

Borrisbeg Grid Connection

Appendix 8-2 Laboratory Certs

IE002700 Borrisbeg Grid Connection F 18.09.2025

CERTIFICATE OF ANALYSIS



ALS Life Sciences Ltd., Carrigeen Business Park Clonmel Co. Tipperary E91 PF63 Ireland Telephone: +353 (0) 52 617 8100 www.alsglobal.ie

Page 1 of 2

Hydro Environmental Services Hydro Environmental Services 22 Lower Main Street Dungarvan, Co. Waterford Ireland

Certificate Number: CLN100196-1 Final

Date Reported: 16/09/2025

Date Analysis Started: 29/08/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN330519	Prod:	P280	BOD 5 day Total	2	mg/L O ₂	
	Order No: P1619 Rcvd Dt: 28/08/2025	P202	Suspended Solids	5	mg/L	
	Start Testing: 29/08/2025	P281	Chloride	20.1	mg/L CI	
	Description: SW1 Spt: Water	P285	Total Nitrogen	2.3	mg/L N	
	Sample Type: Surface Waters	P281	Total Oxidised Nitrogen (TON)	1.26	mg/L N	
		P281	Ammonia	0.03	mg/L NH ₃ -N	
		P281	Nitrate	5.8	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	0.02	mg/L P	
CLN330520	Prod:	P280	BOD 5 day Total	<1	mg/L O ₂	
	Order No: P1619 Rcvd Dt: 28/08/2025 Start Testing: 29/08/2025	P202	Suspended Solids	5	mg/L	
		P281	Chloride	30.0	mg/L CI	
	Description: SW2 Spt: Water	P285	Total Nitrogen	2.3	mg/L N	
	Sample Type: Surface Waters	P281	Total Oxidised Nitrogen (TON)	1.51	mg/L N	
		P281	Ammonia	0.04	mg/L NH ₃ -N	
		P281	Nitrate	6.6	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	0.05	mg/L P	
CLN330521	Prod:	P280	BOD 5 day Total	2	mg/L O ₂	
	Order No: P1619 Rcvd Dt: 28/08/2025	P202	Suspended Solids	<5	mg/L	
	Start Testing: 29/08/2025	P281	Chloride	18.5	mg/L CI	
	Sample Type: Surface Waters	P285	Total Nitrogen	2.1	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	1.07	mg/L N	
		P281	Ammonia	0.03	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	<0.10	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	

Certificate approved and electronically signed on 16/09/25 14:02 By Ciara Gildea, Senior Environmental Chemistry Analyst

For and on Behalf of ALS Life Sciences Ltd



Certificate Number: CLN100196-1 Final Page 2 of 2

Disclaimers:

The testing results in this certificate relate only to the samples described above.

Unless otherwise stated, all results are expressed on an as received basis.

Statement of conformity made against the result does not take into account the uncertainty of measurement associated to the method.

Opinions and interpretations expressed herein are outside the scope of INAB accreditation.

Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation

Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd.

No INAB logo on the certificate indicates all results reported on the certificate are not accredited.



Original Laboratory Certs



Telephone: +353 (0) 52 617 8100



13/07/2023

26/07/2023

P1619

Report No: HYDR-375130723

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

6 sample(s) received in good condition. Sample Reception

Hydro Environmental Services

N/A Comments

For the Attention of:

Report Authorised by:

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd
- 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm2 are calculated based on information supplied by customer regarding area swabbed 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method





Report No: HYDR-375130723

Document No: EF0011

CERTIFICATE OF ANALYSIS

 Date Submitted
 13/07/2023

 Date Reported
 26/07/2023

 Order Number
 P1619

Sample TypeEffluentClient IDBorrisbeg SW1Date Tested13/07/2023ALS ID5659354

<u>Test</u>	Result	<u>Unit</u>	Method
Suspended Solids	27	mg / I	P202
Phosphorus	0.11	mg/l P	P207
BOD 5 day Total	2	mg/I O2	P280
Ammonia	0.13	mg/l NH3-N	P281
Chloride	17.4	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	<0.05	mg/l NO2	P281
Orthophosphate	0.03	mg/l P	P281
Total Oxidised Nitrogen	0.75	mg/L N	P281
Nitrogen (Total)	2.0	mg/L N	P285

Sample TypeEffluentClient IDBorrisbeg SW2Date Tested13/07/2023ALS ID5659355

Test	Result	Unit	Method
Suspended Solids	15	mg / I	P202
Phosphorus	0.18	mg/l P	P207
BOD 5 day Total	3	mg/l O2	P280
Ammonia	0.08	mg/l NH3-N	P281
Chloride	13.2	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	<0.05	mg/l NO2	P281
Orthophosphate	0.03	mg/l P	P281
Total Oxidised Nitrogen	0.94	mg/L N	P281
Nitrogen (Total)	2.1	mg/L N	P285

