



SOCOTEC

Environmental Chemistry
SOCOTEC UK
Ashby Rd, Bretby,
Burton-on-Trent, UK
DE15 0YZ

Certificate of Analysis

Project No: 20060240

Client: Shetland Islands Council

Quote Number: BEC20068904

Project Reference: June Residue Analysis 2020

Site Name: June Residue Analysis 2020

Contact: [REDACTED]

Address: Lerwick Energy Recovery Plant
Greenhead Base
Gremista Industrial Estate
Lerwick, Shetland

Post Code: ZE1 0PX

E-Mail [REDACTED] shetland.gov.uk

Phone No: 01595 745166

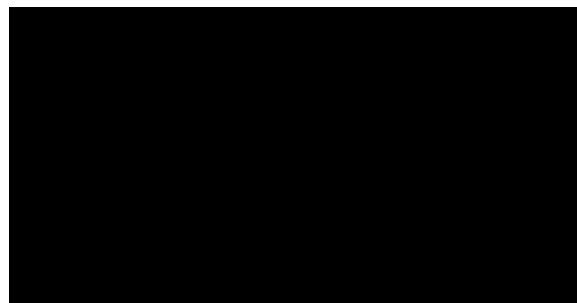
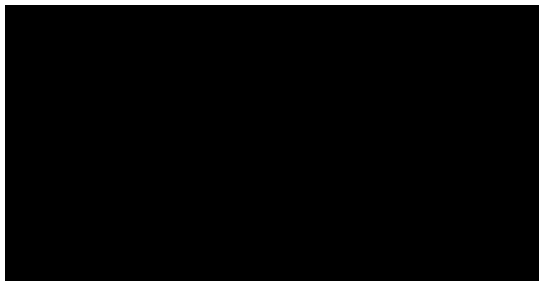
Number of Samples Received: 1

Date Received: 09/06/2020

Analysis Date: 29/06/2020

Date Issued: 29/06/2020

Job Status: Complete





Client: Shetland Islands Council

Project Name: June Residue Analysis 2020

Project No: 20060240

Date Issued: 29/06/2020

Samples Analysed

<u>Sample Reference</u>	<u>Text ID</u>	<u>Sample Date</u>	<u>Sample Type</u>	<u>Sample Description</u>
Water	20060240-001	02/06/2020 12:00:00	WATER	Unclassified Liquid



Client: Shetland Islands Council
Project Name: June Residue Analysis 2020
Project No: 20060240
Date Issued: 29/06/2020

Analysis Results

Project ID					20060240
Sample ID					001
Customer ID					Water
Sample Type					WATER
Sampling Date					02/06/2020
Analysis	Method Code		MDL	Units	Accred
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
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	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	PAHMSW	0.01	µg/l	U	<0.01*
	Total PAH 16		0.16	µg/l	U
Dioxins & Furans and Dioxin-like PCBs		SUB030	-	N	See Attached

Additional Report Notes

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
PAHMSW	001	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 (Acenaphthene) . These circumstances should be taken into consideration when utilising the data.
PAHMSW	001	The Secondary 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 (including the Primary Process Control) 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 (Acenaphthylene) . These circumstances should be taken into consideration when utilising the data.

LIMS-F002 - Report Notes

UKAS accredited testing laboratory No. 1668

Name of Client : Socotec UK Ltd

Test Certificate No: 54948

Address : Environmental Chemistry, Ashby Road, Bretby, Burton-on-Trent, DE15 0ZY

ANALYSIS OF PCDDs and PCDFs

Job Reference: 20060240
Sample Identifier : 20060240-001-2
Sample No: 54948
Order No: B161266BEC
Sample Type: Liquid
Sample Condition : conforming
Instrument : Thermo DFS
GC Column : DB5
Calibration File : 230620

Date of Receipt : 11/06/20
Date of Analysis : 26/06/20
Date of Report : 26/06/20

Test Method : 2002a
Blank : 220620
Sample size: 0

expressed as ng/L

Congener	Conc	DL	Rec %	Congener	Conc	DL	Rec %
2378-TCDF	*	0.0003	82	2378-TCDD	*	0.0003	83
12378-PCDF	*	0.0002	74	12378-PCDD	*	0.0006	69
23478-PCDF	*	0.0002	65	123478-HxCDD	*	0.0005	69
123478-HxCDF	*	0.0003	81	123678-HxCDD	*	0.0004	71
123678-HxCDF	*	0.0002	79	123789-HxCDD	*	0.0004	
234678-HxCDF	0.00246	0.0002	81	1234678-HpCDD	*	0.0005	75
123789-HxCDF	*	0.0002	87	OCDD	0.00987	0.0010	61
1234678-HpCDF	0.00364	0.0003	87				
1234789-HpCDF	*	0.0003	89				
OCDF	0.00542	0.0006					
Total 2,3,7,8-Furans 0.0115				Total 2,3,7,8-Dioxins 0.00987			
TEQ (Nato)		TEQ ¹ 0.00129	TEQ ² 0.000297	TEQ (WHO)- Mammals		TEQ ¹ 0.00154	TEQ ² 0.000287
				TEQ (WHO)- Fish		0.00167	0.000284
				TEQ (WHO)- Birds		0.00195	0.000284

