G. Bruss GmbH Dichtungstechnik
Finisklin Road
Sligo

Office of Environmental Enforcement
Environmental Protection Agency
Regional Inspectorate
John Moore Road
Castlebar
Co. Mayo

Date : 04.05.2016

Register Number:	P0465-01
Company Name:	G. Bruss GmbH Dichtungstechnik
Submission Date:	04.05.2016
Reporting Period:	**Jan to Mar 2016**
Report Name:	**Quarterly Report** Monitoring of Emissions to Sewer

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Dear Sir / Madam,

Please find attached the following monitoring results:

- Monitoring of Emissions to Sewer for Q 1 2016

A summary of compliance is as follows:

Were all monitoring results compliant with the terms of the IPC Licence?
Yes √ **No**

Were any complaints received in the reporting period?
Yes **No** √

Yours sincerely

Anna Garvey
G. Bruss GmbH Dichtungstechnik

G. Bruss Gmbh Dichtungstechnik
Finisklin Road, Sligo.
Rep. of Ireland
Tel. 071 - 9156300 Fax: 071 9169352
Vat No. IE 4540059I

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Report

Quarterly Process Effluent Emission to Sewer

Q1 - 2016

PO465-01

G, Bruss GmbH Dichtungstechnik

Finisklin Road

Sligo

Ireland

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April 2016

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5.0 Statement of Compliance

After review of the Q1 Certificates of Analysis from the G. Bruss GmbH Dichtungstechnik quarterly process effluent emissions to sewer it was found that all discharge parameters were in compliance with the limits of detection detailed in the IPC license PO465-01 as set by the Environmental Protection Agency under Section 83(1) of the EPA Act 1992.

Signed:_____A. Fitzgerald_____ (ENSEN)

Signed:_____ (BRUSS)

Dated: 04 May 2016

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Table of Contents

SECTION		PAGE
FOREWORD		**4**
CONFIDENTIAL REPORT		**4**
1.0	**Preamble**	**5**
2.0	**Licensed Activity**	**6**
3.0	**SE1 Monitoring Point**	**7**
4.0	**Process Effluent Emission to Sewer**	**9**
4.1	Emission Limit Values	9
4.2	Q1 Results	9
4.3	Effluent Flow Data	10
4.4	Q1 Parameter Results	11
4.4.1	Temperature Results for Q1	11
4.4.2	pH Results for Q1	12
4.4.3	BOD Results for Q1	13
4.4.4	COD Results for Q1	14
4.4.5	OFG Results for Q1	15
4.4.6	Suspended Solids Results for Q1	16
5.0	**Statement of Compliance**	**17**
Appendix A		**18**
Appendix B		**23**
Appendix C		**26**

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FOREWORD

Ensen has prepared this Quarterly Effluent Monitoring Report following consultation with G. Bruss GmbH on the matter employing best current practice and applying reasonable skill, care and diligence within the limitations imposed by the techniques utilised and the resources devoted to it by agreement with the client. In using this Report the Client should consider that conclusions and opinions included are based on data interpretation.

CONFIDENTIAL REPORT

This report is issued in strict confidence. The issue or copying of this report either in full or abstract November not be done without the prior agreement of the Client, G. Bruss GmbH Dichtungstechnik, Finisklin Road, Sligo, Ireland.

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1.0 Preamble

This report deals solely with Process Effluent Emissions to Sewer as per Condition 6 (Appendix A) and congruent on Condition 3.3 (Appendix A) of IPC License PO465-01. In addition reference is made to both Condition 10 '*Monitoring'* and Condition 11 '*Recording and Reporting to Agency*' (Appendix A).

The Process Emission Limits referred to in this report are as detailed in Schedule 2(i) Process Effluent emissions to Sewer and Schedule 2(ii) Monitoring of Process Effluent Emissions to Sewer, together with the Revised Monitoring Frequency Instruction dated 08/10/2010 issued by the Office of Environmental Enforcement, Ref: PO465-01 /GC35(2010)JG.docx (Appendix B).

There is 1 No. Effluent monitoring location, Monitoring Point SE1. Included in this report are results from laboratory testing for January, February & March 2016, constituting quarterly report Q1.

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2.0 Licensed Activity

The Environmental Protection Agency granted an Integrated Pollution Control license to: G. Bruss GmbH Dichtungstechnik, under Section 83(1) of the EPA Act 1992 to carry on the following activity:

"The manufacture of elastomers where production capacity exceeds 1,000 litres per week, at Finisklin Road, Sligo, subject to listed Conditions as specified in the Integrated Pollution Control (IPC) License PO465 -01".

