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Analytical Report Number : 20-22855

Project / Site name:	Clarendon Road	Samples received on:	04/08/2020
Your job number:	6075	Sample instructed/ Analysis started on:	04/08/2020
Your order number:	S-RE6075-00005	Analysis completed by:	07/08/2020
Report Issue Number:	1	Report issued on:	07/08/2020
Samples Analysed:	14 leachate samples - 14 soil samples		

Signed:

Joanna Wawrzeczko
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.

Iss No 20-22855-1 Clarendon Road 6075.XLS

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The results included within the report relate only to the sample(s) submitted for testing.

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Project / Site name: Clarendon Road

Your Order No: S-RE6075-00005

Lab Sample Number				1581916	1581917	1581918	1581919	1581920
Sample Reference				WS03	WS03	WS03	WS03	WS03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.00	1.50	2.00	2.50
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
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
Moisture Content				%	N/A	NONE	19	19
Total mass of sample received				kg	0.001	NONE	1.4	1.5

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.61	0.68	2.2	0.92	2.6
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	1200	1400	4500	1800	5100
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	614	678	2230	916	2560
Ammonium as NH ₄	mg/kg	0.5	MCERTS	180	100	16	5.0	6.2



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Lab Sample Number				1581921	1581922	1581923	1581924	1581925
Sample Reference				WS03	WS03	WS03	WS03	WS03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.50	4.00	4.50	6.00
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
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
Moisture Content				%	N/A	NONE	21	18
Total mass of sample received				kg	0.001	NONE	1.5	1.5

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	2.8	3.1	2.4	3.5	3.4
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	5600	6200	4800	7100	6800
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	2820	3110	2380	3540	3390
Ammonium as NH ₄	mg/kg	0.5	MCERTS	4.7	0.9	3.7	0.9	3.5



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Lab Sample Number				1581926	1581927	1581928	1581929	
Sample Reference				WS03	WS03	WS03	WS03	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				6.50	7.00	5.00	5.50	
Date Sampled				Deviating	Deviating	Deviating	Deviating	
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
Moisture Content				%	N/A	NONE	17	16
Total mass of sample received				kg	0.001	NONE	1.8	1.7

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	
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General Inorganics

Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	g/l	0.00125	MCERTS	0.98	0.83	1.2	3.1	
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/kg	2.5	MCERTS	2000	1700	2400	6100	
Water Soluble SO ₄ (2:1 Leach. Equiv.) 1hr extraction	mg/l	1.25	MCERTS	982	826	1220	3070	
Ammonium as NH ₄	mg/kg	0.5	MCERTS	2.9	2.8	1.1	0.6	



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Lab Sample Number				1581930	1581931	1581932	1581933	1581934
Sample Reference				WS03	WS03	WS03	WS03	WS03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.00	1.50	2.00	2.50
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	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	94.9	109	173	946	93.1
Ammonium as NH ₄	µg/l	15	NONE	16000	8700	870	290	470



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Lab Sample Number				1581935	1581936	1581937	1581938	1581939
Sample Reference				WS03	WS03	WS03	WS03	WS03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	3.50	4.00	4.50	6.00
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	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	898	667	1970	173	1240
Ammonium as NH ₄	µg/l	15	NONE	720	58	87	68	480



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Lab Sample Number				1581940	1581941	1581942	1581943	
Sample Reference				WS03	WS03	WS03	WS03	
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	
Depth (m)				6.50	7.00	5.00	5.50	
Date Sampled				Deviating	Deviating	Deviating	Deviating	
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	130	283	184	223	
Ammonium as NH ₄	µg/l	15	NONE	200	220	82	89	



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* 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 *
1581916	WS03	None Supplied	0.50	Brown clay.
1581917	WS03	None Supplied	1.00	Brown clay.
1581918	WS03	None Supplied	1.50	Brown clay.
1581919	WS03	None Supplied	2.00	Brown clay.
1581920	WS03	None Supplied	2.50	Brown clay.
1581921	WS03	None Supplied	3.00	Brown clay.
1581922	WS03	None Supplied	3.50	Brown clay.
1581923	WS03	None Supplied	4.00	Brown clay.
1581924	WS03	None Supplied	4.50	Brown clay.
1581925	WS03	None Supplied	6.00	Brown clay.
1581926	WS03	None Supplied	6.50	Brown clay.
1581927	WS03	None Supplied	7.00	Brown clay.
1581928	WS03	None Supplied	5.00	Brown clay.
1581929	WS03	None Supplied	5.50	Brown clay.

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammonium as NH ₄ 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 NH ₄ 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
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
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
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
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
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
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
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
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



Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS03		L	20-22855	1581930	a			
WS03		L	20-22855	1581931	a			
WS03		L	20-22855	1581932	a			
WS03		L	20-22855	1581933	a			
WS03		L	20-22855	1581934	a			
WS03		L	20-22855	1581935	a			
WS03		L	20-22855	1581936	a			
WS03		L	20-22855	1581937	a			
WS03		L	20-22855	1581938	a			
WS03		L	20-22855	1581939	a			
WS03		L	20-22855	1581940	a			
WS03		L	20-22855	1581941	a			
WS03		L	20-22855	1581942	a			
WS03		L	20-22855	1581943	a			
WS03		S	20-22855	1581916	a			
WS03		S	20-22855	1581917	a			
WS03		S	20-22855	1581918	a			
WS03		S	20-22855	1581919	a			
WS03		S	20-22855	1581920	a			
WS03		S	20-22855	1581921	a			
WS03		S	20-22855	1581922	a			
WS03		S	20-22855	1581923	a			
WS03		S	20-22855	1581924	a			
WS03		S	20-22855	1581925	a			
WS03		S	20-22855	1581926	a			
WS03		S	20-22855	1581927	a			
WS03		S	20-22855	1581928	a			
WS03		S	20-22855	1581929	a			