Appendix D

Water Quality Monitoring Results

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202235

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fifty-two samples of water taken by the staff of FTS on 01/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202235/1-52
Date of receipt of sample	:	01/12/2020
Date test commenced	:	02/12/2020
Date test completed	:	03/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

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Tuen Mun, NT
Hong Kong

Report No. : 181172WA202235

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	49
2. M1F M Dup	49
3. M2F M	28
4. M2F M Dup	29
5. E1F S	30
6. E1F S Dup	30
7. E1F B	43
8. E1F B Dup	43
9. E2aF M	31
10. E2aF M Dup	29
11. E3aF M	17
12. E3aF M Dup	16
13. E4F M	33
14. E4F M Dup	33
15. E5aF M	41
16. E5aF M Dup	42
17. DB1F M	23
18. DB1F M Dup	23
19. SP1F M	48
20. SP1F M Dup	47
21. KT1F M	51
22. KT1F M Dup	52

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202235

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	30
24. M1E M Dup	30
25. M2E M	48
26. M2E M Dup	47
27. E1E S	47
28. E1E S Dup	47
29. E1E B	50
30. E1E B Dup	50
31. E2aE M	51
32. E2aE M Dup	50
33. E3aE M	20
34. E3aE M Dup	20
35. E4E M	25
36. E4E M Dup	25
37. E5aE S	31
38. E5aE S Dup	30
39. E5aE B	34
40. E5aE B Dup	33
41. DB1E M	11
42. DB1E M Dup	13
43. SP1E M	30
44. SP1E M Dup	29

Remark: Disclaimer: Sampling is out of scope of accreditation.

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Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

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Tuen Mun, NT
Hong Kong

Report No. : 181172WA202235

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. KT1E S	23
46. KT1E S Dup	24
47. KT1E B	72
48. KT1E B Dup	72
49. M3F M	59
50. M3F M Dup	58
51. M3E M	26
52. M3E M Dup	28

Remark: Disclaimer: Sampling is out of scope of accreditation.

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Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

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5 Lok Yi Street, Tai Lam
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Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	100.96	29.0	29.8	2.72
	<1	100.00	24.7	24.7	0.00
	<1	100.90	12.7	13.3	4.62
	<1	99.60	58.3	57.7	1.03
	<1	102.86	28.3	28.7	1.40

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FUGRO TECHNICAL SERVICES LIMITED
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5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202235(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty samples of water taken by the staff of FTS on 01/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202235/5-22, 27-48	WA202235/5B-22B, 27B-48B

Sample condition :

	Chemical tests	Microbiological tests
Container	Fourty 2 L plastic bottles and fourty 0.18 mL plastic bottles	Fourty sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample : 01/12/2020

Date test commenced : 01/12/2020

Date test completed : 07/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
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5 Lok Yi Street, Tai Lam
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Hong Kong

Report No. : 181172WA202235(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
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Hong Kong

Report No. : 181172WA202235(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	4.4	4.1	4.3	4.3	1.9	2.2	1.7	1.0
3. Total nitrogen content, mg/L	6.0	6.3	5.9	5.9	5.2	5.5	3.1	2.2
4. Ammonical nitrogen content, mg/L	2.7	2.5	2.5	2.6	1.0	0.44	0.28	0.29
5. Total Inorganic nitrogen, mg/L	4.2	4.7	4.1	4.2	4.4	3.7	1.7	1.4
6. Total phosphorus content, mgP/L	0.95	0.99	1.0	1.0	0.62	0.65	0.32	0.34
7. E. coli count, cfu/100ml	1.1 x 104 (estimated)	9.9×10^3	9.8×10^3	1.1×10^4 (estimated)	9.3×10^3	5.3×10^3	2.4 x 10	2.0 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.3°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 01/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 02/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202235(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	2.0	2.0	2.0	2.5	<1.5	<1.5	2.0	2.5
2. Total Kjeldahl nitrogen content, mg/L	3.0	2.2	4.9	4.9	4.0	4.0	5.7	5.5
3. Total nitrogen content, mg/L	5.3	5.9	6.5	6.5	5.6	5.7	7.0	6.7
4. Ammonical nitrogen content, mg/L	1.4	1.5	2.9	2.2	3.2	3.6	4.3	3.7
5. Total Inorganic nitrogen, mg/L	3.6	5.2	4.5	3.8	4.8	5.3	5.5	4.9
6. Total phosphorus content, mgP/L	0.65	0.69	1.2	1.2	0.28	0.28	1.3	1.2
7. E. coli count, cfu/100ml	7.3×10^3	7.4×10^3	1.0×10^4 (estimated)	1.1×10^4 (estimated)	1.6 x 10	2.1 x 10	1.7×10^4 (estimated)	1.7×10^4 (estimated)

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
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4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 01/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 02/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Approved Signatory : HO Kin Man, John
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Date : 15/1/2021

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Report No. : 181172WA202235(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	2.5	2.5	2.0	2.0	2.5	2.0	2.5	2.5
2. Total Kjeldahl nitrogen content, mg/L	5.0	4.9	2.7	3.0	2.8	2.9	1.3	1.5
3. Total nitrogen content, mg/L	6.6	6.4	5.8	6.0	6.1	6.0	4.2	4.0
4. Ammonical nitrogen content, mg/L	2.9	3.0	1.2	1.3	1.1	1.2	0.79	0.78
5. Total Inorganic nitrogen, mg/L	4.5	4.5	4.2	4.3	4.4	4.3	3.6	3.3
6. Total phosphorus content, mgP/L	1.3	1.2	0.70	0.75	0.60	0.55	0.51	0.49
7. E. coli count, cfu/100ml	1.2×10^4 (estimated)	1.2×10^4 (estimated)	1.0×10^4 (estimated)	8.6×10^3	6.9×10^3	1.0×10^4 (estimated)	3.7×10^3	5.1×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.3°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 01/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 02/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Report No. : 181172WA202235(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE S	E5aE S Dup	E5aE B	E5aE B Dup
1. Biochemical oxygen demand, mg/L	2.5	2.5	3.5	3.5	4.0	4.0	4.0	4.0
2. Total Kjeldahl nitrogen content, mg/L	0.84	0.81	1.6	1.6	3.1	2.8	2.2	2.3
3. Total nitrogen content, mg/L	2.1	2.2	4.4	4.3	6.5	5.8	5.7	6.1
4. Ammonical nitrogen content, mg/L	0.1	0.19	1.1	1.1	1.8	1.9	1.4	1.4
5. Total Inorganic nitrogen, mg/L	1.3	1.6	3.8	3.7	5.2	4.8	4.8	5.3
6. Total phosphorus content, mgP/L	0.23	0.19	0.45	0.49	0.44	0.39	0.55	0.53
7. E. coli count, cfu/100ml	2.5 x 10	4 (estimated)	4.6×10^3	5.0×10^3	1.1×10^4 (estimated)	1.2×10^4 (estimated)	1.0×10^4 (estimated)	9.3×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.3°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 01/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 02/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

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Date : 15/1/2021

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Report No. : 181172WA202235(1)

Results :

Test parameters	Sample identification							
	DB1E M	DB1E M Dup	SP1E M	SP1E M Dup	KT1E S	KT1E S Dup	KT1E B	KT1E B Dup
1. Biochemical oxygen demand, mg/L	4.5	4.5	4.0	4.0	4.0	4.5	4.5	5.0
2. Total Kjeldahl nitrogen content, mg/L	2.4	2.4	2.8	3.0	3.6	3.6	2.9	3.3
3. Total nitrogen content, mg/L	5.7	5.6	4.5	4.8	6.6	6.6	5.7	6.8
4. Ammonical nitrogen content, mg/L	2.4	2.0	2.2	2.5	1.6	1.9	2.1	2.1
5. Total Inorganic nitrogen, mg/L	5.6	5.2	4.0	4.3	4.6	4.9	4.9	5.6
6. Total phosphorus content, mgP/L	0.19	0.21	0.49	0.46	0.44	0.45	0.62	0.66
7. E. coli count, cfu/100ml	2 (estimated)	3 (estimated)	1.1×10^4 (estimated)	8.5×10^3	9.5×10^3	7.0×10^3	8.8×10^3	8.3×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.3°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 01/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 02/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
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Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.88	2.74	4.98
1.5	<1.5	-	3.03	2.85	6.12
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	100.70	2.04	1.99	2.48
0.05	<0.05	93.10	3.17	3.08	2.88
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	-	-	-	-

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	105.55	1.83	1.91	4.28
0.02	<0.02	104.44	1.36	1.23	10.0
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	103.70	0.49	0.50	2.02
0.01	<0.01	99.36	0.47	0.46	2.15
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	7.5×10^3	7.0×10^3	6.90
1	<1	-	4.4×10^3	4.7×10^3	6.59

Certified by : _____
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Date : 15/1/2021

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Fugro Development Centre
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Hong Kong

Report No. : 181172WA202253

HOKLAS 015 TEST

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fifty samples of water taken by the staff of FTS on 03/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202253/1-50
Date of receipt of sample	:	03/12/2020
Date test commenced	:	04/12/2020
Date test completed	:	05/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	53
2. M1F M Dup	52
3. M2F M	41
4. M2F M Dup	41
5. E1F S	35
6. E1F S Dup	35
7. E1F B	39
8. E1F B Dup	39
9. E2aF M	52
10. E2aF M Dup	52
11. E3aF M	42
12. E3aF M Dup	41
13. E4F M	71
14. E4F M Dup	71
15. E5aF M	50
16. E5aF M Dup	49
17. DB1F M	34
18. DB1F M Dup	34
19. SP1F M	48
20. SP1F M Dup	47
21. KT1F M	77
22. KT1F M Dup	77

Remark: Disclaimer: Sampling is out of scope of accreditation.

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Approved Signatory : HO Kin Man, John
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Report No. : 181172WA202253

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	42
24. M1E M Dup	42
25. M2E M	43
26. M2E M Dup	40
27. E1E S	32
28. E1E S Dup	32
29. E1E B	35
30. E1E B Dup	36
31. E2aE M	54
32. E2aE M Dup	54
33. E3aE M	34
34. E3aE M Dup	35
35. E4E M	48
36. E4E M Dup	48
37. E5aE S	42
38. E5aE S Dup	41
39. E5aE B	61
40. E5aE B Dup	60
41. DB1E M	42
42. DB1E M Dup	41
43. SP1E M	38
44. SP1E M Dup	39

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. KT1E M	37
46. KT1E M Dup	37
47. M3F M	46
48. M3F M Dup	45
49. M3E M	41
50. M3E M Dup	40

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	99.70	41.3	41.3	0.00
	<1	100.90	46.3	47.7	2.98
	<1	100.26	53.8	53.7	0.19
	<1	101.10	41.0	41.7	1.69
	<1	99.20	46.3	44.3	4.42

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-eight samples of water taken by the staff of FTS on 03/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202253/5-22, 27-46	WA202253/5B-22B, 27B-46B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-eight 2 L plastic bottles and thirty-eight 0.18 mL plastic bottles	Thirty-eight sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	03/12/2020
Date test commenced	:	03/12/2020
Date test completed	:	09/12/2020

Note : This report refers only to the sample(s) tested.