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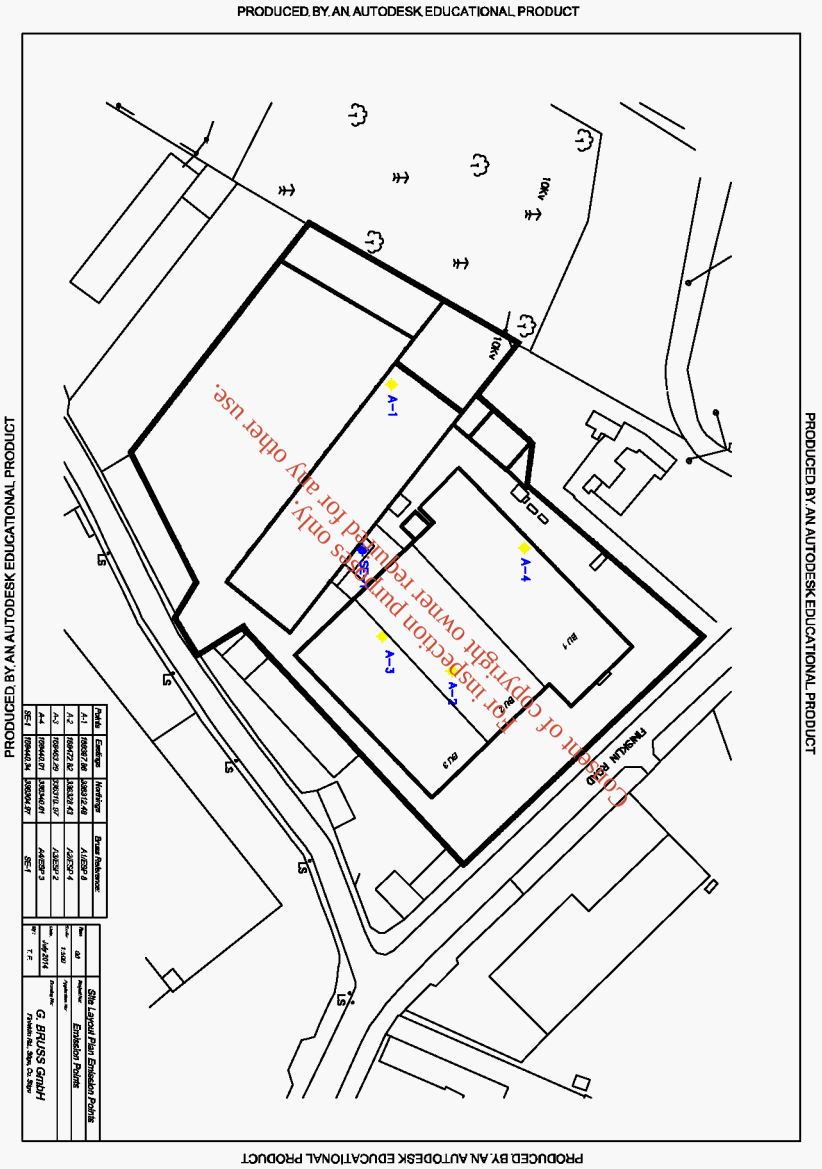
3.0 SE1 Monitoring Point

Plate 1: SE1 Monitoring Point in Site Layout Plan



SE1 is located in the stone wash room on the final effluent line discharging from the Bruss premisses.

Plate 2: SE1 Monitoring Station

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The SE1monitoring station is equipped with Isco 4230 Bubbler Flow Logger attached to an Isco GLS flow proportional sampler with programmable variability. The flow meter monitors depth in a fixed channel diameter by pressure differential. The sampler is programmed to take flow proportional samples over 24 hour periods.

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4.0 Process Effluent Emission to Sewer

4.1 Emission Limit Values

Emission Point Reference: **SE1**

Name of Receiving Sewer: Sligo Corporation Sewer

Location : Finisklin Road

Parameter	Emission Limit Value (ELV)
Temperature (°C)	25°C (max.)
pH (units)	6-9
BOD (mg/l)	200
COD (mg/l)	500
OFG (mg/l)	15
VOC's (mg/l)	0.5

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4.2 Q1 Results

Parameter	20/01/16	16/03/16	30/03/16	ELV
Temperature (°C)	9	12	12	25°C (max.)
pH (units)	6.70	7.15	7.63	6-9
BOD (mg/l)	<2	57	12	200
COD (mg/l)	<2	104	43.5	500
OFG (mg/l)	<1	11.7	2.14	15
VOC's (mg/l)	-	-	-	0.5
S. Solids (mg/l)	<2	31	3.5	-

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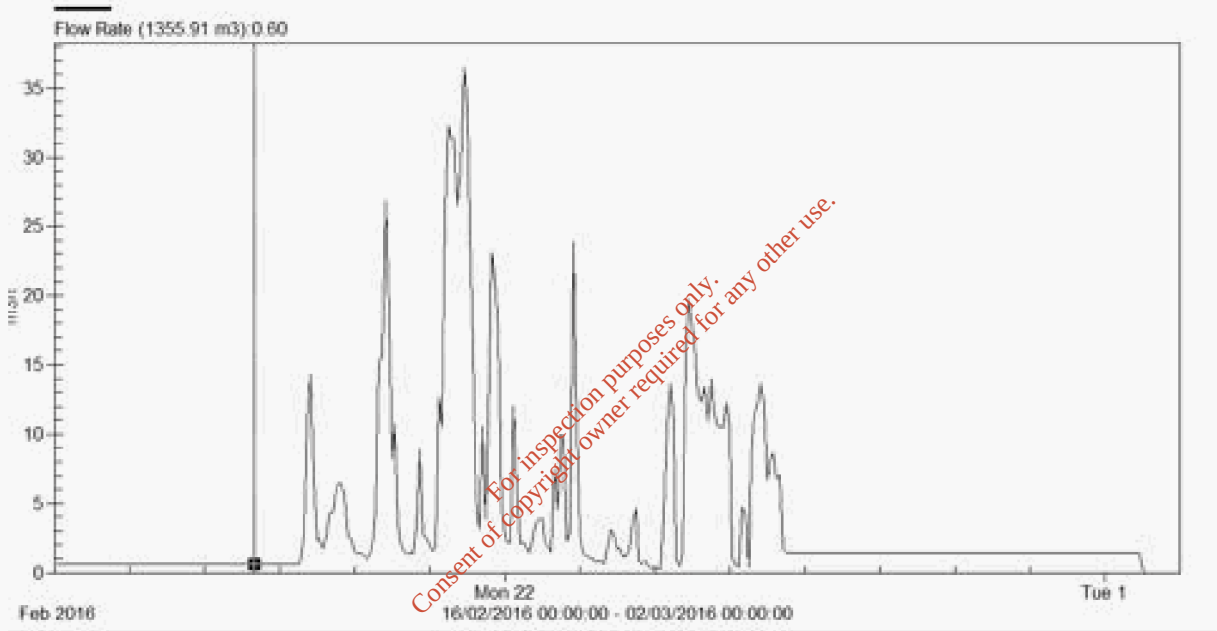
4.3 Effluent Flow Data

Graph 1: Bruss Effluent Flow Data for Q1, SE1



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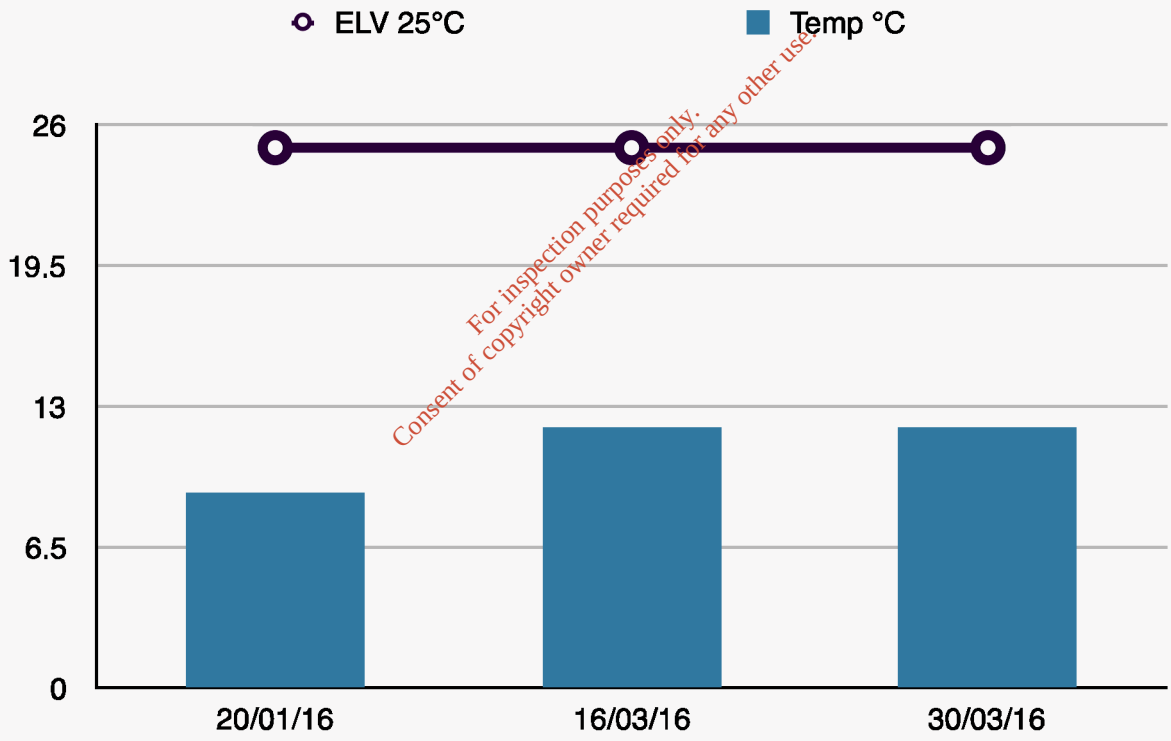
4.4 Q1 Parameter Results

4.4.1 Temperature Results for Q1

Date	Temperature (°C)	ELV
20/01/16	9	25
16/03/16	12	25
30/03/16	12	25

Graph 2: Q1 Temperature Results v ELV for SE1



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Temperature readings were consistently within the ELV of 25°C for Q1.

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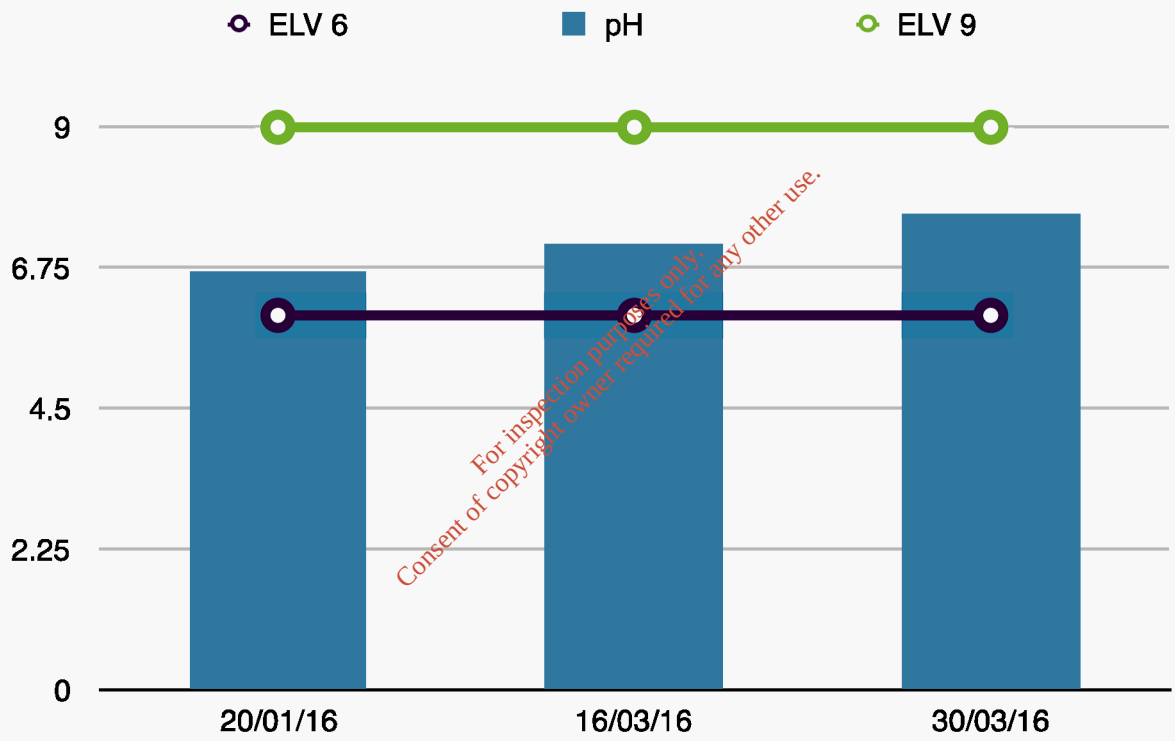
4.4.2 pH Results for Q1

Date	pH	ELV (lower)	ELV (upper)
20/01/16	6.70	6	9
16/03/16	7.15	6	9
30/03/16	7.63	6	9

Graph 3: Q1 pH Results v ELV for SE1



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pH readings were consistently within the ELV band of pH 6-9 for Q1.

