



Environmental Chemistry
SOCOTEC UK Limited
Bretby Business Park
Ashby Road
Burton-on-Trent
Staffordshire
DE15 0YZ

Telephone: 01283 554400
Facsimile: 01283 554422

Our Ref: EFS/190620 (Ver. 1)

Your Ref:

October 12, 2018

[REDACTED]
Veolia
45-121 Duncrue Street
Belfast
ST3 9AR

For the attention of [REDACTED]

Dear [REDACTED]

Sample Analysis - HSH Sample

Samples from the above site have been analysed in accordance with the schedule supplied.
The sample details and the results of analyses for these samples are given in the appended report.

An invoice for this work will follow under a separate cover.

Where appropriate the samples will be kept until 09/11/18 when they will be discarded. Please call 01283 554463 for an extension of this date.

Please be aware that our policy for the retention of paper based laboratory records and analysis reports is 6 years.

The work was carried out in accordance with SOCOTEC UK Limited (Multi-Sector Services) Standard Terms and Conditions of Contract.

If I can be of any further assistance please do not hesitate to contact me.

Yours sincerely

for SOCOTEC UK Limited

[REDACTED]

[REDACTED]
Project Co-ordinator
01283 554463

TEST REPORT



Report No. EFS/190620 (Ver. 1)

Veolia
Veolia
45-121 Duncrue Street
Belfast
ST3 9AR

Site: HSH Sample

The 1 sample described in this report were registered for analysis by SOCOTEC UK Limited on 28-Sep-2018. This report supersedes any versions previously issued by the laboratory.

The analysis was completed by: 12-Oct-2018

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 5)
Table of WAC Analysis Results (Page 6)
Analytical and Deviating Sample Overview (Page 7)
Table of Additional Report Notes (Page 8)
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Table of Sample Descriptions (Appendix A Page 1 of 1)

On behalf of
SOCOTEC UK Limited

Operations Manager
Energy & Waste Services

Date of Issue: 12-Oct-2018

Tests marked 'A' have been subcontracted to another laboratory.

Where samples have been flagged as deviant on the Analytical and Deviating Sample Overview, for any reason, the data may not be representative of the sample at the point of sampling and the validity of the data may be affected.

SOCOTEC UK Limited accepts no responsibility for any sampling not carried out by our personnel.

[illegible]

Bretby Business Park, Ashby Road
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Tel +44 (0) 1283 554400
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Client Name

Veolia

Contact

HSH Sample

Sample Analysis

Date Printed

11-Oct-2018

Report Number

EFS/190620

Table Number

1

WASTE ACCEPTANCE CRITERIA TESTING BSEN 12457/2

Client	Veolia				Leaching Data	
					Weight of sample (kg)	0.091
Contact	<div></div>				Moisture content @ 105°C (% of Wet Weight)	0.0
					Equivalent Weight based on drying at 105°C (kg)	0.090
Site	HSH Sample				Volume of water required to carry out 10:1 stage (litres)	0.899
					Fraction of sample above 4 mm %	0.000
Sample Description		Report No	Sample No	Issue Date	Fraction of non-crushable material %	0.000
HSH SAMPLE		S19_0620	CL/1924563	12-Oct-18		

Note: The >4mm fraction is crushed using a disc mill

Accreditation	Method Code	Solid Waste Analysis (Dry Basis)	Concentration in Solid (Dry Weight Basis)	Landfill Waste Acceptance Criteria Limit Values		
				Inert Waste Landfill	Stable Non-reactive Hazardous Waste in Non-Hazardous Landfill	Hazardous Waste Landfill
U	WSLM59	Total Organic Carbon (% M/M)	0.3	3	5	6
N	LOI450	Loss on Ignition (%)	0.3			10
U	BTEXHSA	Sum of BTEX (mg/kg)	<0.06	6		
U	PCBUSECD	Sum of 7 Congener PCB's (mg/kg)	<0.035	1		
U	TPHFIDUS	Mineral Oil (mg/kg)	12.5	500		
N	PAHMSUS	PAH Sum of 17 (mg/kg)	<1.36	100		
U	PHSOIL	pH (pH units)	6.8		>6	
N	ANC	Acid Neutralisation Capacity (mol/kg) @pH 7	1.68		To be evaluated	To be evaluated

Accreditation	Method Code	Leachate Analysis	10:1 Single Stage Leachate	Calculated cumulative amount leached @ 10:1	Landfill Waste Acceptance Criteria Limit Values for BSEN 12457/2 @ L/S 10 litre kg-1		
			mg/l except ⁰⁰	mg/kg (dry weight)	mg/kg (dry weight)		
U	WSLM3	pH (pH units) ⁰⁰	9.5	Calculated data not UKAS Accredited			
U	WSLM2	Conductivity (µs/cm) ⁰⁰	2700				
U	ICPMSW	Arsenic	0.054	0.54	0.5	2	25
U	ICPWATVAR	Barium	0.04	0.4	20	100	300
U	ICPMSW	Cadmium	<0.0001	<0.001	0.04	1	5
U	ICPMSW	Chromium	<0.001	<0.01	0.5	10	70
U	ICPMSW	Copper	0.001	0.01	2	50	100
U	ICPMSW	Mercury	0.0003	0.003	0.01	0.2	2
U	ICPMSW	Molybdenum	<0.001	<0.01	0.5	10	30
U	ICPMSW	Nickel	0.001	0.01	0.4	10	40
U	ICPMSW	Lead	<0.001	<0.01	0.5	10	50
U	ICPMSW	Antimony	0.133	1.33	0.06	0.7	5
U	ICPMSW	Selenium	0.109	1.09	0.1	0.5	7
U	ICPMSW	Zinc	0.002	0.02	4	50	200
U	KONENS	Chloride	50	500	800	15000	25000
U	ISEF	Fluoride	0.6	6	10	150	500
U	ICPWATVAR	Sulphate as SO4	1310	13100	1000	20000	50000
N	WSLM27	Total Dissolved Solids	2110	21100	4000	60000	100000
U	SFAP1	Phenol Index	<0.05	<0.5	1		
N	WSLM13	Dissolved Organic Carbon	0.42	4.2	500	800	1000

Template Ver. 1

Landfill Waste Acceptance Criteria limit values correct as of 11th March 2009.

Tests where the accreditation is set to U are UKAS accredited, those where the accreditation is set to N are not UKAS accredited

Sample Analysis

SOCOTEC UK Ltd Environmental Chemistry Analytical and Deviating Sample Overview

S190620

Customer Veolia
Site HSH Sample
Report No S190620

Consignment No S78779
Date Logged 28-Sep-2018
In-House Report Due 05-Oct-2018

Please note the results for any subcontracted analysis (identified with a '^') is likely to take up to an additional five working days.

ID Number	Description	MethodID	Sampled	ANC	BTEX-HSA	MTBE	Chromium (III)	CEN Leac(P)C	REPORT A	Antimony (MS) (IBA)	Mercury (MS) (IBA)	Arsenic (IBA)	Cadmium (IBA)	Chromium (Total) (IBA)	Copper (IBA)	Lead (IBA)	Nickel (IBA)	Zinc (IBA)	Chromium vi:	L.O.I. % @ 450C	PAH (17) by GCMS	PCB-7 Congeners Analysis	pH units (AR)	Tot.Moisture @ 105C	TPH Band (>C10-C40)	TPH by GC/FID (AR)	Total Organic Carbon
				Acid Neut. Capacity	BTEX-HSA + MTBE analysis	(µg/kg)																					
CL/1924563	HSH SAMPLE	26/09/18			✓	✓															✓	✓	✓	✓	✓	✓	✓

Note: We will endeavour to prioritise samples to complete analysis within holding time; however any delay could result in samples becoming deviant whilst being processed in the laboratory.

If sampling dates are missing or matrices unclassified then results will not be ISO 17025 accredited. Please contact us as soon as possible to provide missing information in order to reinstate accreditation.

Deviating Sample Key

- A The sample was received in an inappropriate container for this analysis
- B The sample was received without the correct preservation for this analysis
- C Headspace present in the sample container
- D The sampling date was not supplied so holding time may be compromised - applicable to all analysis
- E Sample processing did not commence within the appropriate holding time
- F Sample processing did not commence within the appropriate handling time

Requested Analysis Key

- Analysis Required
- Analysis dependant upon trigger result - Note: due date may be affected if triggered
- No analysis scheduled
- ^ Analysis Subcontracted - Note: due date may vary

Where individual results are flagged see report notes for status.

Report Number : EFS/190620

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
BTEXHSA	CL1924563	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. However the remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (MTBE) . These circumstances should be taken into consideration when utilising the data.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Soil	ANC	Oven Dried @ < 35°C	Quantitative digestion with Hydrochloric Acid back titration with 1M Sodium Hydroxide to pH 7
Soil	BTEXHSA	As Received	Determination of Benzene, Toluene, Ethyl benzene and Xylenes (BTEX) by Headspace GCFID
Soil	CALC_CR3	Oven Dried @ < 35°C	Calculated from the difference between Total Chromium and Hexavalent Chromium
Soil	ICPMSS	Oven Dried @ < 35°C	Determination of Metals in Marine Sediments and Soil samples by aqua regia digestion followed by ICPMS detection
Soil	ICPSOIL	Oven Dried @ < 35°C	Determination of Metals in soil samples by aqua regia digestion followed by ICPOES detection
Soil	KONECR	Oven Dried @ < 35°C	Determination of Chromium vi in soil samples by water extraction followed by colorimetric detection
Soil	LOI(%MM)	Oven Dried @ < 35°C	Determination of loss on ignition for soil samples at specified temperature by gravimetry
Soil	PAHMSUS	As Received	Determination of Polycyclic Aromatic Hydrocarbons (PAH) by hexane/acetone extraction followed by GCMS detection
Soil	PCBECD	As Received	Determination of Polychlorinated Biphenyl (PCB) congeners/aroclors by hexane/acetone extraction followed by GCECD detection
Soil	PHSOIL	As Received	Determination of pH of 2.5:1 deionised water to soil extracts using pH probe.
Soil	TMSS	As Received	Determination of the Total Moisture content at 105°C by loss on oven drying gravimetric analysis (% based upon wet weight)
Soil	TPHFIDUS	As Received	Determination of hexane/acetone extractable Hydrocarbons in soil with GCFID detection.
Soil	WSLM59	Oven Dried @ < 35°C	Determination of Organic Carbon in soil using sulphurous Acid digestion followed by high temperature combustion and IR detection
Water	ICPMSW	As Received	Direct quantitative determination of Metals in water samples using ICPMS
Water	ICPWATVAR	As Received	Direct determination of Metals and Sulphate in water samples using ICPOES
Water	ISEF	As Received	Determination of Fluoride in water samples by Ion Selective Electrode (ISE)
Water	KONENS	As Received	Direct analysis using discrete colorimetric analysis
Water	SFAPI	As Received	Segmented flow analysis with colorimetric detection
Water	WSLM13	As Received	Instrumental analysis using acid/persulphate digestion and non-dispersive IR detection
Water	WSLM2	As Received	Determination of the Electrical Conductivity (µS/cm) by electrical conductivity probe.