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Hong Kong

Report No. : 181172WA202253(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement: Current Speed (m/s) Depth Ave.	Current Direction (°) Depth Ave.	pH Value	pH Ave.	Salinity (ppt) Value	Salinity (ppt) Ave.	Temperature (degree C) Value	Temperature (degree C) Ave.	DO Saturation (%) Value	DO Saturation (%) Ave.	DO (mg/L) Value	DO (mg/L) Ave.	DO (mg/L) S & M Ave.	Turbidity (NTU) Value	Turbidity (NTU) Ave.	Turbidity (NTU) Depth Ave.	Laboratory Analysis: Total Suspended Solids (mg/L) Value	Total Suspended Solids (mg/L) Ave.	Total Suspended Solids (mg/L) Depth Ave.	BOD_5 (mg/L) Value	BOD_5 (mg/L) Ave.	BOD_5 (mg/L) Depth Ave.	UIA (mg/L-N) Value	UIA (mg/L-N) Ave.	UIA (mg/L-N) Depth Ave.	Total Kjeldahl Nitrogen (mg/L-N) Value	Total Kjeldahl Nitrogen (mg/L-N) Ave.	Total Kjeldahl Nitrogen (mg/L-N) Depth Ave.	Total Nitrogen (mg/L-N) Value	Total Nitrogen (mg/L-N) Ave.	Total Nitrogen (mg/L-N) Depth Ave.	Ammonical Nitrogen (mg/L) Value	Ammonical Nitrogen (mg/L) Ave.	Ammonical Nitrogen (mg/L) Depth Ave.	Total Inorganic nitrogen (mg/L) Value	Total Inorganic nitrogen (mg/L) Ave.	Total Inorganic nitrogen (mg/L) Depth Ave.	Total Phosphorus (mg/L) Value	Total Phosphorus (mg/L) Ave.	Total Phosphorus (mg/L) Depth Ave.	E.coli (cfu/100mL) Value	E.coli (cfu/100mL) Ave.	E.coli (cfu/100mL) Depth Ave.
M1	1/12/2020	Mid-Flood	Fine	Calm	10:06	1.1	S		1	0.060	336.1		NA		NA		NA		NA		NA	3.89		NA	49.6		NA	49		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	1/12/2020	Mid-Flood	Fine	Calm	10:06	1.1	S		2																																											
M1	1/12/2020	Mid-Flood	Fine	Calm	10:06	1.1	M	0.55	1			7.19	7.19	8.52	8.52	20.55	20.56	47.0	46.5	3.90	3.89		50.1	49.6		49	49			NA			NA			NA			NA			NA			NA			NA			NA	
M1	1/12/2020	Mid-Flood	Fine	Calm	10:06	1.1	M	0.55	2			7.19		8.52		20.56		46.0		3.87			49.0			49																										
M1	1/12/2020	Mid-Flood	Fine	Calm	10:06	1.1	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	1/12/2020	Mid-Flood	Fine	Calm	10:06	1.1	B		2																																											
M2	1/12/2020	Mid-Flood	Fine	Calm	10:16	0.9	S		1	0.099	242.1		NA		NA		NA		NA		NA	4.28		NA	31.4		NA	29		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	1/12/2020	Mid-Flood	Fine	Calm	10:16	0.9	S		2																																											
M2	1/12/2020	Mid-Flood	Fine	Calm	10:16	0.9	M	0.45	1			7.20	7.20	8.48	8.48	19.99	20.13	53.7	53.1	4.42	4.28		31.5	31.4		28	29			NA			NA			NA			NA			NA			NA			NA			NA	
M2	1/12/2020	Mid-Flood	Fine	Calm	10:16	0.9	M	0.45	2			7.20		8.47		20.26		52.5		4.13			31.3			29																										
M2	1/12/2020	Mid-Flood	Fine	Calm	10:16	0.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	1/12/2020	Mid-Flood	Fine	Calm	10:16	0.9	B		2																																											
M3	1/12/2020	Mid-Flood	Fine	Calm	09:17	0.2	S		1	0.018	120.3		NA		NA		NA		NA		NA	5.56		NA	67.8		NA	59		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	1/12/2020	Mid-Flood	Fine	Calm	09:17	0.2	S		2																																											
M3	1/12/2020	Mid-Flood	Fine	Calm	09:17	0.2	M	0.1	1			7.11	7.12	6.20	6.21	22.15	22.13	65.7	65.6	5.56	5.56		67.4	67.8		59	59			NA			NA			NA			NA			NA			NA			NA			NA	
M3	1/12/2020	Mid-Flood	Fine	Calm	09:17	0.2	M	0.1	2			7.12		6.22		22.11		65.5		5.55			68.2			58																										
M3	1/12/2020	Mid-Flood	Fine	Calm	09:17	0.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	1/12/2020	Mid-Flood	Fine	Calm	09:17	0.2	B		2																																											
E1	1/12/2020	Mid-Flood	Fine	Calm	09:22	4.1	S	1	1	0.177	165.0	7.26	7.26	8.26	8.26	20.37	20.38	56.7	56.6	4.84	4.83	4.83	23.4	23.6	31.8	30	30	37	<1.5	1.5	1.5	0.019	0.018	0.017	4.4	4.3	4.3	6.0	6.2	6.0	2.70	2.60	2.58	4.2	4.5	4.3	0.95	0.97	0.99	11000	10436	10409
E1	1/12/2020	Mid-Flood	Fine	Calm	09:22	4.1	S	1	2			7.26		8.26		20.38		56.5		4.81			23.7			30			<1.5			0.017			4.1			6.3			2.50			4.7			0.99			9900		
E1	1/12/2020	Mid-Flood	Fine	Calm	09:22	4.1	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	1/12/2020	Mid-Flood	Fine	Calm	09:22	4.1	M		2																																											
E1	1/12/2020	Mid-Flood	Fine	Calm	09:22	4.1	B	3.1	1			7.22	7.22	8.56	8.56	20.39	20.38	50.0	49.9	4.26	4.25		40.4	40.1		43	43		<1.5	1.5		0.016	0.016		4.3	4.3		5.9	5.9		2.50	2.55		4.1	4.2		1.00	1.00		9800	10383	
E1	1/12/2020	Mid-Flood	Fine	Calm	09:22	4.1	B	3.1	2			7.22		8.56		20.37		49.8		4.23			39.8			43			<1.5			0.016			4.3			5.9			2.60			4.2			1.00			11000		
E2a	1/12/2020	Mid-Flood	Fine	Calm	08:55	1.6	S		1	0.476	64.8		NA		NA		NA		NA		NA	6.80		NA	29.0		NA	30		NA	1.5		NA	0.007		NA	2.1		NA	5.4		NA	0.72		NA	4.1		NA	0.64		NA	7021
E2a	1/12/2020	Mid-Flood	Fine	Calm	08:55	1.6	S		2																																											
E2a	1/12/2020	Mid-Flood	Fine	Calm	08:55	1.6	M	0.8	1			7.39	7.39	8.30	8.30	19.91	20.09	81.3	81.0	6.87	6.80		29.7	29.0		31	30		<1.5	1.5		0.009	0.007		1.9	2.1		5.2	5.4		1.00	0.72		4.4	4.1		0.62	0.64		9300	7021	
E2a	1/12/2020	Mid-Flood	Fine	Calm	08:55	1.6	M	0.8	2			7.39		8.30		20.26		80.6		6.72			28.2			29			<1.5			0.004			2.2			5.5			0.44			3.7			0.65			5300		
E2a	1/12/2020	Mid-Flood	Fine	Calm	08:55	1.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	1/12/2020	Mid-Flood	Fine	Calm	08:55	1.6	B		2																																											
E3a	1/12/2020	Mid-Flood	Fine	Calm	08:25	1.3	S		1	0.133	53.3		NA		NA		NA		NA		NA	7.74		NA	13.5		NA	17		NA	1.5		NA	0.005		NA	1.4		NA	2.7		NA	0.29		NA	1.6		NA	0.33		NA	22
E3a	1/12/2020	Mid-Flood	Fine	Calm	08:25	1.3	S		2																																											
E3a	1/12/2020	Mid-Flood	Fine	Calm	08:25	1.3	M	0.65	1			7.70	7.73	20.73	20.73	19.99	20.01	97.5	97.1	7.74	7.74		13.5	13.5		17	17		<1.5	1.5		0.005	0.005		1.7	1.4		3.1	2.7		0.28	0.29		1.7	1.6		0.32	0.33		24	22	
E3a	1/12/2020	Mid-Flood	Fine	Calm	08:25	1.3	M	0.65	2			7.76		20.73		20.03		96.6		7.73			13.5			16			<1.5			0.006			1.0			2.2			0.29			1.4			0.34			20		
E3a	1/12/2020	Mid-Flood	Fine	Calm	08:25	1.3	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	1/12/2020	Mid-Flood	Fine	Calm	08:25	1.3	B		2																																											
E4	1/12/2020	Mid-Flood	Fine	Calm	09:10	2.1	S		1	0.000	94.2		NA		NA		NA		NA		NA	6.37		NA	36.7		NA	33		NA	2.0		NA	0.012		NA	2.6		NA	5.6		NA	1.45		NA	4.4		NA	0.67		NA	7350
E4	1/12/2020	Mid-Flood	Fine	Calm	09:10	2.1	S		2																																											
E4	1/12/2020	Mid-Flood	Fine	Calm	09:10	2.1	M	1.05	1			7.34	7.34	7.76	7.76	19.99	20.07	79.0	76.7	6.51	6.37		38.7	36.7		33	33		2.0	2.0		0.011	0.012		3.0	2.6		5.3	5.6		1.40	1.45		3.6	4.4		0.65	0.67		7300	7350	
E4	1/12/2020	Mid-Flood	Fine	Calm	09:10	2.1	M	1.05	2			7.34		7.75		20.15		74.3		6.23			34.7			33			2.0			0.012			2.2			5.9			1.50			5.2			0.69			7400		
E4	1/12/2020	Mid-Flood	Fine	Calm	09:10	2.1	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	1/12/2020	Mid-Flood	Fine	Calm	09:10	2.1	B		2																																											
E5a	1/12/2020	Mid-Flood	Fine	Calm	09:58	2.9	S		1	0.000	137.9		NA		NA		NA		NA		NA	4.14		NA	30.1		NA	42		NA	2.0		NA	0.016		NA	4.9		NA	6.5		NA	2.55		NA	4.2		NA	1.20		NA	10488
E5a	1/12/2020	Mid-Flood	Fine	Calm	09:58	2.9	S		2																																											
E5a	1/12/2020	Mid-Flood	Fine	Calm	09:58	2.9	M	1.45	1			7.20	7.20	8.53	8.53	20.53	20.53	49.2	49.0	4.15	4.14		29.9	30.1		41	42		2.0	2.0		0.018	0.016		4.9	4.9		6.5	6.5		2.90	2.55		4.5	4.2		1.20	1.20		10000	10488	
E5a	1/12/2020	Mid-Flood	Fine	Calm	09:58	2.9	M	1.45	2			7.20		8.53		20.53		48.7		4.12			30.3			42			2.0			0.013			4.9			6.5			2.20			3.8			1.20			11000		
E5a	1/12/2020	Mid-Flood	Fine	Calm	09:58	2.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	1/12/2020	Mid-Flood	Fine	Calm	09:58	2.9	B		2																																											
DB1	1/12/2020	Mid-Flood	Fine	Calm	07:56	2.9	S		1	0.210	74.3		NA		NA		NA		NA		NA	7.78		NA	14.0		NA	23		NA	1.5		NA	0.055		NA	4.0		NA	5.7		NA	3.40		NA	5.1		NA	0.28		NA	18
DB1	1/12/2020	Mid-Flood	Fine	Calm	07:56	2.9	S		2																																											
DB1	1/12/2020	Mid-Flood	Fine	Calm	07:56	2.9	M	1.45	1			7.65	7.65	23.55	23.55	20.86	20.86	99.7	99.8	7.78	7.78		13.9	14.0		23	23		<1.5	1.5		0.052	0.055		4.0	4.0		5.6	5.7		3.20	3.40		4.8	5.1		0.28	0.28		16	18	
DB1	1/12/2020	Mid-Flood	Fine	Calm	07:56	2.9	M	1.45	2			7.65		23.55		20.86		99.8		7.78			14.0			23			<1.5			0.058			4.0			5.7			3.60			5.3			0.28			21		
DB1	1/12/2020	Mid-Flood	Fine	Calm	07:56	2.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	1/12/2020	Mid-Flood	Fine	Calm	07:56	2.9	B		2																																											
SP1	1/12/2020	Mid-Flood	Fine	Calm	10:26	2.7	S		1	0.000	174.0		NA		NA		NA		NA		NA	4.27		NA	29.4		NA	48		NA	2.3		NA	0.023		NA	5.6		NA	6.9		NA	4.00		NA	5.2		NA	1.25		NA	17000
SP1	1/12/2020	Mid-Flood	Fine	Calm	10:26	2.7	S		2																																											
SP1	1/12/2020	Mid-Flood	Fine	Calm	10:26	2.7	M	1.35	1			7.18	7.18	8.42	8.42	19.89	20.20	54.1	53.9	4.30	4.27		29.4	29.4		48	48		2.0	2.3		0.024	0.023		5.7	5.6		7.0	6.9		4.30	4.00		5.5	5.2		1.30	1.25		17000	17000	
SP1	1/12/2020	Mid-Flood	Fine	Calm	10:26	2.7	M	1.35	2			7.18		8.42		20.51		53.6		4.23			29.3			47			2.5			0.022			5.5			6.7			3.70			4.9			1.20			17000		
SP1	1/12/2020	Mid-Flood	Fine	Calm	10:26	2.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	1/12/2020	Mid-Flood	Fine	Calm	10:26	2.7	B		2																																											
KT1	1/12/2020	Mid-Flood	Fine	Calm	09:44	2.0	S		1	0.126	356.1		NA		NA		NA		NA		NA	4.20		NA	42.9		NA	52		NA	2.5		NA	0.018		NA	5.0		NA	6.5		NA	2.95		NA	4.5		NA	1.25		NA	12000
KT1	1/12/2020	Mid-Flood	Fine	Calm	09:44	2.0	S		2																																											
KT1	1/12/2020	Mid-Flood	Fine	Calm	09:44	2.0	M	1	1			7.22	7.22	8.86	8.86	20.18	20.19	50.4	50.0	4.21	4.20		42.2	42.9		51	52		2.5	2.5		0.018	0.018		5.0	5.0		6.6	6.5		2.90	2.95		4.5	4.5		1.30	1.25		12000	12000	
KT1	1/12/2020	Mid-Flood	Fine	Calm	09:44	2.0	M	1	2			7.22		8.86		20.19		49.6		4.18			43.6			52			2.5			0.019			4.9			6.4			3.00			4.5			1.20			12000		
KT1	1/12/2020	Mid-Flood	Fine	Calm	09:44	2.0	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	1/12/2020	Mid-Flood	Fine	Calm	09:44	2.0	B		2																																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement: Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.
M1	1/12/2020	Mid-Ebb	Fine	Calm	13:00	1.5	S		1	0.000	316.2		NA		NA		NA		NA		NA	6.81		NA	19.4
M1	1/12/2020	Mid-Ebb	Fine	Calm	13:00	1.5	S		2																
M1	1/12/2020	Mid-Ebb	Fine	Calm	13:00	1.5	M	0.75	1			7.38	7.38	7.93	7.93	21.27	21.30	82.0	81.7	6.83	6.81		19.3	19.4	
M1	1/12/2020	Mid-Ebb	Fine	Calm	13:00	1.5	M	0.75	2			7.38		7.93		21.33		81.4		6.78			19.4		
M1	1/12/2020	Mid-Ebb	Fine	Calm	13:00	1.5	B		1				NA		NA		NA		NA		NA			NA	
M1	1/12/2020	Mid-Ebb	Fine	Calm	13:00	1.5	B		2																
M2	1/12/2020	Mid-Ebb	Fine	Calm	12:53	1.0	S		1	0.038	350.7		NA		NA		NA		NA		NA	5.89		NA	31.4
M2	1/12/2020	Mid-Ebb	Fine	Calm	12:53	1.0	S		2																
M2	1/12/2020	Mid-Ebb	Fine	Calm	12:53	1.0	M	0.5	1			7.29	7.29	8.08	8.08	21.16	21.17	70.6	70.3	5.90	5.89		31.7	31.4	
M2	1/12/2020	Mid-Ebb	Fine	Calm	12:53	1.0	M	0.5	2			7.29		8.07		21.18		70.0		5.87			31.0		
M2	1/12/2020	Mid-Ebb	Fine	Calm	12:53	1.0	B		1				NA		NA		NA		NA		NA			NA	
M2	1/12/2020	Mid-Ebb	Fine	Calm	12:53	1.0	B		2																
M3	1/12/2020	Mid-Ebb	Fine	Calm	14:38	0.3	S		1	0.011	168.4		NA		NA		NA		NA		NA	5.26		NA	71.2
M3	1/12/2020	Mid-Ebb	Fine	Calm	14:38	0.3	S		2																
M3	1/12/2020	Mid-Ebb	Fine	Calm	14:38	0.3	M	0.15	1			7.16	7.15	6.17	6.17	22.26	22.32	62.4	62.4	5.26	5.26		71.4	71.2	
M3	1/12/2020	Mid-Ebb	Fine	Calm	14:38	0.3	M	0.15	2			7.14		6.16		22.38		62.4		5.25			70.9		
M3	1/12/2020	Mid-Ebb	Fine	Calm	14:38	0.3	B		1				NA		NA		NA		NA		NA			NA	
M3	1/12/2020	Mid-Ebb	Fine	Calm	14:38	0.3	B		2																
E1	1/12/2020	Mid-Ebb	Fine	Calm	13:37	3.3	S	1	1	0.132	293.4	7.35	7.35	8.30	8.30	21.11	21.11	77.0	77.4	6.57	6.57	6.57	40.8	40.7	47.6
E1	1/12/2020	Mid-Ebb	Fine	Calm	13:37	3.3	S	1	2			7.35		8.30		21.11		77.7		6.57			40.5		
E1	1/12/2020	Mid-Ebb	Fine	Calm	13:37	3.3	M		1				NA		NA		NA		NA		NA			NA	
E1	1/12/2020	Mid-Ebb	Fine	Calm	13:37	3.3	M		2																
E1	1/12/2020	Mid-Ebb	Fine	Calm	13:37	3.3	B	2.3	1			7.35	7.35	9.57	9.60	20.97	20.97	75.6	75.6	6.41	6.41		54.6	54.6	
E1	1/12/2020	Mid-Ebb	Fine	Calm	13:37	3.3	B	2.3	2			7.35		9.62		20.97		75.6		6.41			54.6		
E2a	1/12/2020	Mid-Ebb	Fine	Calm	14:20	2.2	S		1	0.064	113.5		NA		NA		NA		NA		NA	7.03		NA	32.0
E2a	1/12/2020	Mid-Ebb	Fine	Calm	14:20	2.2	S		2																
E2a	1/12/2020	Mid-Ebb	Fine	Calm	14:20	2.2	M	1.1	1			7.44	7.44	11.07	11.07	20.94	20.94	84.2	84.2	7.03	7.03		32.0	32.0	
E2a	1/12/2020	Mid-Ebb	Fine	Calm	14:20	2.2	M	1.1	2			7.44		11.07		20.94		84.1		7.03			32.0		
E2a	1/12/2020	Mid-Ebb	Fine	Calm	14:20	2.2	B		1				NA		NA		NA		NA		NA			NA	
E2a	1/12/2020	Mid-Ebb	Fine	Calm	14:20	2.2	B		2																
E3a	1/12/2020	Mid-Ebb	Fine	Calm	14:40	1.9	S		1	0.198	42.6		NA		NA		NA		NA		NA	8.80		NA	11.2
E3a	1/12/2020	Mid-Ebb	Fine	Calm	14:40	1.9	S		2																
E3a	1/12/2020	Mid-Ebb	Fine	Calm	14:40	1.9	M	0.95	1			7.81	7.81	22.39	22.40	21.61	21.62	113.7	113.8	8.80	8.80		11.1	11.2	
E3a	1/12/2020	Mid-Ebb	Fine	Calm	14:40	1.9	M	0.95	2			7.81		22.41		21.62		113.8		8.80			11.3		
E3a	1/12/2020	Mid-Ebb	Fine	Calm	14:40	1.9	B		1				NA		NA		NA		NA		NA			NA	
E3a	1/12/2020	Mid-Ebb	Fine	Calm	14:40	1.9	B		2																
E4	1/12/2020	Mid-Ebb	Fine	Calm	13:53	2.8	S		1	0.116	348.2		NA		NA		NA		NA		NA	7.41		NA	27.7
E4	1/12/2020	Mid-Ebb	Fine	Calm	13:53	2.8	S		2																
E4	1/12/2020	Mid-Ebb	Fine	Calm	13:53	2.8	M	1.4	1			7.45	7.45	10.93	10.91	21.19	21.20	89.8	89.6	7.42	7.41		27.5	27.7	
E4	1/12/2020	Mid-Ebb	Fine	Calm	13:53	2.8	M	1.4	2			7.45		10.88		21.20		89.3		7.40			27.8		
E4	1/12/2020	Mid-Ebb	Fine	Calm	13:53	2.8	B		1				NA		NA		NA		NA		NA			NA	
E4	1/12/2020	Mid-Ebb	Fine	Calm	13:53	2.8	B		2																
E5a	1/12/2020	Mid-Ebb	Fine	Calm	13:06	3.4	S	1	1	0.167	20.7	7.35	7.35	7.95	7.94	20.49	20.58	81.5	81.0	6.72	6.69	6.69	22.1	22.1	23.6
E5a	1/12/2020	Mid-Ebb	Fine	Calm	13:06	3.4	S	1	2			7.34		7.92		20.66		80.5		6.66			22.1		
E5a	1/12/2020	Mid-Ebb	Fine	Calm	13:06	3.4	M		1				NA		NA		NA		NA		NA			NA	
E5a	1/12/2020	Mid-Ebb	Fine	Calm	13:06	3.4	M		2																
E5a	1/12/2020	Mid-Ebb	Fine	Calm	13:06	3.4	B	2.4	1			7.29	7.29	7.94	7.94	21.19	21.19	70.6	70.6	5.98	5.98		25.1	25.1	
E5a	1/12/2020	Mid-Ebb	Fine	Calm	13:06	3.4	B	2.4	2			7.29		7.94		21.19		70.6		5.98			25.1		
DB1	1/12/2020	Mid-Ebb	Fine	Calm	15:00	2.6	S		1	0.279	211.7		NA		NA		NA		NA		NA	9.38		NA	6.1
DB1	1/12/2020	Mid-Ebb	Fine	Calm	15:00	2.6	S		2																
DB1	1/12/2020	Mid-Ebb	Fine	Calm	15:00	2.6	M	1.3	1			7.95	7.95	23.66	23.64	21.84	21.84	122.2	122.3	9.36	9.38		6.1	6.1	
DB1	1/12/2020	Mid-Ebb	Fine	Calm	15:00	2.6	M	1.3	2			7.95		23.61		21.84		122.3		9.39			6.1		
DB1	1/12/2020	Mid-Ebb	Fine	Calm	15:00	2.6	B		1				NA		NA		NA		NA		NA			NA	
DB1	1/12/2020	Mid-Ebb	Fine	Calm	15:00	2.6	B		2																
SP1	1/12/2020	Mid-Ebb	Fine	Calm	12:43	2.8	S		1	0.103	121.3		NA		NA		NA		NA		NA	5.52		NA	21.5
SP1	1/12/2020	Mid-Ebb	Fine	Calm	12:43	2.8	S		2																
SP1	1/12/2020	Mid-Ebb	Fine	Calm	12:43	2.8	M	1.4	1			7.28	7.28	8.09	8.09	20.82	20.84	72.0	71.3	5.61	5.52		21.4	21.5	
SP1	1/12/2020	Mid-Ebb	Fine	Calm	12:43	2.8	M	1.4	2			7.28		8.09		20.85		70.6		5.42			21.5		
SP1	1/12/2020	Mid-Ebb	Fine	Calm	12:43	2.8	B		1				NA		NA		NA		NA		NA			NA	
SP1	1/12/2020	Mid-Ebb	Fine	Calm	12:43	2.8	B		2																
KT1	1/12/2020	Mid-Ebb	Fine	Calm	13:16	3.1	S	1	1	0.041	184.0	7.31	7.31	8.22	8.22	21.52	21.52	70.2	70.2	5.90	5.90	5.90	19.0	18.8	21.7
KT1	1/12/2020	Mid-Ebb	Fine	Calm	13:16	3.1	S	1	2			7.31		8.22		21.52		70.1		5.89			18.5		
KT1	1/12/2020	Mid-Ebb	Fine	Calm	13:16	3.1	M		1				NA		NA		NA		NA		NA			NA	
KT1	1/12/2020	Mid-Ebb	Fine	Calm	13:16	3.1	M		2																
KT1	1/12/2020	Mid-Ebb	Fine	Calm	13:16	3.1	B	2.1	1			7.24	7.24	8.17	8.17	21.01	21.01	62.4	62.5	5.29	5.29		24.7	24.7	
KT1	1/12/2020	Mid-Ebb	Fine	Calm	13:16	3.1	B	2.1	2			7.24		8.17		21.01		62.5		5.28			24.7		