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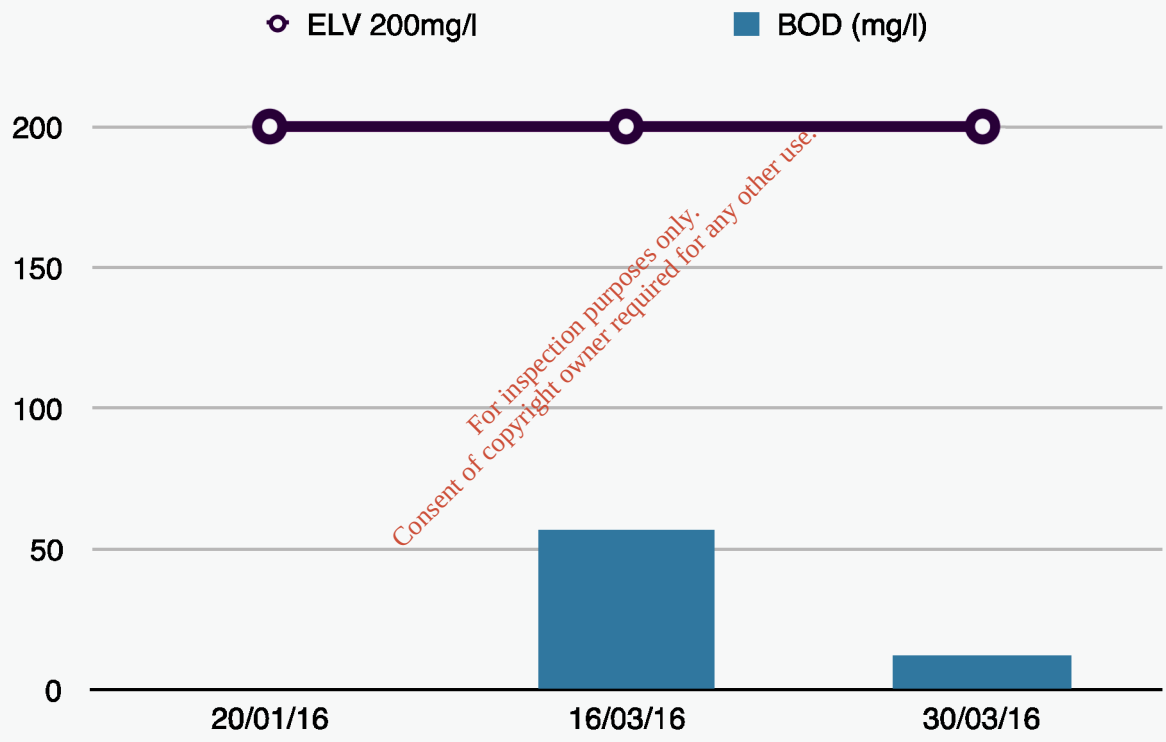
4.4.3 BOD Results for Q1

Date	BOD (mg/l)	ELV
20/01/16	-	200
16/03/16	57	200
30/03/16	12	200

Graph 4: Q1 BOD Results v ELV for SE1



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BOD reading were within the ELV for Q1.

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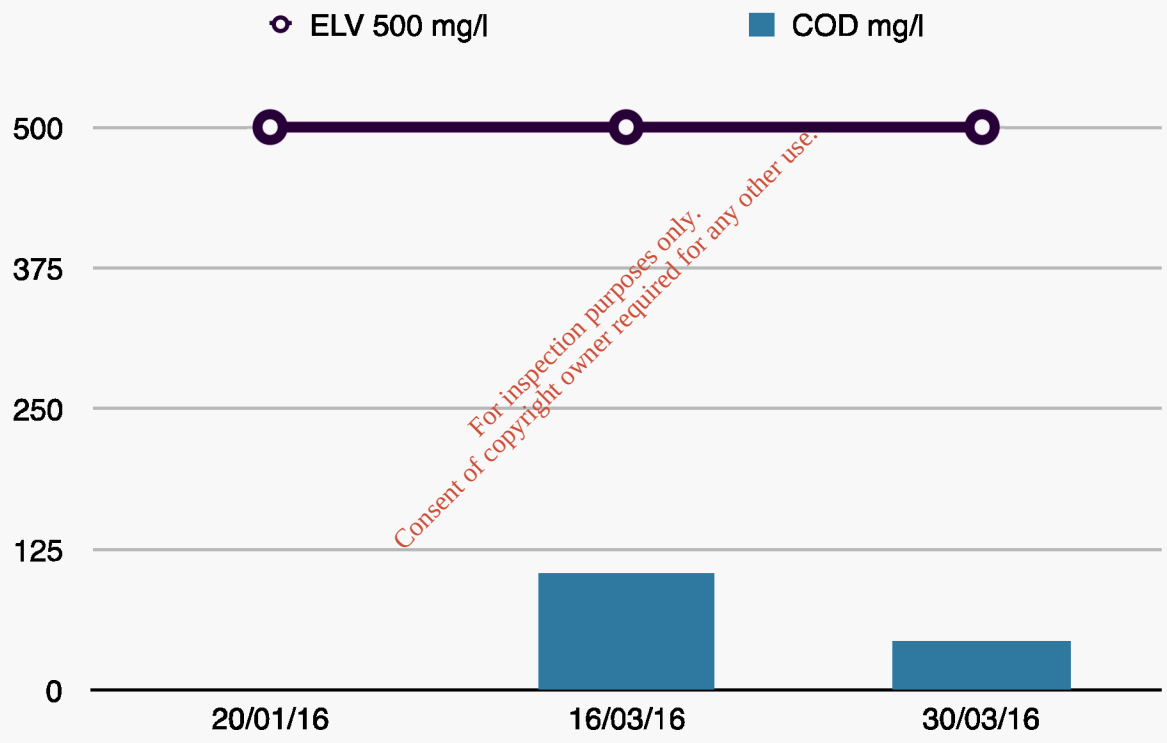
4.4.4 COD Results for Q1

Date	COD (mg/l)	ELV
20/01/16	<2	500
16/03/16	104	500
30/03/16	43.5	500

Graph 5: Q1 COD Results v ELV for SE1



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COD readings were consistently within the ELV of 500mg/l for Q1.