Where individual results are flagged see report notes for status.

Method Descriptions

Matrix	MethodID	Analysis Basis	Method Description
Water	WSLM27	As Received	Gravimetric Determination
Water	WSLM3	As Received	Determination of the pH of water samples by pH probe

Report Notes

Generic Notes

Soil/Solid Analysis

Unless stated otherwise,

- Results expressed as mg/kg have been calculated on the basis indicated in the Method Description table.
All results on MCERTS reports are reported on a 105°C dry weight basis with the exception of pH and conductivity.
- Sulphate analysis not conducted in accordance with BS1377
- Water Soluble Sulphate is on a 2:1 water:soil extract

Waters Analysis

Unless stated otherwise results are expressed as mg/l

Nil: Where "Nil" has been entered against Total Alkalinity or Total Acidity this indicates that a measurement was not required due to the inherent pH of the sample.

Oil analysis specific

Unless stated otherwise,

- Results are expressed as mg/kg
- SG is expressed as g/cm³ @ 15°C

Gas (Tedlar bag) Analysis

Unless stated otherwise, results are expressed as ug/l

Asbestos Analysis

CH Denotes Chrysotile	TR Denotes Tremolite
CR Denotes Crocidolite	AC Denotes Actinolite
AM Denotes Amosite	AN Denotes Anthophyllite
NAIS No Asbestos Identified in Sample	
NADIS No Asbestos Detected In Sample	

Symbol Reference

^ Sub-contracted analysis.

\$\$ Unable to analyse due to the nature of the sample

† Samples submitted for this analyte were not preserved on site in accordance with laboratory protocols.

This may have resulted in deterioration of the sample(s) during transit to the laboratory.

Consequently the reported data may not represent the concentration of the target analyte present in the sample at the time of sampling

¥ Results for guidance only due to possible interference

& Blank corrected result

I.S Insufficient sample to complete requested analysis

I.S(g) Insufficient sample to re-analyse, results for guidance only

Intf Unable to analyse due to interferences

N.D Not determined **N.Det** Not detected

N.F No Flow

NS Information Not Supplied

Req Analysis requested, see attached sheets for results

b Raised detection limit due to nature of the sample

* All accreditation has been removed by the laboratory for this result

‡ MCERTS accreditation has been removed for this result

§ accreditation has been removed for this result as it is a non-accredited matrix

Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected. If further details are required of the circumstances which have led to the removal of accreditation then please do not hesitate to contact the laboratory.

Sample Descriptions

Client : Veolia
Site : HSH Sample
Report Number : S19_0620

Note: major constituent in upper case

Test Certificate

Certificate: ECTC023164

Issue No: 1

Veolia Water Outsourcing Ltd
Duncrue Street
Belfast
BT3 9JS

McQuillan Envirocare Ltd t/a McQuillan Environmental
Caulside Drive, New Park Industrial Estate
Antrim, BT41 2DU

Tel: (028) 9446 6708

Fax: (028) 9442 9580

www.mcquillancompanies.com
samplebooking@mcqcos.com

MCQ Job No	ORD-24648	Sample Receipt Date	04/02/2022
MCQ Quote Number	ECA-02495	Date Analysis Started	09/02/2022
Purchase Order Number	4200173193	Completion Date	03/03/2022
No of Samples	9	Turnaround Time	10

Dear [REDACTED],

Analysis of your sample(s) is now complete and we have pleasure in enclosing the appropriate test report.

All analysis was completed within McQuillan Environmental Analytical Laboratory (MCQ) unless otherwise specified. Results relate only to the items tested. Any analysis that was subcontracted to an approved laboratory is indicated by 'S'. Please refer to the table at the end of your test certificate for explanations of sample deviations.

Where sample data is provided by the customer, the results relate to the sample supplied and on the basis that this data is correct. Incorrect sampling dates and/or sample information will affect the validity of results. This Test Certificate supersedes any version previously issued by the laboratory. The report shall not be reproduced except in full without approval of the laboratory.

Should you have any queries regarding this report(s) or any part of our service, please contact Sample Booking on 028 9448 3195 who will be happy to discuss your requirements.

Thank you for using our Laboratory and we look forward to receiving your next samples.

Yours Sincerely

**Report Authorised by:** [REDACTED]**Position:** Senior Lab Administrator**Date Issued:** 3/3/2022**Addendum To Report:**

Test Certificate

Certificate: ECTC023164

Issue No: 1



Test Certificate

Certificate: ECTC023164

Issue No: 1

Lab Ref	Sample Details	Sample Date	Method No.	Test	Result	Units	ACC	Lab	Sample Deviations
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MCQ088607	Newholland	01/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088608	Portrush	01/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088609	Strabane	02/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088610	Dunmurry	01/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088611	Culmore	01/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088612	Ballynacor	01/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088613	Enniskillen	02/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088614	Antrim	03/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088615	Omagh	03/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S
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Time Sampled: 11:13 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Deviations Legend - Results may be compromised if the following deviations apply			
Comment	C	Incorrect Container	‡
Container with Headspace provided	8	Insufficient sample volume	È
BOD Overdiluted, therefore result indicative only	\$	BOD Underdiluted, therefore result indicative only	#
High Chloride concentration, COD could not be determined	§	Holding time exceeded due to sampled on date/time	@
Holding time exceeded in Lab	±	Holding time exceeded due to delayed instructions	&
Sample integrity Jeopardized in receipt	Ø		



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

NEWHOLLAND 01/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	26.4	%
E Coli [Fresh]	8300	cfu/g
Conductivity 1:6 [Fresh]	3790	uS/cm
Total Nitrogen	6.31	% w/w
Ammonium Nitrogen	20667	mg/kg
Total Phosphorus (P)	21261	mg/kg
Total Potassium (K)	1406	mg/kg
Total Magnesium (Mg)	2273	mg/kg
Total Copper (Cu)	109	mg/kg
Total Zinc (Zn)	443	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	7679	mg/kg
Total Calcium (Ca)	14204	mg/kg
Total Iron (Fe)	39516	mg/kg
Total Molybdenum (Mo)	3.80	mg/kg
Total Manganese (Mn)	779	mg/kg
Total Lead (Pb)	16.1	mg/kg
Total Cadmium (Cd)	0.41	mg/kg
Total Mercury (Hg)	0.26	mg/kg
Total Nickel (Ni)	17.3	mg/kg
Total Chromium (Cr)	25.4	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	8.60	
Organic Matter LOI	78.7	% w/w
Lime Equivalent as CaCO ₃	3.8	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	23.7	mg/kg
Total Arsenic (As)	2.54	mg/kg
Total Selenium (Se)	1.05	mg/kg
Total Boron (B)	9.4	mg/kg
B.O.D. [fresh]	68250	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.1	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

PORTRUSH 01/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	26.1	%
E Coli [Fresh]	50	cfu/g
Conductivity 1:6 [Fresh]	4108	uS/cm
Total Nitrogen	6.32	% w/w
Ammonium Nitrogen	23084	mg/kg
Total Phosphorus (P)	9163	mg/kg
Total Potassium (K)	1258	mg/kg
Total Magnesium (Mg)	3608	mg/kg
Total Copper (Cu)	174	mg/kg
Total Zinc (Zn)	430	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	7441	mg/kg
Total Calcium (Ca)	12771	mg/kg
Total Iron (Fe)	8795	mg/kg
Total Molybdenum (Mo)	4.84	mg/kg
Total Manganese (Mn)	286	mg/kg
Total Lead (Pb)	34.2	mg/kg
Total Cadmium (Cd)	0.48	mg/kg
Total Mercury (Hg)	0.82	mg/kg
Total Nickel (Ni)	46.5	mg/kg
Total Chromium (Cr)	38.7	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	8.36	
Organic Matter LOI	81.1	% w/w
Lime Equivalent as CaCO ₃	3.0	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	23.2	mg/kg
Total Arsenic (As)	2.14	mg/kg
Total Selenium (Se)	1.17	mg/kg
Total Boron (B)	30.8	mg/kg
B.O.D. [fresh]	45300	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.7	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

STRABANE 02/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	24.9	%
E Coli [Fresh]	15000	cfu/g
Conductivity 1:6 [Fresh]	3122	uS/cm
Total Nitrogen	6.30	% w/w
Ammonium Nitrogen	16485	mg/kg
Total Phosphorus (P)	8973	mg/kg
Total Potassium (K)	1691	mg/kg
Total Magnesium (Mg)	3662	mg/kg
Total Copper (Cu)	153	mg/kg
Total Zinc (Zn)	739	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	9638	mg/kg
Total Calcium (Ca)	16115	mg/kg
Total Iron (Fe)	13346	mg/kg
Total Molybdenum (Mo)	4.09	mg/kg
Total Manganese (Mn)	460	mg/kg
Total Lead (Pb)	37.8	mg/kg
Total Cadmium (Cd)	0.88	mg/kg
Total Mercury (Hg)	0.35	mg/kg
Total Nickel (Ni)	28.0	mg/kg
Total Chromium (Cr)	38.4	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	8.27	
Organic Matter LOI	73.4	% w/w
Lime Equivalent as CaCO ₃	6.1	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	36.6	mg/kg
Total Arsenic (As)	4.82	mg/kg
Total Selenium (Se)	1.61	mg/kg
Total Boron (B)	14.9	mg/kg
B.O.D. [fresh]	40650	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	3.4	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