Monitoring Location	Monitoring Level	Replicate	Laboratory Analysis: Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
			Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	S	1		NA	30		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	S	2																											
M1	M	1	30	30			NA			NA			NA			NA			NA			NA			NA			NA	
M1	M	2	30																										
M1	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	B	2																											
M2	S	1		NA	48		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	S	2																											
M2	M	1	48	48			NA			NA			NA			NA			NA			NA			NA			NA	
M2	M	2	47																										
M2	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	B	2																											
M3	S	1		NA	27		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	S	2																											
M3	M	1	26	27			NA			NA			NA			NA			NA			NA			NA			NA	
M3	M	2	28																										
M3	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	B	2																											
E1	S	1	47	47	49	2.0	2.0	2.1	0.011	0.011	0.011	2.7	2.9	2.9	5.8	5.9	6.0	1.20	1.25	1.20	4.2	4.3	4.3	0.70	0.73	0.65	10000	9274	8777
E1	S	2	47			2.0			0.012			3.0			6.0			1.30			4.3			0.75			8600		
E1	M	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	M	2																											
E1	B	1	50	50		2.5	2.3		0.010	0.010		2.8	2.9		6.1	6.1		1.10	1.15		4.4	4.4		0.60	0.58		6900	8307	
E1	B	2	50			2.0			0.011			2.9			6.0			1.20			4.3			0.55			10000		
E2a	S	1		NA	51		NA	2.5		NA	0.008		NA	1.4		NA	4.1		NA	0.79		NA	3.5		NA	0.50		NA	4344
E2a	S	2																											
E2a	M	1	51	51		2.5	2.5		0.009	0.008		1.3	1.4		4.2	4.1		0.79	0.79		3.6	3.5		0.51	0.50		3700	4344	
E2a	M	2	50			2.5			0.008			1.5			4.0			0.78			3.3			0.49			5100		
E2a	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	B	2																											
E3a	S	1		NA	20		NA	2.5		NA	0.004		NA	0.8		NA	2.2		NA	0.15		NA	1.5		NA	0.21		NA	10
E3a	S	2																											
E3a	M	1	20	20		2.5	2.5		0.002	0.004		0.8	0.8		2.1	2.2		0.10	0.15		1.3	1.5		0.23	0.21		25	10	
E3a	M	2	20			2.5			0.005			0.8			2.2			0.19			1.6			0.19			4		
E3a	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	B	2																											
E4	S	1		NA	25		NA	3.5		NA	0.012		NA	1.6		NA	4.4		NA	1.10		NA	3.8		NA	0.47		NA	4796
E4	S	2																											
E4	M	1	25	25		3.5	3.5		0.012	0.012		1.6	1.6		4.4	4.4		1.10	1.10		3.8	3.8		0.45	0.47		4600	4796	
E4	M	2	25			3.5			0.012			1.6			4.3			1.10			3.7			0.49			5000		
E4	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	B	2																											
E5a	S	1	31	31	32	4.0	4.0	4.0	0.016	0.016	0.014	3.1	3.0	2.6	6.5	6.2	6.0	1.80	1.85	1.63	5.2	5.0	5.0	0.44	0.42	0.48	11000	11489	10526
E5a	S	2	30			4.0			0.016			2.8			5.8			1.90			4.8			0.39			12000		
E5a	M	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	M	2																											
E5a	B	1	34	34		4.0	4.0		0.011	0.011		2.2	2.3		5.7	5.9		1.40	1.40		4.8	5.1		0.55	0.54		10000	9644	
E5a	B	2	33			4.0			0.011			2.3			6.1			1.40			5.3			0.53			9300		
DB1	S	1		NA	12		NA	4.5		NA	0.075		NA	2.4		NA	5.7		NA	2.20		NA	5.4		NA	0.20		NA	2
DB1	S	2																											
DB1	M	1	11	12		4.5	4.5		0.082	0.075		2.4	2.4		5.7	5.7		2.40	2.20		5.6	5.4		0.19	0.20		2	2	
DB1	M	2	13			4.5			0.068			2.4			5.6			2.00			5.2			0.21			3		
DB1	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	B	2																											
SP1	S	1		NA	30		NA	4.0		NA	0.018		NA	2.9		NA	4.7		NA	2.35		NA	4.2		NA	0.48		NA	9670
SP1	S	2																											
SP1	M	1	30	30		4.0	4.0		0.017	0.018		2.8	2.9		4.5	4.7		2.20	2.35		4.0	4.2		0.49	0.48		11000	9670	
SP1	M	2	29			4.0			0.019			3.0			4.8			2.50			4.3			0.46			8500		
SP1	B	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	B	2																											
KT1	S	1	23	24	48	4.0	4.3	4.5	0.014	0.015	0.015	3.6	3.6	3.4	6.6	6.6	6.4	1.60	1.75	1.93	4.6	4.8	5.0	0.44	0.45	0.54	9500	8155	8348
KT1	S	2	24			4.5			0.016			3.6			6.6			1.90			4.9			0.45			7000		
KT1	M	1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	M	2																											
KT1	B	1	72	72		4.5	4.8		0.015	0.015		2.9	3.1		5.7	6.3		2.10	2.10		4.9	5.3		0.62	0.64		8800	8546	
KT1	B	2	72			5.0			0.015			3.3			6.8			2.10			5.6			0.66			8300		

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)		Current Direction (°)		pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.		Depth Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	3/12/2020	Mid-Flood	Fine	Calm	11:14	1.1	S		1						NA			NA			NA			NA			NA																							
M1	3/12/2020	Mid-Flood	Fine	Calm	11:14	1.1	S		2																																									
M1	3/12/2020	Mid-Flood	Fine	Calm	11:14	1.1	M	0.55	1	0.321		225.9		7.18	7.18		8.11	8.11		19.90	20.04		64.8	64.0		5.12	5.11	5.11	35.4	35.4	35.4	53	53	53																	
M1	3/12/2020	Mid-Flood	Fine	Calm	11:14	1.1	M	0.55	2					7.18			8.11			20.17			63.2			5.10			35.4			52																	
M1	3/12/2020	Mid-Flood	Fine	Calm	11:14	1.1	B		1						NA			NA			NA			NA			NA																							
M1	3/12/2020	Mid-Flood	Fine	Calm	11:14	1.1	B		2																																									
M2	3/12/2020	Mid-Flood	Fine	Calm	11:22	0.9	S		1						NA			NA			NA			NA			NA																							
M2	3/12/2020	Mid-Flood	Fine	Calm	11:22	0.9	S		2																																									
M2	3/12/2020	Mid-Flood	Fine	Calm	11:22	0.9	M	0.45	1	0.241		76.0		7.15	7.15		8.38	8.38		20.37	20.37		53.1	53.0		4.53	4.52	4.52	35.6	35.8	35.8	41	41	41																	
M2	3/12/2020	Mid-Flood	Fine	Calm	11:22	0.9	M	0.45	2					7.15			8.38			20.37			52.9			4.51			36.0			41																	
M2	3/12/2020	Mid-Flood	Fine	Calm	11:22	0.9	B		1						NA			NA			NA			NA			NA																							
M2	3/12/2020	Mid-Flood	Fine	Calm	11:22	0.9	B		2																																									
M3	3/12/2020	Mid-Flood	Fine	Calm	10:34	0.2	S		1						NA			NA			NA			NA			NA																							
M3	3/12/2020	Mid-Flood	Fine	Calm	10:34	0.2	S		2																																									
M3	3/12/2020	Mid-Flood	Fine	Calm	10:34	0.2	M	0.1	1	0.011		196.9		7.78	7.78		1.17	1.18		20.58	20.58		64.5	64.5		5.76	5.76	5.76	23.9	23.9	23.9	46	46	46																	
M3	3/12/2020	Mid-Flood	Fine	Calm	10:34	0.2	M	0.1	2					7.77			1.18			20.57			64.4			5.75			23.9			45																	
M3	3/12/2020	Mid-Flood	Fine	Calm	10:34	0.2	B		1						NA			NA			NA			NA			NA																							
M3	3/12/2020	Mid-Flood	Fine	Calm	10:34	0.2	B		2																																									
E1	3/12/2020	Mid-Flood	Fine	Calm	10:40	4.3	S	1	1					7.27	7.27		7.40	7.40		20.43	20.43		70.3	70.2		6.04	6.03	6.03	28.3	28.3		35	35		2.0	2.5		0.014	0.014		2.3	2.4		4.7	5.0		1.90	1.90		4.2	4.4		0.33	0.33		3800	3647	
E1	3/12/2020	Mid-Flood	Fine	Calm	10:40	4.3	S	1	2					7.27			7.40			20.43			70.1			6.02			28.3			35			3.0			0.014			2.5			5.2			1.90			4.5			0.32			3500		
E1	3/12/2020	Mid-Flood	Fine	Calm	10:40	4.3	M		1						NA			NA			NA			NA			NA																							
E1	3/12/2020	Mid-Flood	Fine	Calm	10:40	4.3	M		2																																									
E1	3/12/2020	Mid-Flood	Fine	Calm	10:40	4.3	B	3.3	1	0.139		332.1		7.22	7.22		7.68	7.68		20.31	20.30		62.7	62.7		5.40	5.40	6.03	44.1	44.1	36.2	39	39	37	2.5	2.8	2.6	0.014	0.013	0.013	2.6	2.8	2.6	4.4	4.9	4.9	2.20	2.00	1.95	4.0	4.2	4.3	0.48	0.49	0.41	4000	4243	3934
E1	3/12/2020	Mid-Flood	Fine	Calm	10:40	4.3	B	3.3	2					7.22			7.68			20.28			62.6			5.40			44.0			39			3.0			0.011			2.9			5.4			1.80			4.4			0.49			4500		
E2a	3/12/2020	Mid-Flood	Fine	Calm	10:12	1.5	S		1						NA			NA			NA			NA			NA																							
E2a	3/12/2020	Mid-Flood	Fine	Calm	10:12	1.5	S		2																																									
E2a	3/12/2020	Mid-Flood	Fine	Calm	10:12	1.5	M	0.75	1	0.409		357.9		7.42	7.42		9.67	9.64		20.17	20.17		83.1	83.0		7.06	7.05	7.05	37.3	37.5	37.5	52	52	52	1.5	2.0	2.0	0.012	0.012	0.012	2.5	2.6	2.6	5.5	5.8	5.8	1.20	1.20	1.20	4.2	4.3	4.3	0.22	0.24	0.24	4300	4199	4199
E2a	3/12/2020	Mid-Flood	Fine	Calm	10:12	1.5	M	0.75	2					7.42			9.60			20.17			82.9			7.04			37.7			52			2.5			0.012			2.7			6.0			1.20			4.4			0.25			4100		
E2a	3/12/2020	Mid-Flood	Fine	Calm	10:12	1.5	B		1						NA			NA			NA			NA			NA																							
E2a	3/12/2020	Mid-Flood	Fine	Calm	10:12	1.5	B		2																																									
E3a	3/12/2020	Mid-Flood	Fine	Calm	09:43	1.5	S		1						NA			NA			NA			NA			NA																							
E3a	3/12/2020	Mid-Flood	Fine	Calm	09:43	1.5	S		2																																									
E3a	3/12/2020	Mid-Flood	Fine	Calm	09:43	1.5	M	0.75	1	0.259		71.2		7.72	7.72		22.67	22.67		19.96	19.96		98.6	98.6		7.84	7.84	7.84	14.4	14.4	14.4	42	42	42	<1.5	1.5	1.5	0.021	0.021	0.021	2.5	2.6	2.6	5.5	5.8	5.8	1.20	1.20	1.20	4.2	4.3	4.3	0.22	0.24	0.24	4300	4199	4199
E3a	3/12/2020	Mid-Flood	Fine	Calm	09:43	1.5	M	0.75	2					7.72			22.67			19.96			98.5			7.83			14.4			41			<1.5			0.021			2.7			6.0			1.20			4.4			0.25			4100		
E3a	3/12/2020	Mid-Flood	Fine	Calm	09:43	1.5	B		1						NA			NA			NA			NA			NA																							
E3a	3/12/2020	Mid-Flood	Fine	Calm	09:43	1.5	B		2																																									
E4	3/12/2020	Mid-Flood	Fine	Calm	10:28	1.8	S		1						NA			NA			NA			NA			NA																							
E4	3/12/2020	Mid-Flood	Fine	Calm	10:28	1.8	S		2																																									
E4	3/12/2020	Mid-Flood	Fine	Calm	10:28	1.8	M	0.9	1	0.265		75.9		7.39	7.39		7.49	7.48		19.45	19.55		88.2	88.0		7.65	7.59	7.59	41.0	40.7	40.7	71	71	71	3.0	3.3	3.3	0.011	0.011	0.011	1.4	1.5	1.5	4.4	4.5	4.5	1.30	1.20	1.20	4.2	4.1	4.1	0.49	0.47	0.47	4800	4040	4040
E4	3/12/2020	Mid-Flood	Fine	Calm	10:28	1.8	M	0.9	2					7.39			7.46			19.64			87.7			7.53			40.4			71			3.5			0.010			1.6			4.5			1.10			4.0			0.44			3400		
E4	3/12/2020	Mid-Flood	Fine	Calm	10:28	1.8	B		1						NA			NA			NA			NA			NA																							
E4	3/12/2020	Mid-Flood	Fine	Calm	10:28	1.8	B		2																																									
E5a	3/12/2020	Mid-Flood	Fine	Calm	11:06	2.9	S		1						NA			NA			NA			NA			NA																							
E5a	3/12/2020	Mid-Flood	Fine	Calm	11:06	2.9	S		2																																									
E5a	3/12/2020	Mid-Flood	Fine	Calm	11:06	2.9	M	1.45	1	0.456		224.6		7.17	7.17		8.28	8.27		20.36	20.36		53.7	53.7		4.61	4.61	4.61	34.7	34.2	34.2	50	50	50	4.0	3.5	3.5	0.012	0.011	0.011	2.4	2.3	2.3	4.1	3.9	3.9	2.10	2.00	2.00	3.7	3.6	3.6	0.38	0.37	0.37	3600	6573	6573
E5a	3/12/2020	Mid-Flood	Fine	Calm	11:06	2.9	M	1.45	2					7.17			8.25			20.36			53.6			4.61			33.7			49			3.0			0.011			2.1			3.6			1.90			3.4			0.35			12000		
E5a	3/12/2020	Mid-Flood	Fine	Calm	11:06	2.9	B		1						NA			NA			NA			NA			NA																							
E5a	3/12/2020	Mid-Flood	Fine	Calm	11:06	2.9	B		2																																									
DB1	3/12/2020	Mid-Flood	Fine	Calm	09:25	1.9	S		1						NA			NA			NA			NA			NA																							
DB1	3/12/2020	Mid-Flood	Fine	Calm	09:25	1.9	S		2																																									
DB1	3/12/2020	Mid-Flood	Fine	Calm	09:25	1.9	M	0.95	1	0.315		303.2		7.74	7.74		23.79	23.79		19.89	19.89		99.3	99.2		7.87	7.84	7.84	13.1	13.1	13.1	34	34	34	1.5	1.5	1.5	0.046	0.046	0.046	2.7	2.7	2.7	4.1	4.0	4.0	2.50	2.50	2.50	3.9	3.8	3.8	0.26	0.26	0.26	52	53	53
DB1	3/12/2020	Mid-Flood	Fine	Calm	09:25	1.9	M	0.95	2					7.74			23.79			19.88			99.0			7.80			13.1			34			<1.5			0.046			2.6			3.8			2.50			3.7			0.25			55		
DB1	3/12/2020	Mid-Flood	Fine	Calm	09:25	1.9	B		1						NA			NA			NA			NA			NA																							
DB1	3/12/2020	Mid-Flood	Fine	Calm	09:25	1.9	B		2																																									
SP1	3/12/2020	Mid-Flood	Fine	Calm	11:29	2.3	S		1						NA			NA			NA			NA			NA																							
SP1	3/12/2020	Mid-Flood	Fine	Calm	11:29	2.3	S		2																																									
SP1	3/12/2020	Mid-Flood	Fine	Calm	11:29	2.3	M	1.15	1	0.366		125.6		7.15	7.15		8.39	8.39		20.54	20.54		54.0	53.9		4.58	4.57	4.57	32.2	32.3	32.3	48	48	48	3.5	3.5	3.5	0.013	0.014	0.014	2.9	3.1	3.1	3.9	4.1	4.1	2.40	2.55	2.55	3.3	3.5	3.5	0.79	0.79	0.79	13000	9192	9192
SP1	3/12/2020	Mid-Flood	Fine	Calm	11:29	2.3	M	1.15	2					7.15			8.39			20.54			53.7			4.56			32.4			47			3.5			0.015			3.3			4.2			2.70			3.6			0.78			6500		
SP1	3/12/2020	Mid-Flood	Fine	Calm	11:29	2.3	B		1						NA			NA			NA			NA			NA																							
SP1	3/12/2020	Mid-Flood	Fine	Calm	11:29	2.3	B		2																																									
KT1	3/12/2020	Mid-Flood	Fine	Calm	10:56	1.8	S		1						NA			NA			NA			NA			NA																							
KT1	3/12/2020	Mid-Flood	Fine	Calm	10:56	1.8	S		2																																									
KT1	3/12/2020	Mid-Flood	Fine	Calm	10:56	1.8	M	0.9	1	0.039		15.5		7.11	7.11		8.61	8.61		20.20	20.20		47.5	47.4		4.01	3.99	3.99	40.1	40.2	40.2	77	77	77	4.0	3.8	3.8	0.009	0.010	0.010	3.0	3.3	3.3	4.4	4.8	4.8	1.80	2.00	2.00	3.2	3.5	3.5	0.84	0.84	0.84	5700	6451	6451
KT1	3/12/2020	Mid-Flood	Fine	Calm	10:56	1.8	M	0.9	2					7.11			8.60			20.20			47.3			3.97			40.2			77			3.5			0.011			3.6			5.1			2.20			3.7			0.83			7300		
KT1	3/12/2020	Mid-Flood	Fine	Calm	10:56	1.8	B		1						NA			NA			NA			NA			NA																							
KT1	3/12/2020	Mid-Flood	Fine	Calm	10:56	1.8	B		2																																									

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	3/12/2020	Mid-Ebb	Fine	Calm	14:08	1.8	S		1	0.251	37.1		NA		NA		NA		NA		NA	6.88		NA	37.1		NA	42		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	3/12/2020	Mid-Ebb	Fine	Calm	14:08	1.8	S		2																																											
M1	3/12/2020	Mid-Ebb	Fine	Calm	14:08	1.8	M	0.9	1			7.32	7.32	7.58	7.58	20.65	20.63	81.5	81.1	6.90	6.88		37.1	37.1		42	42			NA			NA			NA			NA			NA			NA			NA			NA	
M1	3/12/2020	Mid-Ebb	Fine	Calm	14:08	1.8	M	0.9	2			7.32		7.58		20.61		80.7		6.86			37.0			42																										
M1	3/12/2020	Mid-Ebb	Fine	Calm	14:08	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	3/12/2020	Mid-Ebb	Fine	Calm	14:08	1.8	B		2																																											
M2	3/12/2020	Mid-Ebb	Fine	Calm	14:01	2.2	S		1	0.243	349.0		NA		NA		NA		NA		NA	6.20		NA	36.5		NA	42		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	3/12/2020	Mid-Ebb	Fine	Calm	14:01	2.2	S		2																																											
M2	3/12/2020	Mid-Ebb	Fine	Calm	14:01	2.2	M	1.1	1			7.29	7.29	7.69	7.70	20.79	20.80	73.5	73.4	6.21	6.20		36.5	36.5		43	42			NA			NA			NA			NA			NA			NA			NA			NA	
M2	3/12/2020	Mid-Ebb	Fine	Calm	14:01	2.2	M	1.1	2			7.29		7.70		20.81		73.3		6.18			36.5			40																										
M2	3/12/2020	Mid-Ebb	Fine	Calm	14:01	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	3/12/2020	Mid-Ebb	Fine	Calm	14:01	2.2	B		2																																											
M3	3/12/2020	Mid-Ebb	Fine	Calm	15:25	0.5	S		1	0.020	267.4		NA		NA		NA		NA		NA	5.91		NA	53.5		NA	41		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	3/12/2020	Mid-Ebb	Fine	Calm	15:25	0.5	S		2																																											
M3	3/12/2020	Mid-Ebb	Fine	Calm	15:25	0.5	M	0.25	1			7.82	7.85	7.92	7.92	23.57	23.58	72.7	72.8	5.89	5.91		53.6	53.5		41	41			NA			NA			NA			NA			NA			NA			NA			NA	
M3	3/12/2020	Mid-Ebb	Fine	Calm	15:25	0.5	M	0.25	2			7.88		7.91		23.58		72.9		5.92			53.4			40																										
M3	3/12/2020	Mid-Ebb	Fine	Calm	15:25	0.5	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	3/12/2020	Mid-Ebb	Fine	Calm	15:25	0.5	B		2																																											
E1	3/12/2020	Mid-Ebb	Fine	Calm	14:37	5.6	S	1	1	0.111	18.9	7.42	7.42	8.20	8.20	20.79	20.79	86.1	86.1	7.33	7.33	7.33	21.1	21.1	30.8	32	32	34	2.5	2.8	3.3	0.013	0.013	0.012	2.0	2.0	2.0	4.6	4.9	4.8	1.30	1.25	1.23	4.0	4.2	4.1	0.44	0.47	0.47	3200	3487	3603
E1	3/12/2020	Mid-Ebb	Fine	Calm	14:37	5.6	S	1	2			7.42		8.20		20.79		86.0		7.33			21.1			32			3.0			0.012			2.0			5.2			1.20			4.4			0.49			3800		
E1	3/12/2020	Mid-Ebb	Fine	Calm	14:37	5.6	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	3/12/2020	Mid-Ebb	Fine	Calm	14:37	5.6	M		2																																											
E1	3/12/2020	Mid-Ebb	Fine	Calm	14:37	5.6	B	4.6	1			7.37	7.37	8.94	8.94	20.73	20.70	82.8	82.6	7.02	7.01		40.4	40.5		35	36		4.5	3.8		0.013	0.011		1.9	2.0		5.0	4.7		1.40	1.20		4.5	4.0		0.46	0.48		4200	3723	
E1	3/12/2020	Mid-Ebb	Fine	Calm	14:37	5.6	B	4.6	2			7.37		8.94		20.67		82.4		7.00			40.5			36			3.0			0.009			2.0			4.3			1.00			3.4			0.49			3300		
E2a	3/12/2020	Mid-Ebb	Fine	Calm	15:07	2.7	S		1	0.356	351.2		NA		NA		NA		NA		NA	8.00		NA	40.2		NA	54		NA	3.0		NA	0.011		NA	2.1		NA	4.5		NA	0.91		NA	3.5		NA	0.56		NA	3897
E2a	3/12/2020	Mid-Ebb	Fine	Calm	15:07	2.7	S		2																																											
E2a	3/12/2020	Mid-Ebb	Fine	Calm	15:07	2.7	M	1.35	1			7.52	7.52	11.17	11.17	19.92	19.94	95.0	94.8	8.00	8.00		40.1	40.2		54	54		2.5	3.0		0.012	0.011		2.2	2.1		4.6	4.5		1.00	0.91		3.5	3.5		0.57	0.56		4900	3897	
E2a	3/12/2020	Mid-Ebb	Fine	Calm	15:07	2.7	M	1.35	2			7.51		11.16		19.95		94.5		8.00			40.2			54			3.5			0.010			1.9			4.4			0.82			3.4			0.54			3100		
E2a	3/12/2020	Mid-Ebb	Fine	Calm	15:07	2.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	3/12/2020	Mid-Ebb	Fine	Calm	15:07	2.7	B		2																																											
E3a	3/12/2020	Mid-Ebb	Fine	Calm	15:39	2.1	S		1	0.224	126.1		NA		NA		NA		NA		NA	8.23		NA	25.0		NA	35		NA	1.8		NA	0.005		NA	0.9		NA	2.0		NA	0.25		NA	1.4		NA	0.19		NA	38
E3a	3/12/2020	Mid-Ebb	Fine	Calm	15:39	2.1	S		2																																											
E3a	3/12/2020	Mid-Ebb	Fine	Calm	15:39	2.1	M	1.05	1			7.76	7.76	22.91	22.91	20.56	20.56	105.0	105.0	8.23	8.23		25.0	25.0		34	35		2.0	1.8		0.005	0.005		1.0	0.9		2.1	2.0		0.25	0.25		1.4	1.4		0.18	0.19		55	38	
E3a	3/12/2020	Mid-Ebb	Fine	Calm	15:39	2.1	M	1.05	2			7.76		22.91		20.56		104.9		8.23			24.9			35			<1.5			0.005			0.8			1.9			0.25			1.3			0.20			26		
E3a	3/12/2020	Mid-Ebb	Fine	Calm	15:39	2.1	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	3/12/2020	Mid-Ebb	Fine	Calm	15:39	2.1	B		2																																											
E4	3/12/2020	Mid-Ebb	Fine	Calm	14:54	2.4	S		1	0.193	89.5		NA		NA		NA		NA		NA	7.58		NA	28.9		NA	48		NA	3.3		NA	0.010		NA	2.1		NA	4.5		NA	0.94		NA	3.4		NA	0.47		NA	3499
E4	3/12/2020	Mid-Ebb	Fine	Calm	14:54	2.4	S		2																																											
E4	3/12/2020	Mid-Ebb	Fine	Calm	14:54	2.4	M	1.2	1			7.47	7.47	10.37	10.37	20.35	20.35	89.3	89.3	7.58	7.58		28.7	28.9		48	48		3.0	3.3		0.010	0.010		2.0	2.1		4.6	4.5		0.91	0.94		3.5	3.4		0.45	0.47		3400	3499	
E4	3/12/2020	Mid-Ebb	Fine	Calm	14:54	2.4	M	1.2	2			7.47		10.37		20.34		89.2		7.57			29.0			48			3.5			0.011			2.2			4.4			0.96			3.2			0.49			3600		
E4	3/12/2020	Mid-Ebb	Fine	Calm	14:54	2.4	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	3/12/2020	Mid-Ebb	Fine	Calm	14:54	2.4	B		2																																											
E5a	3/12/2020	Mid-Ebb	Fine	Calm	14:14	2.3	S	1	1	0.211	31.6	7.34	7.34	7.53	7.53	20.68	20.70	84.5	84.0	7.10	7.08	7.08	22.5	22.4	31.5	42	42	51	3.5	3.5	3.3	0.021	0.020	0.017	3.7	3.7	3.5	6.0	6.0	5.7	2.40	2.30	2.10	4.6	4.5	4.3	0.36	0.35	0.38	3200	3150	3695
E5a	3/12/2020	Mid-Ebb	Fine	Calm	14:14	2.3	S	1	2			7.34		7.52		20.71		83.5		7.05			22.2			41			3.5			0.019			3.6			5.9			2.20			4.4			0.34			3100		
E5a	3/12/2020	Mid-Ebb	Fine	Calm	14:14	2.3	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	3/12/2020	Mid-Ebb	Fine	Calm	14:14	2.3	M		2																																											
E5a	3/12/2020	Mid-Ebb	Fine	Calm	14:14	2.3	B	1.3	1			7.30	7.30	7.52	7.52	20.77	20.77	75.6	75.4	6.41	6.44		40.6	40.6		61	61		3.0	3.0		0.016	0.015		3.2	3.3		5.3	5.5		2.00	1.90		4.1	4.1		0.42	0.42		4700	4336	
E5a	3/12/2020	Mid-Ebb	Fine	Calm	14:14	3.3	B	2.3	2			7.30		7.52		20.76		75.2		6.46			40.6			60			3.0			0.014			3.3			5.7			1.80			4.1			0.41			4000		
DB1	3/12/2020	Mid-Ebb	Fine	Calm	15:56	2.2	S		1	0.495	11.6		NA		NA		NA		NA		NA	8.38		NA	12.9		NA	42		NA	1.5		NA	0.005		NA	0.6		NA	2.3		NA	0.19		NA	1.9		NA	0.21		NA	2
DB1	3/12/2020	Mid-Ebb	Fine	Calm	15:56	2.2	S		2																																											
DB1	3/12/2020	Mid-Ebb	Fine	Calm	15:56	2.2	M	1.1	1			7.89	7.89	25.21	25.21	20.65	20.66	108.4	108.4	8.38	8.38		12.8	12.9		42	42		<1.5	1.5		0.005	0.005		0.7	0.6		2.2	2.3		0.19	0.19		1.7	1.9		0.21	0.21		6	2	
DB1	3/12/2020	Mid-Ebb	Fine	Calm	15:56	2.2	M	1.1	2			7.89		25.21		20.66		108.3		8.38			12.9			41			<1.5			0.005			0.4			2.3			0.18			2.0			0.21			1		
DB1	3/12/2020	Mid-Ebb	Fine	Calm	15:56	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	3/12/2020	Mid-Ebb	Fine	Calm	15:56	2.2	B		2																																											
SP1	3/12/2020	Mid-Ebb	Fine	Calm	13:53	2.7	S		1	0.130	327.6		NA		NA		NA		NA		NA	6.05		NA	35.0		NA	39		NA	2.8		NA	0.018		NA	3.7		NA	4.4		NA	2.55		NA	3.3		NA	0.34		NA	5400
SP1	3/12/2020	Mid-Ebb	Fine	Calm	13:53	2.7	S		2																																											
SP1	3/12/2020	Mid-Ebb	Fine	Calm	13:53	2.7	M	1.35	1			7.26	7.26	7.88	7.88	20.84	20.85	71.1	70.8	6.10	6.05		34.9	35.0		38	39		2.5	2.8		0.019	0.018		3.7	3.7		4.4	4.4		2.60	2.55		3.3	3.3		0.33	0.34		5400	5400	
SP1	3/12/2020	Mid-Ebb	Fine	Calm	13:53	2.7	M	1.35	2			7.26		7.88		20.86		70.5		6.00			35.0			39			3.0			0.018			3.6			4.4			2.50			3.3			0.35			5400		
SP1	3/12/2020	Mid-Ebb	Fine	Calm	13:53	2.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	3/12/2020	Mid-Ebb	Fine	Calm	13:53	2.7	B		2																																											
KT1	3/12/2020	Mid-Ebb	Fine	Calm	14:25	2.1	S		1	0.078	330.8		NA		NA		NA		NA		NA	6.82		NA	19.5		NA	37		NA	3.0		NA	0.014		NA	3.2		NA	5.5		NA	1.65		NA	4.0		NA	0.44		NA	4236
KT1	3/12/2020	Mid-Ebb	Fine	Calm	14:25	2.1	S		2																																											
KT1	3/12/2020	Mid-Ebb	Fine	Calm	14:25	2.1	M	1.05	1			7.33	7.33	7.59	7.59	20.58	20.59	80.5	80.3	6.84	6.82		19.5	19.5		37	37		3.0	3.0		0.012	0.014		3.3	3.2		5.6	5.5		1.50	1.65		3.9	4.0		0.40	0.44		3900	4236	
KT1	3/12/2020	Mid-Ebb	Fine	Calm	14:25	2.1	M	1.05	2			7.33		7.58		20.60		80.0		6.80			19.5			37			3.0			0.015			3.1			5.4			1.80			4.1			0.47			4600		
KT1	3/12/2020	Mid-Ebb	Fine	Calm	14:25	2.1	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	3/12/2020	Mid-Ebb	Fine	Calm	14:25	2.1	B		2																																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)		Current Direction (°)		pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.		Depth Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	5/12/2020	Mid-Flood	Fine	Calm	12:16	1.1	S		1						NA			NA			NA																													
M1	5/12/2020	Mid-Flood	Fine	Calm	12:16	1.1	S		2																																									
M1	5/12/2020	Mid-Flood	Fine	Calm	12:16	1.1	M	0.55	1	0.312		201.6		7.29	7.29		8.54	8.54		18.30	18.34		69.1	68.7		6.05	6.03	6.03	24.3	24.6	24.6	47	47	47																			
M1	5/12/2020	Mid-Flood	Fine	Calm	12:16	1.1	M	0.55	2					7.28			8.54			18.37			68.3			6.00			24.9			47																			
M1	5/12/2020	Mid-Flood	Fine	Calm	12:16	1.1	B		1						NA			NA			NA			NA			NA																							
M1	5/12/2020	Mid-Flood	Fine	Calm	12:16	1.1	B		2																																									
M2	5/12/2020	Mid-Flood	Fine	Calm	12:21	0.6	S		1						NA			NA			NA			NA			NA																							
M2	5/12/2020	Mid-Flood	Fine	Calm	12:21	0.6	S		2																																									
M2	5/12/2020	Mid-Flood	Fine	Calm	12:21	0.6	M	0.3	1	0.217		63.2		7.23	7.23		8.22	8.23		18.62	18.62		58.1	58.1		5.04	5.03	5.03	27.1	27.2	27.2	37	37	37																			
M2	5/12/2020	Mid-Flood	Fine	Calm	12:21	0.6	M	0.3	2					7.23			8.23			18.62			58.0			5.02			27.2			37																			
M2	5/12/2020	Mid-Flood	Fine	Calm	12:21	0.6	B		1						NA			NA			NA			NA			NA																							
M2	5/12/2020	Mid-Flood	Fine	Calm	12:21	0.6	B		2																																									
M3	5/12/2020	Mid-Flood	Fine	Calm	12:08	0.3	S		1						NA			NA			NA			NA			NA																							
M3	5/12/2020	Mid-Flood	Fine	Calm	12:08	0.3	S		2																																									
M3	5/12/2020	Mid-Flood	Fine	Calm	12:08	0.3	M	0.15	1	0.021		189.1		8.01	8.05		3.80	3.81		22.41	22.42		68.3	68.2		5.81	5.80	5.80	64.9	65.3	65.3	43	43	43																			
M3	5/12/2020	Mid-Flood	Fine	Calm	12:08	0.3	M	0.15	2					8.08			3.81			22.42			68.1			5.79			65.7			42																			
M3	5/12/2020	Mid-Flood	Fine	Calm	12:08	0.3	B		1						NA			NA			NA			NA			NA																							
M3	5/12/2020	Mid-Flood	Fine	Calm	12:08	0.3	B		2																																									
E1	5/12/2020	Mid-Flood	Fine	Calm	11:43	4.0	S	1	1					7.28	7.28		8.39	8.39		17.54	17.64		70.0	70.0		6.13	6.13	6.13	22.4	22.4		25	25		4.0	4.0		0.012	0.012		2.1	2.2		3.7	3.7		2.10	2.10		3.6	3.5		0.34	0.33		1400	1400	
E1	5/12/2020	Mid-Flood	Fine	Calm	11:43	4.0	S	1	2					7.28			8.39			17.74			70.0			6.13			22.4			25			4.0			0.013			2.3			3.6			2.10			3.4			0.32			1400		
E1	5/12/2020	Mid-Flood	Fine	Calm	11:43	4.0	M		1						NA			NA			NA			NA			NA																							
E1	5/12/2020	Mid-Flood	Fine	Calm	11:43	4.0	M		2																																									
E1	5/12/2020	Mid-Flood	Fine	Calm	11:43	4.0	B	3	1	0.117		310.7		7.25	7.25		8.37	8.37		18.35	18.37		57.9	57.7		5.13	5.13	6.13	30.4	30.3	26.3	32	33	29	5.0	5.0	4.5	0.008	0.008	0.010	3.2	3.1	2.7	4.6	4.6	4.1	1.30	1.45	1.78	2.8	3.0	3.2	0.38	0.38	0.35	1600	1600	1497
E1	5/12/2020	Mid-Flood	Fine	Calm	11:43	4.0	B	3	2					7.25			8.37			18.39			57.5			5.12			30.1			34			5.0			0.009			3.0			4.6			1.60			3.1			0.37			1600		
E2a	5/12/2020	Mid-Flood	Fine	Calm	11:26	1.3	S		1						NA			NA			NA			NA			NA																							
E2a	5/12/2020	Mid-Flood	Fine	Calm	11:26	1.3	S		2																																									
E2a	5/12/2020	Mid-Flood	Fine	Calm	11:26	1.3	M	0.65	1	0.411		287.1		7.40	7.40		8.79	8.79		18.77	18.78		82.1	82.1		7.24	7.24	7.24	34.1	34.1	34.1	40	41	41	3.0	2.3	2.3	0.006	0.006	0.006	2.0	2.0	2.0	4.4	4.4	4.4	0.76	0.68	0.68	3.2	3.2	3.2	0.29	0.28	0.28	1900	1572	1572
E2a	5/12/2020	Mid-Flood	Fine	Calm	11:26	1.3	M	0.65	2					7.40			8.79			18.79			82.1			7.24			34.0			41			1.5			0.005			1.9			4.4			0.60			3.1			0.27			1300		
E2a	5/12/2020	Mid-Flood	Fine	Calm	11:26	1.3	B		1						NA			NA			NA			NA			NA																							
E2a	5/12/2020	Mid-Flood	Fine	Calm	11:26	1.3	B		2																																									
E3a	5/12/2020	Mid-Flood	Fine	Calm	11:03	1.3	S		1						NA			NA			NA			NA			NA																							
E3a	5/12/2020	Mid-Flood	Fine	Calm	11:03	1.3	S		2																																									
E3a	5/12/2020	Mid-Flood	Fine	Calm	11:03	1.3	M	0.65	1	0.171		68.3		8.20	8.20		20.81	20.81		17.57	17.58		97.5	97.5		8.20	8.20	8.20	12.7	12.7	12.7	22	22	22	2.0	1.8	1.8	0.034	0.030	0.030	0.9	0.8	0.8	4.4	4.4	4.4	0.76	0.68	0.68	1.5	1.4	1.4	0.17	0.18	0.18	98	89	89
E3a	5/12/2020	Mid-Flood	Fine	Calm	11:03	1.3	M	0.65	2					8.20			20.81			17.58			97.4			8.20			12.7			22			<1.5			0.027			0.7			4.4			0.60			1.3			0.19			80		
E3a	5/12/2020	Mid-Flood	Fine	Calm	11:03	1.3	B		1						NA			NA			NA			NA			NA																							
E3a	5/12/2020	Mid-Flood	Fine	Calm	11:03	1.3	B		2																																									
E4	5/12/2020	Mid-Flood	Fine	Calm	11:35	1.5	S		1						NA			NA			NA			NA			NA																							
E4	5/12/2020	Mid-Flood	Fine	Calm	11:35	1.5	S		2																																									
E4	5/12/2020	Mid-Flood	Fine	Calm	11:35	1.5	M	0.75	1	0.201		79.1		7.36	7.36		8.22	8.22		18.46	18.51		80.2	80.1		7.25	7.24	7.24	21.0	20.5	20.5	38	38	38	3.5	3.0	3.0	0.010	0.010	0.010	2.5	2.4	2.4	4.4	4.3	4.3	1.30	1.35	1.35	3.1	3.2	3.2	0.17	0.17	0.17	800	894	894
E4	5/12/2020	Mid-Flood	Fine	Calm	11:35	1.5	M	0.75	2					7.36			8.22			18.56			80.0			7.23			20.0			37			2.5			0.011			2.3			4.2			1.40			3.3			0.16			1000		
E4	5/12/2020	Mid-Flood	Fine	Calm	11:35	1.5	B		1						NA			NA			NA			NA			NA																							
E4	5/12/2020	Mid-Flood	Fine	Calm	11:35	1.5	B		2																																									
E5a	5/12/2020	Mid-Flood	Fine	Calm	12:08	2.3	S		1						NA			NA			NA			NA			NA																							
E5a	5/12/2020	Mid-Flood	Fine	Calm	12:08	2.3	S		2																																									
E5a	5/12/2020	Mid-Flood	Fine	Calm	12:08	2.3	M	1.15	1	0.418		218.1		7.25	7.25		8.49	8.47		18.36	18.38		63.1	62.9		5.50	5.46	5.46	27.2	27.1	27.1	57	58	58	4.5	4.0	4.0	0.011	0.011	0.011	3.4	3.2	3.2	4.8	4.5	4.5	1.80	1.80	1.80	3.2	3.1	3.1	0.31	0.31	0.31	3300	2504	2504
E5a	5/12/2020	Mid-Flood	Fine	Calm	12:08	2.3	M	1.15	2					7.25			8.45			18.39			62.7			5.42			27.0			59			3.5			0.011			3.0			4.2			1.80			3.0			0.31			1900		
E5a	5/12/2020	Mid-Flood	Fine	Calm	12:08	2.3	B		1						NA			NA			NA			NA			NA																							
E5a	5/12/2020	Mid-Flood	Fine	Calm	12:08	2.3	B		2																																									
DB1	5/12/2020	Mid-Flood	Fine	Calm	10:45	1.9	S		1						NA			NA			NA			NA			NA																							
DB1	5/12/2020	Mid-Flood	Fine	Calm	10:45	1.9	S		2																																									
DB1	5/12/2020	Mid-Flood	Fine	Calm	10:45	1.9	M	0.95	1	0.265		175.9		7.65	7.65		23.95	23.95		18.06	18.06		98.4	98.5		8.07	8.07	8.07	9.0	9.0	9.0	20	20	20	2.0	1.8	1.8	0.004	0.004	0.004	0.7	0.7	0.7	1.6	1.7	1.7	0.28	0.27	0.27	1.2	1.3	1.3	0.08	0.08	0.08	24	30	30
DB1	5/12/2020	Mid-Flood	Fine	Calm	10:45	1.9	M	0.95	2					7.65			23.95			18.06			98.5			8.07			9.0			19			<1.5			0.003			0.6			1.8			0.26			1.4			0.07			38		
DB1	5/12/2020	Mid-Flood	Fine	Calm	10:45	1.9	B		1						NA			NA			NA			NA			NA																							
DB1	5/12/2020	Mid-Flood	Fine	Calm	10:45	1.9	B		2																																									
SP1	5/12/2020	Mid-Flood	Fine	Calm	12:28	2.9	S		1						NA			NA			NA			NA			NA																							
SP1	5/12/2020	Mid-Flood	Fine	Calm	12:28	2.9	S		2																																									
SP1	5/12/2020	Mid-Flood	Fine	Calm	12:28	2.9	M	1.45	1	0.311		181.1		7.15	7.15		7.70	7.70		18.58	18.60		56.0	56.0		4.87	4.84	4.84	33.7	33.7	33.7	55	56	56	5.0	4.8	4.8	0.007	0.008	0.008	4.6	4.4	4.4	5.2	5.0	5.0	1.50	1.60	1.60	2.1	2.3	2.3	0.24	0.24	0.24	3100	3150	3150
SP1	5/12/2020	Mid-Flood	Fine	Calm	12:28	2.9	M	1.45	2					7.15			7.70			18.62			55.9			4.80			33.7			56			4.5			0.008			4.1			4.8			1.70			2.4			0.24			3200		
SP1	5/12/2020	Mid-Flood	Fine	Calm	12:28	2.9	B		1						NA			NA			NA			NA			NA																							
SP1	5/12/2020	Mid-Flood	Fine	Calm	12:28	2.9	B		2																																									
KT1	5/12/2020	Mid-Flood	Fine	Calm	11:57	2.0	S		1						NA			NA			NA			NA			NA																							
KT1	5/12/2020	Mid-Flood	Fine	Calm	11:57	2.0	S		2																																									
KT1	5/12/2020	Mid-Flood	Fine	Calm	11:57	2.0	M	1	1	0.029		19.4		7.27	7.27		8.12	8.11		18.59	18.59		60.5	60.5		5.38	5.38	5.38	18.3	18.3	18.3	28	29	29	5.0	4.5	4.5	0.017	0.017	0.017	3.8	3.8	3.8	4.9	4.8	4.8	2.70	2.70	2.70	3.8	3.7	3.7	0.27	0.27	0.27	1900	1997	1997
KT1	5/12/2020	Mid-Flood	Fine	Calm	11:57	2.0	M	1	2					7.27			8.09			18.59			60.4			5.38			18.2			30			4.0			0.017			3.8			4.7			2.70			3.6			0.26			2100		
KT1	5/12/2020	Mid-Flood	Fine	Calm	11:57	2.0	B		1						NA			NA			NA			NA			NA																							
KT1	5/12/2020	Mid-Flood	Fine	Calm	11:57	2.0	B		2																																									