Report Authorised by:

- Thomas





Report No: HYDR-375130723

Document No: EF0011

CERTIFICATE OF ANALYSIS

Date Submitted	13/07/2023
Date Reported	26/07/2023
Order Number	P1619

Sample TypeEffluentClient IDBorrisbeg SW3Date Tested13/07/2023ALS ID5659356

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	12	mg / I	P202
Phosphorus	0.10	mg/l P	P207
BOD 5 day Total	3	mg/l O2	P280
Ammonia	0.21	mg/l NH3-N	P281
Chloride	25.6	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	< 0.05	mg/l NO2	P281
Orthophosphate	<0.02	mg/l P	P281
Total Oxidised Nitrogen	<0.25	mg/L N	P281
Nitrogen (Total)	1.6	mg/L N	P285

Sample TypeEffluentClient IDBorrisbeg SW4Date Tested13/07/2023ALS ID5659357

<u>Test</u>	Result	<u>Unit</u>	Method
Suspended Solids	8	mg / I	P202
Phosphorus	0.12	mg/l P	P207
BOD 5 day Total	2	mg/l O2	P280
Ammonia	0.05	mg/l NH3-N	P281
Chloride	15.7	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	< 0.05	mg/l NO2	P281
Orthophosphate	0.03	mg/l P	P281
Total Oxidised Nitrogen	0.94	mg/L N	P281
Nitrogen (Total)	1.6	mg/L N	P285

Report Authorised by:

- Thomas



Telephone: +353 (0) 52 617 8100



HYDR-375130723 Report No:

EF0011 Document No:

CERTIFICATE OF ANALYSIS

Date Submitted	13/07/2023
Date Reported	26/07/2023
Order Number	P1619

Effluent Sample Type Borrisbeg SW5 **Client ID** 13/07/2023 **Date Tested** 5659358 **ALS ID**

Result	<u>Unit</u>	Method
16	mg / I	P202
0.11	mg/l P	P207
2	mg/l O2	P280
0.08	mg/l NH3-N	P281
13.6	mg/l Cl	P281
<5.0	mg/l NO3	P281
< 0.05	mg/I NO2	P281
0.03	mg/l P	P281
0.86	mg/L N	P281
1.9	mg/L N	P285
	16 0.11 2 0.08 13.6 <5.0 <0.05 0.03 0.86	16 mg / l 0.11 mg/l P 2 mg/l O2 0.08 mg/l NH3-N 13.6 mg/l Cl <5.0 mg/l NO3 <0.05 mg/l NO2 0.03 mg/l P 0.86 mg/L N

Sample Type Effluent Borrisbeg SW6 **Client ID** 13/07/2023 **Date Tested** 5659359 **ALS ID**

<u>Test</u>	Result	<u>Unit</u>	Method
Suspended Solids	91	mg / I	P202
Phosphorus	0.18	mg/l P	P207
BOD 5 day Total	3	mg/l O2	P280
Ammonia	0.08	mg/l NH3-N	P281
Chloride	14.7	mg/l Cl	P281
Nitrate	5.1	mg/l NO3	P281
Nitrite	< 0.05	mg/l NO2	P281
Orthophosphate	0.04	mg/l P	P281
Total Oxidised Nitrogen	1.16	mg/L N	P281
Nitrogen (Total)	2.7	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-837280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

For the Attention of:

Report Authorised by:

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd
- 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm2 are calculated based on information supplied by customer regarding area swabbed 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method





Report No: HYDR-837280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

 Date Submitted
 28/09/2023

 Date Reported
 16/10/2023

 Order Number
 N/A

Sample Type Water

 Client ID
 Borrisbeg SW1

 Date Tested
 29/09/2023

 ALS ID
 5778192

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	12	mg / I	P202
Phosphorus	0.15	mg/l P	P207
BOD 5 day Total	1	mg/l O2	P280
Orthophosphate	<0.02	mg/I P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	<0.01	mg/l NO2N	P281
Nitrate	1.1	mg/l NO3N	P281
Chloride	14.5	mg/l Cl	P281
Total Oxidised Nitrogen	1.12	mg/L N	P281
Nitrogen (Total)	1.5	mg/L N	P285

Report Authorised by:

Page 2 of 2

- Thomas



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-836280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client Hydro Environmental Services

22 Lower Main Street

Dungarvan
Co. Waterford

•

For the Attention of: Hydro Environmental Services

Sample Reception 1 sample(s) received in good condition.