DUNMURRY 01/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	27.5	%
E Coli [Fresh]	15000	cfu/g
Conductivity 1:6 [Fresh]	3360	uS/cm
Total Nitrogen	5.80	% w/w
Ammonium Nitrogen	16016	mg/kg
Total Phosphorus (P)	16922	mg/kg
Total Potassium (K)	1046	mg/kg
Total Magnesium (Mg)	2090	mg/kg
Total Copper (Cu)	99.8	mg/kg
Total Zinc (Zn)	433	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	6923	mg/kg
Total Calcium (Ca)	11005	mg/kg
Total Iron (Fe)	30036	mg/kg
Total Molybdenum (Mo)	2.99	mg/kg
Total Manganese (Mn)	259	mg/kg
Total Lead (Pb)	13.2	mg/kg
Total Cadmium (Cd)	0.36	mg/kg
Total Mercury (Hg)	0.22	mg/kg
Total Nickel (Ni)	13.3	mg/kg
Total Chromium (Cr)	20.9	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	8.02	
Organic Matter LOI	82.1	% w/w
Lime Equivalent as CaCO ₃	2.7	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	20.6	mg/kg
Total Arsenic (As)	2.69	mg/kg
Total Selenium (Se)	0.98	mg/kg
Total Boron (B)	9.4	mg/kg
B.O.D. [fresh]	67050	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.5	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

ENNISKILLEN 02/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	24.1	%
E Coli [Fresh]	15000	cfu/g
Conductivity 1:6 [Fresh]	3251	uS/cm
Total Nitrogen	5.00	% w/w
Ammonium Nitrogen	17766	mg/kg
Total Phosphorus (P)	17382	mg/kg
Total Potassium (K)	1260	mg/kg
Total Magnesium (Mg)	1650	mg/kg
Total Copper (Cu)	151	mg/kg
Total Zinc (Zn)	559	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	9983	mg/kg
Total Calcium (Ca)	19967	mg/kg
Total Iron (Fe)	32791	mg/kg
Total Molybdenum (Mo)	4.29	mg/kg
Total Manganese (Mn)	274	mg/kg
Total Lead (Pb)	15.6	mg/kg
Total Cadmium (Cd)	0.54	mg/kg
Total Mercury (Hg)	0.47	mg/kg
Total Nickel (Ni)	19.5	mg/kg
Total Chromium (Cr)	34.6	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	8.33	
Organic Matter LOI	75.1	% w/w
Lime Equivalent as CaCO ₃	5.7	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	122	mg/kg
Total Arsenic (As)	3.16	mg/kg
Total Selenium (Se)	1.35	mg/kg
Total Boron (B)	12.5	mg/kg
B.O.D. [fresh]	40800	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	3.2	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

OMAGH 03/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	29.4	%
E Coli [Fresh]	<10	cfu/g
Conductivity 1:6 [Fresh]	3257	uS/cm
Total Nitrogen	3.88	% w/w
Ammonium Nitrogen	13873	mg/kg
Total Phosphorus (P)	8339	mg/kg
Total Potassium (K)	1470	mg/kg
Total Magnesium (Mg)	2584	mg/kg
Total Copper (Cu)	124	mg/kg
Total Zinc (Zn)	659	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	7195	mg/kg
Total Calcium (Ca)	15155	mg/kg
Total Iron (Fe)	10999	mg/kg
Total Molybdenum (Mo)	3.52	mg/kg
Total Manganese (Mn)	266	mg/kg
Total Lead (Pb)	19.6	mg/kg
Total Cadmium (Cd)	0.47	mg/kg
Total Mercury (Hg)	0.36	mg/kg
Total Nickel (Ni)	27.0	mg/kg
Total Chromium (Cr)	52.8	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	8.21	
Organic Matter LOI	80.5	% w/w
Lime Equivalent as CaCO ₃	3.5	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	30.5	mg/kg
Total Arsenic (As)	3.82	mg/kg
Total Selenium (Se)	1.09	mg/kg
Total Boron (B)	8.1	mg/kg
B.O.D. [fresh]	58800	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.0	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

CULMORE 01/02/2022

Sample Matrix : SLUDGE ORD 24648

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	31.9	%
E Coli [Fresh]	15000	cfu/g
Conductivity 1:6 [Fresh]	3288	uS/cm
Total Nitrogen	4.56	% w/w
Ammonium Nitrogen	11927	mg/kg
Total Phosphorus (P)	7916	mg/kg
Total Potassium (K)	1717	mg/kg
Total Magnesium (Mg)	4696	mg/kg
Total Copper (Cu)	105	mg/kg
Total Zinc (Zn)	334	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	8393	mg/kg
Total Calcium (Ca)	9980	mg/kg
Total Iron (Fe)	19090	mg/kg
Total Molybdenum (Mo)	2.83	mg/kg
Total Manganese (Mn)	297	mg/kg
Total Lead (Pb)	22.9	mg/kg
Total Cadmium (Cd)	0.33	mg/kg
Total Mercury (Hg)	0.23	mg/kg
Total Nickel (Ni)	23.7	mg/kg
Total Chromium (Cr)	24.5	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	6.63	
Organic Matter LOI	77.2	% w/w
Lime Equivalent as CaCO ₃	2.5	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	32.9	mg/kg
Total Arsenic (As)	5.35	mg/kg
Total Selenium (Se)	0.85	mg/kg
Total Boron (B)	14.3	mg/kg
B.O.D. [fresh]	64651	mg/l
Salmonella spp [fresh]	Positive	in 25g
Neutralising Value as CaO [TNV]	1.4	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

BALLYNACER 01/02/22

Sample Matrix : SLUDGE ORD 24648

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	20.2	%
E Coli [Fresh]	5900	cfu/g
Conductivity 1:6 [Fresh]	1651	uS/cm
Total Nitrogen	5.56	% w/w
Ammonium Nitrogen	10590	mg/kg
Total Phosphorus (P)	14881	mg/kg
Total Potassium (K)	1760	mg/kg
Total Magnesium (Mg)	2917	mg/kg
Total Copper (Cu)	132	mg/kg
Total Zinc (Zn)	451	mg/kg



ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	7494	mg/kg
Total Calcium (Ca)	12223	mg/kg
Total Iron (Fe)	22452	mg/kg
Total Molybdenum (Mo)	3.81	mg/kg
Total Manganese (Mn)	300	mg/kg
Total Lead (Pb)	20.8	mg/kg
Total Cadmium (Cd)	0.45	mg/kg
Total Mercury (Hg)	0.38	mg/kg
Total Nickel (Ni)	17.4	mg/kg
Total Chromium (Cr)	23.7	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	6.32	
Organic Matter LOI	80.1	% w/w
Lime Equivalent as CaCO ₃	2.8	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	42.7	mg/kg
Total Arsenic (As)	3.32	mg/kg
Total Selenium (Se)	1.12	mg/kg
Total Boron (B)	12.8	mg/kg
B.O.D. [fresh]	53851	mg/l
Salmonella spp [fresh]	Positive	in 25g
Neutralising Value as CaO [TNV]	1.6	% w/w



Test Certificate

Certificate: ECTC023164

Issue No: 1

Sample Reference :

ANTRIM 03/02/2022

Sample Matrix : SLUDGE ORD 24648

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	31.1	%
E Coli [Fresh]	5700	cfu/g
Conductivity 1:6 [Fresh]	3353	uS/cm
Total Nitrogen	5.23	% w/w
Ammonium Nitrogen	14942	mg/kg
Total Phosphorus (P)	14265	mg/kg
Total Potassium (K)	1838	mg/kg
Total Magnesium (Mg)	3668	mg/kg
Total Copper (Cu)	109	mg/kg
Total Zinc (Zn)	376	mg/kg



Test Certificate

Certificate: ECTC023164

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	7088	mg/kg
Total Calcium (Ca)	14882	mg/kg
Total Iron (Fe)	27845	mg/kg
Total Molybdenum (Mo)	3.41	mg/kg
Total Manganese (Mn)	216	mg/kg
Total Lead (Pb)	13.4	mg/kg
Total Cadmium (Cd)	0.32	mg/kg
Total Mercury (Hg)	0.36	mg/kg
Total Nickel (Ni)	19.1	mg/kg
Total Chromium (Cr)	30.1	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	7.26	
Organic Matter LOI	78.5	% w/w
Lime Equivalent as CaCO ₃	3.2	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	33.8	mg/kg
Total Arsenic (As)	1.71	mg/kg
Total Selenium (Se)	0.86	mg/kg
Total Boron (B)	10.1	mg/kg
B.O.D. [fresh]	58951	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.8	% w/w

Test Certificate

Certificate: ECTC023166

Issue No: 1

Veolia Water Outsourcing Ltd
Duncrue Street
Belfast
BT3 9JS

McQuillan Envirocare Ltd t/a McQuillan Environmental
Caulside Drive, New Park Industrial Estate
Antrim, BT41 2DU

Tel: (028) 9446 6708

Fax: (028) 9442 9580

www.mcquillancompanies.com
samplebooking@mcqcos.com

MCQ Job No	ORD-24650	Sample Receipt Date	07/02/2022
MCQ Quote Number	ECA-02495	Date Analysis Started	09/02/2022
Purchase Order Number	4200173193	Completion Date	03/03/2022
No of Samples	2	Turnaround Time	10

Dear [REDACTED],

Analysis of your sample(s) is now complete and we have pleasure in enclosing the appropriate test report.

All analysis was completed within McQuillan Environmental Analytical Laboratory (MCQ) unless otherwise specified. Results relate only to the items tested. Any analysis that was subcontracted to an approved laboratory is indicated by 'S'. Please refer to the table at the end of your test certificate for explanations of sample deviations.

Where sample data is provided by the customer, the results relate to the sample supplied and on the basis that this data is correct. Incorrect sampling dates and/or sample information will affect the validity of results. This Test Certificate supersedes any version previously issued by the laboratory. The report shall not be reproduced except in full without approval of the laboratory.

Should you have any queries regarding this report(s) or any part of our service, please contact Sample Booking on 028 9448 3195 who will be happy to discuss your requirements.

Thank you for using our Laboratory and we look forward to receiving your next samples.

Yours Sincerely

**Report Authorised by:** [REDACTED]**Position:** Senior Lab Administrator**Date Issued:** 3/3/2022**Addendum To Report:**

Test Certificate

Certificate: ECTC023166

Issue No: 1



Test Certificate

Certificate: ECTC023166

Issue No: 1

Lab Ref	Sample Details	Sample Date	Method No.	Test	Result	Units	ACC	Lab	Sample Deviations
MCQ088617	Centrifuge	07/02/2022	N/A	Veolia Sludge Suite	See below	mg/kg	N	S	

Time Sampled: 07:22 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

MCQ088618 Strabane 07/02/2022 N/A Veolia Sludge Suite See below mg/kg N S

Time Sampled: 09:45 **Sample Matrix:** Sludge (S) **Analysyt Comment:**

Sample Deviations Legend - Results may be compromised if the following deviations apply			
Comment	C	Incorrect Container	‡
Container with Headspace provided	8	Insufficient sample volume	È
BOD Overdiluted, therefore result indicative only	\$	BOD Underdiluted, therefore result indicative only	#
High Chloride concentration, COD could not be determined	§	Holding time exceeded due to sampled on date/time	@
Holding time exceeded in Lab	±	Holding time exceeded due to delayed instructions	&
Sample integrity Jeopardized in receipt	Ø		



Test Certificate

Certificate: ECTC023166

Issue No: 1

Sample Reference :

STRABANE 07/02/22

Sample Matrix : SLUDGE

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	23.8	%
E Coli [Fresh]	3700	cfu/g
Conductivity 1:6 [Fresh]	1693	uS/cm
Total Nitrogen	6.18	% w/w
Ammonium Nitrogen	10748	mg/kg
Total Phosphorus (P)	8771	mg/kg
Total Potassium (K)	1698	mg/kg
Total Magnesium (Mg)	3450	mg/kg
Total Copper (Cu)	149	mg/kg
Total Zinc (Zn)	710	mg/kg



Test Certificate

Certificate: ECTC023166

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	9356	mg/kg
Total Calcium (Ca)	15082	mg/kg
Total Iron (Fe)	12448	mg/kg
Total Molybdenum (Mo)	4.04	mg/kg
Total Manganese (Mn)	484	mg/kg
Total Lead (Pb)	37.6	mg/kg
Total Cadmium (Cd)	0.84	mg/kg
Total Mercury (Hg)	0.41	mg/kg
Total Nickel (Ni)	27.6	mg/kg
Total Chromium (Cr)	39.7	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	7.47	
Organic Matter LOI	75.8	% w/w
Lime Equivalent as CaCO ₃	4.9	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	32.1	mg/kg
Total Arsenic (As)	4.61	mg/kg
Total Selenium (Se)	1.62	mg/kg
Total Boron (B)	13.3	mg/kg
B.O.D. [fresh]	53400	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.7	% w/w



Test Certificate

Certificate: ECTC023166

Issue No: 1

Sample Reference :

CENTRIFUGE 07/02/22

Sample Matrix : SLUDGE ORD 24650

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Oven Dry Matter	25.5	%
E Coli [Fresh]	3200	cfu/g
Conductivity 1:6 [Fresh]	2102	uS/cm
Total Nitrogen	5.77	% w/w
Ammonium Nitrogen	11352	mg/kg
Total Phosphorus (P)	11914	mg/kg
Total Potassium (K)	1537	mg/kg
Total Magnesium (Mg)	3453	mg/kg
Total Copper (Cu)	141	mg/kg
Total Zinc (Zn)	412	mg/kg



Test Certificate

Certificate: ECTC023166

Issue No: 1

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
Total Sulphur (S)	6749	mg/kg
Total Calcium (Ca)	11149	mg/kg
Total Iron (Fe)	15986	mg/kg
Total Molybdenum (Mo)	4.10	mg/kg
Total Manganese (Mn)	249	mg/kg
Total Lead (Pb)	25.0	mg/kg
Total Cadmium (Cd)	0.41	mg/kg
Total Mercury (Hg)	0.72	mg/kg
Total Nickel (Ni)	17.1	mg/kg
Total Chromium (Cr)	28.2	mg/kg

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Value	Units
pH 1:6 [Fresh]	6.41	
Organic Matter LOI	81.9	% w/w
Lime Equivalent as CaCO ₃	2.9	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	54.7	mg/kg
Total Arsenic (As)	2.37	mg/kg
Total Selenium (Se)	1.58	mg/kg
Total Boron (B)	16.9	mg/kg
B.O.D. [fresh]	60301	mg/l
Salmonella spp [fresh]	Positive	in 25g
Neutralising Value as CaO [TNV]	1.6	% w/w

Amendment To Report:

Veolia Water Outsourcing Ltd
115-121 Duncrue Street
Belfast
BT3 9AR

McQuillan Envirocare Ltd t/a McQuillan Environmental
Caulside Drive, New Park Industrial Estate
Antrim, BT41 2DU

Tel: (028) 9446 6708

Fax: (028) 9442 9580

MCQ Job Number	ORD-30447	Sample Receipt Date	17/07/2023
MCQ Quote Number	ECA-5528-1	Date Analysis Started	20/07/2023
Purchase Order Number	Card	Completion Date	28/07/2023
No. of Samples	7	Turnaround Time	10 working days

Dear [REDACTED]

Analysis of your sample(s) is now complete and we have pleasure in enclosing the appropriate test report.

All analysis was completed within McQuillan Environmental Analytical Laboratory (MCQ) unless otherwise specified. Results relate only to the items tested. Any analysis that was subcontracted to an approved laboratory is indicated by 'S'. Please refer to the table at the end of your test certificate for explanations of sample deviations.

Where sample data is provided by the customer, the results relate to the sample supplied and on the basis that this data is correct. Incorrect sampling dates and/or sample information will affect the validity of results. This Test Certificate supersedes any version previously issued by the laboratory. The report shall not be reproduced except in full without approval of the laboratory.

Should you have any queries regarding this report(s) or any part of our service, please contact Sample Booking on 028 9448 3195 who will be happy to discuss your requirements.

Thank you for using our Laboratory and we look forward to receiving your next samples.

Yours Sincerely

[REDACTED]

Report Authorised by: [REDACTED]

Position: Senior Lab Administrator

Date Issued: 28/07/2023

Lab Ref	Sample Details	Sample Date	Method No.	Test	Result	Units	ACC	Lab	Sample Deviations
MCQ121893	New Holland WTN 25019	05/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 08:27 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ121894	Dunmurry WTN 25022	06/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 07:48 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ121895	Ballynacorney WTN 47055	05/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 11:30 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ121896	Culmorrish WTN 33355	04/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 14:35 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ121897	Enniskillen WTN 25018	05/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 06:56 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ121898	Portrush WTN 25021	05/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 13:45 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ121899	Antrim WTN 25020	05/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 10:10 Sample Matrix: Sludge (S) Analyst Comments:									

Sample Deviations:

Sample Deviations Legend - Results may be compromised if the following deviations apply			
Comment	C	Incorrect Container	‡
Container with Headspace provided	8	Insufficient sample volume	Ë
BOD Overdiluted, therefore result indicative only	\$	BOD Underdiluted, therefore result indicative only	#
High Chloride concentration, COD could not be determined	§	Holding time exceeded due to sampled on date/time	@
Holding time exceeded in Lab	±	Holding time exceeded due to delayed instructions	&
Sample integrity Jeopardized in receipt	∅		

NEW HOLLAND WTN

Determinand	Value	Units
Oven Dry Matter	26.5	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	3236	uS/cm
Total Nitrogen	5.74	% w/w
Ammonium Nitrogen	17286	mg/kg
Total Phosphorus (P)	16242	mg/kg
Total Potassium (K)	2690	mg/kg
Total Magnesium (Mg)	3817	mg/kg
Total Copper (Cu)	118	mg/kg
Total Zinc (Zn)	542	mg/kg

Determinand	Value	Units
Total Sulphur (S)	9762	mg/kg
Total Calcium (Ca)	12162	mg/kg
Total Iron (Fe)	32625	mg/kg
Total Molybdenum (Mo)	4.83	mg/kg
Total Manganese (Mn)	386	mg/kg
Total Lead (Pb)	37.3	mg/kg
Total Cadmium (Cd)	0.51	mg/kg
Total Mercury (Hg)	0.34	mg/kg
Total Nickel (Ni)	23.2	mg/kg
Total Chromium (Cr)	28.4	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	8.41	
Organic Matter LOI	75.3	% w/w
Lime Equivalent as CaCO ₃	3.6	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	31.3	mg/kg
Total Arsenic (As)	2.87	mg/kg
Total Selenium (Se)	1.17	mg/kg
Total Boron (B)	17.6	mg/kg
B.O.D. [fresh]	69000	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.0	% w/w

DUNMURRAY WTN

Determinand	Value	Units
Oven Dry Matter	32.9	%
E Coli [Fresh]	80	cfu/g
Conductivity 1:6 [Fresh]	3384	uS/cm
Total Nitrogen	3.77	% w/w
Ammonium Nitrogen	9830	mg/kg
Total Phosphorus (P)	11425	mg/kg
Total Potassium (K)	946	mg/kg
Total Magnesium (Mg)	1885	mg/kg
Total Copper (Cu)	82.9	mg/kg
Total Zinc (Zn)	463	mg/kg

Determinand	Value	Units
Total Sulphur (S)	8065	mg/kg
Total Calcium (Ca)	11586	mg/kg
Total Iron (Fe)	23323	mg/kg
Total Molybdenum (Mo)	2.82	mg/kg
Total Manganese (Mn)	167	mg/kg
Total Lead (Pb)	20.5	mg/kg
Total Cadmium (Cd)	0.38	mg/kg
Total Mercury (Hg)	0.51	mg/kg
Total Nickel (Ni)	11.7	mg/kg
Total Chromium (Cr)	19.0	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	7.95	
Organic Matter LOI	83.9	% w/w
Lime Equivalent as CaCO ₃	2.2	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	22.0	mg/kg
Total Arsenic (As)	2.01	mg/kg
Total Selenium (Se)	0.75	mg/kg
Total Boron (B)	5.2	mg/kg
B.O.D. [fresh]	111150	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.2	% w/w

BALLYNACOR WTN

Determinand	Value	Units
Oven Dry Matter	17.3	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	1727	uS/cm
Total Nitrogen	6.09	% w/w
Ammonium Nitrogen	11619	mg/kg
Total Phosphorus (P)	18128	mg/kg
Total Potassium (K)	1879	mg/kg
Total Magnesium (Mg)	2971	mg/kg
Total Copper (Cu)	118	mg/kg
Total Zinc (Zn)	517	mg/kg

Determinand	Value	Units
Total Sulphur (S)	10677	mg/kg
Total Calcium (Ca)	15967	mg/kg
Total Iron (Fe)	34681	mg/kg
Total Molybdenum (Mo)	4.26	mg/kg
Total Manganese (Mn)	291	mg/kg
Total Lead (Pb)	21.0	mg/kg
Total Cadmium (Cd)	0.48	mg/kg
Total Mercury (Hg)	0.49	mg/kg
Total Nickel (Ni)	16.8	mg/kg
Total Chromium (Cr)	23.7	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	7.97	
Organic Matter LOI	74.4	% w/w
Lime Equivalent as CaCO ₃	4.5	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	42.4	mg/kg
Total Arsenic (As)	2.72	mg/kg
Total Selenium (Se)	1.27	mg/kg
Total Boron (B)	14.0	mg/kg
B.O.D. [fresh]	53250	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.5	% w/w