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement															Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.		Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	5/12/2020	Mid-Ebb	Fine	Calm	15:36	1.9	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	5/12/2020	Mid-Ebb	Fine	Calm	15:36	1.9	S		2																																										
M1	5/12/2020	Mid-Ebb	Fine	Calm	15:36	1.9	M	0.95	1	0.215	87.3	7.25	7.25		8.53	8.53		18.35	18.39		67.9	67.5		5.90	5.87	5.87	31.1	31.2	31.2	29	30	30		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M1	5/12/2020	Mid-Ebb	Fine	Calm	15:36	1.9	M	0.95	2			7.25			8.53			18.42			67.0			5.84			31.2			30																					
M1	5/12/2020	Mid-Ebb	Fine	Calm	15:36	1.9	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	5/12/2020	Mid-Ebb	Fine	Calm	15:36	1.9	B		2																																										
M2	5/12/2020	Mid-Ebb	Fine	Calm	15:30	2.1	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	5/12/2020	Mid-Ebb	Fine	Calm	15:30	2.1	S		2																																										
M2	5/12/2020	Mid-Ebb	Fine	Calm	15:30	2.1	M	1.05	1	0.205	217.4	7.24	7.24		8.60	8.60		18.42	18.47		65.3	65.2		5.73	5.72	5.72	34.5	34.3	34.3	37	37	37		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M2	5/12/2020	Mid-Ebb	Fine	Calm	15:30	2.1	M	1.05	2			7.24			8.59			18.52			65.0			5.70			34.0			36																					
M2	5/12/2020	Mid-Ebb	Fine	Calm	15:30	2.1	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	5/12/2020	Mid-Ebb	Fine	Calm	15:30	2.1	B		2																																										
M3	5/12/2020	Mid-Ebb	Fine	Calm	16:49	0.7	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M3	5/12/2020	Mid-Ebb	Fine	Calm	16:49	0.7	S		2																																										
M3	5/12/2020	Mid-Ebb	Fine	Calm	16:49	0.7	M	0.35	1	0.025	341.2	7.76	7.77		1.39	1.40		21.53	21.53		67.7	67.6		5.93	5.92	5.92	59.4	59.6	59.6	50	51	51		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M3	5/12/2020	Mid-Ebb	Fine	Calm	16:49	0.7	M	0.35	2			7.78			1.41			21.53			67.4			5.90			59.8			51																					
M3	5/12/2020	Mid-Ebb	Fine	Calm	16:49	0.7	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M3	5/12/2020	Mid-Ebb	Fine	Calm	16:49	0.7	B		2																																										
E1	5/12/2020	Mid-Ebb	Fine	Calm	16:03	5.4	S	1	1			7.47	7.47		9.90	9.91		19.35	19.36		89.0	89.1		7.73	7.73	7.73	37.2	37.2		42	43		3.5	3.3		0.006	0.007		1.8	1.9		3.6	3.8		0.57	0.66		2.5	2.6		0.52	0.52		1200	1510	
E1	5/12/2020	Mid-Ebb	Fine	Calm	16:03	5.4	S	1	2			7.47			9.91			19.37			89.1			7.72			37.2			43			3.0			0.008			1.9			3.9			0.75			2.7			0.52			1900		
E1	5/12/2020	Mid-Ebb	Fine	Calm	16:03	5.4	M		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E1	5/12/2020	Mid-Ebb	Fine	Calm	16:03	5.4	M		2																																										
E1	5/12/2020	Mid-Ebb	Fine	Calm	16:03	5.4	B	4.4	1	0.191	39.8	7.45	7.45		10.16	10.16		19.47	19.44		87.3	87.2		7.53	7.53	7.73	54.1	54.1	45.6	53	54	48	4.0	3.5	3.4	0.005	0.005	0.006	1.9	1.9	1.9	3.7	3.7	3.7	0.53	0.53	0.60	2.3	2.4	2.5	0.32	0.33	0.43	2400	2298	1863
E1	5/12/2020	Mid-Ebb	Fine	Calm	16:03	5.4	B	4.4	2			7.45			10.16			19.40			87.1			7.53			54.0			54			3.0			0.005			1.9			3.7			0.53			2.4			0.34			2200		
E2a	5/12/2020	Mid-Ebb	Fine	Calm	16:29	2.8	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E2a	5/12/2020	Mid-Ebb	Fine	Calm	16:29	2.8	S		2																																										
E2a	5/12/2020	Mid-Ebb	Fine	Calm	16:29	2.8	M	1.4	1	0.360	297.4	7.57	7.57		16.20	16.22		18.87	18.91		97.4	97.2		8.21	8.19	8.19	17.2	17.2	17.2	26	25	25	2.5	2.0	2.0	0.009	0.009	0.009	1.3	1.3	1.3	2.7	2.7	2.7	0.72	0.74	0.74	2.2	2.2	2.2	0.26	0.26	0.26	1200	849	849
E2a	5/12/2020	Mid-Ebb	Fine	Calm	16:29	2.8	M	1.4	2			7.57			16.24			18.94			97.0			8.17			17.2			24			1.5			0.009			1.2			2.6			0.76			2.2			0.26			600		
E2a	5/12/2020	Mid-Ebb	Fine	Calm	16:29	2.8	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E2a	5/12/2020	Mid-Ebb	Fine	Calm	16:29	2.8	B		2																																										
E3a	5/12/2020	Mid-Ebb	Fine	Calm	16:58	2.3	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E3a	5/12/2020	Mid-Ebb	Fine	Calm	16:58	2.3	S		2																																										
E3a	5/12/2020	Mid-Ebb	Fine	Calm	16:58	2.3	M	1.15	1	0.206	143.7	8.10	8.11		25.43	25.44		18.39	18.39		100.5	100.7		8.10	8.11	8.11	9.3	9.3	9.3	16	17	17	2.0	1.8	1.8	0.009	0.009	0.009	0.5	0.5	0.5	1.1	1.1	1.1	0.24	0.24	0.24	0.8	0.8	0.8	0.11	0.12	0.12	14	16	16
E3a	5/12/2020	Mid-Ebb	Fine	Calm	16:58	2.3	M	1.15	2			8.11			25.45			18.39			100.9			8.11			9.3			17			<1.5			0.009			0.5			1.1			0.24			0.8			0.13			18		
E3a	5/12/2020	Mid-Ebb	Fine	Calm	16:58	2.3	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E3a	5/12/2020	Mid-Ebb	Fine	Calm	16:58	2.3	B		2																																										
E4	5/12/2020	Mid-Ebb	Fine	Calm	16:16	2.4	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E4	5/12/2020	Mid-Ebb	Fine	Calm	16:16	2.4	S		2																																										
E4	5/12/2020	Mid-Ebb	Fine	Calm	16:16	2.4	M	1.2	1	0.179	169.7	7.71	7.71		12.97	12.98		19.36	19.37		104.7	104.8		8.95	8.95	8.95	20.7	21.1	21.1	29	30	30	3.5	3.3	3.3	0.015	0.015	0.015	1.4	1.6	1.6	2.7	3.0	3.0	0.88	0.87	0.87	2.1	2.3	2.3	0.25	0.24	0.24	1000	1049	1049
E4	5/12/2020	Mid-Ebb	Fine	Calm	16:16	2.4	M	1.2	2			7.71			12.98			19.37			104.8			8.95			21.4			31			3.0			0.015			1.7			3.3			0.86			2.5			0.23			1100		
E4	5/12/2020	Mid-Ebb	Fine	Calm	16:16	2.4	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E4	5/12/2020	Mid-Ebb	Fine	Calm	16:16	2.4	B		2																																										
E5a	5/12/2020	Mid-Ebb	Fine	Calm	15:40	3.5	S	1	1			7.28	7.28		8.51	8.51		18.81	18.81		64.8	64.9		5.74	5.74	5.74	31.1	31.1		58	58		3.0	3.3		0.006	0.007		2.8	2.9		4.1	4.2		1.00	1.05		2.3	2.3		0.31	0.30		1800	1470	
E5a	5/12/2020	Mid-Ebb	Fine	Calm	15:40	3.5	S	1	2			7.28			8.51			18.81			64.9			5.74			31.1			58			3.5			0.007			3.0			4.3			1.10			2.3			0.29			1200		
E5a	5/12/2020	Mid-Ebb	Fine	Calm	15:40	3.5	M		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E5a	5/12/2020	Mid-Ebb	Fine	Calm	15:40	3.5	M		2																																										
E5a	5/12/2020	Mid-Ebb	Fine	Calm	15:40	3.5	B	2.5	1	0.361	46.1	7.26	7.26		8.50	8.50		18.84	18.84		64.0	63.9		5.63	5.63	5.74	41.8	41.8	36.5	69	69	64	3.0	3.3	3.3	0.006	0.007	0.007	3.4	3.1	3.0	4.8	4.5	4.3	0.94	1.12	1.09	2.3	2.5	2.4	0.33	0.33	0.31	2400	1697	1579
E5a	5/12/2020	Mid-Ebb	Fine	Calm	15:40	3.5	B	2.5	2			7.26			8.50			18.84			63.8			5.63			41.8			69			3.5			0.008			2.7			4.1			1.30			2.7			0.32			1200		
DB1	5/12/2020	Mid-Ebb	Fine	Calm	17:06	2.4	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
DB1	5/12/2020	Mid-Ebb	Fine	Calm	17:06	2.4	S		2																																										
DB1	5/12/2020	Mid-Ebb	Fine	Calm	17:06	2.4	M	1.2	1	0.369	23.6	7.85	7.85		27.29	27.29		18.90	18.99		101.3	101.4		7.99	8.00	8.00	10.1	10.1	10.1	88	89	89	<1.5	1.5	1.5	0.005	0.005	0.005	0.4	0.4	0.4	1.4	1.4	1.4	0.24	0.24	0.24	1.3	1.3	1.3	0.09	0.09	0.09	3	3	3
DB1	5/12/2020	Mid-Ebb	Fine	Calm	17:06	2.4	M	1.2	2			7.85			27.29			19.07			101.5			8.00			10.1			89			<1.5			0.005			0.4			1.4			0.24			1.3			0.09			4		
DB1	5/12/2020	Mid-Ebb	Fine	Calm	17:06	2.4	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
DB1	5/12/2020	Mid-Ebb	Fine	Calm	17:06	2.4	B		2																																										
SP1	5/12/2020	Mid-Ebb	Fine	Calm	15:22	2.5	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
SP1	5/12/2020	Mid-Ebb	Fine	Calm	15:22	2.5	S		2																																										
SP1	5/12/2020	Mid-Ebb	Fine	Calm	15:22	2.5	M	1.25	1	0.126	214.9	7.23	7.23		8.55	8.55		18.97	18.97		60.0	60.0		5.29	5.29	5.29	28.9	28.6	28.6	50	51	51	4.0	3.8	3.8	0.016	0.015	0.015	4.1	4.3	4.3	4.5	4.7	4.7	2.70	2.60	2.60	3.1	3.0	3.0	0.39	0.39	0.39	2000	1673	1673
SP1	5/12/2020	Mid-Ebb	Fine	Calm	15:22	2.5	M	1.25	2			7.23			8.55			18.97			60.0			5.29			28.4			52			3.5			0.015			4.4			4.8			2.50			2.9			0.39			1400		
SP1	5/12/2020	Mid-Ebb	Fine	Calm	15:22	2.5	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
SP1	5/12/2020	Mid-Ebb	Fine	Calm	15:22	2.5	B		2																																										
KT1	5/12/2020	Mid-Ebb	Fine	Calm	15:52	2.2	S		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
KT1	5/12/2020	Mid-Ebb	Fine	Calm	15:52	2.2	S		2																																										
KT1	5/12/2020	Mid-Ebb	Fine	Calm	15:52	2.2	M	1.1	1	0.077	219.4	7.29	7.29		8.50	8.50		18.94	18.94		69.8	69.6		6.11	6.08	6.08	31.7	31.6	31.6	45	45	45	3.0	3.0	3.0	0.007	0.007	0.007	3.2	3.2	3.2	4.3	4.3	4.3	1.00	0.98	0.98	2.1	2.1	2.1	0.38	0.37	0.37	1700	1428	1428
KT1	5/12/2020	Mid-Ebb	Fine	Calm	15:52	2.2	M	1.1	2			7.29			8.50			18.94			69.4			6.05			31.5			45			3.0			0.006			3.1			4.2			0.96			2.1			0.35			1200		
KT1	5/12/2020	Mid-Ebb	Fine	Calm	15:52	2.2	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
KT1	5/12/2020	Mid-Ebb	Fine	Calm	15:52	2.2	B		2																																										

