

Concept Life Sciences

Certificate of Analysis

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Report Number: 669430-1

Date of Report: 03-Aug-2017

Customer: 4 W Environmental Limited
Unit 26 Redhill House
Hope Street
Saltney
Chester
CH4 8BU

Customer Contact: Mr Martin Womack

Customer Job Reference: Topsoil

Date Job Received at Concept: 19-Jul-2017

Date Analysis Started: 20-Jul-2017

Date Analysis Completed: 03-Aug-2017

The results reported relate to samples received in the laboratory and may not be representative of a whole batch.

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

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Tests covered by this certificate were conducted in accordance with Concept SOPs

All results have been reviewed in accordance with Section 25 of the Concept, Analytical Quality Quality Manual



Report checked
and authorised by :
Aleksandra Pacula
Project Manager

Issued by :
Aleksandra Pacula
Project Manager



Concept Reference: 669430 Customer Reference: Topsoil Soil Analysed as Soil Phytotoxic Contaminants					
Concept Reference				669430 001	
Customer Sample Reference				PMD Manufactured Topsoil	
Date Sampled				19-JUL-2017	
Determinand	Method	Test Sample	LOD	Units	
Copper	T312	AR	1	mg/kg	11
Nickel	T312	AR	1	mg/kg	9
Zinc	T312	AR	1	mg/kg	78

Concept Reference: 669430 Customer Reference: Topsoil Soil Analysed as Soil % Stones					
Concept Reference				669430 001	
Customer Sample Reference				PMD Manufactured Topsoil	
Date Sampled				19-JUL-2017	
Determinand	Method	Test Sample	LOD	Units	
Retained on 50mm	T2	AR	0.1	%	<0.1
Retained on 20mm	T2	AR	0.1	%	<0.1
Retained on 2mm	T2	AR	0.1	%	1.5

Concept Reference: 669430 Customer Reference: Topsoil Soil Analysed as Soil BS 3882:2015					
Concept Reference				669430 001	
Customer Sample Reference				PMD Manufactured Topsoil	
Date Sampled				19-JUL-2017	
Determinand	Method	Test Sample	LOD	Units	
Clay Content	T2	AR	1.0	%	10
Sand Content	T2	AR	1.0	%	78
Silt Content	T2	AR	1.0	%	12
Carbon / Nitrogen ratio	T85	AR			Ratio 13:1
Carbonate	T22	AR	0.1	%	<0.1
Dry density	T85	AR	0.1	g/cm3	1.1
Electrical Conductivity	T7	A40	10	µS/cm	2900
LOI (OM) (125-440)C	T873	AR		%	4.8
Mg (Extractable BS 3882)	T272	AR	10	mg/l	88
Nitrogen (Total)	T837	AR	100	mg/kg	1200
pH	T7	A40			7.2
Extractable P	T392	AR	10	mg/l	14
K (Extractable BS 3882)	T272	AR	10	mg/l	180
Total Organic Carbon	T21	A40	0.1	%	1.6
Visible Contaminants	T161	AR		%	N.D.

Index to symbols used in 669430-1

Value	Description
A40	Assisted dried < 40C
AR	As Received
N.D.	Not Detected
S	Analysis was subcontracted
U	Analysis is UKAS accredited
N	Analysis is not UKAS accredited

Notes

Sand/Silt/Clay and Nitrogen was subcontracted to NRM.

Method Index

Value	Description
T85	Calc
T392	ICP/OES (Sodium Hydrogen Carbonate Extract)
T873	Grav (4 Dec) (Dry 125 C)(Ign 440 C)
T2	Grav
T21	OX/IR
T22	Titration
T272	ICP/OES (Ammonium Nitrate)
T837	CSOP Nut007 (Dumas)
T7	Probe
T312	ICP-OES (Nitric Acid Extraction)
T161	Visual

Accreditation Summary

Determinand	Method	Test Sample	LOD	Units	Symbol	Concept References
Clay Content	T2	AR	1.0	%	SN	001
Sand Content	T2	AR	1.0	%	SN	001
Silt Content	T2	AR	1.0	%	SN	001
Carbon / Nitrogen ratio	T85	AR			N	001
Carbonate	T22	AR	0.1	%	N	001
Dry density	T85	AR	0.1	g/cm3	N	001
Electrical Conductivity	T7	A40	10	µS/cm	N	001
LOI (OM) (125-440)C	T873	AR		%	N	001
Mg (Extractable BS 3882)	T272	AR	10	mg/l	N	001
Nitrogen (Total)	T837	AR	100	mg/kg	N	001
pH	T7	A40			U	001
Extractable P	T392	AR	10	mg/l	N	001
K (Extractable BS 3882)	T272	AR	10	mg/l	N	001
Total Organic Carbon	T21	A40	0.1	%	N	001
Visible Contaminants	T161	AR		%	N	001
Retained on 50mm	T2	AR	0.1	%	N	001
Retained on 20mm	T2	AR	0.1	%	N	001
Retained on 2mm	T2	AR	0.1	%	N	001
Copper	T312	AR	1	mg/kg	N	001
Nickel	T312	AR	1	mg/kg	N	001
Zinc	T312	AR	1	mg/kg	N	001