CULMOOR WTN

Determinand	Value	Units
Oven Dry Matter	19.2	%
E Coli [Fresh]	695	cfu/g
Conductivity 1:6 [Fresh]	1685	uS/cm
Total Nitrogen	5.45	% w/w
Ammonium Nitrogen	7142	mg/kg
Total Phosphorus (P)	7016	mg/kg
Total Potassium (K)	1651	mg/kg
Total Magnesium (Mg)	4431	mg/kg
Total Copper (Cu)	150	mg/kg
Total Zinc (Zn)	544	mg/kg

Determinand	Value	Units
Total Sulphur (S)	12841	mg/kg
Total Calcium (Ca)	6693	mg/kg
Total Iron (Fe)	18320	mg/kg
Total Molybdenum (Mo)	4.16	mg/kg
Total Manganese (Mn)	118	mg/kg
Total Lead (Pb)	54.6	mg/kg
Total Cadmium (Cd)	0.63	mg/kg
Total Mercury (Hg)	0.48	mg/kg
Total Nickel (Ni)	25.2	mg/kg
Total Chromium (Cr)	34.4	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	5.58	
Organic Matter LOI	70.2	% w/w
Lime Equivalent as CaCO ₃	3.2	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	55.4	mg/kg
Total Arsenic (As)	6.90	mg/kg
Total Selenium (Se)	1.18	mg/kg
Total Boron (B)	15.1	mg/kg
B.O.D. [fresh]	46050	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.8	% w/w

ENNISKILLEN WTN

Determinand	Value	Units
Oven Dry Matter	23.0	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	2179	uS/cm
Total Nitrogen	4.86	% w/w
Ammonium Nitrogen	13290	mg/kg
Total Phosphorus (P)	15479	mg/kg
Total Potassium (K)	1319	mg/kg
Total Magnesium (Mg)	2130	mg/kg
Total Copper (Cu)	146	mg/kg
Total Zinc (Zn)	637	mg/kg

Determinand	Value	Units
Total Sulphur (S)	13524	mg/kg
Total Calcium (Ca)	21247	mg/kg
Total Iron (Fe)	28789	mg/kg
Total Molybdenum (Mo)	4.64	mg/kg
Total Manganese (Mn)	227	mg/kg
Total Lead (Pb)	25.6	mg/kg
Total Cadmium (Cd)	0.58	mg/kg
Total Mercury (Hg)	0.80	mg/kg
Total Nickel (Ni)	16.8	mg/kg
Total Chromium (Cr)	26.3	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	8.20	
Organic Matter LOI	73.9	% w/w
Lime Equivalent as CaCO ₃	6.4	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	143	mg/kg
Total Arsenic (As)	3.47	mg/kg
Total Selenium (Se)	1.24	mg/kg
Total Boron (B)	11.5	mg/kg
B.O.D. [fresh]	52950	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	3.6	% w/w

PORTRUSH WTN

Determinand	Value	Units
Oven Dry Matter	21.1	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	3188	uS/cm
Total Nitrogen	6.98	% w/w
Ammonium Nitrogen	18902	mg/kg
Total Phosphorus (P)	9254	mg/kg
Total Potassium (K)	2382	mg/kg
Total Magnesium (Mg)	4368	mg/kg
Total Copper (Cu)	164	mg/kg
Total Zinc (Zn)	481	mg/kg

Determinand	Value	Units
Total Sulphur (S)	9252	mg/kg
Total Calcium (Ca)	13919	mg/kg
Total Iron (Fe)	9864	mg/kg
Total Molybdenum (Mo)	5.30	mg/kg
Total Manganese (Mn)	157	mg/kg
Total Lead (Pb)	35.3	mg/kg
Total Cadmium (Cd)	0.52	mg/kg
Total Mercury (Hg)	0.54	mg/kg
Total Nickel (Ni)	42.3	mg/kg
Total Chromium (Cr)	28.3	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	7.84	
Organic Matter LOI	82.6	% w/w
Lime Equivalent as CaCO ₃	3.4	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	31.2	mg/kg
Total Arsenic (As)	1.91	mg/kg
Total Selenium (Se)	1.16	mg/kg
Total Boron (B)	17.0	mg/kg
B.O.D. [fresh]	47850	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.9	% w/w

ANTRIM WTN

Determinand	Value	Units
Oven Dry Matter	36.4	%
E Coli [Fresh]	100	cfu/g
Conductivity 1:6 [Fresh]	3493	uS/cm
Total Nitrogen	4.35	% w/w
Ammonium Nitrogen	13842	mg/kg
Total Phosphorus (P)	18357	mg/kg
Total Potassium (K)	1568	mg/kg
Total Magnesium (Mg)	3346	mg/kg
Total Copper (Cu)	98.9	mg/kg
Total Zinc (Zn)	398	mg/kg

Determinand	Value	Units
Total Sulphur (S)	8207	mg/kg
Total Calcium (Ca)	16589	mg/kg
Total Iron (Fe)	44721	mg/kg
Total Molybdenum (Mo)	2.86	mg/kg
Total Manganese (Mn)	297	mg/kg
Total Lead (Pb)	17.6	mg/kg
Total Cadmium (Cd)	0.33	mg/kg
Total Mercury (Hg)	0.50	mg/kg
Total Nickel (Ni)	23.8	mg/kg
Total Chromium (Cr)	23.4	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	8.42	
Organic Matter LOI	74.6	% w/w
Lime Equivalent as CaCO ₃	4.2	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	21.2	mg/kg
Total Arsenic (As)	1.78	mg/kg
Total Selenium (Se)	0.75	mg/kg
Total Boron (B)	10.3	mg/kg
B.O.D. [fresh]	44400	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.3	% w/w

Amendment To Report:

Veolia Water Outsourcing Ltd
115-121 Duncrue Street
Belfast
BT3 9AR

McQuillan Envirocare Ltd t/a McQuillan Environmental
Caulside Drive, New Park Industrial Estate
Antrim, BT41 2DU

Tel: (028) 9446 6708

Fax: (028) 9442 9580

MCQ Job Number	ORD-30495	Sample Receipt Date	20/07/2023
MCQ Quote Number	ECA-5528-1	Date Analysis Started	03/08/2023
Purchase Order Number	Card	Completion Date	15/08/2023
No. of Samples	3	Turnaround Time	10 working days

Dear [REDACTED],

Analysis of your sample(s) is now complete and we have pleasure in enclosing the appropriate test report.

All analysis was completed within McQuillan Environmental Analytical Laboratory (MCQ) unless otherwise specified. Results relate only to the items tested. Any analysis that was subcontracted to an approved laboratory is indicated by 'S'. Please refer to the table at the end of your test certificate for explanations of sample deviations.

Where sample data is provided by the customer, the results relate to the sample supplied and on the basis that this data is correct. Incorrect sampling dates and/or sample information will affect the validity of results. This Test Certificate supersedes any version previously issued by the laboratory. The report shall not be reproduced except in full without approval of the laboratory.

Should you have any queries regarding this report(s) or any part of our service, please contact Sample Booking on 028 9448 3195 who will be happy to discuss your requirements.

Thank you for using our Laboratory and we look forward to receiving your next samples.

Yours Sincerely

[REDACTED]

Report Authorised by: [REDACTED]

Position: Senior Lab Administrator

Date Issued: 15/08/2023

Lab Ref	Sample Details	Sample Date	Method No.	Test	Result	Units	ACC	Lab	Sample Deviations
MCQ122103	Kinnegar WTN 5365	10/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 09:25 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ122104	Omagh WTN 33368	11/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 07:11 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ122105	Strabane WTN 25039	19/07/2023	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 11:20 Sample Matrix: Sludge (S) Analyst Comments:									

Sample Deviations:

Sample Deviations Legend - Results may be compromised if the following deviations apply			
Comment	C	Incorrect Container	‡
Container with Headspace provided	8	Insufficient sample volume	Ë
BOD Overdiluted, therefore result indicative only	\$	BOD Underdiluted, therefore result indicative only	#
High Chloride concentration, COD could not be determined	§	Holding time exceeded due to sampled on date/time	@
Holding time exceeded in Lab	±	Holding time exceeded due to delayed instructions	&
Sample integrity Jeopardized in receipt	∅		

Sample Reference :

KINNEGAR WTN 5365

Determinand	Value	Units
Oven Dry Matter	25.5	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	2810	uS/cm
Total Nitrogen	4.39	% w/w
Ammonium Nitrogen	13749	mg/kg
Total Phosphorus (P)	9255	mg/kg
Total Potassium (K)	1364	mg/kg
Total Magnesium (Mg)	3645	mg/kg
Total Copper (Cu)	131	mg/kg
Total Zinc (Zn)	487	mg/kg

Determinand	Value	Units
Total Sulphur (S)	4447	mg/kg
Total Calcium (Ca)	9884	mg/kg
Total Iron (Fe)	8438	mg/kg
Total Molybdenum (Mo)	3.42	mg/kg
Total Manganese (Mn)	126	mg/kg
Total Lead (Pb)	73.5	mg/kg
Total Cadmium (Cd)	0.64	mg/kg
Total Mercury (Hg)	0.67	mg/kg
Total Nickel (Ni)	20.5	mg/kg
Total Chromium (Cr)	66.8	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	7.80	
Organic Matter LOI	77.3	% w/w
Lime Equivalent as CaCO ₃	2.2	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	45.7	mg/kg
Total Arsenic (As)	3.00	mg/kg
Total Selenium (Se)	1.87	mg/kg
Total Boron (B)	18.0	mg/kg
B.O.D. [fresh]	64950	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.2	% w/w

Sample Reference :
 OMAGH WTN 33368

Determinand	Value	Units
Oven Dry Matter	29.5	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	3135	uS/cm
Total Nitrogen	3.56	% w/w
Ammonium Nitrogen	13094	mg/kg
Total Phosphorus (P)	6501	mg/kg
Total Potassium (K)	1298	mg/kg
Total Magnesium (Mg)	2585	mg/kg
Total Copper (Cu)	93.6	mg/kg
Total Zinc (Zn)	568	mg/kg

