

Ballyfeeny Green Energy Project



Environmental Impact Assessment Report Volume III

Appendix 8.2 – Surface Water Sampling September 2025

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Customer	Rowan Engineering Consultant Ltd	Lab Report Ref. No.	8860/2405109/01
Customer PO		Date of Receipt	17/05/2024
Customer Ref		Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.26	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	1.1	ug/L	
±BOD (Surface Water)	113	Electrometry	<10	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	0.8	ug/L	
COD (Surface Water)	107	Colorimetry	99	mg/L	INAB
Copper (Dissolved)	177	ICPMS	4	ug/L	
Lead (Dissolved)	177	ICPMS	0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	3	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.13	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	208	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	57.3	NTU	INAB
Zinc (Dissolved)	177	ICPMS	10.9	ug/L	



Signed:

A Harmon

Date: 04/06/2024

Aoife Harmon - Laboratory Supervisor

Acc. : Accredited Parameters by ISO/IEC 17025:2017

For bacterial analysis a result of 0 means none detected in volume examined

All organic results are analysed as received and all results are corrected for dry weight at 104 C

Results shall not be reproduced, except in full, without the approval of Fitz Scientific

Results contained in this report relate only to the samples tested (P) : Presumptive Results

** : The test result for this parameter may be invalid as it has exceeded the recommended holding time (BS EN ISO 5667-3:2018)

This sample was identified as deviant (BS EN ISO 5667-3:2018) due to [InHouseIssue±] and the test results may be invalid.

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BOD limit of detection increased due to dilution reported



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Customer PO		Date of Receipt	17/05/2024
Customer Ref	C2	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.03	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	0.7	ug/L	
BOD (Surface Water)	113	Electrometry	0.3	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	19	mg/L	INAB
Copper (Dissolved)	177	ICPMS	1.9	ug/L	
Lead (Dissolved)	177	ICPMS	<0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	1.7	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.02	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	24	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	1.1	NTU	INAB
Zinc (Dissolved)	177	ICPMS	9.9	ug/L	



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Customer Ref	A3	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.02	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	1.1	ug/L	
BOD (Surface Water)	113	Electrometry	0.9	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	26	mg/L	INAB
Copper (Dissolved)	177	ICPMS	1.3	ug/L	
Lead (Dissolved)	177	ICPMS	<0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	1.5	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.03	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	<5	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	3.2	NTU	INAB
Zinc (Dissolved)	177	ICPMS	7.6	ug/L	



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Customer Ref	A2	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.05	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	1	ug/L	
BOD (Surface Water)	113	Electrometry	1.4	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	13	mg/L	INAB
Copper (Dissolved)	177	ICPMS	1.3	ug/L	
Lead (Dissolved)	177	ICPMS	<0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	2.1	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.02	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	<5	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	1.8	NTU	INAB
Zinc (Dissolved)	177	ICPMS	8.5	ug/L	



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Customer Ref	B1	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.02	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	1.1	ug/L	
BOD (Surface Water)	113	Electrometry	0.5	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	33	mg/L	INAB
Copper (Dissolved)	177	ICPMS	2.3	ug/L	
Lead (Dissolved)	177	ICPMS	<0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	4	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.05	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	20	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	50.9	NTU	INAB
Zinc (Dissolved)	177	ICPMS	2	ug/L	



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Customer Ref	B2	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.04	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	1.1	ug/L	
BOD (Surface Water)	113	Electrometry	1.0	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	31	mg/L	INAB
Copper (Dissolved)	177	ICPMS	1.5	ug/L	
Lead (Dissolved)	177	ICPMS	0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	2.3	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.02	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	<5	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	4.6	NTU	INAB
Zinc (Dissolved)	177	ICPMS	3.9	ug/L	



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Customer PO	B3	Date of Receipt	17/05/2024
Customer Ref	B3	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.02	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	0.7	ug/L	
BOD (Surface Water)	113	Electrometry	0.4	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	40	mg/L	INAB
Copper (Dissolved)	177	ICPMS	1.1	ug/L	
Lead (Dissolved)	177	ICPMS	0.3	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	0.7	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.02	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	91	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	17.3	NTU	INAB
Zinc (Dissolved)	177	ICPMS	2.3	ug/L	



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Customer Ref	A1	Sampled On	16/05/2024
Ref 2		Date Testing Commenced	17/05/2024
Ref 3		Received or Collected	Delivered by Customer
		Condition on Receipt	Acceptable
		Date of Report	04/06/2024
		Sample Type	Surface Water

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Ammonia (Surface Water)	114	Colorimetry	0.01	mg/L as N	INAB
Arsenic (Dissolved)	177	ICPMS	0.9	ug/L	
BOD (Surface Water)	113	Electrometry	1.3	mg/L	INAB
Cadmium (Dissolved)	177	ICPMS	<0.5	ug/L	
Chromium (Dissolved)	177	ICPMS	<0.7	ug/L	
COD (Surface Water)	107	Colorimetry	18	mg/L	INAB
Copper (Dissolved)	177	ICPMS	1.1	ug/L	
Lead (Dissolved)	177	ICPMS	<0.2	ug/L	
Mercury (Dissolved)	178	ICPMS	<0.1	ug/L	
Nickel (Dissolved)	177	ICPMS	2.1	ug/L	
Nitrate (Surface Water)	103	Colorimetry	<0.51	mg/L as N	INAB
Phosphate (Ortho) Surface Water	117	Colorimetry	0.01	mg/L as P	INAB
Selenium (Dissolved)	177	ICPMS	<3	ug/L	
Solids (Total Suspended)	106	Gravimetry	<5	mg/L	
TPH (>C10-40)	188	GC-FID	<1	ug/L	
Turbidity (Surface Water)	109	Turbidimetry	1.7	NTU	INAB
Zinc (Dissolved)	177	ICPMS	3	ug/L	



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