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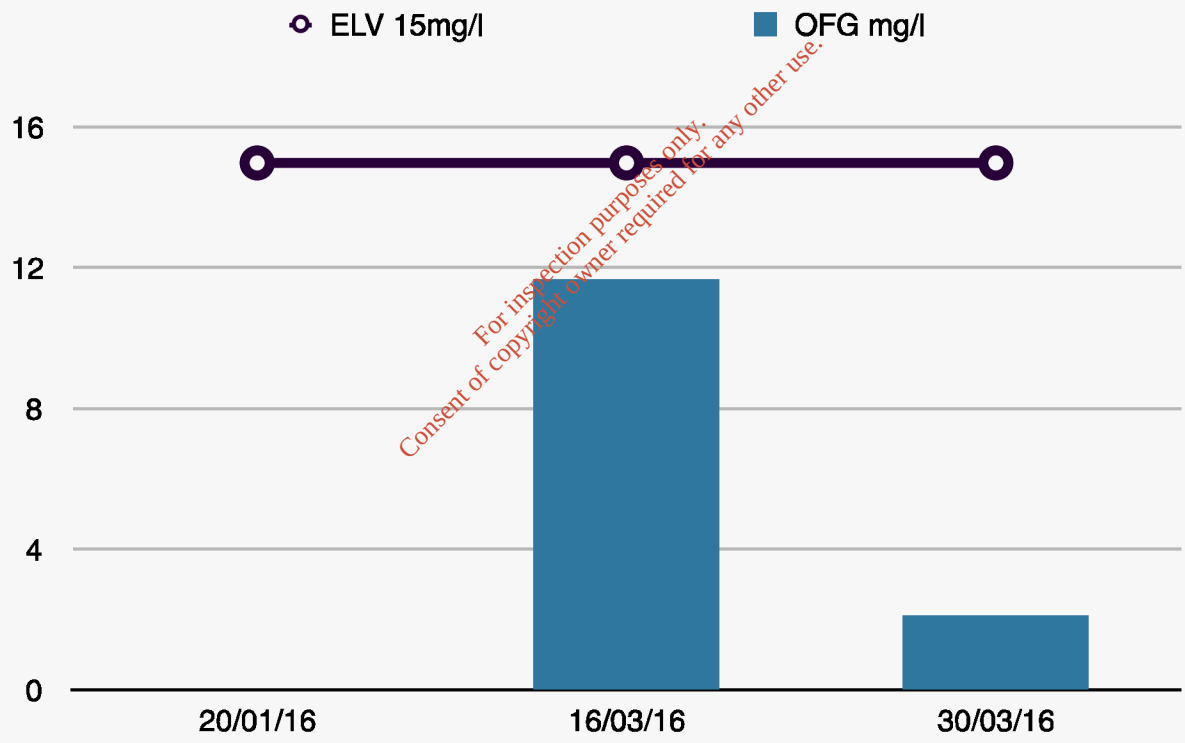
4.4.5 OFG Results for Q1

Date	OFG (mg/l)	ELV
20/01/16	<1	15
16/03/16	11.7	15
30/03/16	2.14	15

Graph 6: Q1 OFG Results v ELV for SE1



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OFG readings were within the ELV for Q1.

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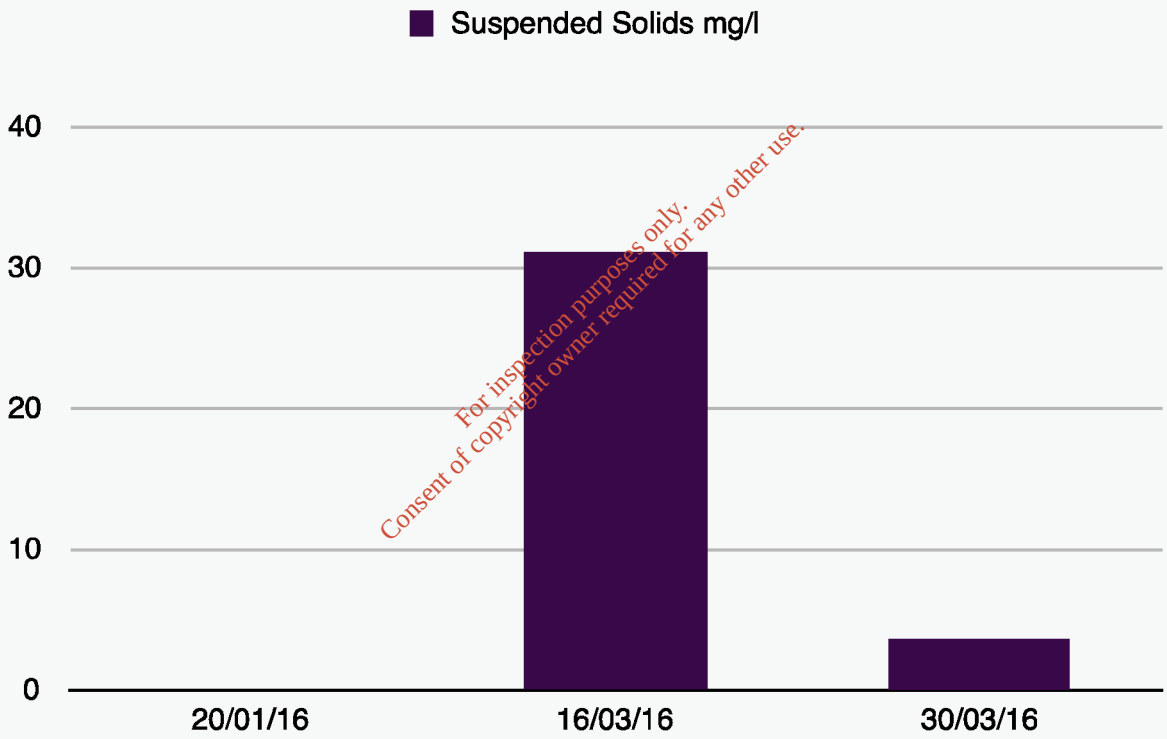
4.4.6 Suspended Solids Results for Q1

