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Analytical Report Number : 20-27771

Project / Site name:	Clarendon Road P3	Samples received on:	02/09/2020
Your job number:	6075	Samples instructed on/ Analysis started on:	02/09/2020
Your order number:	S-RE6075/00005	Analysis completed by:	07/09/2020
Report Issue Number:	1	Report issued on:	08/09/2020
Samples Analysed:	17 leachate samples - 17 soil samples		

Signed: *A. Czerwińska*

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
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

Excel copies of reports are only valid when accompanied by this PDF certificate.

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: 20-27771
Project / Site name: Clarendon Road P3

Your Order No: S-RE6075/00005

Lab Sample Number				1609107	1609108	1609109	1609110
Sample Reference				VS-S9	VS-S10	VS-T10	VS-L11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				01/09/2020	01/09/2020	01/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status	

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	117	80.3	81	462
Ammonium as NH ₄	µg/l	15	NONE	< 15	< 15	< 15	84000

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3

Your Order No: S-RE6075/00005

Lab Sample Number				1609111	1609112	1609113	1609114
Sample Reference				VS-I9	VS-I10	VS-K10	VS-L10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status	

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	320	279	86.8	109
Ammonium as NH ₄	µg/l	15	NONE	88000	90000	4200	31000

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3

Your Order No: S-RE6075/00005

Lab Sample Number				1609115	1609116	1609117	1609118
Sample Reference				VS-J10	VS-J9	VS-R9	VS-Q7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status	

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	431	336	239	544
Ammonium as NH ₄	µg/l	15	NONE	95000	94000	1100	570

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3

Your Order No: S-RE6075/00005

Lab Sample Number				1609119	1609120	1609121	1609122
Sample Reference				VS-P8	SP32	SP33	SP34
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)				Units	Limit of detection	Accreditation Status	

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	264	218	270	197
Ammonium as NH ₄	µg/l	15	NONE	3800	21000	1300	4400

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3

Your Order No: S-RE6075/00005

Lab Sample Number				1609123
Sample Reference				SP35
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				02/09/2020
Time Taken				None Supplied
Analytical Parameter (Leachate Analysis)	Units	Limit of detection	Accreditation Status	

General Inorganics

Sulphate as SO ₄	mg/l	0.1	ISO 17025	1310
Ammonium as NH ₄	µg/l	15	NONE	2500

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3
Your Order No: S-RE6075/00005

Lab Sample Number				1609090	1609091	1609092	1609093
Sample Reference				VS-S9	VS-S10	VS-T10	VS-L11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				01/09/2020	01/09/2020	01/09/2020	02/09/2020
Time Taken				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
Moisture Content	%	N/A	NONE	11	17	11	17
Total mass of sample received	kg	0.001	NONE	1.2	1.6	1.3	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-

General Inorganics

Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.41	0.3	0.43	1.9
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	810	600	860	3800
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	407	298	429	1880
Ammonium as NH4	mg/kg	0.5	MCERTS	< 0.5	< 0.5	< 0.5	960

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-

Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3
Your Order No: S-RE6075/00005

Lab Sample Number				1609090	1609091	1609092	1609093
Sample Reference				VS-S9	VS-S10	VS-T10	VS-L11
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				01/09/2020	01/09/2020	01/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status	

VOCs

Vinyl Chloride	µg/kg	1	NONE	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-

SVOCs

Phenol	mg/kg	0.2	ISO 17025	-	-	-	-
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
 Project / Site name: Clarendon Road P3
 Your Order No: S-RE6075/00005

Lab Sample Number				1609094	1609095	1609096	1609097
Sample Reference				VS-I9	VS-I10	VS-K10	VS-L10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				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
Moisture Content	%	N/A	NONE	24	16	14	18
Total mass of sample received	kg	0.001	NONE	1.7	1.4	2	1.9

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-

General Inorganics

Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	1.2	1.1	0.49	0.65
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	2500	2300	970	1300
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	1230	1140	486	647
Ammonium as NH4	mg/kg	0.5	MCERTS	950	790	53	370

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-

Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3
Your Order No: S-RE6075/00005

Lab Sample Number				1609094	1609095	1609096	1609097
Sample Reference				VS-I9	VS-I10	VS-K10	VS-L10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status	

VOCs

Vinyl Chloride	µg/kg	1	NONE	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-

SVOCs

Phenol	mg/kg	0.2	ISO 17025	-	-	-	-
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
 Project / Site name: Clarendon Road P3
 Your Order No: S-RE6075/00005

Lab Sample Number				1609098	1609099	1609100	1609101
Sample Reference				VS-J10	VS-J9	VS-R9	VS-Q7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				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
Moisture Content	%	N/A	NONE	20	25	16	17
Total mass of sample received	kg	0.001	NONE	1.7	1.5	1.8	1.6

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-

General Inorganics

Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	1.8	2.5	1.6	2.4
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	3600	5000	3300	4800
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	1780	2510	1630	2420
Ammonium as NH4	mg/kg	0.5	MCERTS	820	1200	17	6.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-

Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3
Your Order No: S-RE6075/00005

Lab Sample Number				1609098	1609099	1609100	1609101
Sample Reference				VS-J10	VS-J9	VS-R9	VS-Q7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status	

VOCs

Vinyl Chloride	µg/kg	1	NONE	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-

SVOCs

Phenol	mg/kg	0.2	ISO 17025	-	-	-	-
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
 Project / Site name: Clarendon Road P3
 Your Order No: S-RE6075/00005

Lab Sample Number				1609102	1609103	1609104	1609105
Sample Reference				VS-P8	SP32	SP33	SP34
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				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
Moisture Content	%	N/A	NONE	18	20	1.5	19
Total mass of sample received	kg	0.001	NONE	1.8	1.6	1.8	1.7

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-

General Inorganics

Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	1.8	1.1	0.97	0.6
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	3700	2300	1900	1200
Water Soluble SO4 (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	1830	1130	972	599
Ammonium as NH4	mg/kg	0.5	MCERTS	61	450	12	47

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	20	0.61	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	13	1.1	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	15	3.5	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	13	2.5	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	29	6.2	0.65
Pyrene	mg/kg	0.05	MCERTS	-	29	7.4	0.63
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	12	1.8	0.27

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	-	22	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	10	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	-	9.6	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	-	11	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	19	5.7	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	150	18	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	380	29	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	180	27	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	720	79	< 10

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	0.022	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	0.064	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	47	5.4	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	230	20	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	510	36	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	270	41	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	1100	100	< 10

Analytical Report Number: 20-27771
 Project / Site name: Clarendon Road P3
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Lab Sample Number				1609102	1609103	1609104	1609105
Sample Reference				VS-P8	SP32	SP33	SP34
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				02/09/2020	02/09/2020	02/09/2020	02/09/2020
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status	

VOCs

Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0

SVOCs

Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	< 0.2
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U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3
Your Order No: S-RE6075/00005

Lab Sample Number				1609106
Sample Reference				SP35
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				02/09/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	N/A	NONE	3.4
Total mass of sample received	kg	0.001	NONE	1.6

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile & Amosite
Asbestos in Soil	Type	N/A	ISO 17025	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.003
Asbestos Quantification Total	%	0.001	ISO 17025	0.003

General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	2.2
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	4300
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	2160
Ammonium as NH ₄	mg/kg	0.5	MCERTS	29

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	4.4
Acenaphthene	mg/kg	0.05	MCERTS	4.6
Fluorene	mg/kg	0.05	MCERTS	5.5
Anthracene	mg/kg	0.05	MCERTS	6.8
Fluoranthene	mg/kg	0.05	MCERTS	38
Pyrene	mg/kg	0.05	MCERTS	36
Benzo(a)pyrene	mg/kg	0.05	MCERTS	15

Monoaromatics & Oxygenates

Benzene	µg/kg	1	MCERTS	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	21
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	220
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	500
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	280
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	1000

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	25
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	200
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	500
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	310
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	1000

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 Project / Site name: Clarendon Road P3
 Your Order No: S-RE6075/00005

Lab Sample Number				1609106
Sample Reference				SP35
Sample Number				None Supplied
Depth (m)				None Supplied
Date Sampled				02/09/2020
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status	

VOCs

Vinyl Chloride	µg/kg	1	NONE	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0