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)		Current Direction (°)		pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.		Depth Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		S & M Ave.		Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	8/12/2020	Mid-Flood	Fine	Calm	13:56	1.3	S		1						NA			NA			NA			NA					NA																					
M1	8/12/2020	Mid-Flood	Fine	Calm	13:56	1.3	S		2																																									
M1	8/12/2020	Mid-Flood	Fine	Calm	13:56	1.3	M	0.65	1	0.113		239.1		7.15	7.16		7.23	7.22		20.46	20.47		36.3	36.2		3.14	3.12	3.12	25.1	25.2	25.2	60	60	60																	
M1	8/12/2020	Mid-Flood	Fine	Calm	13:56	1.3	M	0.65	2					7.16			7.20			20.47			36.1			3.09			25.2			59																	
M1	8/12/2020	Mid-Flood	Fine	Calm	13:56	1.3	B		1						NA			NA			NA			NA					NA																					
M1	8/12/2020	Mid-Flood	Fine	Calm	13:56	1.3	B		2																																									
M2	8/12/2020	Mid-Flood	Fine	Calm	13:48	1.2	S		1						NA			NA			NA			NA					NA																					
M2	8/12/2020	Mid-Flood	Fine	Calm	13:48	1.2	S		2																																									
M2	8/12/2020	Mid-Flood	Fine	Calm	13:48	1.2	M	0.6	1	0.264		136.5		7.05	7.05		9.14	9.14		20.38	20.38		23.1	23.1		1.96	1.97	1.97	27.2	27.3	27.3	84	85	85																	
M2	8/12/2020	Mid-Flood	Fine	Calm	13:48	1.2	M	0.6	2					7.04			9.14			20.38			23.0			1.97			27.3			85																	
M2	8/12/2020	Mid-Flood	Fine	Calm	13:48	1.2	B		1						NA			NA			NA			NA					NA																					
M2	8/12/2020	Mid-Flood	Fine	Calm	13:48	1.2	B		2																																									
M3	8/12/2020	Mid-Flood	Fine	Calm	15:09	0.2	S		1						NA			NA			NA			NA					NA																					
M3	8/12/2020	Mid-Flood	Fine	Calm	15:09	0.2	S		2																																									
M3	8/12/2020	Mid-Flood	Fine	Calm	15:09	0.2	M	0.1	1	0.006		203.5		7.43	7.44		1.25	1.25		23.41	23.41		67.4	67.2		5.70	5.70	5.70	69.8	66.1	66.1	87	86	86																	
M3	8/12/2020	Mid-Flood	Fine	Calm	15:09	0.2	M	0.1	2					7.45			1.25			23.40			67.0			5.70			62.3			85																	
M3	8/12/2020	Mid-Flood	Fine	Calm	15:09	0.2	B		1						NA			NA			NA			NA					NA																					
M3	8/12/2020	Mid-Flood	Fine	Calm	15:09	0.2	B		2																																									
E1	8/12/2020	Mid-Flood	Fine	Calm	14:24	4.1	S	1	1					7.13	7.14		8.76	8.77		20.34	20.34		40.7	40.7		3.48	3.49	3.49	21.3	21.2		27	27		2.0	1.8		0.018	0.020		5.1	5.5		5.8	6.2		3.50	3.80		4.2	4.5		0.55	0.56		17000	17000	
E1	8/12/2020	Mid-Flood	Fine	Calm	14:24	4.1	S	1	2					7.14			8.78			20.34			40.6			3.49			21.1			26			<1.5			0.022			5.9			6.6			4.10			4.8			0.57			17000		
E1	8/12/2020	Mid-Flood	Fine	Calm	14:24	4.1	M		1						NA			NA			NA			NA					NA																					
E1	8/12/2020	Mid-Flood	Fine	Calm	14:24	4.1	M		2																																									
E1	8/12/2020	Mid-Flood	Fine	Calm	14:24	4.1	B	3.1	1	0.183		106.7		7.13	7.14		9.80	9.81		20.28	20.28		41.6	41.6		3.61	3.60	3.49	26.7	26.6	23.9	30	30	28	1.5	1.5	1.6	0.016	0.015	0.017	5.0	4.9	5.2	5.5	5.5	5.8	3.20	2.95	3.38	3.8	3.6	4.1	0.54	0.56	0.56	14000	14491	15696
E1	8/12/2020	Mid-Flood	Fine	Calm	14:24	4.1	B	3.1	2					7.14			9.81			20.27			41.5			3.58			26.5			30			<1.5			0.014			4.8			5.4			2.70			3.4			0.57			15000		
E2a	8/12/2020	Mid-Flood	Fine	Calm	14:51	1.7	S		1						NA			NA			NA			NA					NA																					
E2a	8/12/2020	Mid-Flood	Fine	Calm	14:51	1.7	S		2																																									
E2a	8/12/2020	Mid-Flood	Fine	Calm	14:51	1.7	M	0.85	1	0.377		187.1		7.14	7.16		11.73	11.73		20.15	20.17		56.6	56.8		4.65	4.64	4.64	16.8	16.9	16.9	26	26	26	<1.5	1.5	1.5	0.009	0.010	0.010	3.1	3.2	3.2	3.8	4.0	4.0	1.80	1.95	1.95	2.4	2.7	2.7	0.38	0.37	0.37	12000	12490	12490
E2a	8/12/2020	Mid-Flood	Fine	Calm	14:51	1.7	M	0.85	2					7.18			11.72			20.18			56.9			4.62			16.9			26			<1.5			0.012			3.3			4.1			2.10			2.9			0.36			13000		
E2a	8/12/2020	Mid-Flood	Fine	Calm	14:51	1.7	B		1						NA			NA			NA			NA					NA																					
E2a	8/12/2020	Mid-Flood	Fine	Calm	14:51	1.7	B		2																																									
E3a	8/12/2020	Mid-Flood	Fine	Calm	15:19	1.3	S		1						NA			NA			NA			NA					NA																					
E3a	8/12/2020	Mid-Flood	Fine	Calm	15:19	1.3	S		2																																									
E3a	8/12/2020	Mid-Flood	Fine	Calm	15:19	1.3	M	0.65	1	0.445		56.3		7.74	7.75		22.31	22.31		20.02	20.02		99.8	99.9		7.97	7.98	7.98	9.2	9.2	9.2	13	14	14	<1.5	1.5	1.5	0.008	0.007	0.007	0.8	0.8	0.8	1.3	1.3	1.3	0.41	0.40	0.40	1.0	0.9	0.9	0.11	0.12	0.12	13000	13000	13000
E3a	8/12/2020	Mid-Flood	Fine	Calm	15:19	1.3	M	0.65	2					7.75			22.31			20.01			99.9			7.98			9.2			14			<1.5			0.007			0.9			1.3			0.38			0.9			0.12			13000		
E3a	8/12/2020	Mid-Flood	Fine	Calm	15:19	1.3	B		1						NA			NA			NA			NA					NA																					
E3a	8/12/2020	Mid-Flood	Fine	Calm	15:19	1.3	B		2																																									
E4	8/12/2020	Mid-Flood	Fine	Calm	14:39	2.1	S		1						NA			NA			NA			NA					NA																					
E4	8/12/2020	Mid-Flood	Fine	Calm	14:39	2.1	S		2																																									
E4	8/12/2020	Mid-Flood	Fine	Calm	14:39	2.1	M	1.05	1	0.415		14.5		7.18	7.18		9.50	9.50		20.40	20.40		57.1	57.0		4.83	4.84	4.84	21.1	21.2	21.2	30	30	30	2.5	2.5	2.5	0.017	0.017	0.017	5.0	5.0	5.0	5.7	5.7	5.7	2.90	2.95	2.95	3.6	3.7	3.7	0.43	0.45	0.45	13000	12490	12490
E4	8/12/2020	Mid-Flood	Fine	Calm	14:39	2.1	M	1.05	2					7.17			9.50			20.39			56.9			4.85			21.3			29			2.5			0.017			5.0			5.7			3.00			3.7			0.46			12000		
E4	8/12/2020	Mid-Flood	Fine	Calm	14:39	2.1	B		1						NA			NA			NA			NA					NA																					
E4	8/12/2020	Mid-Flood	Fine	Calm	14:39	2.1	B		2																																									
E5a	8/12/2020	Mid-Flood	Fine	Calm	14:01	2.3	S		1						NA			NA			NA			NA					NA																					
E5a	8/12/2020	Mid-Flood	Fine	Calm	14:01	2.3	S		2																																									
E5a	8/12/2020	Mid-Flood	Fine	Calm	14:01	2.3	M	1.15	1	0.134		317.1		7.16	7.16		7.14	7.14		20.38	20.40		40.7	40.4		3.49	3.47	3.47	23.8	23.8	23.8	60	60	60	2.0	2.3	2.3	0.019	0.020	0.020	4.9	5.0	5.0	5.6	5.6	5.6	3.40	3.65	3.65	4.0	4.3	4.3	0.67	0.69	0.69	25000	31623	31623
E5a	8/12/2020	Mid-Flood	Fine	Calm	14:01	2.3	M	1.15	2					7.15			7.13			20.41			40.1			3.45			23.7			59			2.5			0.021			5.0			5.6			3.90			4.5			0.71			40000		
E5a	8/12/2020	Mid-Flood	Fine	Calm	14:01	2.3	B		1						NA			NA			NA			NA					NA																					
E5a	8/12/2020	Mid-Flood	Fine	Calm	14:01	2.3	B		2																																									
DB1	8/12/2020	Mid-Flood	Fine	Calm	14:34	2.5	S		1						NA			NA			NA			NA					NA																					
DB1	8/12/2020	Mid-Flood	Fine	Calm	14:34	2.5	S		2																																									
DB1	8/12/2020	Mid-Flood	Fine	Calm	14:34	2.5	M	1.25	1	0.492		28.7		7.83	7.84		23.59	23.59		19.95	19.95		107.7	107.5		8.53	8.54	8.54	13.5	13.5	13.5	14	14	14	<1.5	1.5	1.5	0.015	0.015	0.015	1.0	0.9	0.9	1.5	1.4	1.4	0.66	0.65	0.65	1.2	1.2	1.2	0.10	0.10	0.10	52	48	48
DB1	8/12/2020	Mid-Flood	Fine	Calm	14:34	2.5	M	1.25	2					7.84			23.58			19.95			107.3			8.54			13.5			14			<1.5			0.015			0.9			1.3			0.63			1.1			0.10			44		
DB1	8/12/2020	Mid-Flood	Fine	Calm	14:34	2.5	B		1						NA			NA			NA			NA					NA																					
DB1	8/12/2020	Mid-Flood	Fine	Calm	14:34	2.5	B		2																																								
SP1	8/12/2020	Mid-Flood	Fine	Calm	13:38	1.6	S		1						NA			NA			NA			NA					NA																					
SP1	8/12/2020	Mid-Flood	Fine	Calm	13:38	1.6	S		2																																								
SP1	8/12/2020	Mid-Flood	Fine	Calm	13:38	1.6	M	0.8	1	0.145		82.1		7.02	7.02		9.06	9.06		20.65	20.66		16.1	16.2		1.37	1.38	1.38	28.6	28.7	28.7	66	67	67	3.0	2.3	2.3	0.017	0.017	0.017	5.1	5.4	5.4	5.6	5.9	5.9	4.20	4.10	4.10	4.7	4.7	4.7	0.66	0.67	0.67	86000	68147	68147
SP1	8/12/2020	Mid-Flood	Fine	Calm	13:38	1.6	M	0.8	2					7.01			9.05			20.66			16.2			1.39			28.7			67			1.5			0.016			5.6			6.1			4.00			4.6			0.68			54000		
SP1	8/12/2020	Mid-Flood	Fine	Calm	13:38	1.6	B		1						NA			NA			NA			NA					NA																					
SP1	8/12/2020	Mid-Flood	Fine	Calm	13:38	1.6	B		2																																								
KT1	8/12/2020	Mid-Flood	Fine	Calm	14:10	1.7	S		1						NA			NA			NA			NA					NA																					
KT1	8/12/2020	Mid-Flood	Fine	Calm	14:10	1.7	S		2																																								
KT1	8/12/2020	Mid-Flood	Fine	Calm	14:10	1.7	M	0.85	1	0.039		56.4		7.19	7.20		5.90	5.90		19.64	19.71		43.6	43.0		3.74	3.71	3.71	17.1	17.2	17.2	26	27	27	3.0	3.0	3.0	0.032	0.030	0.030	6.8	7.1	7.1	7.4	7.7	7.7	5.60	5.25	5.25	6.2	5.8	5.8	0.77	0.77	0.77	16000	14967	14967
KT1	8/12/2020	Mid-Flood	Fine	Calm	14:10	1.7	M	0.85	2					7.20			5.90			19.77			42.4			3.68			17.2			27			3.0			0.029			7.4			7.9			4.90			5.4			0.77			14000		
KT1	8/12/2020	Mid-Flood	Fine	Calm	14:10	1.7	B		1						NA			NA			NA			NA					NA																					
KT1	8/12/2020	Mid-Flood	Fine	Calm	14:10	1.7	B		2																																								