Date	S.Solids (mg/l)	ELV
20/01/16	<2	-
16/03/16	<2	-
30/03/16	<2	-

Graph 7: Q1 Suspended Solids Results v ELV for SE1



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Appendix A

Condition 3. Process Effluent Emissions to Sewer
Condition 6. Process Effluent Emissions to Sewer
Condition 10. Monitoring
Condition 11. Recording and Reporting to Agency

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Condition 3. Process Effluent Emissions to Sewer

3.3 Emission limit values for emissions to sewer in this license shall be interpreted in the following way:-

3.3.1 Non-Continuous Monitoring:

(i) No pH value shall deviate from the specified range.

(ii) No temperature value shall exceed the limit value.

(iii) For parameters other than pH, temperature and flow, eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.

(iv) For parameters other than pH, temperature, and flow, no grab sample value shall exceed 1.2 times the emission limit value.

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Condition 6. Process Effluent Emissions to Sewer

6.1 No specified emission to sewer shall exceed the emission limit values set out in Schedule 2(i) Process Effluent Emissions to Sewer subject to Condition 3 of this licence. With the exception of domestic sewage there shall be no other emissions to sewer of environmental significance.

6.2 Monitoring and analyses of each emission shall be carried out as specified in Schedule 2(ii) Monitoring of Process Effluent Emissions to Sewer of this licence. A report on the results of this monitoring shall be submitted to the Agency quarterly. A summary report of the results of analysis of effluent discharged to the sewer shall be forwarded to the Sanitary Authority on a yearly basis.

6.3 A summary report of emissions to water shall be submitted to the Agency as part of the AER. The information contained in this report shall be prepared in accordance with any relevant guidelines issued by the Agency.

6.4 The acute toxicity of the undiluted final effluent to at least four aquatic species from different trophic levels shall be determined by standardised and internationally accepted procedures and carried out by a competent laboratory. The name of the laboratory and the scope of testing to be undertaken shall be submitted, in writing, to the Agency, within 3 months of the date of grant of this licence. Once the testing laboratory and the scope of testing have been agreed by the Agency, the Agency shall decide when this testing is to be carried out and copies of the complete reports shall be submitted by the licensee to the Agency within six weeks of completion of the testing.

6.5 Having identified the most sensitive species outlined in Condition 6.4, subsequent compliance toxicity monitoring on the two most sensitive species shall be carried out by the laboratory identified in

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Condition 6.4 as per Schedule 2(ii) Monitoring of Process Effluent Emissions to Sewer. The Agency shall decide when this testing is to be carried out and copies of complete reports shall be submitted by the licensee to the Agency within six weeks of completion of the testing.

6.6 The licensee shall within 12 months of date of grant of this licence submit a feasibility study for the separate collection and monitoring of process effluent prior to merger with sanitary waste and the Sanitary Authority sewer.

6.7 The licensee shall ensure that the effluent discharge shall not contain petroleum spirits or organic solvents (including chlorinated organic solvents) which would give rise to flammable or explosive vapours in the sewer.

6.8 The licensee shall at no time discharge or permit to be discharged into the sewer any liquid matter or thing which is or November be liable to set or congeal at average sewer temperature or is capable of giving off any inflammable or explosive gas or any acid, alkali or other substance in sufficient concentration to cause corrosion to sewer pipes, penstock and sewer fittings or the general integrity of the sewer.

.

6.9 No substance shall be present in such concentrations as would constitute a danger to sewer maintenance personnel, or sewer fabric or to the liberation of by-products which November be of environmental significance or interfere with the operations of a wastewater treatment works.

6.10 No substance shall be discharged in a manner, or at a concentration which, after initial dilution in the receiving waters to which the Sanitary Authority sewage is discharged, causes tainting of fish or shellfish.

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6.11 The licensee shall permit authorised persons, of the Agency and Sanitary Authority, to inspect, examine and test, at all reasonable times, any works and apparatus installed in connection with the trade effluent and to take samples of the trade effluent.

6.12 No emission to sewer shall take place which gives rise to any reaction within the sewer or to the liberation of by-products which November be of environmental significance.

6.13 Non-trade effluent wastewater (e.g. firewater, accidental spillage) which occurs on-site shall not be discharged to the sewer without the prior authorisation of the Sanitary Authority.

Reason: To provide for the protection of the environment by way of control, limitation, treatment and monitoring of emissions and to provide for the requirements of the Sanitary Authority in accordance with Section 97 of the EPA Act, 1992.

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Condition 10. Monitoring

10.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out in the relevant Conditions and Schedules of this licence.

10.2 Where the ability to measure a parameter is affected by mixing before emission, then, with prior written agreement from the Agency, the parameter November be assessed before mixing takes place.

10.3 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

10.4 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.

10.5 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, November be amended with the written agreement of the Agency following evaluation of test results.

10.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as November be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

10.7 The licensee shall provide safe and permanent access to the following sampling and monitoring points:

10.7.1 Final effluent as discharged from the site.

10.7.2 Emission to atmosphere sampling points.

10.7.3 Noise sources on-site.

10.7.4 Waste storage areas on-site.

10.7.5 Surface waters discharge. and safe access to any other sampling and monitoring points required by the Agency.

10.8 The licensee shall, within three months of the date of grant of this licence, install in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.