Comments N/A

Report Authorised by:

Thomas

Rosemary Thomas
Environmental Chemistry Manager

Conditions:

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd
- 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm² are calculated based on information supplied by customer regarding area swabbed 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method



Sample Type

ALS Life Sciences Ltd trading as ALS Carrigeen Business Park, Clonmel, Co. Tipperary

Telephone: +353 (0) 52 617 8100



HYDR-836280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported** N/A **Order Number**

Water

Ballyquin SW2 Client ID 29/09/2023 **Date Tested** 5778191 **ALS ID**

Test	Result	Unit	Method
Suspended Solids	6	mg / I	P202
Phosphorus	0.10	mg/l P	P207
BOD 5 day Total	1	mg/l O2	P280
Orthophosphate	<0.02	mg/l P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	<0.01	mg/l NO2N	P281
Nitrate	<1.0	mg/l NO3N	P281
Chloride	11.2	mg/l Cl	P281
Total Oxidised Nitrogen	<0.25	mg/L N	P281
Nitrogen (Total)	<1.0	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-839280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

For the Attention of: Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

Report Authorised by:

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm2 are calculated based on information supplied by customer regarding area swabbed
- 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method



Telephone: +353 (0) 52 617 8100



HYDR-839280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported** N/A **Order Number**

Water Sample Type

Borrisbeg SW3 Client ID 29/09/2023 **Date Tested** 5778194 **ALS ID**

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	<5	mg / I	P202
Phosphorus	0.10	mg/l P	P207
BOD 5 day Total	<1	mg/l O2	P280
Orthophosphate	<0.02	mg/l P	P281
Ammonia	0.04	mg/l NH3-N	P281
Nitrite	0.01	mg/l NO2N	P281
Nitrate	2.5	mg/l NO3N	P281
Chloride	15.4	mg/l Cl	P281
Total Oxidised Nitrogen	2.56	mg/L N	P281
Nitrogen (Total)	2.6	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-840280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

Order Number

Date Submitted

Date Reported

1 sample(s) received in good condition. Sample Reception

Hydro Environmental Services

N/A Comments

For the Attention of:

Report Authorised by:

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd
- 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm2 are calculated based on information supplied by customer regarding area swabbed 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method







HYDR-840280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported**

Order Number

N/A

Water Sample Type Borrisbeg SW4 Client ID 29/09/2023 **Date Tested**

5778195 **ALS ID**

<u>Test</u> Suspended Solids Phosphorus	<u>Result</u> 11 0.15	<u>Unit</u> mg / I mg/l P	Method P202 P207
BOD 5 day Total	2	mg/l O2	P280
Orthophosphate	<0.02	mg/l P	P281
Ammonia	<0.02	mg/l NH3-N	P281
Nitrite	<0.01	mg/I NO2N	P281
Nitrate	1.2	mg/l NO3N	P281
Chloride	11.6	mg/l Cl	P281
Total Oxidised Nitrogen	1.25	mg/L N	P281
Nitrogen (Total)	1.3	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-841280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan

Co. Waterford

For the Attention of: Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

Report Authorised by:

Environmental Chemistry Manager

Rosemary Thomas

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd
- 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm2 are calculated based on information supplied by customer regarding area swabbed 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method



Telephone: +353 (0) 52 617 8100



HYDR-841280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported Order Number**

N/A

Water Sample Type Borrisbeg SW5 Client ID 29/09/2023 **Date Tested** 5778196 **ALS ID**

<u>Test</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
Suspended Solids	5	mg / I	P202
Phosphorus	0.19	mg/l P	P207
BOD 5 day Total	2	mg/l O2	P280
Orthophosphate	0.04	mg/l P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	0.01	mg/I NO2N	P281
Nitrate	1.1	mg/I NO3N	P281
Chloride	12.1	mg/l Cl	P281
Total Oxidised Nitrogen	1.19	mg/L N	P281
Nitrogen (Total)	1.7	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



Report No: HYDR-842280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

28/09/2023

Date Submitted Date Reported

16/10/2023

Order Number

N/A

For the Attention of: Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

Report Authorised by:

- 1. Results in this report relate only to the items tested
- 2. Reports may not be reproduced except in full without the approval of ALS Life Sciences Ltd
- 3. All queries regarding this report should be addressed to the Technical Manager at the above address
- 4. A * next to a method reference signifies that ALS Life Sciences Ltd is NOT INAB accredited for this method
- 5. Results reported as CFU/cm2 are calculated based on information supplied by customer regarding area swabbed 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test
- 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method





HYDR-842280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported Order Number**

N/A

Water Sample Type Borrisbeg SW6 Client ID

29/09/2023 **Date Tested** 5778197 **ALS ID**

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	9	mg / I	P202
Phosphorus	0.14	mg/l P	P207
BOD 5 day Total	2	mg/l O2	P280
Orthophosphate	0.02	mg/l P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	0.01	mg/l NO2N	P281
Nitrate	1.3	mg/l NO3N	P281
Chloride	12.3	mg/l Cl	P281
Total Oxidised Nitrogen	1.27	mg/L N	P281
Nitrogen (Total)	1.9	mg/L N	P285

Report Authorised by: