

APPENDIX VI

CHEMICAL TESTING

RESULTS

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Analytical Report Number : 22-14603

Project / Site name:	Standen Central	Samples received on:	21/12/2022
Your job number:	16-499	Samples instructed on/ Analysis started on:	21/12/2022
Your order number:	003769	Analysis completed by:	03/01/2023
Report Issue Number:	1	Report issued on:	03/01/2023
Samples Analysed:	2 leachate samples - 16 soil samples		


Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541708	2541709	2541710	2541711	2541712
Sample Reference				TP101a	SA102/TP102	SA103/TP103	TP104	TP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.25	0.25	0.50
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	11	24	38	47	18
Total mass of sample received	kg	0.001	NONE	0.8	0.4	0.4	0.4	0.4

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	KSZ	N/A	KSZ	KSZ	KSZ

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	7.5	5.8	6	6.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	350	490	1200	1500	440
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.03	0.053	0.02	0.024	0.016
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	60	110	40	47	32
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	30	52.8	20	23.5	16
Sulphide	mg/kg	1	MCERTS	25	1.3	1.2	1.1	< 1.0
Total Sulphur	mg/kg	50	MCERTS	250	340	760	870	190
Organic Matter	%	0.1	MCERTS	-	-	-	11	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.5	1.7	6	-	0.9
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-	-	-	6.5	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	0.51	0.1	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	0.24	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	-	0.1	1.7	0.31	-
Pyrene	mg/kg	0.05	MCERTS	-	0.07	1.3	0.23	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	0.65	0.17	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	0.69	0.12	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	< 0.05	0.69	0.14	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	< 0.05	0.24*	0.11*	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	0.63	0.14	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	0.35	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	0.41	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	< 0.80	7.35	1.32	-
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Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541708	2541709	2541710	2541711	2541712
Sample Reference				TP101a	SA102/TP102	SA103/TP103	TP104	TP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.25	0.25	0.50
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.1	8.2	12	9.9	9.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.9	0.7	0.7	1.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	2.4	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11	24	24	22	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	9.7	18	23	12
Lead (aqua regia extractable)	mg/kg	1	MCERTS	13	29	51	54	43
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	24	27	19	19	29
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	70	100	110	110	110

Petroleum Hydrocarbons

TPH (C5 - C6) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C6 - C8) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	< 1.0	< 1.0	8.6	< 1.0	< 1.0
TPH (C35 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C40 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

VOCs

Chloromethane	µg/kg	5	ISO 17025	< 5.0*	-	-	-	< 5.0
Chloroethane	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
Bromomethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Vinyl Chloride	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
Trichlorofluoromethane	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
1,1-Dichloroethene	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
1,1-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
2,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Trichloromethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,2-Dichloroethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,1-Dichloropropene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Trans-1,2-dichloroethene	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
Tetrachloromethane	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
1,2-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Trichloroethene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Dibromomethane	µg/kg	5	ISO 17025	< 5.0*	-	-	-	< 5.0
Bromodichloromethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	< 5.0*	-	-	-	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,3-Dichloropropane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Dibromochloromethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Tetrachloroethene	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0

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Lab Sample Number				2541708	2541709	2541710	2541711	2541712
Sample Reference				TP101a	SA102/TP102	SA103/TP103	TP104	TP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.25	0.25	0.50
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,2-Dibromoethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Chlorobenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
p & m-Xylene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
Styrene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Tribromomethane	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	-	-	-	< 5.0
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Isopropylbenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Bromobenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
n-Propylbenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
2-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
4-Chlorotoluene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
tert-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
sec-Butylbenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0*	-	-	-	< 5.0
p-Isopropyltoluene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Butylbenzene	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	< 5.0*	-	-	-	< 5.0
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0	-	-	-	< 5.0
Hexachlorobutadiene	µg/kg	5	NONE	< 5.0	-	-	-	< 5.0
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	< 5.0*	-	-	-	< 5.0

SVOCs*

Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Phenol	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Isophorone	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2

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Lab Sample Number				2541708	2541709	2541710	2541711	2541712
Sample Reference				TP101a	SA102/TP102	SA103/TP103	TP104	TP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.25	0.25	0.50
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	NONE	< 0.1	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Fluorene	mg/kg	0.05	NONE	0.05	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	NONE	0.07	-	-	-	< 0.05
Anthracene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Carbazole	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	NONE	< 0.2	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	NONE	0.06	-	-	-	< 0.05
Pyrene	mg/kg	0.05	NONE	0.08	-	-	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	NONE	< 0.3	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	NONE	0.07	-	-	-	< 0.05
Chrysene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	NONE	0.05	-	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	NONE	< 0.05	-	-	-	< 0.05

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541713	2541714	2541715	2541716	2541717
Sample Reference				TP106	WS103	WS104	WS105	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	1.20	0.25	1.00	1.00
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	23	9.3	19	9.2	8.8
Total mass of sample received	kg	0.001	NONE	0.4	0.4	0.4	0.4	0.4

Asbestos in Soil	Type	N/A	ISO 17025	-	-	Not-detected	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	KSZ	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7	8.6	6.9	8	8.6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	350	350	730	410	370
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.012	0.0056	0.014	0.036	0.0069
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	23	11	27	71	14
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	11.7	5.6	13.5	35.7	6.9
Sulphide	mg/kg	1	MCERTS	6.4	22	2.5	43	23
Total Sulphur	mg/kg	50	MCERTS	190	340	400	1100	230
Organic Matter	%	0.1	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.9	0.5	3.7	0.7	0.3
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.2	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.19	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.1	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.11	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.11*	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.14	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	0.92	< 0.80	< 0.80
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Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541713	2541714	2541715	2541716	2541717
Sample Reference				TP106	WS103	WS104	WS105	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	1.20	0.25	1.00	1.00
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	5.9	10	7.4	5.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.1	0.7	0.6	0.6	0.6
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	27	10	16	12	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	11	17	12	9.5
Lead (aqua regia extractable)	mg/kg	1	MCERTS	30	13	48	13	13
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	43	22	16	24	24
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	76	88	74	72

Petroleum Hydrocarbons

TPH (C5 - C6) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C6 - C8) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	5.9	< 2.0
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	11	< 4.0
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	12	< 1.0
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	12	< 1.0
TPH (C35 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C40 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	< 10	< 10	< 10	42	< 10

VOCs

Chloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromomethane	µg/kg	5	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Trichloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	5	NONE	-	-	-	-	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Trichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
Dibromomethane	µg/kg	5	ISO 17025	-	-	-	-	-
Bromodichloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-	-	-	-

Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541713	2541714	2541715	2541716	2541717
Sample Reference				TP106	WS103	WS104	WS105	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	1.20	0.25	1.00	1.00
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
Styrene	µg/kg	5	ISO 17025	-	-	-	-	-
Tribromomethane	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Bromobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
n-Propylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-

SVOCs*

Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	NONE	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	NONE	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	NONE	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	NONE	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	NONE	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	NONE	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	NONE	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	NONE	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	NONE	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	NONE	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Naphthalene	mg/kg	0.05	NONE	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	NONE	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	NONE	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	-	-	-

Analytical Report Number: 22-14603
 Project / Site name: Standen Central
 Your Order No: 003769

Lab Sample Number				2541713	2541714	2541715	2541716	2541717
Sample Reference				TP106	WS103	WS104	WS105	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	1.20	0.25	1.00	1.00
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	NONE	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	NONE	-	-	-	-	-
Acenaphthene	mg/kg	0.05	NONE	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	NONE	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	-	-	-
Fluorene	mg/kg	0.05	NONE	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Phenanthrene	mg/kg	0.05	NONE	-	-	-	-	-
Anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Carbazole	mg/kg	0.3	NONE	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Chrysene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	-	-	-

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541718	2541719	2541720	2541721	2541722
Sample Reference				TP110	TP111	TP112	TP113	WS102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.80	0.20	0.50	0.20	1.40
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	32	34	19	38	9.6
Total mass of sample received	kg	0.001	NONE	0.4	0.4	0.4	0.4	0.4

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	Not-detected	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	KSZ	N/A	KSZ	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.1	6.3	7.4	6.3	8.5
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	870	1100	380	1200	390
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.022	0.017	0.0083	0.019	0.011
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	45	33	17	38	23
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	22.3	16.6	8.3	19	11.3
Sulphide	mg/kg	1	MCERTS	< 1.0	5.8	< 1.0	1.9	25
Total Sulphur	mg/kg	50	MCERTS	490	510	230	600	510
Organic Matter	%	0.1	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	2.1	5	1.1	5.3	0.6
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.08	< 0.05	0.07	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.18	< 0.05	0.19	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.17	< 0.05	0.18	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.08	< 0.05	0.06	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.06	< 0.05	0.06	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	0.11	< 0.05	0.11	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.1	< 0.05	0.08	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80
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Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541718	2541719	2541720	2541721	2541722
Sample Reference				TP110	TP111	TP112	TP113	WS102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.80	0.20	0.50	0.20	1.40
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	10	9	7.2	8.8	4.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1	0.6	0.7	0.5	0.6
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	3	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	39	19	21	22	8.8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	15	7.4	18	9
Lead (aqua regia extractable)	mg/kg	1	MCERTS	31	47	27	47	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	15	21	15	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	130	93	82	80	77

Petroleum Hydrocarbons

TPH (C5 - C6) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C6 - C8) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	< 1.0	1.1	< 1.0	< 1.0	< 1.0
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	< 1.0	8.6	< 1.0	7.9	< 1.0
TPH (C35 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C40 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

VOCs

Chloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	5	NONE	-	-	-	-	-
Bromomethane	µg/kg	5	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	5	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	5	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-	-	-	-	-
1,1-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
2,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Trichloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,1-Dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-	-	-	-	-
Benzene	µg/kg	5	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	5	NONE	-	-	-	-	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Trichloroethene	µg/kg	5	ISO 17025	-	-	-	-	-
Dibromomethane	µg/kg	5	ISO 17025	-	-	-	-	-
Bromodichloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-	-	-	-	-
Toluene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	5	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	5	NONE	-	-	-	-	-

Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541718	2541719	2541720	2541721	2541722
Sample Reference				TP110	TP111	TP112	TP113	WS102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.80	0.20	0.50	0.20	1.40
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
1,2-Dibromoethane	µg/kg	5	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
Styrene	µg/kg	5	ISO 17025	-	-	-	-	-
Tribromomethane	µg/kg	5	NONE	-	-	-	-	-
o-Xylene	µg/kg	5	MCERTS	-	-	-	-	-
1,1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	-	-	-	-	-
Isopropylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Bromobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
n-Propylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Butylbenzene	µg/kg	5	NONE	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-
Hexachlorobutadiene	µg/kg	5	NONE	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-	-	-	-	-

SVOCs*

Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	NONE	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	NONE	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	NONE	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	NONE	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	NONE	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	NONE	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	NONE	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	NONE	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	NONE	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	NONE	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	NONE	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Naphthalene	mg/kg	0.05	NONE	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	NONE	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	NONE	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-	-	-	-	-

Analytical Report Number: 22-14603
 Project / Site name: Standen Central
 Your Order No: 003769

Lab Sample Number				2541718	2541719	2541720	2541721	2541722
Sample Reference				TP110	TP111	TP112	TP113	WS102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.80	0.20	0.50	0.20	1.40
Date Sampled				21/12/2022	21/12/2022	21/12/2022	21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	NONE	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	NONE	-	-	-	-	-
Acenaphthene	mg/kg	0.05	NONE	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	NONE	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-	-	-	-
Fluorene	mg/kg	0.05	NONE	-	-	-	-	-
Azobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	NONE	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	NONE	-	-	-	-	-
Phenanthrene	mg/kg	0.05	NONE	-	-	-	-	-
Anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Carbazole	mg/kg	0.3	NONE	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-	-	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-	-	-	-
Fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Chrysene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-	-	-	-

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

Analytical Report Number: 22-14603
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2541723
Sample Reference				WS106
Sample Number				None Supplied
Depth (m)				2.00
Date Sampled				21/12/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	9.6
Total mass of sample received	kg	0.001	NONE	0.4

Asbestos in Soil	Type	N/A	ISO 17025	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5
Total Cyanide	mg/kg	1	MCERTS	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	360
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.028
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	56
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	27.9
Sulphide	mg/kg	1	MCERTS	100
Total Sulphur	mg/kg	50	MCERTS	3000
Organic Matter	%	0.1	MCERTS	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.8
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.16
Anthracene	mg/kg	0.05	MCERTS	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.16
Pyrene	mg/kg	0.05	MCERTS	0.15
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.05
Chrysene	mg/kg	0.05	MCERTS	0.19
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80
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Analytical Report Number: 22-14603
 Project / Site name: Standen Central
 Your Order No: 003769

Lab Sample Number				2541723
Sample Reference				WS106
Sample Number				None Supplied
Depth (m)				2.00
Date Sampled				21/12/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	4.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	9
Copper (aqua regia extractable)	mg/kg	1	MCERTS	9.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	50

Petroleum Hydrocarbons

TPH (C5 - C6) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0
TPH (C6 - C8) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	< 2.0
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	4.1
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	4.1
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	2.4
TPH (C35 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	< 10
TPH Total C5 - C40 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	11

VOCs

Chloromethane	µg/kg	5	ISO 17025	-
Chloroethane	µg/kg	5	NONE	-
Bromomethane	µg/kg	5	ISO 17025	-
Vinyl Chloride	µg/kg	5	NONE	-
Trichlorofluoromethane	µg/kg	5	NONE	-
1,1-Dichloroethene	µg/kg	5	NONE	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	5	NONE	-
Cis-1,2-dichloroethene	µg/kg	5	ISO 17025	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-
1,1-Dichloroethane	µg/kg	5	ISO 17025	-
2,2-Dichloropropane	µg/kg	5	ISO 17025	-
Trichloromethane	µg/kg	5	ISO 17025	-
1,1,1-Trichloroethane	µg/kg	5	ISO 17025	-
1,2-Dichloroethane	µg/kg	5	ISO 17025	-
1,1-Dichloropropene	µg/kg	5	ISO 17025	-
Trans-1,2-dichloroethene	µg/kg	5	NONE	-
Benzene	µg/kg	5	MCERTS	-
Tetrachloromethane	µg/kg	5	NONE	-
1,2-Dichloropropane	µg/kg	5	ISO 17025	-
Trichloroethene	µg/kg	5	ISO 17025	-
Dibromomethane	µg/kg	5	ISO 17025	-
Bromodichloromethane	µg/kg	5	ISO 17025	-
Cis-1,3-dichloropropene	µg/kg	5	ISO 17025	-
Trans-1,3-dichloropropene	µg/kg	5	ISO 17025	-
Toluene	µg/kg	5	MCERTS	-
1,1,2-Trichloroethane	µg/kg	5	ISO 17025	-
1,3-Dichloropropane	µg/kg	5	ISO 17025	-
Dibromochloromethane	µg/kg	5	ISO 17025	-
Tetrachloroethene	µg/kg	5	NONE	-

Analytical Report Number: 22-14603
 Project / Site name: Standen Central
 Your Order No: 003769

Lab Sample Number				2541723
Sample Reference				WS106
Sample Number				None Supplied
Depth (m)				2.00
Date Sampled				21/12/2022
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	
1,2-Dibromoethane	µg/kg	5	ISO 17025	-
Chlorobenzene	µg/kg	5	ISO 17025	-
1,1,1,2-Tetrachloroethane	µg/kg	5	ISO 17025	-
Ethylbenzene	µg/kg	5	MCERTS	-
p & m-Xylene	µg/kg	5	MCERTS	-
Styrene	µg/kg	5	ISO 17025	-
Tribromomethane	µg/kg	5	NONE	-
o-Xylene	µg/kg	5	MCERTS	-
1,1,2,2-Tetrachloroethane	µg/kg	5	ISO 17025	-
Isopropylbenzene	µg/kg	5	ISO 17025	-
Bromobenzene	µg/kg	5	ISO 17025	-
n-Propylbenzene	µg/kg	5	ISO 17025	-
2-Chlorotoluene	µg/kg	5	ISO 17025	-
4-Chlorotoluene	µg/kg	5	ISO 17025	-
1,3,5-Trimethylbenzene	µg/kg	5	ISO 17025	-
tert-Butylbenzene	µg/kg	5	ISO 17025	-
1,2,4-Trimethylbenzene	µg/kg	5	ISO 17025	-
sec-Butylbenzene	µg/kg	5	ISO 17025	-
1,3-Dichlorobenzene	µg/kg	5	ISO 17025	-
p-Isopropyltoluene	µg/kg	5	ISO 17025	-
1,2-Dichlorobenzene	µg/kg	5	ISO 17025	-
1,4-Dichlorobenzene	µg/kg	5	ISO 17025	-
Butylbenzene	µg/kg	5	NONE	-
1,2-Dibromo-3-chloropropane	µg/kg	5	ISO 17025	-
1,2,4-Trichlorobenzene	µg/kg	5	ISO 17025	-
Hexachlorobutadiene	µg/kg	5	NONE	-
1,2,3-Trichlorobenzene	µg/kg	5	ISO 17025	-

SVOCs*

Aniline	mg/kg	0.1	NONE	-
Phenol	mg/kg	0.2	NONE	-
2-Chlorophenol	mg/kg	0.1	NONE	-
Bis(2-chloroethyl)ether	mg/kg	0.2	NONE	-
1,3-Dichlorobenzene	mg/kg	0.2	NONE	-
1,2-Dichlorobenzene	mg/kg	0.1	NONE	-
1,4-Dichlorobenzene	mg/kg	0.2	NONE	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	NONE	-
2-Methylphenol	mg/kg	0.3	NONE	-
Hexachloroethane	mg/kg	0.05	NONE	-
Nitrobenzene	mg/kg	0.3	NONE	-
4-Methylphenol	mg/kg	0.2	NONE	-
Isophorone	mg/kg	0.2	NONE	-
2-Nitrophenol	mg/kg	0.3	NONE	-
2,4-Dimethylphenol	mg/kg	0.3	NONE	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	NONE	-
1,2,4-Trichlorobenzene	mg/kg	0.3	NONE	-
Naphthalene	mg/kg	0.05	NONE	-
2,4-Dichlorophenol	mg/kg	0.3	NONE	-
4-Chloroaniline	mg/kg	0.1	NONE	-
Hexachlorobutadiene	mg/kg	0.1	NONE	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-
2,4,6-Trichlorophenol	mg/kg	0.1	NONE	-
2,4,5-Trichlorophenol	mg/kg	0.2	NONE	-

Analytical Report Number: 22-14603
 Project / Site name: Standen Central
 Your Order No: 003769

Lab Sample Number					2541723
Sample Reference					WS106
Sample Number					None Supplied
Depth (m)					2.00
Date Sampled					21/12/2022
Time Taken					None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-
2-Chloronaphthalene	mg/kg	0.1	NONE	-	-
Dimethylphthalate	mg/kg	0.1	NONE	-	-
2,6-Dinitrotoluene	mg/kg	0.1	NONE	-	-
Acenaphthylene	mg/kg	0.05	NONE	-	-
Acenaphthene	mg/kg	0.05	NONE	-	-
2,4-Dinitrotoluene	mg/kg	0.2	NONE	-	-
Dibenzofuran	mg/kg	0.2	NONE	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	NONE	-	-
Diethyl phthalate	mg/kg	0.2	NONE	-	-
4-Nitroaniline	mg/kg	0.2	NONE	-	-
Fluorene	mg/kg	0.05	NONE	-	-
Azobenzene	mg/kg	0.3	NONE	-	-
Bromophenyl phenyl ether	mg/kg	0.2	NONE	-	-
Hexachlorobenzene	mg/kg	0.3	NONE	-	-
Phenanthrene	mg/kg	0.05	NONE	-	-
Anthracene	mg/kg	0.05	NONE	-	-
Carbazole	mg/kg	0.3	NONE	-	-
Dibutyl phthalate	mg/kg	0.2	NONE	-	-
Anthraquinone	mg/kg	0.3	NONE	-	-
Fluoranthene	mg/kg	0.05	NONE	-	-
Pyrene	mg/kg	0.05	NONE	-	-
Butyl benzyl phthalate	mg/kg	0.3	NONE	-	-
Benzo(a)anthracene	mg/kg	0.05	NONE	-	-
Chrysene	mg/kg	0.05	NONE	-	-
Benzo(b)fluoranthene	mg/kg	0.05	NONE	-	-
Benzo(k)fluoranthene	mg/kg	0.05	NONE	-	-
Benzo(a)pyrene	mg/kg	0.05	NONE	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	-	-
Benzo(ghi)perylene	mg/kg	0.05	NONE	-	-

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.



4041



Analytical Report Number: 22-14603
Project / Site name: Standen Central

Your Order No: 003769

Lab Sample Number	2541724	2541725
Sample Reference	TP101a	TP105
Sample Number	None Supplied	None Supplied
Depth (m)	1.00	0.50
Date Sampled	21/12/2022	21/12/2022
Time Taken	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection Accreditation Status

General Inorganics

pH (automated)	pH Units	N/A	ISO 17025	8.1	7.8
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0	< 1.0

Total Phenols

Total Phenols (monohydric)	µg/l	1	ISO 17025	2.5	1.8
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	1	ISO 17025	1.6	1.1
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	1.2	6.5
Copper (dissolved)	µg/l	0.7	ISO 17025	3	12
Lead (dissolved)	µg/l	1	ISO 17025	1.3	5.4
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	1.2	7
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	2.2	35

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10



4041



Analytical Report Number: 22-14603

Project / Site name: Standen Central

Your Order No: 003769

Lab Sample Number				2541724	2541725
Sample Reference				TP101a	TP105
Sample Number				None Supplied	None Supplied
Depth (m)				1.00	0.50
Date Sampled				21/12/2022	21/12/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status		

Petroleum Hydrocarbons

TPH1 (C10 - C40) EH_ID_TOTAL_MS	µg/l	10	NONE	< 10	< 10
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TPH-CWG - Aliphatic >C5 - C6 HS_ID_AL	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 HS_ID_AL	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 HS_ID_AL	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 EH_ID_AL_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 EH_ID_AL_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 EH_ID_AL_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 EH_ID_AL_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) HS+EH_ID_AL_MS	µg/l	10	NONE	< 10	< 10

TPH-CWG - Aromatic >C5 - C7 HS_ID_AR	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 HS_ID_AR	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 HS_ID_AR	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 EH_ID_AR_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 EH_ID_AR_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 EH_ID_AR_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 EH_ID_AR_MS	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) HS+EH_ID_AR_MS	µg/l	10	NONE	< 10	< 10

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

Analytical Report Number : 22-14603

Project / Site name: Standen Central

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2541708	TP101a	None Supplied	1	Brown clay and sand with gravel.
2541709	SA102/TP102	None Supplied	0.8	Brown clay and sand with gravel and vegetation.
2541710	SA103/TP103	None Supplied	0.25	Brown clay and loam with gravel and vegetation.
2541711	TP104	None Supplied	0.25	Brown clay and loam with gravel and vegetation.
2541712	TP105	None Supplied	0.5	Brown clay and loam with gravel and vegetation.
2541713	TP106	None Supplied	0.4	Brown loam and clay with gravel and vegetation.
2541714	WS103	None Supplied	1.2	Brown clay and loam with gravel and vegetation.
2541715	WS104	None Supplied	0.25	Brown clay and loam with gravel and vegetation.
2541716	WS105	None Supplied	1	Brown clay and sand with gravel.
2541717	TP107	None Supplied	1	Brown clay and sand with gravel.
2541718	TP110	None Supplied	1.8	Brown clay and sand with gravel and vegetation.
2541719	TP111	None Supplied	0.2	Brown clay and loam with gravel and vegetation.
2541720	TP112	None Supplied	0.5	Brown clay and sand with gravel and vegetation.
2541721	TP113	None Supplied	0.2	Brown clay and sand with gravel and vegetation.
2541722	WS102	None Supplied	1.4	Brown clay and sand with gravel and vegetation.
2541723	WS106	None Supplied	2	Brown clay and sand with gravel.

Analytical Report Number : 22-14603

Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
BS EN 12457-1 (2:1) Leachate Prep	2:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-1.	L043-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in leachate - LOW LEVEL 1 ug/l	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L023-PL	D	MCERTS
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
pH at 20oC in leachate (automated)	Determination of pH in leachate by electrometric measurement.	In house method.	L099B	W	ISO 17025
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE

Analytical Report Number : 22-14603

Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
TPH1 (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE
TPHCWG (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	ISO 17025
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L0738-PL	W	MCERTS
BTEX and MTBE in leachates (Monoaromatics)	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L0738-PL	W	ISO 17025
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L023-PL	D	MCERTS
Total cyanide in leachate - 1µg/l	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Sulphate, water soluble, in soil (1hr extraction)	Sulphate, water soluble, in soil (1hr extraction)	In-house method	L038-PL	D	MCERTS

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

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

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

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 300C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

Analytical Report Number : 22-14603
Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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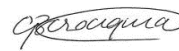
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Analytical Report Number : 23-13947

Project / Site name:	Standen Central	Samples received on:	23/01/2023
Your job number:	16-499	Samples instructed on/ Analysis started on:	26/01/2023
Your order number:	003769	Analysis completed by:	06/02/2023
Report Issue Number:	1	Report issued on:	06/02/2023
Samples Analysed:	5 soil samples		

Signed:



Claire Brown-Crociquia
Group Customer Services Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-13947
Project / Site name: Standen Central
Your Order No: 003769

Lab Sample Number				2565306	2565307	2565308	2565309	2565310
Sample Reference				HP101	HP102	HP103	HP104	HP105
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				20/01/2023	20/01/2023	20/01/2023	20/01/2023	20/01/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	31	32	33	36	32
Total mass of sample received	kg	0.001	NONE	0.2	0.2	0.2	0.2	0.2

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO	DSO	DSO	DSO

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.0	7.1	6.9	6.5	6.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	1200	1500	970	990	840
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.03	0.058	0.025	0.019	0.024
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	59	110	49	37	48
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	29.7	57.5	24.6	18.5	23.8
Sulphide	mg/kg	1	MCERTS	4.5	9.1	1.8	2.7	2
Total Sulphur	mg/kg	50	MCERTS	570	730	580	550	640
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	6.2	7	5.8	4.9	5.8

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.1	0.17	0.15	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.08	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.17	0.41	0.16	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.17	0.4	0.18	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.1	0.21	0.09	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.12	0.24	0.11	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.12	0.31	0.1	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.07	0.15	0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.11	0.25	0.11	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	0.96	2.22	0.95	< 0.80	< 0.80
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Analytical Report Number: 23-13947
 Project / Site name: Standen Central
 Your Order No: 003769

Lab Sample Number	2565306	2565307	2565308	2565309	2565310
Sample Reference	HP101	HP102	HP103	HP104	HP105
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	20/01/2023	20/01/2023	20/01/2023	20/01/2023	20/01/2023
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

	mg/kg	1	MCERTS	7	6.7	9.1	12	9.2
Arsenic (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	0.6	0.6	0.7	0.7
Cadmium (aqua regia extractable)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (hexavalent)	mg/kg	1	MCERTS	15	13	18	23	21
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	26	26	28	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	34	51	45	53	45
Lead (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Mercury (aqua regia extractable)	mg/kg	1	MCERTS	15	14	18	21	20
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	1.3	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	81	89	99	110	110
Zinc (aqua regia extractable)	mg/kg	1	MCERTS					

Petroleum Hydrocarbons

TPH (C5 - C6) HS_ID_TOTAL	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C6 - C8) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C8 - C10) HS_ID_TOTAL	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12) EH_CU_ID_TOTAL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16) EH_CU_ID_TOTAL	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	3.1	< 1.0	< 1.0	< 1.0	< 1.0
TPH (C21 - C35) EH_CU_ID_TOTAL	mg/kg	1	MCERTS	16	9.4	5.8	< 1.0	< 1.0
TPH (C35 - C40) EH_CU_ID_TOTAL	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH Total C5 - C40 EH_CU+HS_ID_TOTAL	mg/kg	10	NONE	19	< 10	< 10	< 10	< 10

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

Analytical Report Number : 23-13947

Project / Site name: Standen Central

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2565306	HP101	None Supplied	None Supplied	Brown clay and sand with gravel.
2565307	HP102	None Supplied	None Supplied	Brown loam and clay with vegetation.
2565308	HP103	None Supplied	None Supplied	Brown loam and clay with vegetation.
2565309	HP104	None Supplied	None Supplied	Brown loam and clay with vegetation.
2565310	HP105	None Supplied	None Supplied	Brown loam and clay with vegetation.

Analytical Report Number : 23-13947

Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Sulphate, water soluble, in soil (1hr extraction)	Sulphate, water soluble, in soil (1hr extraction)	In-house method	L038-PL	D	MCERTS

Analytical Report Number : 23-13947
Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

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

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

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



4041



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Analytical Report Number : 23-10801

Project / Site name:	Standen Central	Samples received on:	09/01/2023
Your job number:	16499	Samples instructed on/ Analysis started on:	09/01/2023
Your order number:	003840	Analysis completed by:	16/01/2023
Report Issue Number:	1	Report issued on:	16/01/2023
Samples Analysed:	5 water samples		


Signed:

Adam Fenwick
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.



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Analytical Report Number: 23-10801

Project / Site name: Standen Central

Your Order No: 003840

Lab Sample Number				2548452	2548453	2548454	2548455	2548456
Sample Reference				WS102	WS103	WS105	WS106	Drainage Ditch
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/01/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)				Units	Limit of detection	Accreditation Status		

General Inorganics

pH	pH Units	N/A	ISO 17025	7.4	7.5	7.3	7.4	8.1
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	1.8
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	3.44	3.41	3.11	4.8	6.26

Total Phenols

Total Phenols (monohydric)	µg/l	1	ISO 17025	1.5	< 1.0	1.2	1.3	1
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Heavy Metals / Metalloids

Calcium (dissolved)	mg/l	0.012	ISO 17025	130	120	130	140	97
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0

Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.23	0.35	0.32	0.36	0.7
Cadmium (dissolved)	µg/l	0.02	ISO 17025	< 0.02	< 0.02	0.04	0.12	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.4	0.3	0.2	< 0.2	2.5
Copper (dissolved)	µg/l	0.5	ISO 17025	2.5	1.7	1.9	2.7	4.8
Lead (dissolved)	µg/l	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Manganese (dissolved)	µg/l	0.05	ISO 17025	8.1	0.43	150	210	80
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.1	1.4	2	2.1	2.6
Selenium (dissolved)	µg/l	0.6	ISO 17025	12	9.7	< 0.6	2.1	2.7
Zinc (dissolved)	µg/l	0.5	ISO 17025	7.1	1.7	2.5	6.3	7.9

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*

Petroleum Hydrocarbons

TPH1 (C10 - C40) _{EH_ID_TOTAL_MS}	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	< 10
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TPH-CWG - Aliphatic >C5 - C6 _{HS_ID_AL}	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
TPH-CWG - Aliphatic >C6 - C8 _{HS_ID_AL}	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
TPH-CWG - Aliphatic >C8 - C10 _{HS_ID_AL}	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
TPH-CWG - Aliphatic >C10 - C12 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) _{HS+EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7 _{HS_ID_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 _{HS_ID_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 _{HS_ID_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) _{HS+EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10



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Analytical Report Number: 23-10801

Project / Site name: Standen Central

Your Order No: 003840

Lab Sample Number				2548452	2548453	2548454	2548455	2548456
Sample Reference				WS102	WS103	WS105	WS106	Drainage Ditch
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/01/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)				Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
1,1-Dichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
Trans-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-Xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
Tribromomethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Propylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



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Analytical Report Number: 23-10801

Project / Site name: Standen Central

Your Order No: 003840

Lab Sample Number				2548452	2548453	2548454	2548455	2548456
Sample Reference				WS102	WS103	WS105	WS106	Drainage Ditch
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/01/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					
Butylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*
Hexachlorobutadiene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0*	< 1.0*	< 1.0*	< 1.0*	< 1.0*

SVOCs

Aniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethyl)ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroisopropyl)ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloroethane	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nitrobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Isophorone	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Nitrophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bis(2-chloroethoxy)methane	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloroaniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chloronaphthalene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dimethylphthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,6-Dinitrotoluene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2,4-Dinitrotoluene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzofuran	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorophenyl phenyl ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Diethyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Nitroaniline	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Azobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromophenyl phenyl ether	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Carbazole	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibutyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthraquinone	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Analytical Report Number: 23-10801
Project / Site name: Standen Central

Your Order No: 003840

Lab Sample Number				2548452	2548453	2548454	2548455	2548456
Sample Reference				WS102	WS103	WS105	WS106	Drainage Ditch
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				06/01/2023	06/01/2023	06/01/2023	06/01/2023	06/01/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					
Butyl benzyl phthalate	µg/l	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3&4-Methylphenol	µg/l	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and therefore may be unreliable.

Analytical Report Number : 23-10801
Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 *for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
Monohydric phenols in water - LOW LEVEL 1 ug/l	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds in leachate by extraction in dichloromethane followed by GC-MS.	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Low level total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
TPH1 (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	ISO 17025

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

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

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

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector



4041



Analytical Report Number : 23-10801

Project / Site name: Standen Central

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
GC	Gas Chromatography				
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))				
CU	Clean-up - e.g. by Florisil®, silica gel				
1D	GC - Single coil/column gas chromatography				
2D	GC-GC - Double coil/column gas chromatography				
Total	Aliphatics & Aromatics				
AL	Aliphatics				
AR	Aromatics				
#1	EH_2D_Total but with humics mathematically subtracted				
#2	EH_2D_Total but with fatty acids mathematically subtracted				
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				

Sample Deviation Report



Analytical Report Number : 23-10801

Project / Site name: Standen Central

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
Drainage Ditch	None Supplied	W	2548456	c	pH at 20oC in water (automated)	L099-PL	c
WS102	None Supplied	W	2548452	c	pH at 20oC in water (automated)	L099-PL	c
WS103	None Supplied	W	2548453	c	pH at 20oC in water (automated)	L099-PL	c
WS105	None Supplied	W	2548454	c	pH at 20oC in water (automated)	L099-PL	c
WS106	None Supplied	W	2548455	c	pH at 20oC in water (automated)	L099-PL	c

APPENDIX VII

ORIGIN OF TIER I GENERIC ASSESSMENT CRITERIA

Standen Central Site, Clitheroe

Phase II Geoenvironmental Site Assessment

March 2023

CONSTITUENT	ORIGIN OF RISK ASSESSMENT VALUE
Arsenic	2014 LQM/CIEH S4ULs
Cadmium	2014 LQM/CIEH S4ULs
Chromium	2014 LQM/CIEH S4ULs
Lead	2014 LQM/CIEH S4ULs
Mercury	2014 LQM/CIEH S4ULs – methylmercury
Nickel	2014 LQM/CIEH S4ULs
Selenium	2014 LQM/CIEH S4ULs
Copper	2014 LQM/CIEH S4ULs
Zinc	2014 LQM/CIEH S4ULs
Cyanide – Total	2014 LQM/CIEH S4ULs
Phenols – Total	2014 LQM/CIEH S4ULs
Naphthalene	General assessment criteria (GAC) developed by CIEH/LQM Suitable 4 Use Levels with supporting data from SR3, SR7 and existing Tox report where applicable. 1% SOM.
Acenaphthylene	
Acenaphthene	
Fluorene	
Phenanthrene	
Anthracene	
Fluoranthene	
Pyrene	
Benzo(a)Anthracene	
Chrysene	
Benzo(b/k)Fluoranthene ⁽ⁱⁱⁱ⁾	
Benzo(a)Pyrene	
Indeno(123-cd)Pyrene	
Dibenzo(a,h)Anthracene	
Benzo(ghi)Perylene	
TPH C₅-C₆ (aliphatic)	
TPH C₆-C₈ (aliphatic)	
TPH C₈-C₁₀ (aliphatic)	
TPH C₁₀-C₁₂ (aliphatic)	
TPH C₁₂-C₁₆ (aromatic)	
TPH C₁₆-C₂₁ (aromatic)	
TPH C₂₁-C₃₅ (aromatic)	



APPENDIX VIII

GEOTECHNICAL TESTING

RESULTS



LABORATORY REPORT



Contract Number: PSL23/0499

Report Date: 09 February 2023

Client's Reference: 16-499

Client Name: E3P
Taylor Road
Urmston
Manchester
M41 7JQ

For the attention of: Eleanor Canham

Contract Title: Standen Central

Date Received: 26/1/2023

Date Commenced: 26/1/2023

Date Completed: 9/2/2023

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. 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 other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins
(Director)

R Berriman
(Quality Manager)

S Royle
(Laboratory Manager)

L Knight
(Assistant Laboratory Manager)

S Eyre
(Senior Technician)

T Watkins
(Senior Technician)

5 – 7 Hexthorpe Road,
Hexthorpe,
Doncaster,
DN4 0AR
Tel: 01302 768098
Email: rberriman@prosoils.co.uk
awatkins@prosoils.co.uk

Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

[illegible]

Standen Central

Contract No:

PSL23/0499

Client Ref:

16-499

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

[illegible]

SYMBOLS : NP : Non Plastic

*** : Liquid Limit and Plastic Limit Wet Sieved.**



Standen Central

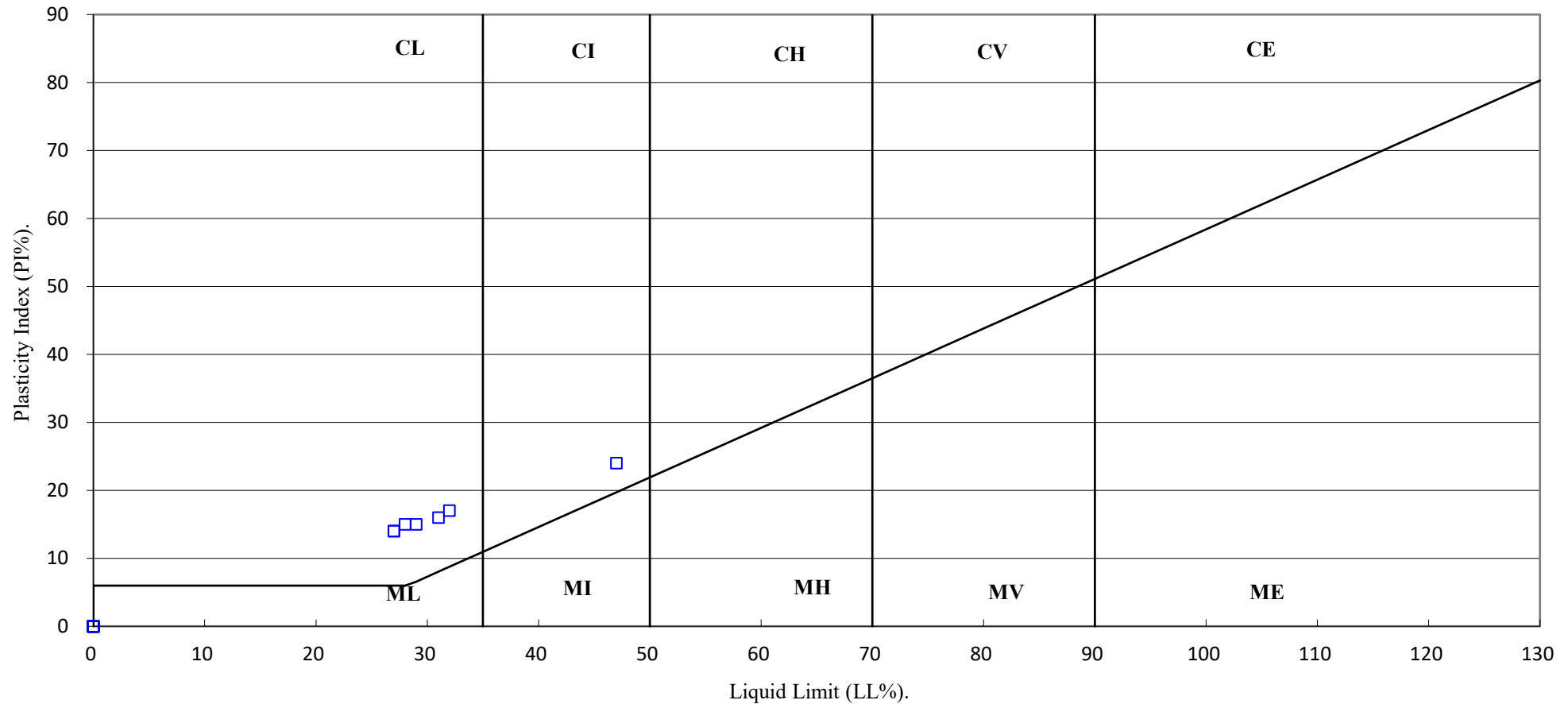
Contract No:

PSL23/0499

Client Ref:

16-499

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



Standen Central

Contract No:

PSL23/0499

Client Ref:

16-499

DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

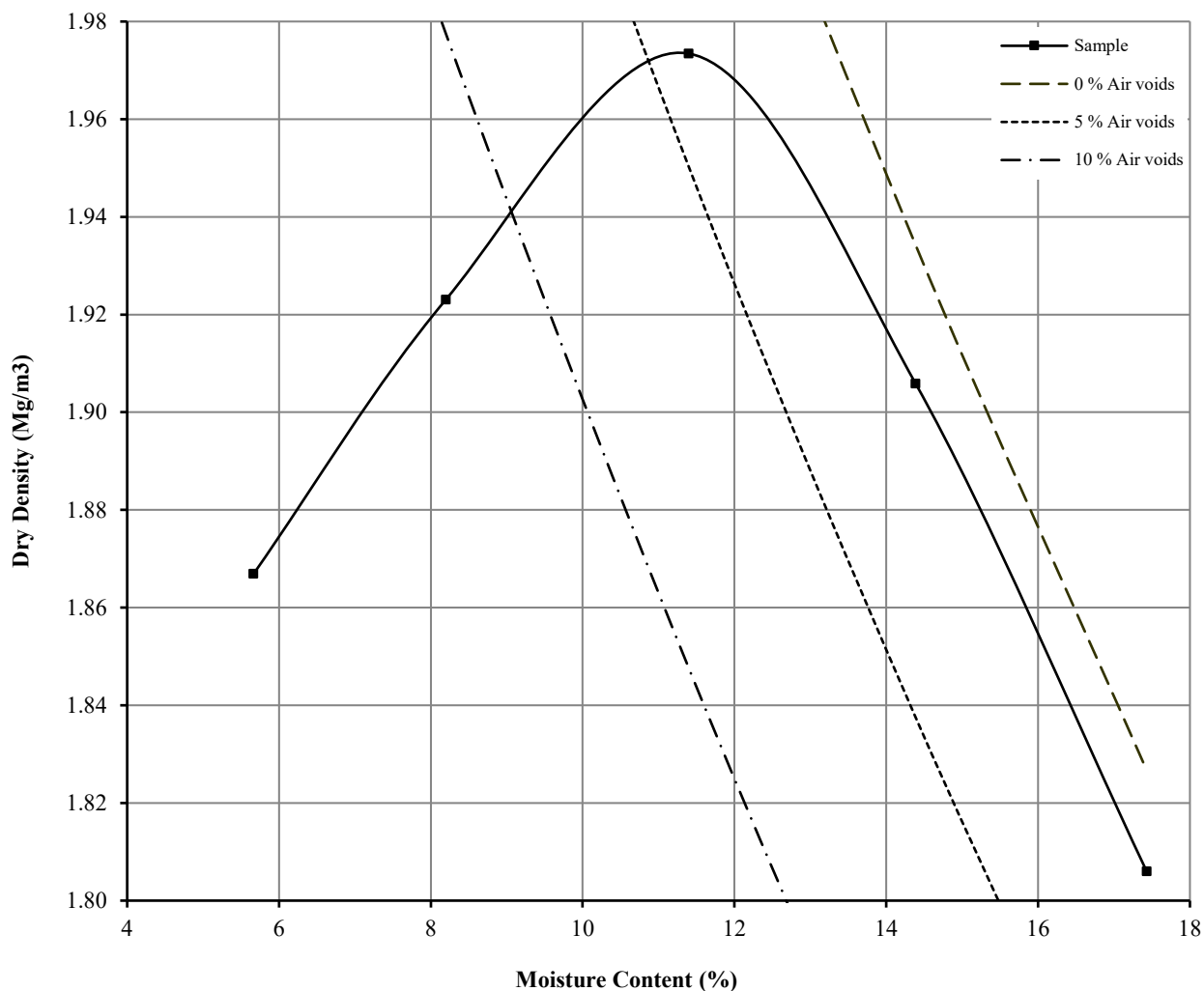
Hole Number: CP101

Top Depth (m) : 0.00

Sample Number:

Base Depth (m) : 1.00

Sample Type: Bulk



Initial Moisture Content:	17	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m3):	2.68	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m3):	1.97		Material Retained on 20.0 mm Test Sieve (%):	6
Optimum Moisture Content (%):	11			
Remarks See summary of soil descriptions				

		Standen Central	Contract
			PSL23/0499
			Client Ref
			16-499

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: WS105

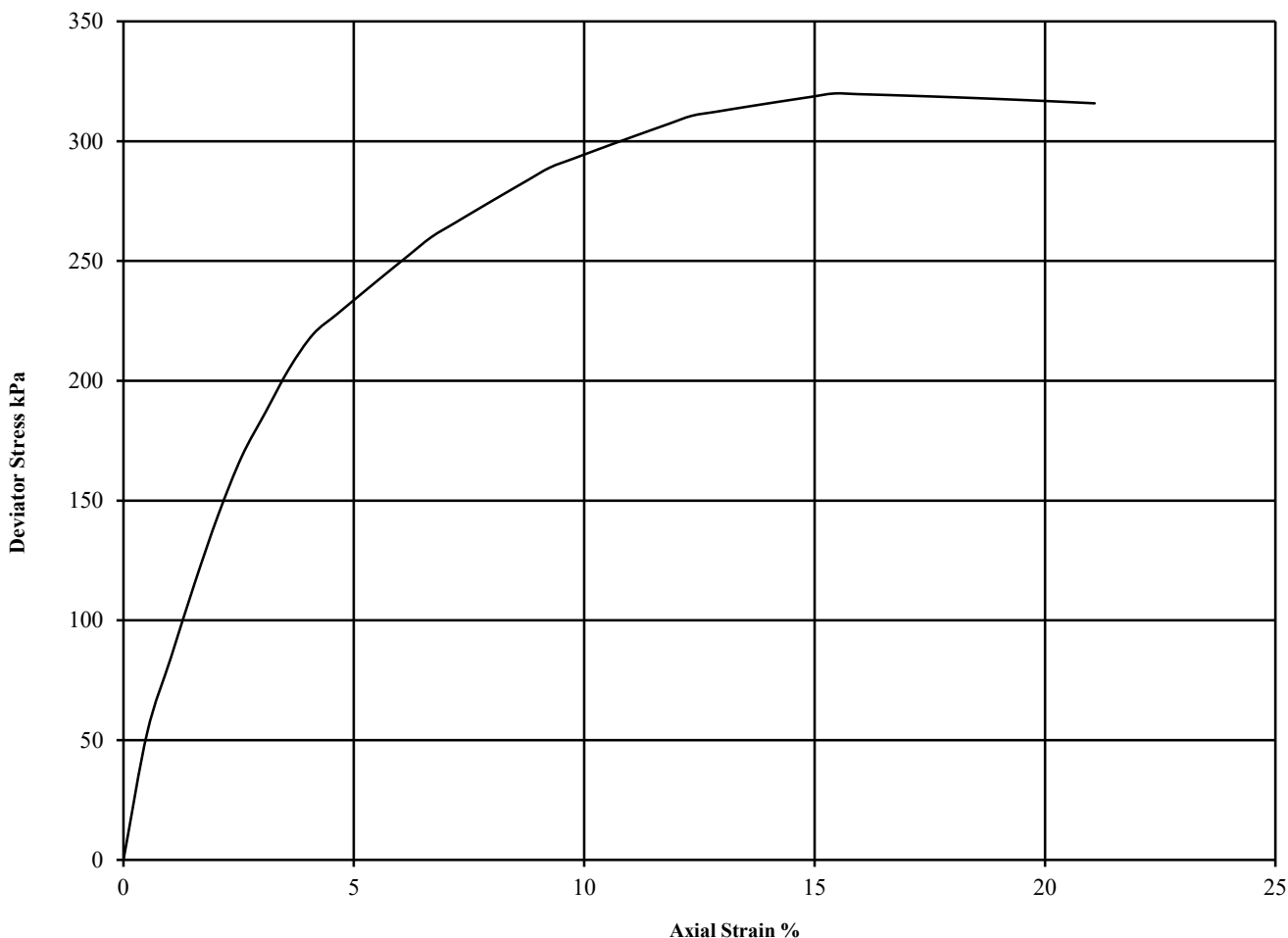
Top Depth (m): 1.50

Sample Number:

Base Depth (m): 2.00

Sample Type

Liner



Diameter (mm):		73	Height (mm):		142	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.46 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	10	2.22	2.01	35	320	160	15.4	Intermediate	



Standen Central

Contract No:

PSL23/0499

Client Ref:

16-499

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: WS106

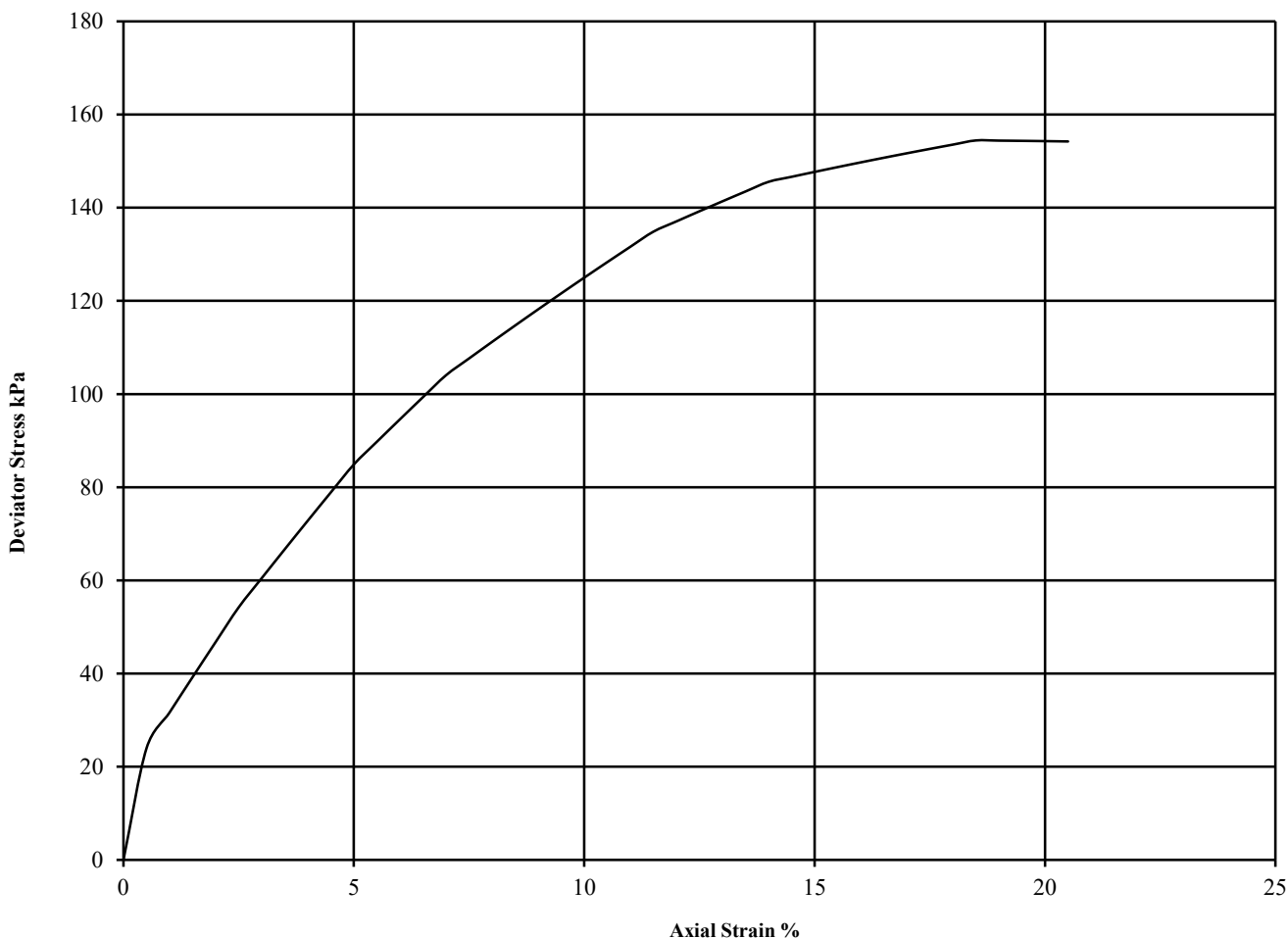
Top Depth (m): 2.50

Sample Number:

Base Depth (m): 3.00

Sample Type

Liner



Diameter (mm):		55	Height (mm):		110	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell	Corr. Max.	Shear	Failure Strain (%)	Mode of Failure	Undisturbed Sample
				Pressure	Deviator	Strength			Sample taken from top of tube
				(kPa)	Stress	Cu			Rate of strain = 2 %/min
				(kPa)	(kPa)	Latex Membrane used 0.2 mm thick,			
				θ_3	$(\theta_1-\theta_3)_f$	$^{1/2}(\theta_1-\theta_3)_f$			Correction applied 0.56
1	11	2.35	2.11	55	154	77	18.5	Plastic	See summary of soil descriptions



Standen Central

Contract No:

PSL23/0499

Client Ref:

16-499

ONE DIMENSIONAL CONSOLIDATION TEST

BS 1377: Part 5: 1990: Clause 3

Hole Number: WS106

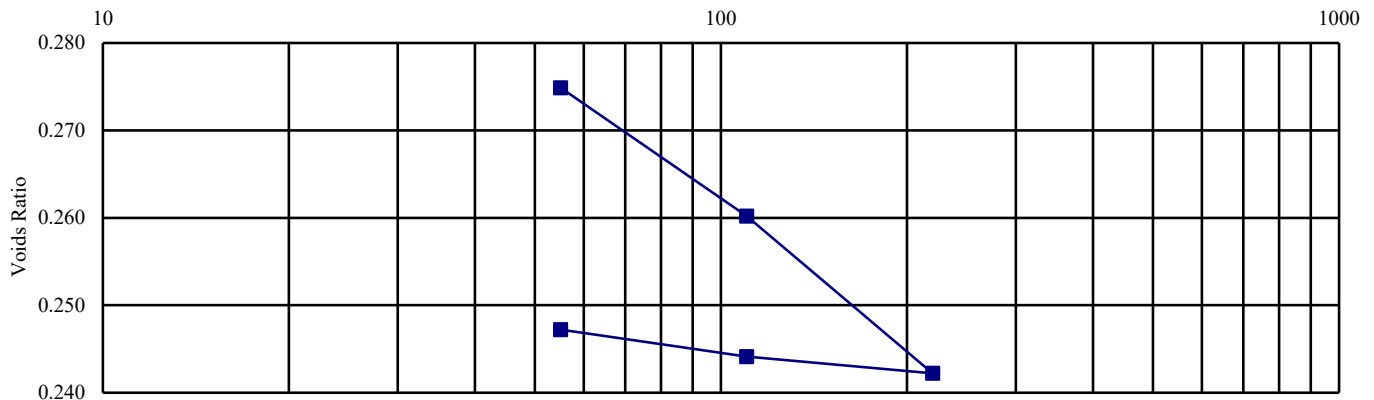
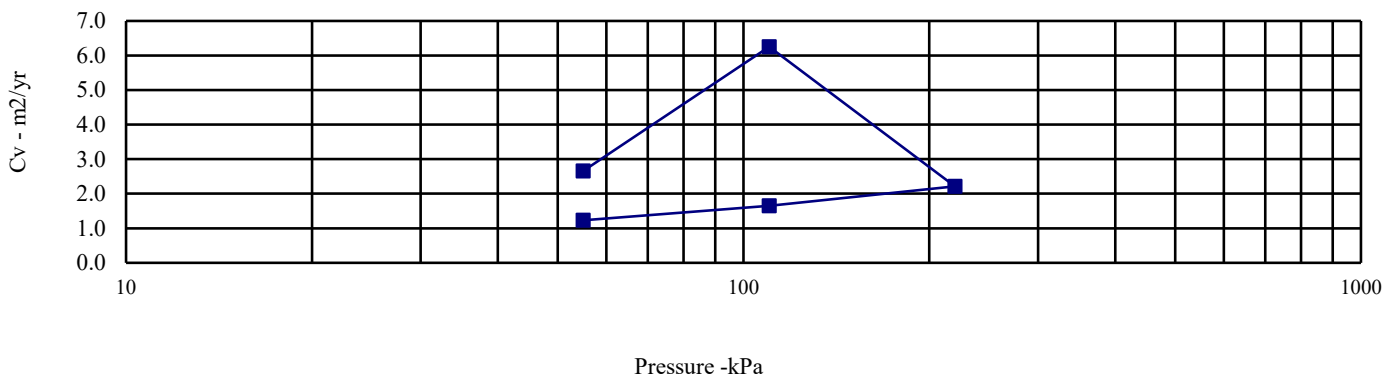
Top Depth (m): 2.50

Sample Number:

Base Depth (m) : 3.00

Sample Type: Liner

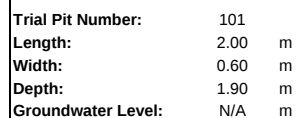
Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	12	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	2.27	0	55	0.523	1.231	Method used to	
Dry Density (Mg/m3):	2.02	55	110	0.210	1.653	determine CV:	T90
Voids Ratio:	0.313	110	220	0.130	2.212	Nominal temperature	
Degree of saturation:	103.8	220	110	0.014	6.253	during test 'C':	20
Height (mm):	20.006	110	55	0.045	2.657	Remarks:	
Diameter (mm)	50.018					See summary of soil descriptions	
Particle Density (Mg/m3):	2.65						
Assumed							



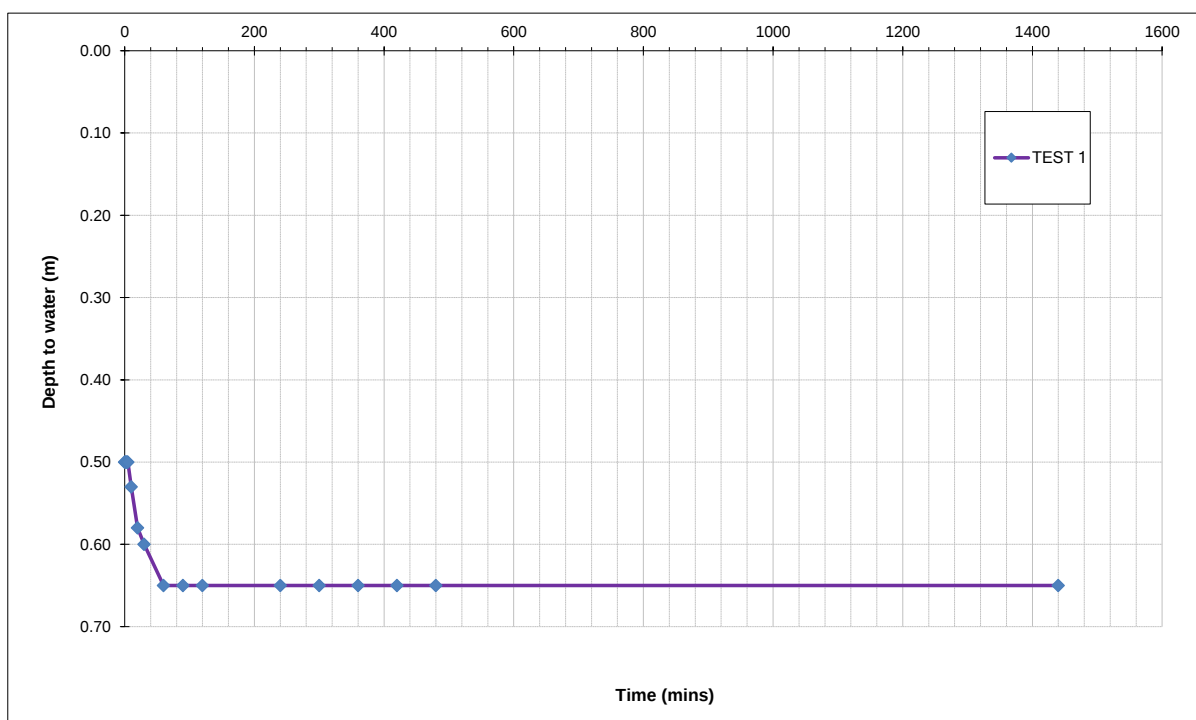
Standen Central

Contract No:
PSL23/0499
Client Ref:
16-499

APPENDIX IX SOAKAWAY TEST CERTIFICATES

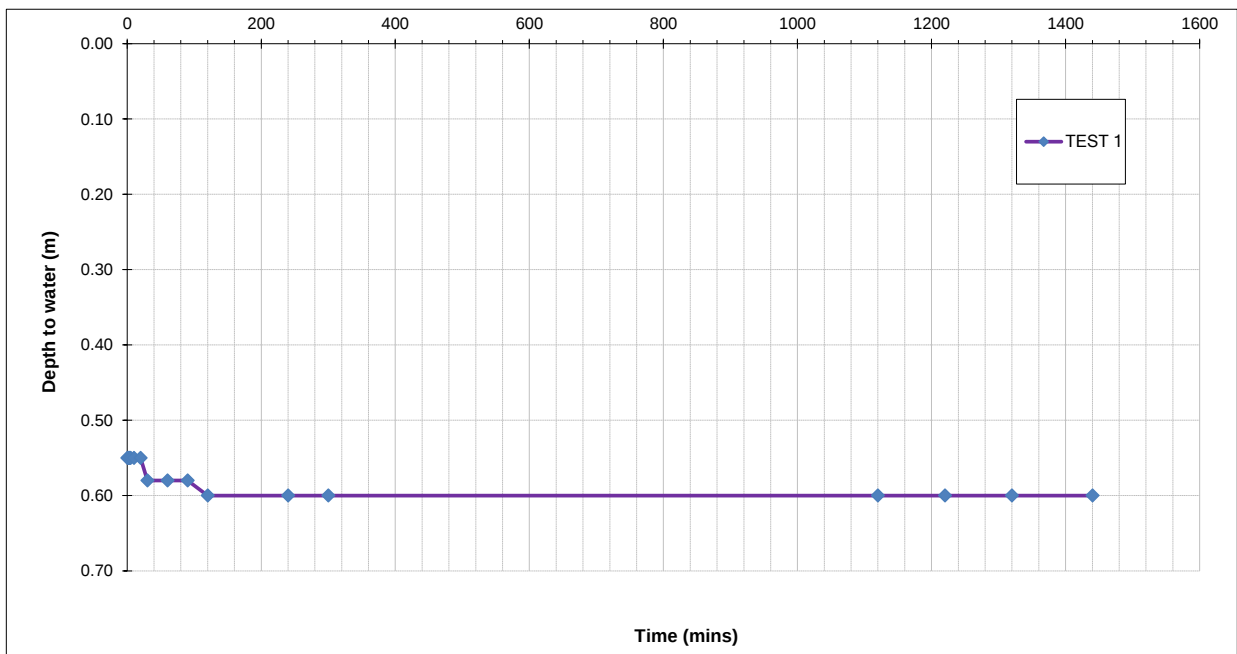


DESIGN SOIL INFILTRATION RATE, f	N/A
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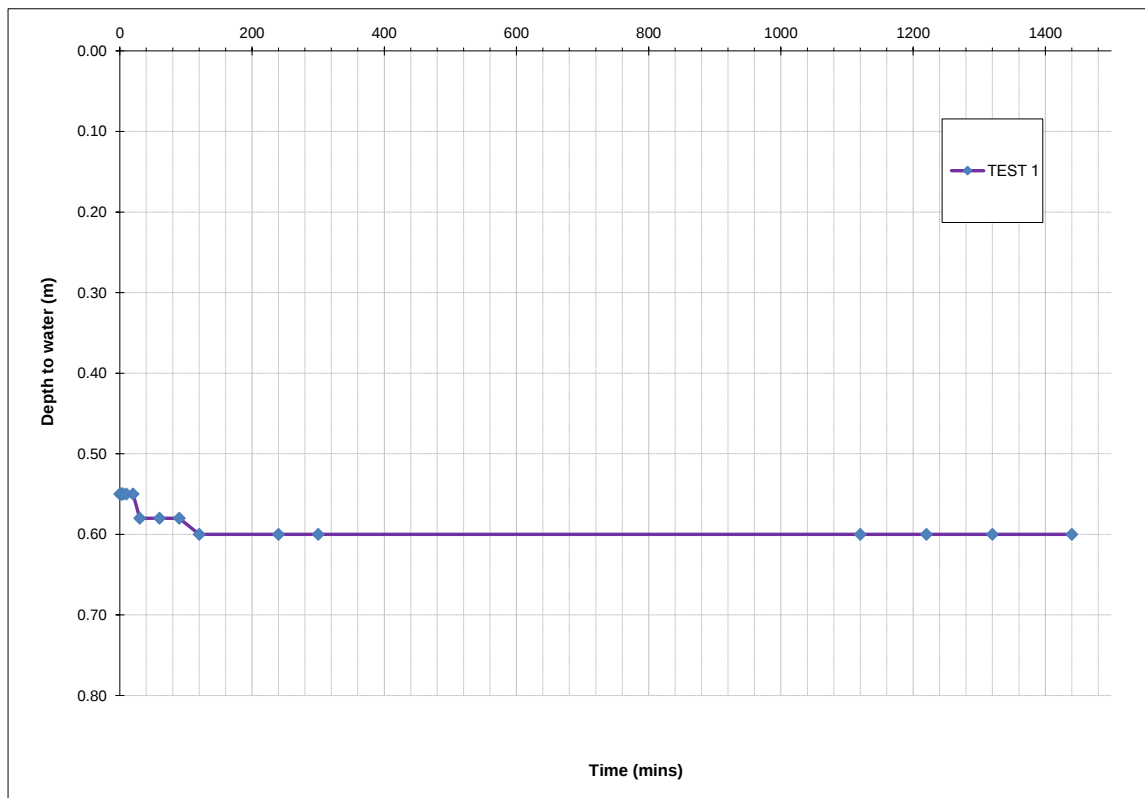
		Site: Standen Central Job Number: 16-499 Date of Test: 19/12/2022		Trial Pit Number: 102 Length: 1.75 m Width: 0.69 m Depth: 1.90 m Groundwater Level: N/A m		
Test 1 did not reach 75% or 25% effective storage depth, therefore an infiltration rate could not be calculated.	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0	0.55				
	1	0.55				
	2	0.55				
	3	0.55				
	4	0.55				
	5	0.55				
	10	0.55				
	20	0.55				
	30	0.58				
	60	0.58				
	90	0.58				
	120	0.60				
	240	0.6				
300.00	0.6					
1120.00	0.60					
1220.00	0.60					
1320.00	0.60					
1440.00	0.60					
Effective Storage Depth	m	1.35				
75% Effective Storage Depth	m	1.01				
(i.e. depth below GL)	m	0.89				
25% Effective Storage Depth	m	0.34				
(i.e. depth below GL)	m	1.56				
Effective Storage Depth 75%-25%	m	0.68				
Time to fall to 75% effective depth	mins	N/A				
Time to fall to 25% effective depth	mins	N/A				
V (75%-25%)	m3	0.82				
a (50%)	m2	4.50				
t (75%-25%)	mins	N/A				
SOIL INFILTRATION RATE	m/s	N/A				

DESIGN SOIL INFILTRATION RATE, f	N/A
---	------------



		Site: Standen Central Job Number: 16-499 Date of Test: 19/12/2022		Trial Pit Number: 103 Length: 1.75 m Width: 0.69 m Depth: 1.90 m Groundwater Level: N/A m	
Test 1 did not reach 75% or 25% effective storage depth, therefore an infiltration rate could not be calculated.	TEST 1		TEST 2		TEST 3
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min) Depth to Water (m)
	0.00	0.55			
	1	0.55			
	2	0.55			
	3	0.55			
	4	0.55			
	5	0.55			
	10	0.55			
	20	0.55			
	30	0.58			
	60	0.58			
	90	0.58			
	120	0.60			
	240	0.6			
	300	0.6			
	1120.00	0.60			
	1220.00	0.60			
1320.00	0.60				
1440.00	0.60				
Effective Storage Depth	m	1.35			
75% Effective Storage Depth	m	1.01			
(i.e. depth below GL)	m	0.89			
25% Effective Storage Depth	m	0.34			
(i.e. depth below GL)	m	1.56			
Effective Storage Depth 75%-25%	m	0.68			
Time to fall to 75% effective depth	mins	N/A			
Time to fall to 25% effective depth	mins	N/A			
V (75%-25%)	m3	0.82			
a (50%)	m2	4.50			
t (75%-25%)	mins	N/A			
SOIL INFILTRATION RATE	m/s	N/A			

DESIGN SOIL INFILTRATION RATE, f	N/A
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APPENDIX X

DCP TEST CERTIFICATES

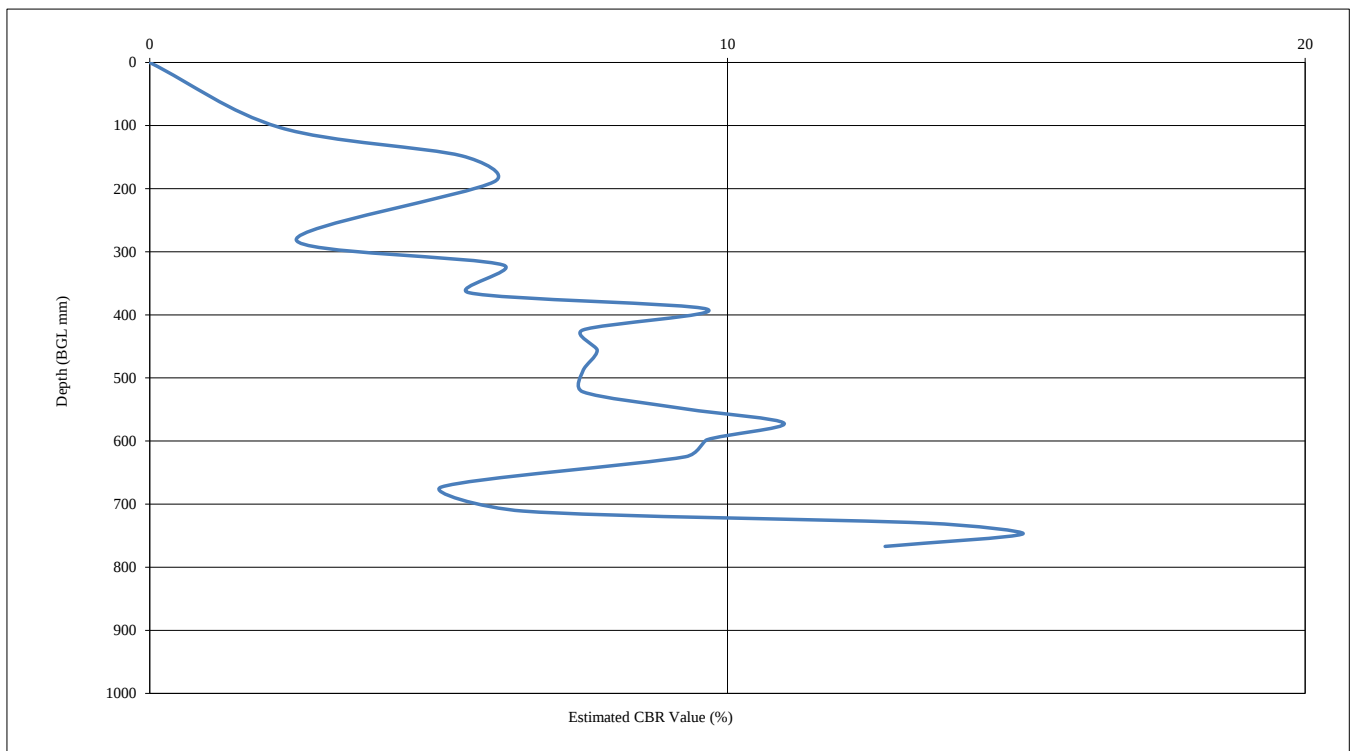


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Standen Central	Test Date:	20/12/2022
Site Ref	16-499	Test Location:	Clitheroe
Test No.:	DCP101	Easting:	374900
Initial Depth (mm BGL):	0	Northing:	440681
Final Depth (mm BGL):	761		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	281	4	4	70.25	3.37
281	673	16	12	32.67	7.58
673	767	20	4	23.50	10.73

Comments

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Site Engineer:	Checked By:	Date:	Approved By:	Date:
PL	EC	11/01/2023	RJW	10/02/2023

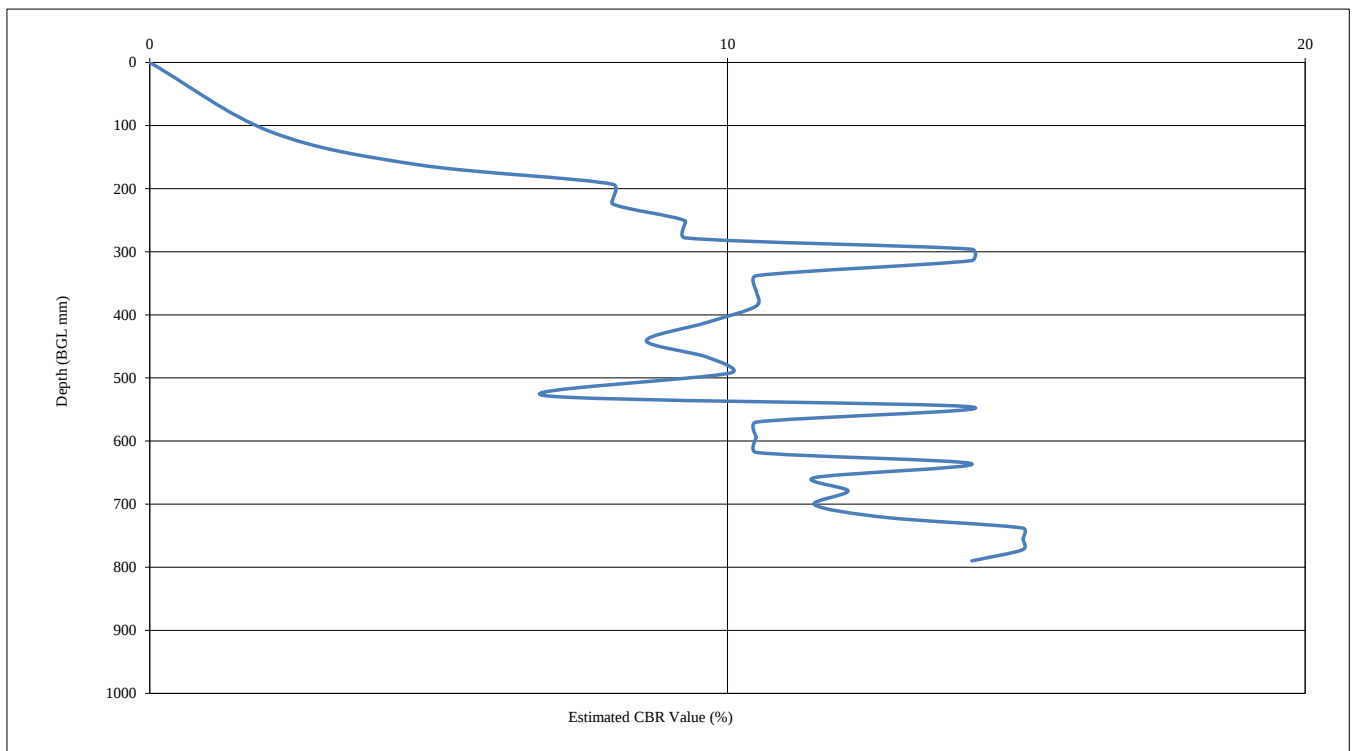


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Standen Central	Test Date:	20/12/2022
Site Ref	16-499	Test Location:	Clitheroe
Test No.:	DCP102	Easting:	374931
Initial Depth (mm BGL):	0	Northing:	440721
Final Depth (mm BGL):	790		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	314	8	8	39.25	6.24
314	546	17	9	25.78	9.73
546	790	29	12	20.33	12.51

Comments

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Site Engineer:	Checked By:	Date:	Approved By:	Date:
PL	EC	11/01/2023	RJW	10/02/2023

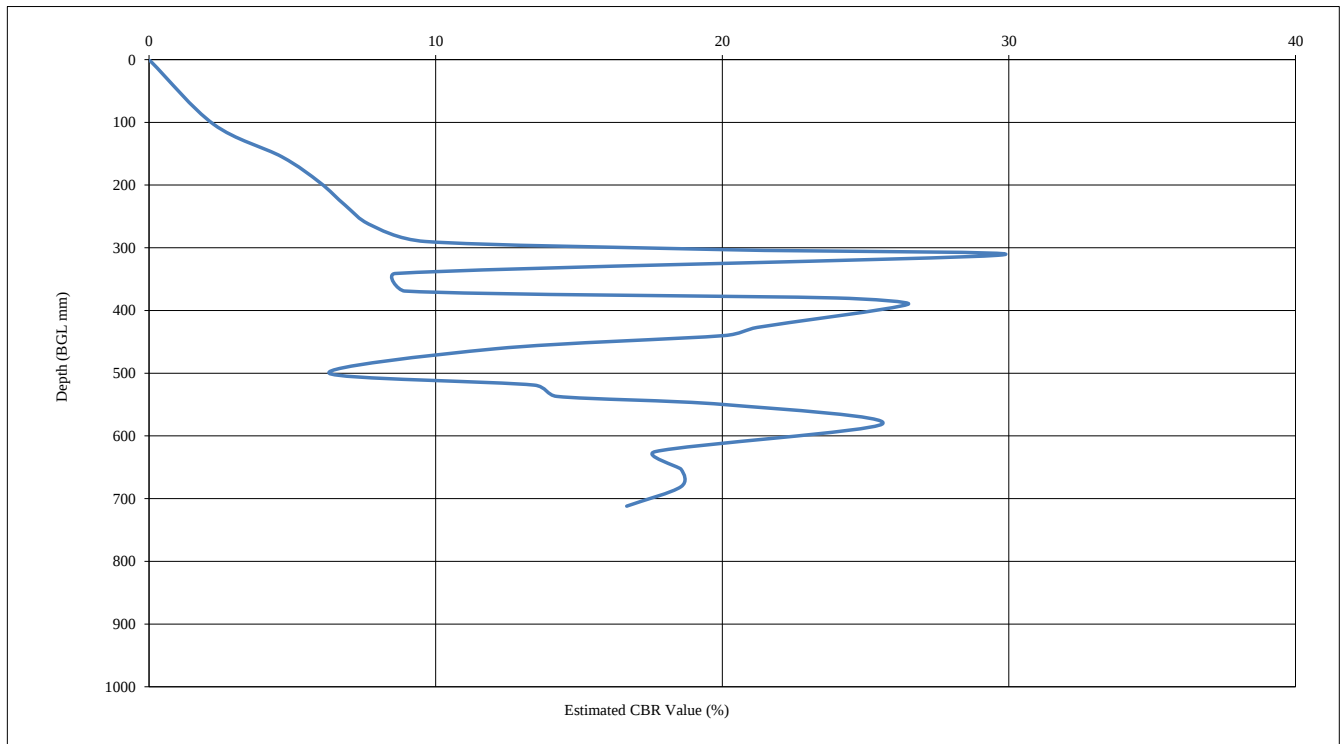


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Standen Central	Test Date:	20/12/2022
Site Ref	16-499	Test Location:	Clitheroe
Test No.:	DCP103	Easting:	374898
Initial Depth (mm BGL):	0	Northing:	440766
Final Depth (mm BGL):	712		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	312	8	8	39.00	6.28
312	712	33	25	16.00	16.12