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																					
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	8/12/2020	Mid-Ebb	Fine	Calm	07:40	1.5	S		1	0.274	191.7		NA		NA		NA		NA		NA	2.66		NA			NA			NA			NA			NA			NA			NA			NA		
M1	8/12/2020	Mid-Ebb	Fine	Calm	07:40	1.5	S		2																																						
M1	8/12/2020	Mid-Ebb	Fine	Calm	07:40	1.5	M	0.75	1			6.94	6.94	10.20	10.21	20.11	20.13	33.3	33.1	2.68	2.66		50.7	50.7	50.7	42	42	42		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	8/12/2020	Mid-Ebb	Fine	Calm	07:40	1.5	M	0.75	2			6.93		10.22		20.15		32.8		2.64			50.7			41																					
M1	8/12/2020	Mid-Ebb	Fine	Calm	07:40	1.5	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
M1	8/12/2020	Mid-Ebb	Fine	Calm	07:40	1.5	B		2																																						
M2	8/12/2020	Mid-Ebb	Fine	Calm	07:45	1.6	S		1	0.133	206.4		NA		NA		NA		NA		NA	1.87		NA			NA			NA			NA			NA			NA			NA			NA		
M2	8/12/2020	Mid-Ebb	Fine	Calm	07:45	1.6	S		2																																						
M2	8/12/2020	Mid-Ebb	Fine	Calm	07:45	1.6	M	0.8	1			7.01	7.02	10.19	10.19	19.95	19.95	22.3	22.0	1.90	1.87		24.4	24.4	24.4	120	120	120		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	8/12/2020	Mid-Ebb	Fine	Calm	07:45	1.6	M	0.8	2			7.03		10.18		19.95		21.7		1.84			24.3			120																					
M2	8/12/2020	Mid-Ebb	Fine	Calm	07:45	1.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
M2	8/12/2020	Mid-Ebb	Fine	Calm	07:45	1.6	B		2																																						
M3	8/12/2020	Mid-Ebb	Fine	Calm	06:31	0.2	S		1	0.014	19.5		NA		NA		NA		NA		NA	5.75		NA			NA			NA			NA			NA			NA			NA			NA		
M3	8/12/2020	Mid-Ebb	Fine	Calm	06:31	0.2	S		2																																						
M3	8/12/2020	Mid-Ebb	Fine	Calm	06:31	0.2	M	0.1	1			7.38	7.40	1.26	1.26	23.42	23.43	68.3	68.1	5.77	5.75		74.6	72.7	72.7	87	89	89		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	8/12/2020	Mid-Ebb	Fine	Calm	06:31	0.2	M	0.1	2			7.42		1.26		23.43		67.8		5.73			70.8			91																					
M3	8/12/2020	Mid-Ebb	Fine	Calm	06:31	0.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
M3	8/12/2020	Mid-Ebb	Fine	Calm	06:31	0.2	B		2																																						
E1	8/12/2020	Mid-Ebb	Fine	Calm	07:16	5.1	S	1	1	0.107	224.5	7.09	7.09	11.51	11.55	19.72	19.71	39.0	39.0	3.31	3.32	3.32	22.7	22.7	21.7	27	27	26	1.5	1.8	2.0	0.011	0.011	0.012	4.3	4.5	4.7	4.8	5.0	5.0	2.40	2.55	2.50	2.9	3.1	3.1	0.43	0.45	0.45	38000	34322	40478
E1	8/12/2020	Mid-Ebb	Fine	Calm	07:16	5.1	S	1	2			7.08		11.58		19.70		38.9		3.32			22.7			26			2.0			0.012			4.6			5.2			2.70			3.2			0.47			31000		
E1	8/12/2020	Mid-Ebb	Fine	Calm	07:16	5.1	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E1	8/12/2020	Mid-Ebb	Fine	Calm	07:16	5.1	M		2																																						
E1	8/12/2020	Mid-Ebb	Fine	Calm	07:16	5.1	B	4.1	1			7.19	7.19	15.41	15.43	19.88	19.93	46.8	47.1	3.97	4.03		20.3	20.8		26	26		<1.5	2.3		0.014	0.013		4.8	5.0		4.9	4.9		2.50	2.45		3.2	3.1		0.46	0.45		53000	47739	
E1	8/12/2020	Mid-Ebb	Fine	Calm	07:16	5.1	B	4.1	2			7.18		15.44		19.98		47.4		4.08			21.2			26			3.0			0.013			5.2			4.9			2.40			2.9			0.43			43000		
E2a	8/12/2020	Mid-Ebb	Fine	Calm	06:57	2.2	S		1	0.185	66.2		NA		NA		NA		NA		NA	5.56		NA			NA			NA			NA			NA			NA			NA			NA		
E2a	8/12/2020	Mid-Ebb	Fine	Calm	06:57	2.2	S		2																																						
E2a	8/12/2020	Mid-Ebb	Fine	Calm	06:57	2.2	M	1.1	1			7.80	7.81	15.55	15.55	20.02	20.02	67.0	66.9	5.58	5.56		36.0	36.1	36.1	66	66	66	3.0	2.8	2.8	0.020	0.021	0.021	1.8	2.0	2.0	2.4	2.5	2.5	0.88	0.93	0.93	1.4	1.5	1.5	0.30	0.31	0.31	5500	4806	4806
E2a	8/12/2020	Mid-Ebb	Fine	Calm	06:57	2.2	M	1.1	2			7.81		15.54		20.02		66.7		5.53			36.2			66			2.5			0.022			2.1			2.6			0.97			1.5			0.31			4200		
E2a	8/12/2020	Mid-Ebb	Fine	Calm	06:57	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
E2a	8/12/2020	Mid-Ebb	Fine	Calm	06:57	2.2	B		2																																						
E3a	8/12/2020	Mid-Ebb	Fine	Calm	06:33	1.8	S		1	0.291	89.1		NA		NA		NA		NA		NA	7.48		NA			NA			NA			NA			NA			NA			NA			NA		
E3a	8/12/2020	Mid-Ebb	Fine	Calm	06:33	1.8	S		2																																						
E3a	8/12/2020	Mid-Ebb	Fine	Calm	06:33	1.8	M	0.9	1			7.46	7.49	24.58	24.60	19.75	19.76	94.7	94.7	7.48	7.48		11.3	11.2	11.2	2	2	2	<1.5	1.5	1.5	0.003	0.004	0.004	0.8	0.7	0.7	1.0	1.0	1.0	0.35	0.36	0.36	0.6	0.6	0.6	0.13	0.13	0.13	130	125	125
E3a	8/12/2020	Mid-Ebb	Fine	Calm	06:33	1.8	M	0.9	2			7.52		24.62		19.76		94.6		7.47			11.1			2			<1.5			0.004			0.7			1.0			0.36			0.7			0.13			120		
E3a	8/12/2020	Mid-Ebb	Fine	Calm	06:33	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
E3a	8/12/2020	Mid-Ebb	Fine	Calm	06:33	1.8	B		2																																						
E4	8/12/2020	Mid-Ebb	Fine	Calm	07:07	2.2	S		1	0.236	317.2		NA		NA		NA		NA		NA	5.37		NA			NA			NA			NA			NA			NA			NA			NA		
E4	8/12/2020	Mid-Ebb	Fine	Calm	07:07	2.2	S		2																																						
E4	8/12/2020	Mid-Ebb	Fine	Calm	07:07	2.2	M	1.1	1			7.26	7.27	14.61	14.62	19.59	19.60	64.1	64.0	5.36	5.37		21.6	21.6	21.6	39	38	38	2.5	2.5	2.5	0.008	0.008	0.008	2.4	2.4	2.4	3.0	3.0	3.0	1.30	1.30	1.30	1.9	1.9	1.9	0.35	0.35	0.35	15000	14491	14491
E4	8/12/2020	Mid-Ebb	Fine	Calm	07:07	2.2	M	1.1	2			7.28		14.62		19.61		63.9		5.37			21.6			37			2.5			0.009			2.3			2.9			1.30			1.8			0.34			14000		
E4	8/12/2020	Mid-Ebb	Fine	Calm	07:07	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
E4	8/12/2020	Mid-Ebb	Fine	Calm	07:07	2.2	B		2																																						
E5a	8/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	S	1	1	0.312	45.2		NA		NA		NA		NA		NA	1.85		NA			NA			NA			NA			NA			NA			NA			NA		
E5a	8/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	S	1	2																																						
E5a	8/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	M		1			6.97	6.98	10.40	10.37	20.29	20.29	21.8	21.8	1.85	1.85		27.3	27.5	27.5	30	31	31	<1.5	1.5	1.5	0.014	0.012	0.012	4.6	4.6	4.6	5.3	5.2	5.2	3.90	3.35	3.35	4.5	4.0	4.0	0.01	0.01	0.01	57000	51205	51205
E5a	8/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	M		2			6.99		10.34		20.29		21.7		1.84			27.6			31			1.5			0.010			4.5			5.1			2.80			3.4			0.01			46000		
E5a	8/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	B	1.6	1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
E5a	8/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	B	1.6	2																																						
DB1	8/12/2020	Mid-Ebb	Fine	Calm	06:20	2.8	S		1	0.233	181.4		NA		NA		NA		NA		NA	7.68		NA			NA			NA			NA			NA			NA			NA			NA		
DB1	8/12/2020	Mid-Ebb	Fine	Calm	06:20	2.8	S		2																																						
DB1	8/12/2020	Mid-Ebb	Fine	Calm	06:20	2.8	M	1.4	1			7.70	7.70	26.49	26.40	19.65	19.67	98.6	98.7	7.66	7.68		6.3	6.3	6.3	12	12	12	<1.5	1.5	1.5	0.010	0.010	0.010	0.8	0.9	0.9	1.1	1.2	1.2	0.61	0.64	0.64	0.8	0.9	0.9	0.09	0.10	0.10	110	105	105
DB1	8/12/2020	Mid-Ebb	Fine	Calm	06:20	2.8	M	1.4	2			7.70		26.31		19.69		98.7		7.69			6.3			11			<1.5			0.011			1.0			1.3			0.66			0.9			0.10			100		
DB1	8/12/2020	Mid-Ebb	Fine	Calm	06:20	2.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
DB1	8/12/2020	Mid-Ebb	Fine	Calm	06:20	2.8	B		2																																						
SP1	8/12/2020	Mid-Ebb	Fine	Calm	07:52	1.7	S		1	0.386	303.5		NA		NA		NA		NA		NA	1.81		NA			NA			NA			NA			NA			NA			NA			NA		
SP1	8/12/2020	Mid-Ebb	Fine	Calm	07:52	1.7	S		2																																						
SP1	8/12/2020	Mid-Ebb	Fine	Calm	07:52	1.7	M	0.85	1			7.04	7.05	9.22	9.22	19.96	19.97	21.0	20.9	1.83	1.81		13.6	13.9	13.9	33	33	33	2.0	1.8	1.8	0.013	0.014	0.014	5.6	5.4	5.4	6.1	5.9	5.9	3.30	3.30	3.30	3.8	3.8	3.8	0.62	0.59	0.59	76000	82244	82244
SP1	8/12/2020	Mid-Ebb	Fine	Calm	07:52	1.7	M	0.85	2			7.05		9.21		19.98		20.8		1.78			14.1			32			1.5			0.014			5.2			5.6			3.30			3.8			0.56			89000		
SP1	8/12/2020	Mid-Ebb	Fine	Calm	07:52	1.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
SP1	8/12/2020	Mid-Ebb	Fine	Calm	07:52	1.7	B		2																																						
KT1	8/12/2020	Mid-Ebb	Fine	Calm	07:28	1.9	S		1	0.049	76.1		NA		NA		NA		NA		NA	3.39		NA			NA			NA			NA			NA			NA			NA			NA		
KT1	8/12/2020	Mid-Ebb	Fine	Calm	07:28	1.9	S		2																																						
KT1	8/12/2020	Mid-Ebb	Fine	Calm	07:28	1.9	M	0.95	1			7.11	7.12	7.85	7.85	19.53	19.53	38.6	38.7	3.38	3.39		23.1	23.1	23.1	44	44	44	2.5	2.8	2.8	0.017	0.018	0.018	4.7	4.8	4.8	5.2	5.2	5.2	3.70	3.75	3.75	4.1	4.2	4.2	0.63	0.65	0.65	3000	3050	3050
KT1	8/12/2020	Mid-Ebb	Fine	Calm	07:28	1.9	M	0.95	2			7.12		7.84		19.53		38.7		3.39			23.1			44			3.0			0.018			4.8			5.1			3.80			4.2			0.67			3100		
KT1	8/12/2020	Mid-Ebb	Fine	Calm	07:28	1.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA		
KT1	8/12/2020	Mid-Ebb	Fine	Calm	07:28	1.9	B		2																																						