Reason: To ensure compliance with the requirements of other conditions of this licence by provision of a satisfactory system of measurement and monitoring of emissions.

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Condition 11. Recording and Reporting to Agency

11.1 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence.

11.2 The licensee shall record all incidents which affect the normal operation of the activity and which November create an environmental risk.

11.3 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint. The licensee shall submit a report to the Agency, during the month following such complaints, giving details of any complaints which arise. A summary of the number and nature of complaints received shall be included in the AER.

11.4 The format of all records required by this licence shall be to the satisfaction of the Agency. Records shall be retained on-site for a period of not less than seven years and shall be available for inspection by the Agency at all reasonable times.

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11.5 Reports of all recording, sampling, analyses, measurements, examinations, calibrations and maintenance as set out in Schedule 4 Recording and Reporting to the Agency of this licence, shall be submitted to the Agency Headquarters as specified in this licence. The format of these reports shall be to the satisfaction of the Agency. One original and three copies shall be submitted as and when specified.

11.6 Provision shall also be made for the transfer of environmental information, in relation to this licence, to the Agency's computer system, as November be requested by the Agency.

11.7 All reports shall be certified accurate and representative by the licensee's Plant Manager or other senior officer designated by the Plant Manager.

11.8 All written procedures controlling operations affecting this licence shall be available on- site for inspection by the Agency at all reasonable times.

11.9 The frequency and scope of reporting, as set out in this licence, November be amended with the written agreement of the Agency following evaluation of test results.

Reason: To provide for the collection and reporting of adequate information on the activity.

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Appendix B

Process Effluent Emissions to Sewer,

Schedule 2(i)

Schedule 2(ii)

Revised Monitoring Frequency Instruction

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Schedule 2(i) Process Effluent Emissions to Sewer

Emission Point Reference No's.: SE1

Name of Receiving Sewer: Sligo Corporation Sewer

Location : Finisklin Road

Parameter	Emission Limit Value
Temperature	25°C (max.)
pH	6-9
BOD	200
COD	500
OFG	15
VOC's	0.5

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Schedule 2(ii) Process Effluent Emissions to Sewer

Emission Point Reference No's.: SE1

Name of Receiving Sewer: Sligo Corporation Sewer

Location : Finisklin Road

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Continuous [Note 1]	On-line flow meter with recorder
Chemical Oxygen Demand	Weekly [Note 1]	Standard Method
Biochemical Oxygen Demand	Quarterly [Note 1]	Standard Method
Suspended Solids	Weekly [Note 1]	Gravimetric
VOC's [Note 2]	Biannually	Gas Chromatography
Oils, fats & greases	Monthly	Standard Method
Toxicity [Note 3]	As may be required [Note 1]	To be agreed with the Agency

Note 1: The licensee shall install a composite sampler within three months of date of grant of this licence. All samples thereafter shall be collected on a 24 hour flow proportional composite sampling basis.

Note 2: Screening for priority pollutant list substances. (such as CLP 40, US EPA volatile and or semi-volatile). This analysis shall include those organic solvents in use in the process, which are likely through normal process operations to be diverted to the waste water streams.

Note 3: The number of toxic units (Tu) = 100/x hour EC/LC_{50} in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.

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Revised Monitoring Frequency Instruction

epa
Office of Environmental Enforcement

Environmental Protection Agency
Regional Inspectorate, John Moore Road
Castleton, County Mayo, Ireland

Cliptoche Réigiúnach, Bóthar Thaón de Mhuilla
Caisleán an Bhrinsigh, Contae Mhaigh Eo, Éire

T: +353 94 904 8400
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E: info@epa.ie
W: www.epa.ie
LoCall 1890 33 55 99

Mr. Seamus Murtagh
QEHS Manager
G. Bruss GmbH Dichtungstechnik
Bruss
Finisklin Road
Sligo

8/10/2010

Our Ref: P0465-01 /GC35(2010)JG.docx

Dear Mr. Murtagh

I refer to a letter dated 2/9/2010 received by the Agency on 3/9/2010 in relation to the proposed reduction in monitoring frequency of emissions to air and sewer and also the use of the Bruss internal laboratory for compliance monitoring at your facility.
I am to advise you that the proposal submitted is to the satisfaction of the Agency contingent on the following:

- The agreed frequencies are set out in the last column of Tables 1 and 2 below.

Table 1: Air monitoring Frequency:

Parameter	Current Frequency	Proposed Frequency	Agreed with Agency
Emissions to Atmosphere	Biannually	Once in 3 Years	Annually

Table 2: Sewer Monitoring Frequency:

Parameter	Current Frequency	Proposed Frequency	Agreed with Agency
COD	Weekly	Monthly	Monthly
Suspended Solids	Weekly	Biannually	Monthly*Note 1
Oils Fats and Grease	Monthly	Biannually	Biannually
BOD	Quarterly	Biannually	Biannually
VOC	Biannually	Annually	Annually

Note 1: in-house testing.

The monitoring should be carried out at the frequencies agreed in the table above and all incidents should be reported to the Agency in accordance with Conditions 4.1& 11.2 of your IPPC Licence.
You are reminded of the need to comply with the conditions of your IPPC licence at all times.
You should note that the Agency will keep the agreement under review and may revoke this agreement at any time in the future.
Should you have any questions in relation to the above items please do not hesitate to contact John Gibbons at the above address.