* Isomer Not detected
TEQ Toxic Equivalent Value
TEF Toxic Equivalent Factor
Conc Concentration
DL Detection Value
REC Recovery

TEQ¹ Concentration of Non Detected
Congeners at Detection Limit
TEQ² Concentration of Non Detected
Congeners at Zero

Reported by
Position

Signature



1668

UKAS accredited testing laboratory No. 1668

Name of Client : Socotec UK Ltd

Test Certificate No: 54948

Address : Environmental Chemistry, Ashby Road, Bretby, Burton-on-Trent, DE15 0ZY

ANALYSIS OF PCBs

Job Reference: 20060240
Sample Identifier : 20060240-001-2
Sample No: 54948
Order No: B161266BEC
Sample Type: Liquid
Sample Condition : conforming
Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 270620

Date of Receipt : 11/06/20
Date of Analysis : 27/06/20
Date of Report : 29/06/20

Test Method : 2002
Blank : 220620
Sample size: 0

expressed as ng/L

Congener	Conc	DL	Rec %
PCB-81	*	0.0003	76
PCB-77	0.00535	0.0003	73
PCB-123	*	0.0015	63
PCB-118	*	0.0019	59
PCB-114	*	0.0014	70
PCB-105	*	0.0018	61
PCB-126	*	0.0019	89
PCB-167	*	0.0003	86
PCB-156	0.00123	0.0003	83
PCB-157	*	0.0003	80
PCB-169	*	0.0001	74
PCB-189	*	0.0001	73
Total-PCBs	0.00658		
	TEQ1	TEQ2	
TEQ (WHO)- Mammals	0.000197	0.00000057	
TEQ (WHO)- Fish	0.000010	0.00000054	
TEQ (WHO)- Birds	0.000494	0.000268	

* Isomer Not detected
TEQ Toxic Equivalent Value
TEF Toxic Equivalent Factor
Conc Concentration
DL Detection Value
REC Recovery

TEQ¹ Concentration of Non Detected
Congeners at Detection Limit
TEQ² Concentration of Non Detected
Congeners at Zero

Reported by :
Position :

Signature



1668



Client: Shetland Islands Council

Project Name: June Residue Analysis 2020

Project No: 20060240

Date Issued: 29/06/2020

Deviating Sample Report			Incorrect Container	Incorrect Label	Headspace	Incorrect/No Preservative	No Sampling Date	Holding Time	Handling Time
Sample Reference	Text ID	Reported Name							
Water	20060240-001	PAHMSW						✓	

Analysis Method

Analysis

PAHMSW

Analysis Type

ORGANIC

Analysis Method

UNFILTERED



Client: Shetland Islands Council

Project Name: June Residue Analysis 2020

Project No: 20060240

Date Issued: 29/06/2020

Additional Information

This report refers to samples as received, and SOCOTEC Uk Ltd takes no responsibility for accuracy or competence of sampling by others.

Results within this report relate only to the samples tested.

In the accreditation column of analysis report the codes are as follows:

U = UKAS accredited analysis

M = MCERT accredited analysis

N = Unaccredited analysis

Any units marked with ^ signify results are reported on a dry weight basis of 105 ° c

All Air Dried and Ground Samples (ADG) are oven dried at less than 35 ° c.

This report shall not be reproduced except in full and with approval from the laboratory.

Opinions and interpretations given are outside the scope of our UKAS accreditation.

Any samples marked with * are not covered by our scope of UKAS accreditation, if applicable further report notes have been added.

Any solid samples where the Major Constituents are not one of the following (Sand, Silt, Clay, Made Ground) are not one of our accredited matrix types.

Any samples marked with ‡ have had MCERTS accreditation removed for this result

Any samples marked with a tick in the deviant table is deviant for the specific reason.

Any samples reported as IS, NA, ND mean the following:

IS = Insufficient Sample to complete analysis

NA = Sample is not amenable for the required analysis

ND = Results cannot be determined

Our deviating sample report does not include deviancy information for Subcontracted analysis. Please see the report from the Subcontracted lab for information regarding any deviancies for this analysis.

End of Certificate of Analysis