Comments

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Site Engineer:	Checked By:	Date:	Approved By:	Date:
PL	EC	11/01/2023	RJW	10/02/2023

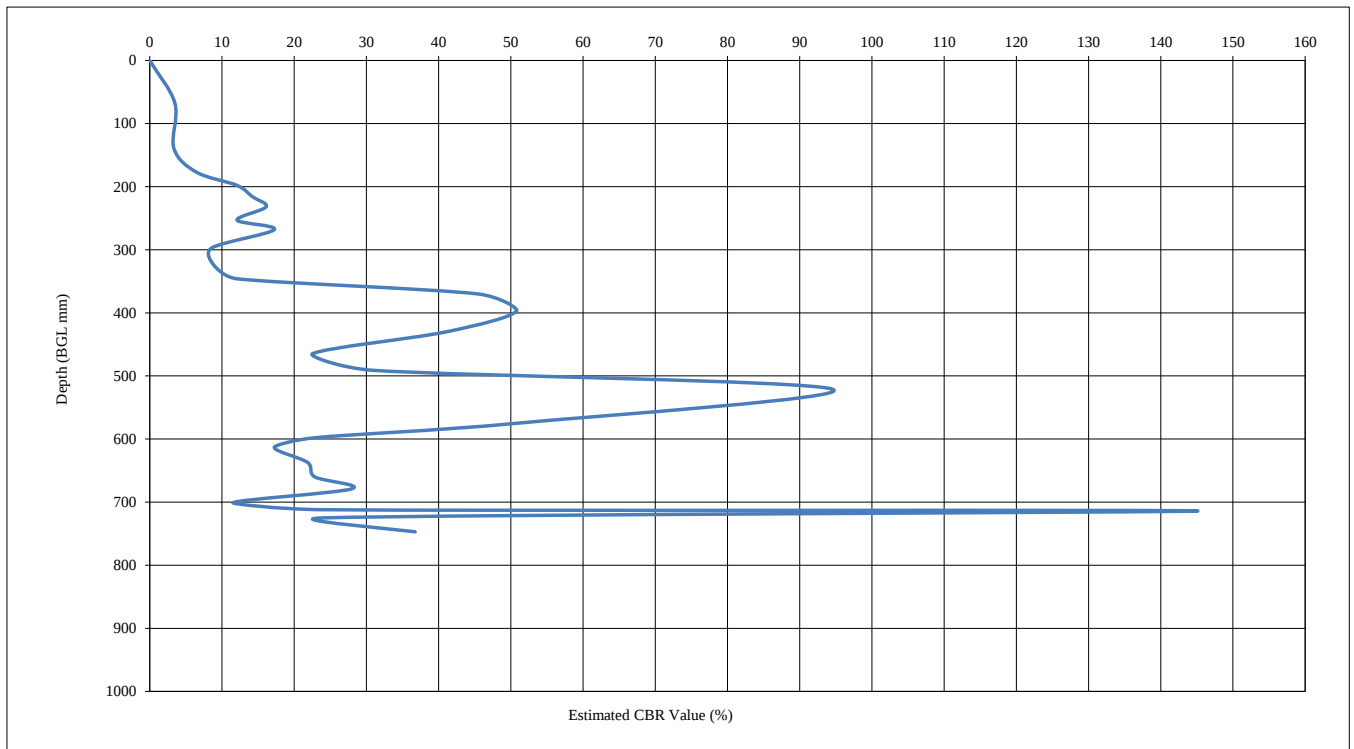


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Standen Central	Test Date:	20/12/2022
Site Ref	16-499	Test Location:	Clitheroe
Test No.:	DCP104	Easting:	374862
Initial Depth (mm BGL):	0	Northing:	440768
Final Depth (mm BGL):	747		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	325	10	10	32.50	7.62
325	613	54	44	6.55	41.45
613	747	67	13	10.31	25.65

Comments

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Site Engineer:	Checked By:	Date:	Approved By:	Date:
PL	EC	11/01/2023	RJW	10/02/2023

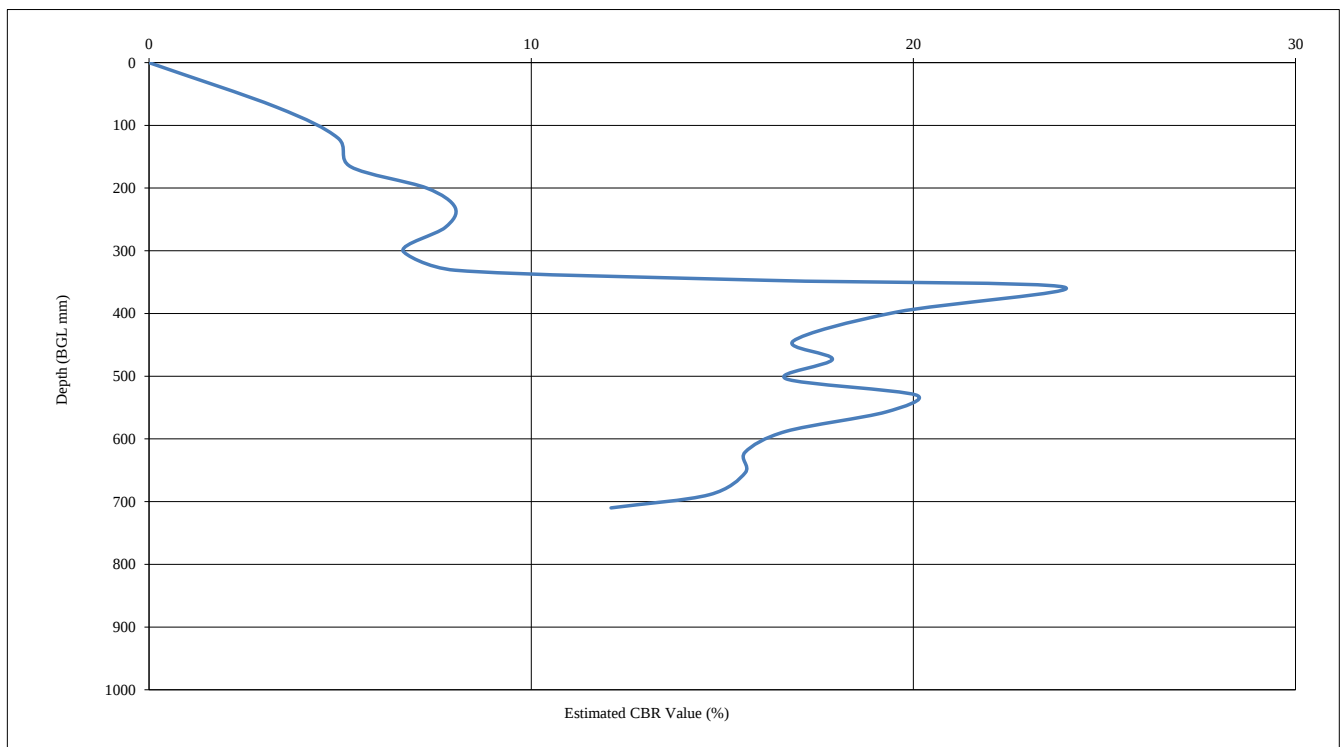


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Standen Central	Test Date:	20/12/2022
Site Ref	16-499	Test Location:	Clitheroe
Test No.:	DCP105	Easting:	374828
Initial Depth (mm BGL):	0	Northing:	440670
Final Depth (mm BGL):	710		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	300	7	7	42.86	5.69
300	710	33	26	15.77	16.36

Comments

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Site Engineer:	Checked By:	Date:	Approved By:	Date:
PL	EC	11/01/2023	RJW	10/02/2023

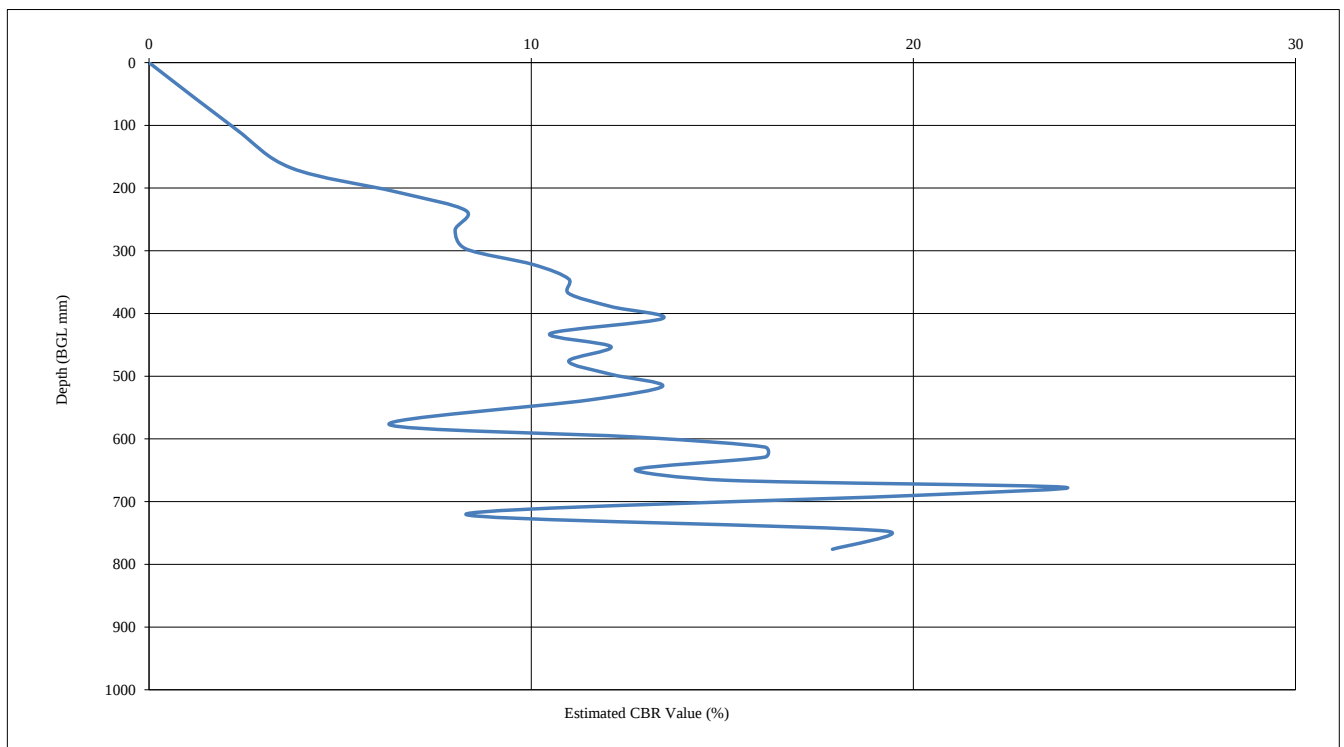


Determination of Dynamic Cone Penetrometer - Estimated CBR Value (%)

In Accordance with TRL Report PR/INT/277/04

Site Name	Standen Central	Test Date:	20/12/2022
Site Ref	16-499	Test Location:	Clitheroe
Test No.:	DCP106	Easting:	374895
Initial Depth (mm BGL):	0	Northing:	440717
Final Depth (mm BGL):	776		

Estimated California Bearing Ratio Graph



Start Depth (mm) BGL	Finish Depth (mm) BGL	No. of Blows	Blows Per Layer	DCP mm/Blows	Ave Estimated Layer (CBR %)
0	267	5	5	53.40	4.51
267	577	18	13	23.85	10.57
577	776	30	12	16.58	15.52

Comments

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Site Engineer:	Checked By:	Date:	Approved By:	Date:
PL	EC	11/01/2023	RJW	10/02/2023