Determinand	Value	Units
Total Sulphur (S)	6072	mg/kg
Total Calcium (Ca)	15470	mg/kg
Total Iron (Fe)	10074	mg/kg
Total Molybdenum (Mo)	4.47	mg/kg
Total Manganese (Mn)	218	mg/kg
Total Lead (Pb)	38.2	mg/kg
Total Cadmium (Cd)	0.38	mg/kg
Total Mercury (Hg)	0.77	mg/kg
Total Nickel (Ni)	17.0	mg/kg
Total Chromium (Cr)	27.5	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	7.95	
Organic Matter LOI	78.2	% w/w
Lime Equivalent as CaCO ₃	3.3	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	30.5	mg/kg
Total Arsenic (As)	4.14	mg/kg
Total Selenium (Se)	1.14	mg/kg
Total Boron (B)	5.5	mg/kg
B.O.D. [fresh]	103350	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	1.9	% w/w

Sample Reference :

STRABANE WTN 25039

Determinand	Value	Units
Oven Dry Matter	19.5	%
E Coli [Fresh]	1500	cfu/g
Conductivity 1:6 [Fresh]	1626	uS/cm
Total Nitrogen	5.75	% w/w
Ammonium Nitrogen	9734	mg/kg
Total Phosphorus (P)	8674	mg/kg
Total Potassium (K)	1948	mg/kg
Total Magnesium (Mg)	3382	mg/kg
Total Copper (Cu)	186	mg/kg
Total Zinc (Zn)	914	mg/kg

Determinand	Value	Units
Total Sulphur (S)	11989	mg/kg
Total Calcium (Ca)	15867	mg/kg
Total Iron (Fe)	14216	mg/kg
Total Molybdenum (Mo)	4.77	mg/kg
Total Manganese (Mn)	313	mg/kg
Total Lead (Pb)	37.6	mg/kg
Total Cadmium (Cd)	0.95	mg/kg
Total Mercury (Hg)	0.58	mg/kg
Total Nickel (Ni)	26.0	mg/kg
Total Chromium (Cr)	34.1	mg/kg

Determinand	Value	Units
pH 1:6 [Fresh]	8.11	
Organic Matter LOI	73.7	% w/w
Lime Equivalent as CaCO ₃	5.1	% w/w
Fluoride [100:1 H ₂ SO ₄ Soluble]	44.8	mg/kg
Total Arsenic (As)	5.09	mg/kg
Total Selenium (Se)	1.94	mg/kg
Total Boron (B)	15.7	mg/kg
B.O.D. [fresh]	37350	mg/l
Salmonella spp [fresh]	Negative	in 25g
Neutralising Value as CaO [TNV]	2.9	% w/w

Amendment To Report:

Veolia Water Outsourcing Ltd
115-121 Duncrue Street
Belfast
BT3 9AR

McQuillan Envirocare Ltd t/a McQuillan Environmental
Caulside Drive, New Park Industrial Estate
Antrim, BT41 2DU

Tel: (028) 9446 6708

Fax: (028) 9442 9580

MCQ Job Number	ORD-32228	Sample Receipt Date	13/02/2024
MCQ Quote Number	ECA-5528-2	Date Analysis Started	15/02/2024
Purchase Order Number	Card	Completion Date	07/03/2024
No. of Samples	10	Turnaround Time	10 working days

Dear [REDACTED]

Analysis of your sample(s) is now complete and we have pleasure in enclosing the appropriate test report.

All analysis was completed within McQuillan Environmental Analytical Laboratory (MCQ) unless otherwise specified. Results relate only to the items tested. Any analysis that was subcontracted to an approved laboratory is indicated by 'S'. Please refer to the table at the end of your test certificate for explanations of sample deviations.

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Should you have any queries regarding this report(s) or any part of our service, please contact Sample Booking on 028 9448 3195 who will be happy to discuss your requirements.

Thank you for using our Laboratory and we look forward to receiving your next samples.

Yours Sincerely

[REDACTED]

Report Authorised by: [REDACTED]

Position: Senior Lab Administrator

Date Issued: 07/03/2024

Lab Ref	Sample Details	Sample Date	Method No.	Test	Result	Units	ACC	Lab	Sample Deviations
MCQ131012	Antrim	07/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 13:25 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131013	Portrush	06/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131014	Ballynacor	06/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131015	Kinnegar	07/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 12:11 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131016	New Holland	06/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131017	Culmore	07/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 13:05 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131018	Omagh	07/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 07:57 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131019	Enniskillen	07/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 06:52 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131020	Strabane	08/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ131021	Dunmurray	08/02/2024	N/A	Veolia Sludge Suite	See below	-	N	S	
Time Sampled: 14:59 Sample Matrix: Sludge (S) Analyst Comments:									

Sample Deviations:

Sample Deviations Legend - Results may be compromised if the following deviations apply			
Comment	C	Incorrect Container	‡
Container with Headspace provided	8	Insufficient sample volume	Ë
BOD Overdiluted, therefore result indicative only	\$	BOD Underdiluted, therefore result indicative only	#
High Chloride concentration, COD could not be determined	§	Holding time exceeded due to sampled on date/time	@
Holding time exceeded in Lab	±	Holding time exceeded due to delayed instructions	&
Sample integrity Jeopardized in receipt	∅		

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : ANTRIM

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156240

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton	
pH 1:6 [Fresh]		8.14		
Oven Dry Matter	%	30.0	300.0	kg DM
Total Nitrogen	% w/w	4.77	28.62	Units N
Ammonium Nitrogen	mg/kg	16881	10.13	Units NH4-N
Total Phosphorus (P)	% w/w	1.71	23.50	Units P2O5
Total Potassium (K)	% w/w	0.148	1.07	Units K2O
Total Magnesium (Mg)	% w/w	0.337	3.36	Units MgO
Total Sulphur (S)	% w/w	0.667	10.01	Units SO3
Total Copper (Cu)	mg/kg	96.2	0.03	kg Cu
Total Zinc (Zn)	mg/kg	362	0.11	kg Zn
Total Calcium (Ca)	mg/kg	16286	4.89	kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : ANTRIM

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156240

Date Received	15-FEB-2024
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Date Reported	06-MAR-2024
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ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	16286
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	4053
Total Iron (Fe)	mg/kg	30520
Total Molybdenum (Mo)	mg/kg	2.64
Total Manganese (Mn)	mg/kg	262
Total Lead (Pb)	mg/kg	13.7
Total Cadmium (Cd)	mg/kg	0.301
Total Mercury (Hg)	mg/kg	0.276
Total Nickel (Ni)	mg/kg	20.9
Total Chromium (Cr)	mg/kg	19.2
Organic Matter LOI	% w/w	80.6
Lime Equivalent as CaCO ₃	% w/w	<2
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	40.8
Total Arsenic (As)	mg/kg	1.89
Total Selenium (Se)	mg/kg	0.755
Total Boron (B)	mg/kg	8.64

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : ANTRIM

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156240

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	63000
Salmonella spp [fresh]	in 25g	Positive
N. V. as CaO equivalents	% w/w	<1

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : PORTRUSH

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156241

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		8.38	
Oven Dry Matter	%	24.7	247.0 kg DM
Total Nitrogen	% w/w	6.06	29.94 Units N
Ammonium Nitrogen	mg/kg	21719	10.73 Units NH4-N
Total Phosphorus (P)	% w/w	1.02	11.54 Units P2O5
Total Potassium (K)	% w/w	0.140	0.83 Units K2O
Total Magnesium (Mg)	% w/w	0.549	4.50 Units MgO
Total Sulphur (S)	% w/w	0.816	10.08 Units SO3
Total Copper (Cu)	mg/kg	159	0.04 kg Cu
Total Zinc (Zn)	mg/kg	424	0.10 kg Zn
Total Calcium (Ca)	mg/kg	14106	3.48 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : PORTRUSH

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156241

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	14106
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	4448
Total Iron (Fe)	mg/kg	12856
Total Molybdenum (Mo)	mg/kg	4.20
Total Manganese (Mn)	mg/kg	236
Total Lead (Pb)	mg/kg	43.9
Total Cadmium (Cd)	mg/kg	0.476
Total Mercury (Hg)	mg/kg	0.416
Total Nickel (Ni)	mg/kg	53.3
Total Chromium (Cr)	mg/kg	43.1
Organic Matter LOI	% w/w	77.4
Lime Equivalent as CaCO ₃	% w/w	2.66
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	25.9
Total Arsenic (As)	mg/kg	2.83
Total Selenium (Se)	mg/kg	1.18
Total Boron (B)	mg/kg	28.2

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : PORTRUSH

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156241

Date Received	15-FEB-2024
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Date Reported	06-MAR-2024
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ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	28500
Salmonella spp [fresh]	in 25g	Negative
N. V. as CaO equivalents	% w/w	1.49

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : BALLYNACOR

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156242

Date Received	15-FEB-2024
---------------	-------------

Date Reported	06-MAR-2024
---------------	-------------

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		6.77	
Oven Dry Matter	%	26.7	267.0 kg DM
Total Nitrogen	% w/w	4.29	22.91 Units N
Ammonium Nitrogen	mg/kg	10119	5.40 Units NH ₄ -N
Total Phosphorus (P)	% w/w	1.83	22.38 Units P ₂ O ₅
Total Potassium (K)	% w/w	0.127	0.82 Units K ₂ O
Total Magnesium (Mg)	% w/w	0.402	3.56 Units MgO
Total Sulphur (S)	% w/w	0.758	10.12 Units SO ₃
Total Copper (Cu)	mg/kg	112	0.03 kg Cu
Total Zinc (Zn)	mg/kg	435	0.12 kg Zn
Total Calcium (Ca)	mg/kg	14752	3.94 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : BALLYNACOR

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156242

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	14752
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	2197
Total Iron (Fe)	mg/kg	38696
Total Molybdenum (Mo)	mg/kg	3.79
Total Manganese (Mn)	mg/kg	382
Total Lead (Pb)	mg/kg	29.5
Total Cadmium (Cd)	mg/kg	0.404
Total Mercury (Hg)	mg/kg	0.856
Total Nickel (Ni)	mg/kg	32.4
Total Chromium (Cr)	mg/kg	127
Organic Matter LOI	% w/w	55.0
Lime Equivalent as CaCO ₃	% w/w	2.73
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	68.4
Total Arsenic (As)	mg/kg	3.52
Total Selenium (Se)	mg/kg	0.991
Total Boron (B)	mg/kg	9.51

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : BALLYNACOR

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156242

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	40650
Salmonella spp [fresh]	in 25g	Positive
N. V. as CaO equivalents	% w/w	1.53