SVOCS

Phenol	mg/kg	0.2	ISO 17025	< 0.2
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U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number: 20-27771
Project / Site name: Clarendon Road P3
Your Order No: S-RE6075/00005

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1609106	SP35		143	Loose Fibrous Debris & Hard/Cement Type Material	Chrysotile & Amosite	0.003	0.003

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



Analytical Report Number : 20-27771
Project / Site name: Clarendon Road P3

* 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 *
1609090	VS-S9	None Supplied	None Supplied	Brown loam and clay with gravel and vegetation.
1609091	VS-S10	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
1609092	VS-T10	None Supplied	None Supplied	Brown clay and loam with gravel and vegetation.
1609093	VS-L11	None Supplied	None Supplied	Brown clay with gravel.
1609094	VS-T9	None Supplied	None Supplied	Brown loam and clay with gravel and brick.
1609095	VS-I10	None Supplied	None Supplied	Brown loam and clay with gravel.
1609096	VS-K10	None Supplied	None Supplied	Brown clay.
1609097	VS-L10	None Supplied	None Supplied	Brown clay.
1609098	VS-J10	None Supplied	None Supplied	Brown loam and clay with gravel.
1609099	VS-J9	None Supplied	None Supplied	Brown loam and clay with gravel.
1609100	VS-R9	None Supplied	None Supplied	Brown clay with gravel.
1609101	VS-Q7	None Supplied	None Supplied	Brown clay with brick.
1609102	VS-P8	None Supplied	None Supplied	Brown clay with gravel.
1609103	SP32	None Supplied	None Supplied	Brown loam and clay with brick.
1609104	SP33	None Supplied	None Supplied	Brown gravel.**
1609105	SP34	None Supplied	None Supplied	Brown clay.
1609106	SP35	None Supplied	None Supplied	Brown clay and sand with gravel.

** Non MCERTS Matrix



Analytical Report Number : 20-27771
Project / Site name: Clarendon Road P3

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

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
NRA Leachate Prep	10:1 extract with de-ionised water shaken for 24 hours then filtered.	In-house method based on National Rivers Authority	L020-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion 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
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	ISO 17025
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-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
Ammonium as NH4 in leachate	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	NONE
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Sulphate in leachates	Determination of sulphate in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil"	L039-PL	W	ISO 17025
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' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' 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.



Sample Deviation Report



Analytical Report Number : 20-27771
Project / Site name: Clarendon Road P3

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
SP32	None Supplied	S	1609103	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
SP32	None Supplied	S	1609103	b	Semi-volatile organic compounds in soil	L064-PL	b
SP32	None Supplied	S	1609103	b	Speciated EPA-16 PAHs in soil	L064-PL	b
SP32	None Supplied	S	1609103	b	TPHCWG (Soil)	L088/76-PL	b
SP32	None Supplied	S	1609103	b	Volatile organic compounds in soil	L073B-PL	b
SP33	None Supplied	S	1609104	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
SP33	None Supplied	S	1609104	b	Semi-volatile organic compounds in soil	L064-PL	b
SP33	None Supplied	S	1609104	b	Speciated EPA-16 PAHs in soil	L064-PL	b
SP33	None Supplied	S	1609104	b	TPHCWG (Soil)	L088/76-PL	b
SP33	None Supplied	S	1609104	b	Volatile organic compounds in soil	L073B-PL	b
SP34	None Supplied	S	1609105	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
SP34	None Supplied	S	1609105	b	Semi-volatile organic compounds in soil	L064-PL	b
SP34	None Supplied	S	1609105	b	Speciated EPA-16 PAHs in soil	L064-PL	b
SP34	None Supplied	S	1609105	b	TPHCWG (Soil)	L088/76-PL	b
SP34	None Supplied	S	1609105	b	Volatile organic compounds in soil	L073B-PL	b
SP35	None Supplied	S	1609106	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
SP35	None Supplied	S	1609106	b	Semi-volatile organic compounds in soil	L064-PL	b
SP35	None Supplied	S	1609106	b	Speciated EPA-16 PAHs in soil	L064-PL	b
SP35	None Supplied	S	1609106	b	TPHCWG (Soil)	L088/76-PL	b
SP35	None Supplied	S	1609106	b	Volatile organic compounds in soil	L073B-PL	b