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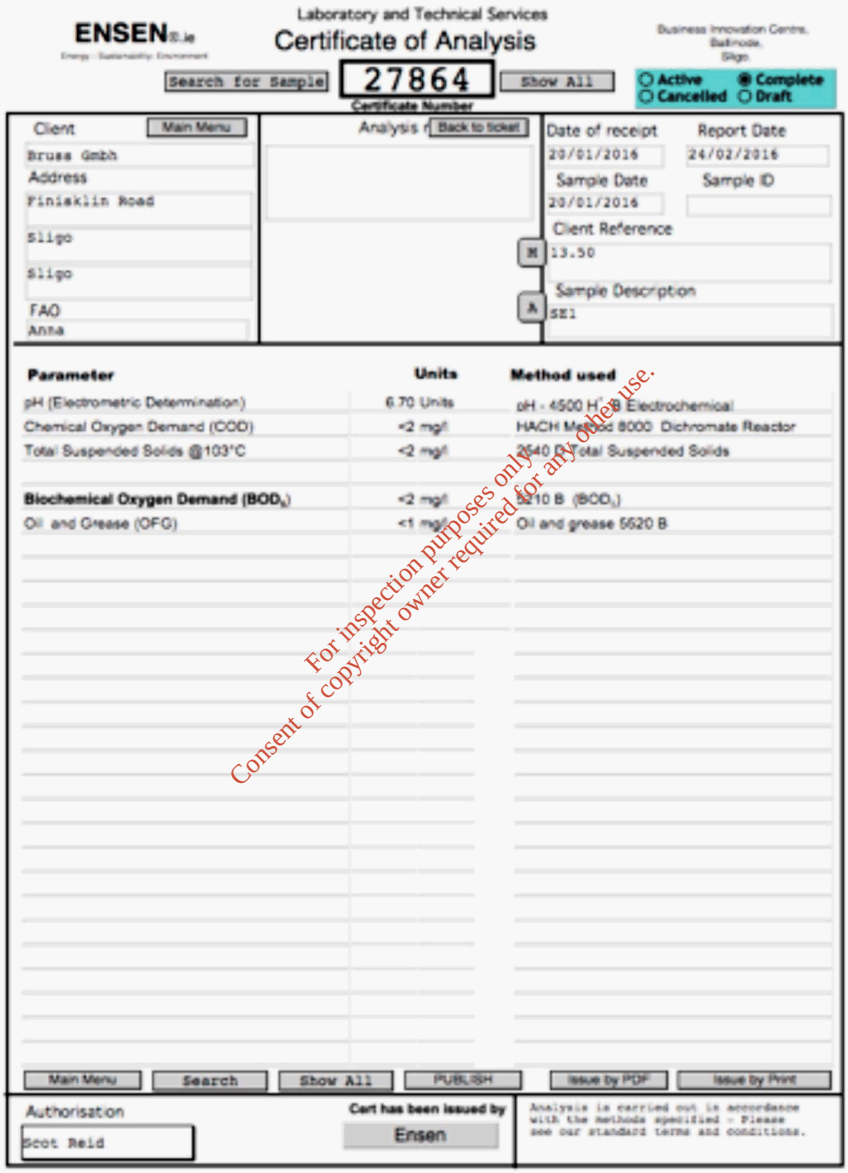
Appendix C

Certificates of Analysis for Q1



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Laboratory and Technical Services
Certificate of Analysis

Business Innovation Centre, Ballinode, Sligo

Search for Sample | 27864 (Certificate Number) | Show All | ○ Active ◉ Complete ○ Cancelled ○ Draft

Client | Main Menu
Bruss Gmbh
Address
Finisklin Road
Sligo
Sligo
FAO
Anna

Analysis r | Back to ticket

Date of receipt: 20/01/2016
Report Date: 24/02/2016
Sample Date: 20/01/2016
Sample ID:
Client Reference
M 13.50
Sample Description
A SE1

Parameter	Units	Method used
pH (Electrometric Determination)	6.70 Units	pH - 4500 H+ B Electrochemical
Chemical Oxygen Demand (COD)	<2 mg/l	HACH Method 8000 Dichromate Reactor
Total Suspended Solids @103°C	<2 mg/l	2540 D Total Suspended Solids
Biochemical Oxygen Demand (BOD_5)	<2 mg/l	5210 B (BOD_5)
Oil and Grease (OFG)	<1 mg/l	Oil and grease 5520 B

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Certificate of Analysis

27995

Certificate Number

Business Innovation Centre,
Ballinode,
Sligo.

Client	Analysis requested	Date of receipt	Report Date
Bruss Gmbh		16/03/2016	01/04/2016
Address		Sample Date	Sample ID
Finisklin Road		16/03/2016	SRAB
Sligo		Client Reference	
Sligo		9.50am	
FAO		Sample Description	
Anna		SE1	

Parameter	Units	Method used
pH (Electrometric Determination)	7.15 Units	pH - 4500 H^+ B Electrochemical
Chemical Oxygen Demand (COD)	104 mg/l	HACH Method 8000 Dichromate Reactor
Total Suspended Solids @103°C	31 mg/l	2540 D Total Suspended Solids
Biochemical Oxygen Demand (BOD_5)	57 mg/l	5210 B (BOD_5)
Oil and Grease (OFG)	11.7 mg/l	Oil and grease 5520 B

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Certificate of Analysis

28076
Certificate Number

Business Innovation Centre,
Ballinode,
Sligo.

Client	Analysis requested	Date of receipt	Report Date
Bruss Gmbh		30/03/2016	15/04/2016
Address		Sample Date	Sample ID
Finisklin Road		30/03/2016	
Sligo		Client Reference	
Sligo		13.30	
FAO		Sample Description	
Anna		SE1	

Parameter	Units	Method used
pH (Electrometric Determination)	7.63 Units	pH - 4500 H^+ B Electrochemical
Chemical Oxygen Demand (COD)	43.5 mg/l	HACH Method 8000 Dichromate Reactor
Total Suspended Solids @103°C	3.5 mg/l	2540 D Total Suspended Solids
Biochemical Oxygen Demand (BOD_5)	12 mg/l	5210 B (BOD_5)
Oil and Grease (OFG)	2.14 mg/l	Oil and grease 5520 B

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Compiled by	Mr. A. Fitzgerald
Project No	EC0508_Q1_16
Issue Date	04/05/2016
Approval Signature (Ensen)	
Approval Signature (Bruss)	

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