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : KINNEGAR

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156243

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		7.75	
Oven Dry Matter	%	25.3	253.0 kg DM
Total Nitrogen	% w/w	3.91	19.78 Units N
Ammonium Nitrogen	mg/kg	9862	4.99 Units NH ₄ -N
Total Phosphorus (P)	% w/w	0.730	8.46 Units P ₂ O ₅
Total Potassium (K)	% w/w	0.095	0.58 Units K ₂ O
Total Magnesium (Mg)	% w/w	0.307	2.58 Units MgO
Total Sulphur (S)	% w/w	0.531	6.72 Units SO ₃
Total Copper (Cu)	mg/kg	111	0.03 kg Cu
Total Zinc (Zn)	mg/kg	359	0.09 kg Zn
Total Calcium (Ca)	mg/kg	8702	2.20 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : KINNEGAR

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156243

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	8702
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	1944
Total Iron (Fe)	mg/kg	7859
Total Molybdenum (Mo)	mg/kg	3.15
Total Manganese (Mn)	mg/kg	120
Total Lead (Pb)	mg/kg	44.9
Total Cadmium (Cd)	mg/kg	0.477
Total Mercury (Hg)	mg/kg	0.585
Total Nickel (Ni)	mg/kg	16.1
Total Chromium (Cr)	mg/kg	59.9
Organic Matter LOI	% w/w	81.2
Lime Equivalent as CaCO ₃	% w/w	<2
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	46.7
Total Arsenic (As)	mg/kg	2.27
Total Selenium (Se)	mg/kg	1.22
Total Boron (B)	mg/kg	9.77

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : KINNEGAR

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156243

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	48600
Salmonella spp [fresh]	in 25g	Positive
N. V. as CaO equivalents	% w/w	<1

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : NEW HOLLAND

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156244

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		6.54	
Oven Dry Matter	%	27.2	272.0 kg DM
Total Nitrogen	% w/w	4.84	26.33 Units N
Ammonium Nitrogen	mg/kg	8836	4.81 Units NH4-N
Total Phosphorus (P)	% w/w	1.81	22.55 Units P2O5
Total Potassium (K)	% w/w	0.100	0.66 Units K2O
Total Magnesium (Mg)	% w/w	0.276	2.49 Units MgO
Total Sulphur (S)	% w/w	0.630	8.57 Units SO3
Total Copper (Cu)	mg/kg	80.0	0.02 kg Cu
Total Zinc (Zn)	mg/kg	399	0.11 kg Zn
Total Calcium (Ca)	mg/kg	13848	3.77 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : NEW HOLLAND

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156244

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	13848
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	2081
Total Iron (Fe)	mg/kg	33020
Total Molybdenum (Mo)	mg/kg	3.08
Total Manganese (Mn)	mg/kg	721
Total Lead (Pb)	mg/kg	16.5
Total Cadmium (Cd)	mg/kg	0.356
Total Mercury (Hg)	mg/kg	0.223
Total Nickel (Ni)	mg/kg	15.7
Total Chromium (Cr)	mg/kg	19.4
Organic Matter LOI	% w/w	78.6
Lime Equivalent as CaCO ₃	% w/w	<2
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	21.3
Total Arsenic (As)	mg/kg	2.56
Total Selenium (Se)	mg/kg	0.940
Total Boron (B)	mg/kg	12.7

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : **NEW HOLLAND**Sample Matrix : **WASTE**

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156244

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	54900
Salmonella spp [fresh]	in 25g	Negative
N. V. as CaO equivalents	% w/w	<1

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : CULMORE

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156245

Date Received	15-FEB-2024
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Date Reported	06-MAR-2024
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ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		7.38	
Oven Dry Matter	%	27.8	278.0 kg DM
Total Nitrogen	% w/w	4.81	26.74 Units N
Ammonium Nitrogen	mg/kg	10094	5.61 Units NH4-N
Total Phosphorus (P)	% w/w	0.836	10.64 Units P2O5
Total Potassium (K)	% w/w	0.083	0.56 Units K2O
Total Magnesium (Mg)	% w/w	0.368	3.40 Units MgO
Total Sulphur (S)	% w/w	0.562	7.81 Units SO3
Total Copper (Cu)	mg/kg	126	0.04 kg Cu
Total Zinc (Zn)	mg/kg	391	0.11 kg Zn
Total Calcium (Ca)	mg/kg	10210	2.84 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : CULMORE

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156245

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	10210
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	1868
Total Iron (Fe)	mg/kg	13705
Total Molybdenum (Mo)	mg/kg	3.32
Total Manganese (Mn)	mg/kg	177
Total Lead (Pb)	mg/kg	35.3
Total Cadmium (Cd)	mg/kg	0.459
Total Mercury (Hg)	mg/kg	0.324
Total Nickel (Ni)	mg/kg	22.9
Total Chromium (Cr)	mg/kg	25.3
Organic Matter LOI	% w/w	78.3
Lime Equivalent as CaCO ₃	% w/w	<2
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	28.6
Total Arsenic (As)	mg/kg	3.96
Total Selenium (Se)	mg/kg	1.06
Total Boron (B)	mg/kg	11.4

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : CULMORE

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156245

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	45150
Salmonella spp [fresh]	in 25g	Positive
N. V. as CaO equivalents	% w/w	<1

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : OMAGH

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156246

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		6.77	
Oven Dry Matter	%	21.5	215.0 kg DM
Total Nitrogen	% w/w	4.09	17.59 Units N
Ammonium Nitrogen	mg/kg	9833	4.23 Units NH4-N
Total Phosphorus (P)	% w/w	0.855	8.42 Units P2O5
Total Potassium (K)	% w/w	0.145	0.75 Units K2O
Total Magnesium (Mg)	% w/w	0.334	2.38 Units MgO
Total Sulphur (S)	% w/w	0.610	6.56 Units SO3
Total Copper (Cu)	mg/kg	111	0.02 kg Cu
Total Zinc (Zn)	mg/kg	674	0.14 kg Zn
Total Calcium (Ca)	mg/kg	12863	2.77 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : OMAGH

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156246

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	12863
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	1705
Total Iron (Fe)	mg/kg	11293
Total Molybdenum (Mo)	mg/kg	2.81
Total Manganese (Mn)	mg/kg	216
Total Lead (Pb)	mg/kg	30.6
Total Cadmium (Cd)	mg/kg	0.474
Total Mercury (Hg)	mg/kg	0.442
Total Nickel (Ni)	mg/kg	20.9
Total Chromium (Cr)	mg/kg	35.1
Organic Matter LOI	% w/w	79.8
Lime Equivalent as CaCO ₃	% w/w	<2
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	34.3
Total Arsenic (As)	mg/kg	4.19
Total Selenium (Se)	mg/kg	1.23
Total Boron (B)	mg/kg	9.16

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : OMAGH

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156246

Date Received	15-FEB-2024
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Date Reported	06-MAR-2024
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ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	44550
Salmonella spp [fresh]	in 25g	Negative
N. V. as CaO equivalents	% w/w	<1

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : ENNISKILLEN

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156247

Date Received	15-FEB-2024
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Date Reported	06-MAR-2024
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ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		7.66	
Oven Dry Matter	%	23.9	239.0 kg DM
Total Nitrogen	% w/w	4.80	22.94 Units N
Ammonium Nitrogen	mg/kg	12223	5.84 Units NH4-N
Total Phosphorus (P)	% w/w	1.63	17.84 Units P2O5
Total Potassium (K)	% w/w	0.120	0.69 Units K2O
Total Magnesium (Mg)	% w/w	0.207	1.64 Units MgO
Total Sulphur (S)	% w/w	0.845	10.10 Units SO3
Total Copper (Cu)	mg/kg	120	0.03 kg Cu
Total Zinc (Zn)	mg/kg	459	0.11 kg Zn
Total Calcium (Ca)	mg/kg	20068	4.80 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : ENNISKILLEN

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156247

Date Received	15-FEB-2024
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Date Reported	06-MAR-2024
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ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	20068
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	2010
Total Iron (Fe)	mg/kg	20230
Total Molybdenum (Mo)	mg/kg	3.62
Total Manganese (Mn)	mg/kg	168
Total Lead (Pb)	mg/kg	17.2
Total Cadmium (Cd)	mg/kg	0.478
Total Mercury (Hg)	mg/kg	0.492
Total Nickel (Ni)	mg/kg	21.0
Total Chromium (Cr)	mg/kg	30.9
Organic Matter LOI	% w/w	73.9
Lime Equivalent as CaCO ₃	% w/w	2.15
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	140
Total Arsenic (As)	mg/kg	3.15
Total Selenium (Se)	mg/kg	1.25
Total Boron (B)	mg/kg	8.43

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : ENNISKILLEN

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156247

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	36150
Salmonella spp [fresh]	in 25g	Negative
N. V. as CaO equivalents	% w/w	1.21

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : STRABANE

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156248

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		7.60	
Oven Dry Matter	%	24.7	247.0 kg DM
Total Nitrogen	% w/w	6.11	30.18 Units N
Ammonium Nitrogen	mg/kg	12444	6.15 Units NH4-N
Total Phosphorus (P)	% w/w	1.00	11.31 Units P2O5
Total Potassium (K)	% w/w	0.127	0.76 Units K2O
Total Magnesium (Mg)	% w/w	0.385	3.16 Units MgO
Total Sulphur (S)	% w/w	0.964	11.91 Units SO3
Total Copper (Cu)	mg/kg	165	0.04 kg Cu
Total Zinc (Zn)	mg/kg	777	0.19 kg Zn
Total Calcium (Ca)	mg/kg	14470	3.57 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : STRABANE

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156248

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	14470
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	1870
Total Iron (Fe)	mg/kg	15736
Total Molybdenum (Mo)	mg/kg	4.55
Total Manganese (Mn)	mg/kg	272
Total Lead (Pb)	mg/kg	44.4
Total Cadmium (Cd)	mg/kg	0.964
Total Mercury (Hg)	mg/kg	0.423
Total Nickel (Ni)	mg/kg	36.0
Total Chromium (Cr)	mg/kg	54.2
Organic Matter LOI	% w/w	71.2
Lime Equivalent as CaCO ₃	% w/w	3.69
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	45.6
Total Arsenic (As)	mg/kg	4.72
Total Selenium (Se)	mg/kg	2.04
Total Boron (B)	mg/kg	15.6

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : STRABANE

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156248

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	41100
Salmonella spp [fresh]	in 25g	Positive
N. V. as CaO equivalents	% w/w	2.07

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : DUNMURRAY

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156249

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value	Amount per fresh ton
pH 1:6 [Fresh]		8.04	
Oven Dry Matter	%	21.8	218.0 kg DM
Total Nitrogen	% w/w	5.38	23.46 Units N
Ammonium Nitrogen	mg/kg	13356	5.82 Units NH4-N
Total Phosphorus (P)	% w/w	2.21	22.07 Units P2O5
Total Potassium (K)	% w/w	0.078	0.41 Units K2O
Total Magnesium (Mg)	% w/w	0.226	1.64 Units MgO
Total Sulphur (S)	% w/w	0.764	8.33 Units SO3
Total Copper (Cu)	mg/kg	103	0.02 kg Cu
Total Zinc (Zn)	mg/kg	446	0.10 kg Zn
Total Calcium (Ca)	mg/kg	12535	2.73 kg Ca

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : DUNMURRAY

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References	
Report Number	22226
Sample Number	156249

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
Total Calcium (Ca)	mg/kg	12535
E Coli [Fresh]	cfu/g	1500
Conductivity 1:6 [Fresh]	uS/cm	1854
Total Iron (Fe)	mg/kg	45092
Total Molybdenum (Mo)	mg/kg	4.07
Total Manganese (Mn)	mg/kg	362
Total Lead (Pb)	mg/kg	20.3
Total Cadmium (Cd)	mg/kg	0.353
Total Mercury (Hg)	mg/kg	0.640
Total Nickel (Ni)	mg/kg	16.7
Total Chromium (Cr)	mg/kg	23.1
Organic Matter LOI	% w/w	77.7
Lime Equivalent as CaCO ₃	% w/w	<2
Fluoride [100:1 H ₂ SO ₄ Soluble]	mg/kg	19.8
Total Arsenic (As)	mg/kg	3.53
Total Selenium (Se)	mg/kg	1.02
Total Boron (B)	mg/kg	12.1

WASTE ANALYSIS RESULTS (Imperial Units)

Sample Reference : DUNMURRAY

Sample Matrix : WASTE

The sample submitted was small and made it difficult to complete all analysis requested.

The sample will be kept as the dry ground sample for at least 1 month.

Laboratory References

Report Number	22226
Sample Number	156249

Date Received	15-FEB-2024
Date Reported	06-MAR-2024

ANALYTICAL RESULTS *on 'dry matter' basis.*

Determinand	Units	Value
B.O.D. [fresh]	mg/l	32550
Salmonella spp [fresh]	in 25g	Negative
N. V. as CaO equivalents	% w/w	<1

The nutrients in manure are only partially available for plant growth and may or may not be useful. This depends on the time of application but also on the type and form of manure. More detailed information can be obtained from DEFRA RB209.

Amendment To Report:

Veolia Water Outsourcing Ltd
115-121 Duncrue Street
Belfast
BT3 9AR

McQuillan Envirocare Ltd t/a McQuillan Environmental
Caulside Drive, New Park Industrial Estate
Antrim, BT41 2DU

Tel: (028) 9446 6708

Fax: (028) 9442 9580

MCQ Job Number	ORD-35031	Sample Receipt Date	10/02/2025
MCQ Quote Number	ECA-5528-3	Date Analysis Started	17/02/2025
Purchase Order Number	4200873902	Completion Date	28/02/2025
No. of Samples	10	Turnaround Time	10 working days

Dear [REDACTED],

Analysis of your sample(s) is now complete and we have pleasure in enclosing the appropriate test report.

All analysis was completed within McQuillan Environmental Analytical Laboratory (MCQ) unless otherwise specified. Results relate only to the items tested. Any analysis that was subcontracted to an approved laboratory is indicated by 'S'. Please refer to the table at the end of your test certificate for explanations of sample deviations.

Where sample data is provided by the customer, the results relate to the sample supplied and on the basis that this data is correct. Incorrect sampling dates and/or sample information will affect the validity of results. This Test Certificate supersedes any version previously issued by the laboratory. The report shall not be reproduced except in full without approval of the laboratory.

Should you have any queries regarding this report(s) or any part of our service, please contact Sample Booking on 028 9448 3195 who will be happy to discuss your requirements.

Thank you for using our Laboratory and we look forward to receiving your next samples.

Yours Sincerely



Report Authorised by: [REDACTED]

Position: Administrator

Date Issued: 28/02/2025

Lab Ref	Sample Details	Sample Date	Method No.	Test	Result	Units	ACC	Lab	Sample Deviations
MCQ143653	New Holland	15/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143654	Enniskillen	17/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143655	Culmore	15/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143656	Ballynacorney	28/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143657	Omagh	20/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143658	Strabane	21/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143659	Portrush	16/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143660	Kinnegar	15/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143661	Dunmurry	17/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									
MCQ143662	Antrim	16/01/2025	N/A	Veolia Sludge Suite	See below	-	N	S	@
Time Sampled: 00:00 Sample Matrix: Sludge (S) Analyst Comments:									

Sample Deviations:

Sample Deviations Legend - Results may be compromised if the following deviations apply			
Comment	C	Incorrect Container	‡
Container with Headspace provided	8	Insufficient sample volume	È
BOD Overdiluted, therefore result indicative only	\$	BOD Underdiluted, therefore result indicative only	#
High Chloride concentration, COD could not be determined	§	Holding time exceeded due to sampled on date/time	@
Holding time exceeded in Lab	±	Holding time exceeded due to delayed instructions	&
Sample integrity Jeopardized in receipt	∅	Reporting limit raised due to sample matrix interference	⌘
Container with headspace provided for Volatiles analysis	¥	Deviation from method	◇
Matrix Interference	∞	Unsuitable sample	Θ

Laboratory Reference		MANU169557	MANU169558	MANU169559	MANU169560	MANU169561	MANU169562	MANU169563	MANU169564	MANU169565	MANU169566
Sample Reference		NEW HOLLAND 15/1/25	ENNISKILLEN 17/1/25	CULMORE 15/1/25	BALLYNACOR 28/1/25	OMAGH 20/1/25	STRABANE 21/1/25	PORTRUSH 16/1/25	KINNEGAR 15/1/25	DUNMURRY 17/1/25	ANTRIM 16/ 1/25
Determinand	Unit	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE
Oven Dry Matter	%	22.4	21.0	26.7	22.7	27.2	27.2	30.6	20.5	18.6	25.0
E Coli [Fresh]	cfu/g	34000	1400	3300	1100	45000	82000	<10	31000	610	9100
Conductivity 1:6 [Fresh]	uS/cm	2822	3431	4073	2354	2959	3063	4533	3481	1777	2792
Total Nitrogen	% w/w	5.17	5.36	4.71	5.60	3.70	4.60	5.10	6.58	4.96	5.39
Ammonium Nitrogen	mg/kg	14320	21574	18684	12354	13565	15768	19975	20431	12155	10205
Total Phosphorus (P)	mg/kg	18079	17272	7404	15655	6792	7849	7973	10575	17841	11925
Total Potassium (K)	mg/kg	1436	1509	1234	1429	1091	1261	1271	1961	1272	823
Total Magnesium (Mg)	mg/kg	2615	2306	2841	2340	2231	3498	3751	2926	2151	1861
Total Copper (Cu)	mg/kg	91.7	133	108	114	98.0	142	140	115	82.3	104
Total Zinc (Zn)	mg/kg	478	539	362	435	560	708	387	408	294	452
Total Sulphur (S)	mg/kg	8069	10716	5900	9811	6009	8026	6950	6356	7434	8087
Total Calcium (Ca)	mg/kg	12791	21017	9229	11076	9054	12527	12602	8109	12812	6509
Total Iron (Fe)	mg/kg	35837	15656	9472	19998	7842	12279	8454	5870	39451	22833
Total Molybdenum (Mo)	mg/kg	4.94	4.07	3.08	4.44	2.96	3.47	4.05	4.05	2.88	4.67
Total Manganese (Mn)	mg/kg	404	205	132	206	172	309	118	90.3	144	107
Total Lead (Pb)	mg/kg	17.6	19.3	26.2	17.5	22.5	38.9	32.1	34.7	7.69	19.0
Total Cadmium (Cd)	mg/kg	0.43	0.46	0.38	0.47	0.41	0.71	0.37	0.52	0.29	4.61
Total Mercury (Hg)	mg/kg	0.24	0.54	0.47	0.44	0.23	0.67	0.63	0.53	0.56	0.48
Total Nickel (Ni)	mg/kg	17.3	17.0	25.9	18.3	14.1	20.8	29.6	14.7	12.7	19.0
Total Chromium (Cr)	mg/kg	19.9	24.6	20.5	23.2	21.2	26.8	28.2	59.2	16.1	19.1
pH 1:6 [Fresh]		8.37	8.51	7.99	7.42	8.39	8.70	8.42	7.69	7.77	6.87
Organic Matter LOI	% w/w	79.3	74.9	83.7	79.8	83.9	78.2	82.2	84.4	78.1	85.7
Lime Equivalent as CaCO3	% w/w	5.3	7.7	2.9	4.7	3.3	5.1	4.2	2.8	4.5	4.0
Fluoride [100:1 H2SO4 Soluble]	mg/kg	16.4	140	22.8	75.7	25.4	30.4	18.5	64.2	21.8	20.8
Total Arsenic (As)	mg/kg	2.67	3.07	3.29	3.64	3.30	3.77	1.97	2.39	1.76	2.68

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Sample Reference		NEW HOLLAND 15/1/25	ENNISKILLEN 17/1/25	CULMORE 15/1/25	BALLYNACOR 28/1/25	OMAGH 20/1/25	STRABANE 21/1/25	PORTRUSH 16/1/25	KINNEGAR 15/1/25	DUNMURRY 17/1/25	ANTRIM 16/ 1/25
Determinand	Unit	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE	DIGESTATE
Total Selenium (Se)	mg/kg	1.03	1.50	1.05	1.36	0.95	1.16	0.99	1.53	0.83	1.06
Total Boron (B)	mg/kg	17.2	14.8	11.2	21.8	8.6	13.7	23.1	22.5	13.1	16.5
B.O.D. [fresh]	mg/l	82950	47400	79650	55950	82050	44850	72600	51750	64950	69750
Salmonella spp [fresh]	in 25g	Positive	Negative	Positive	Negative	Negative	Positive	Negative	Positive	Negative	Negative
Neutralising Value as CaO [TNV]	% w/w	3.0	4.3	1.6	2.6	1.8	2.9	2.4	1.6	2.5	2.2