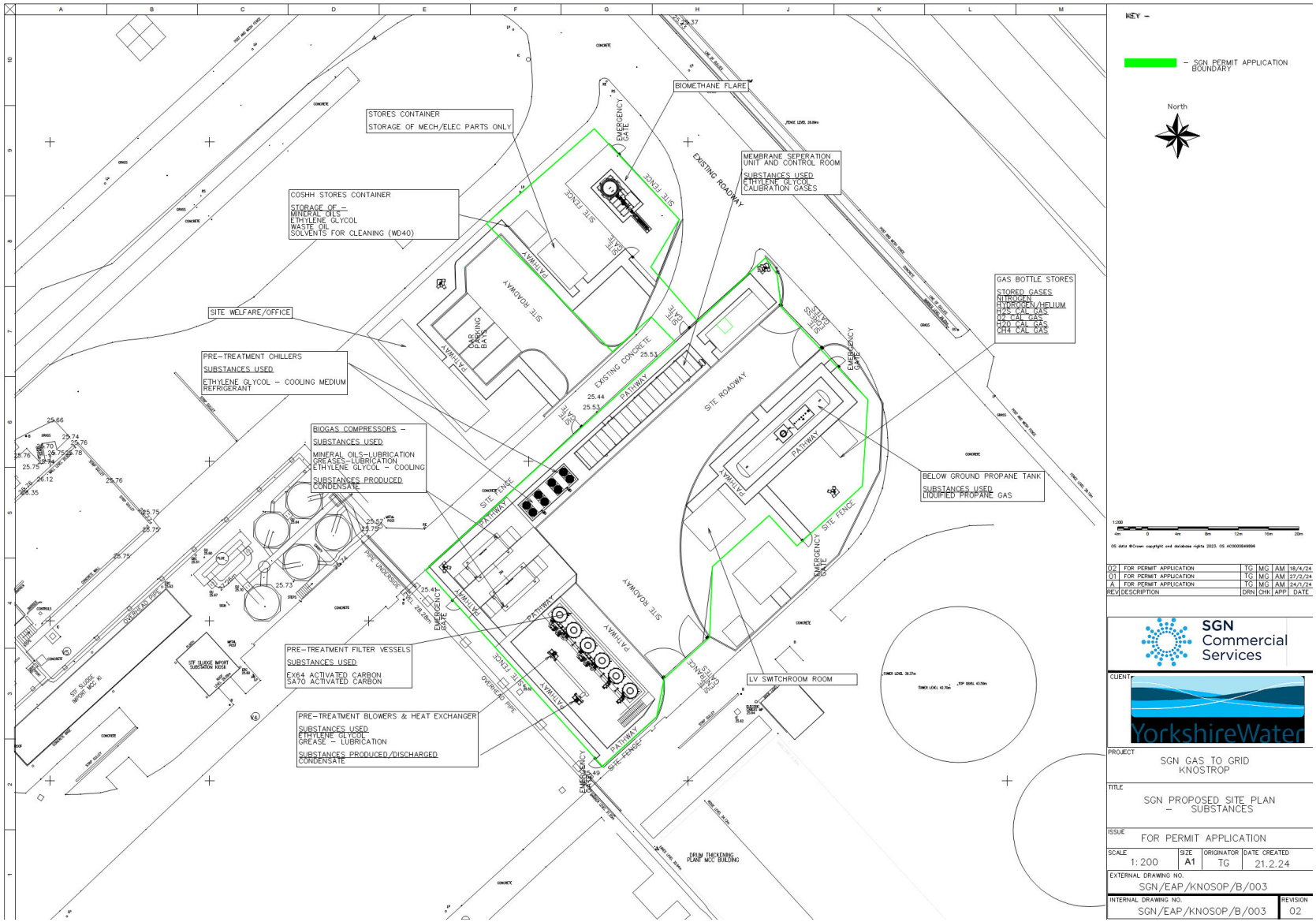


Figure D-7: Substances Location Plan



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