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)	Current Direction (°)	pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.	Depth Ave.	Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	10/12/2020	Mid-Flood	Fine	Calm	15:11	1.8	S		1	0.268	170.1		NA			NA			NA			NA			NA	4.00		NA																					
M1	10/12/2020	Mid-Flood	Fine	Calm	15:11	1.8	S		2																																								
M1	10/12/2020	Mid-Flood	Fine	Calm	15:11	1.8	M	0.9	1			7.17	7.17		10.64	10.64		21.73	21.73		49.9	49.2		4.00	4.00		24.0	23.7	23.7	32	32	32																		
M1	10/12/2020	Mid-Flood	Fine	Calm	15:11	1.8	M	0.9	2			7.17			10.64			21.73			48.4			4.00			23.4			32																		
M1	10/12/2020	Mid-Flood	Fine	Calm	15:11	1.8	B		1				NA			NA			NA			NA			NA			NA																					
M1	10/12/2020	Mid-Flood	Fine	Calm	15:11	1.8	B		2																																								
M2	10/12/2020	Mid-Flood	Fine	Calm	15:02	2.0	S		1	0.218	79.1		NA			NA			NA			NA			NA	2.87		NA																					
M2	10/12/2020	Mid-Flood	Fine	Calm	15:02	2.0	S		2																																							
M2	10/12/2020	Mid-Flood	Fine	Calm	15:02	2.0	M	1	1			7.10	7.10		11.46	11.51		21.41	21.44		44.0	43.8		2.88	2.87		24.8	24.8	24.8	35	36	36																		
M2	10/12/2020	Mid-Flood	Fine	Calm	15:02	2.0	M	1	2			7.10			11.55			21.47			43.5			2.85			24.7			36																		
M2	10/12/2020	Mid-Flood	Fine	Calm	15:02	2.0	B		1				NA			NA			NA			NA			NA			NA																					
M2	10/12/2020	Mid-Flood	Fine	Calm	15:02	2.0	B		2																																							
M3	10/12/2020	Mid-Flood	Fine	Calm	16:37	0.3	S		1	0.012	79.2		NA			NA			NA			NA			NA	4.02		NA																					
M3	10/12/2020	Mid-Flood	Fine	Calm	16:37	0.3	S		2																																							
M3	10/12/2020	Mid-Flood	Fine	Calm	16:37	0.3	M	0.15	1			7.66	7.66		9.23	9.24		24.77	24.77		51.5	51.1		4.05	4.02		99.6	100.0	100.0	110	105	105																		
M3	10/12/2020	Mid-Flood	Fine	Calm	16:37	0.3	M	0.15	2			7.66			9.24			24.77			50.6			3.98			100.3			100																		
M3	10/12/2020	Mid-Flood	Fine	Calm	16:37	0.3	B		1				NA			NA			NA			NA			NA			NA																					
M3	10/12/2020	Mid-Flood	Fine	Calm	16:37	0.3	B		2																																							
E1	10/12/2020	Mid-Flood	Fine	Calm	15:43	4.6	S	1	1	0.120	36.7	7.25	7.25		11.92	11.91		22.14	22.14		59.0	58.9		4.74	4.74		29.1	28.6		39	40		2.0	1.8		0.024	0.022		3.5	3.8		3.9	4.2		3.20	2.90		3.6	3.3		0.47	0.50		3000	3507	
E1	10/12/2020	Mid-Flood	Fine	Calm	15:43	4.6	S	1	2			7.25			11.90			22.14			58.8			4.74			28.0			40			<1.5			0.020			4.1			4.5			2.60			3.0			0.53			4100		
E1	10/12/2020	Mid-Flood	Fine	Calm	15:43	4.6	M		1				NA			NA			NA			NA			NA	4.74		NA	31.8		NA	45		NA	1.6		NA	0.018		NA	3.3		NA	3.7		NA	2.35		NA	2.7		NA	0.50		NA	3371	
E1	10/12/2020	Mid-Flood	Fine	Calm	15:43	4.6	M		2																																							
E1	10/12/2020	Mid-Flood	Fine	Calm	15:43	4.6	B	3.6	1			7.27	7.27		12.64	12.65		22.05	22.07		57.2	57.3		4.66	4.69		35.1	35.1		51	51		1.5	1.5		0.017	0.014		2.8	2.8		3.2	3.2		2.20	1.80		2.5	2.2		0.48	0.50		3000	3240	
E1	10/12/2020	Mid-Flood	Fine	Calm	15:43	4.6	B	3.6	2			7.27			12.65			22.08			57.4			4.72			35.1			50			<1.5			0.011			2.8			3.2			1.40			1.8			0.51			3500		
E2a	10/12/2020	Mid-Flood	Fine	Calm	16:14	2.2	S		1	0.179	307.1		NA			NA			NA			NA			NA	6.96		NA																					
E2a	10/12/2020	Mid-Flood	Fine	Calm	16:14	2.2	S		2																																							
E2a	10/12/2020	Mid-Flood	Fine	Calm	16:14	2.2	M	1.1	1			7.55	7.55		19.96	19.96		22.21	22.21		89.3	89.4		6.96	6.96		30.1	30.1	30.1	43	43	43	<1.5	1.5	1.5	0.011	0.011	0.011	1.3	1.2	1.2	1.6	1.5	1.5	0.75	0.76	0.76	1.1	1.1	1.1	0.25	0.25	0.25	400	400	400
E2a	10/12/2020	Mid-Flood	Fine	Calm	16:14	2.2	M	1.1	2			7.55			19.96			22.20			89.4			6.96			30.2			43			<1.5			0.011			1.1			1.4			0.76			1.1			0.25			400		
E2a	10/12/2020	Mid-Flood	Fine	Calm	16:14	2.2	B		1				NA			NA			NA			NA			NA			NA																					
E2a	10/12/2020	Mid-Flood	Fine	Calm	16:14	2.2	B		2																																							
E3a	10/12/2020	Mid-Flood	Fine	Calm	16:49	1.4	S		1	0.049	119.4		NA			NA			NA			NA			NA	8.10		NA																					
E3a	10/12/2020	Mid-Flood	Fine	Calm	16:49	1.4	S		2																																							
E3a	10/12/2020	Mid-Flood	Fine	Calm	16:49	1.4	M	0.7	1			7.86	7.86		26.95	26.96		20.94	20.94		105.1	105.6		8.09	8.10		14.7	14.7	14.7	25	25	25	<1.5	1.5	1.5	0.004	0.004	0.004	0.4	0.5	0.5	0.5	0.6	0.6	0.17	0.17	0.17	0.3	0.3	0.3	0.09	0.09	0.09	36	41	41
E3a	10/12/2020	Mid-Flood	Fine	Calm	16:49	1.4	M	0.7	2			7.86			26.96			20.94			106.1			8.10			14.6			25			<1.5			0.004			0.5			0.6			0.17			0.3			0.09			46		
E3a	10/12/2020	Mid-Flood	Fine	Calm	16:49	1.4	B		1				NA			NA			NA			NA			NA			NA																					
E3a	10/12/2020	Mid-Flood	Fine	Calm	16:49	1.4	B		2																																							
E4	10/12/2020	Mid-Flood	Fine	Calm	16:02	1.9	S		1	0.229	166.9		NA			NA			NA			NA			NA	6.39		NA																					
E4	10/12/2020	Mid-Flood	Fine	Calm	16:02	1.9	S		2																																							
E4	10/12/2020	Mid-Flood	Fine	Calm	16:02	1.9	M	0.95	1			7.42	7.42		16.72	16.73		21.63	21.63		80.5	80.4		6.40	6.39		27.9	27.7	27.7	37	37	37	2.0	2.0	2.0	0.010	0.010	0.010	1.4	1.4	1.4	1.7	1.7	1.7	0.99	0.99	0.99	1.3	1.4	1.4	0.33	0.33	0.33	1600	1649	1649
E4	10/12/2020	Mid-Flood	Fine	Calm	16:02	1.9	M	0.95	2			7.42			16.74			21.62			80.2			6.38			27.5			36			2.0			0.010			1.3			1.7			0.98			1.4			0.33			1700		
E4	10/12/2020	Mid-Flood	Fine	Calm	16:02	1.9	B		1				NA			NA			NA			NA			NA			NA																					
E4	10/12/2020	Mid-Flood	Fine	Calm	16:02	1.9	B		2																																							
E5a	10/12/2020	Mid-Flood	Fine	Calm	15:16	2.3	S		1	0.326	63.7		NA			NA			NA			NA			NA	4.02		NA																					
E5a	10/12/2020	Mid-Flood	Fine	Calm	15:16	2.3	S		2																																							
E5a	10/12/2020	Mid-Flood	Fine	Calm	15:16	2.3	M	1.15	1			7.18	7.18		10.62	10.65		21.49	21.51		50.7	50.1		4.04	4.02		27.2	27.1	27.1	47	48	48	2.0	2.0	2.0	0.015	0.016	0.016	3.3	3.7	3.7	3.7	4.1	4.1	2.40	2.55	2.55	2.8	2.9	2.9	0.64	0.66	0.66	3500	3647	3647
E5a	10/12/2020	Mid-Flood	Fine	Calm	15:16	2.3	M	1.15	2			7.18			10.68			21.53			49.5			4.00			27.0			48			2.0			0.017			4.1			4.4			2.70			3.0			0.67			3800		
E5a	10/12/2020	Mid-Flood	Fine	Calm	15:16	2.3	B		1				NA			NA			NA			NA			NA			NA																					
E5a	10/12/2020	Mid-Flood	Fine	Calm	15:16	2.3	B		2																																							
DB1	10/12/2020	Mid-Flood	Fine	Calm	17:01	2.0	S		1	0.132	183.6		NA			NA			NA			NA			NA	7.91		NA																					
DB1	10/12/2020	Mid-Flood	Fine	Calm	17:01	2.0	S		2																																							
DB1	10/12/2020	Mid-Flood	Fine	Calm	17:01	2.0	M	1	1			7.90	7.90		28.38	28.38		20.79	20.79		104.4	104.4		7.91	7.91		10.9	10.9	10.9	18	18	18	<1.5	1.5	1.5	0.004	0.005	0.005	0.5	0.5	0.5	0.7	0.6	0.6	0.14	0.17	0.17	0.3	0.3	0.3	0.07	0.07	0.07	13	11	11
DB1	10/12/2020	Mid-Flood	Fine	Calm	17:01	2.0	M	1	2			7.90			28.38			20.79			104.4			7.91			10.9			18			<1.5			0.005			0.4			0.6			0.19			0.3			0.06			10		
DB1	10/12/2020	Mid-Flood	Fine	Calm	17:01	2.0	B		1				NA			NA			NA			NA			NA			NA																					
DB1	10/12/2020	Mid-Flood	Fine	Calm	17:01	2.0	B		2																																							
SP1	10/12/2020	Mid-Flood	Fine	Calm	14:52	2.1	S		1	0.118	267.8		NA			NA			NA			NA			NA	3.22		NA																					
SP1	10/12/2020	Mid-Flood	Fine	Calm	14:52	2.1	S		2																																							
SP1	10/12/2020	Mid-Flood	Fine	Calm	14:52	2.1	M	1.05	1			7.16	7.16		9.34	9.32		21.89	21.89		40.1	39.7		3.24	3.22		41.5	41.0	41.0	48	49	49	2.0	2.0	2.0	0.015	0.016	0.016	6.0	5.9	5.9	6.7	6.4	6.4	2.40	2.55	2.55	2.8	2.9	2.9	0.82	0.82	0.82	4500	4189	4189
SP1	10/12/2020	Mid-Flood	Fine	Calm	14:52	2.1	M	1.05	2			7.15			9.30			21.89			39.3			3.20			40.4			49			2.0			0.016			5.7			6.1			2.70			3.0			0.81			3900		
SP1	10/12/2020	Mid-Flood	Fine	Calm	14:52	2.1	B		1				NA			NA			NA			NA			NA			NA																					
SP1	10/12/2020	Mid-Flood	Fine	Calm	14:52	2.1	B		2																																							
KT1	10/12/2020	Mid-Flood	Fine	Calm	15:28	2.3	S		1	0.054	319.9		NA			NA			NA			NA			NA	2.78		NA																					
KT1	10/12/2020	Mid-Flood	Fine	Calm	15:28	2.3	S		2																																							
KT1	10/12/2020	Mid-Flood	Fine	Calm	15:28	2.3	M	1.15	1			7.10	7.10		11.63	11.63		21.50	21.50		33.7	33.7		2.78	2.78		40.1	41.2	41.2	27	28	28	2.5	2.3	2.3	0.015	0.016	0.016	4.6	4.3	4.3	5.0	4.6	4.6	3.00	3.05	3.05	3.3	3.4	3.4	0.60	0.60	0.60	2600	2698	2698
KT1	10/12/2020	Mid-Flood	Fine	Calm	15:28	2.3	M	1.15	2			7.10			11.63			21.50			33.7			2.78			42.2			29			2.0			0.016			3.9			4.2			3.10			3.4			0.60			2800		
KT1	10/12/2020	Mid-Flood	Fine	Calm	15:28	2.3	B		1				NA			NA			NA			NA			NA			NA																					
KT1	10/12/2020	Mid-Flood	Fine	Calm	15:28	2.3	B		2																																							

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement															Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	10/12/2020	Mid-Ebb	Fine	Calm	10:14	2.5	S		1				NA			NA			NA			NA			NA			NA																								
M1	10/12/2020	Mid-Ebb	Fine	Calm	10:14	2.5	S		2																																											
M1	10/12/2020	Mid-Ebb	Fine	Calm	10:14	2.5	M	1.25	1	0.176	236.7	7.06	7.06		9.50	9.50		21.78	21.83		36.1	35.6		2.81	2.76	2.76	28.2	28.6	28.6	42	42	42																								
M1	10/12/2020	Mid-Ebb	Fine	Calm	10:14	2.5	M	1.25	2			7.06			9.50			21.87			35.1			2.71			28.9			42																								
M1	10/12/2020	Mid-Ebb	Fine	Calm	10:14	2.5	B		1				NA			NA			NA			NA			NA			NA																								
M1	10/12/2020	Mid-Ebb	Fine	Calm	10:14	2.5	B		2																																											
M2	10/12/2020	Mid-Ebb	Fine	Calm	10:20	2.0	S		1				NA			NA			NA			NA			NA			NA																								
M2	10/12/2020	Mid-Ebb	Fine	Calm	10:20	2.0	S		2																																										
M2	10/12/2020	Mid-Ebb	Fine	Calm	10:20	2.0	M	1	1	0.146	123.6	7.04	7.04		9.45	9.45		21.79	21.80		22.1	21.9		1.77	1.77	1.77	25.7	25.7	25.7	42	42	42																								
M2	10/12/2020	Mid-Ebb	Fine	Calm	10:20	2.0	M	1	2			7.04			9.45			21.81			21.6			1.76			25.6			41																								
M2	10/12/2020	Mid-Ebb	Fine	Calm	10:20	2.0	B		1				NA			NA			NA			NA			NA			NA																								
M2	10/12/2020	Mid-Ebb	Fine	Calm	10:20	2.0	B		2																																										
M3	10/12/2020	Mid-Ebb	Fine	Calm	09:13	0.2	S		1				NA			NA			NA			NA			NA			NA																								
M3	10/12/2020	Mid-Ebb	Fine	Calm	09:13	0.2	S		2																																										
M3	10/12/2020	Mid-Ebb	Fine	Calm	09:13	0.2	M	0.1	1	0.011	346.1	7.43	7.43		6.05	6.05		23.34	23.36		39.5	39.2		3.25	3.23	3.23	23.7	23.7	23.7	27	27	27																								
M3	10/12/2020	Mid-Ebb	Fine	Calm	09:13	0.2	M	0.1	2			7.43			6.05			23.37			38.9			3.20			23.7			26																								
M3	10/12/2020	Mid-Ebb	Fine	Calm	09:13	0.2	B		1				NA			NA			NA			NA			NA			NA																								
M3	10/12/2020	Mid-Ebb	Fine	Calm	09:13	0.2	B		2																																										
E1	10/12/2020	Mid-Ebb	Fine	Calm	09:39	5.0	S	1	1			7.16	7.16		9.07	9.07		21.60	21.61		40.0	39.9		3.29	3.24	3.24	17.0	17.0	20.2	37	37	50	2.0	2.0	1.8	0.034	0.024	0.016	5.7	5.1	4.4	6.0	5.4	4.7	5.60	4.05	2.81	5.9	4.4	3.1	0.54	0.64	0.57	5200	4837	3987
E1	10/12/2020	Mid-Ebb	Fine	Calm	09:39	5.0	S	1	2			7.16			9.07			21.61			39.8			3.18			17.0			36			2.0			0.015			4.5			4.8			2.50			2.8			0.74			4500		
E1	10/12/2020	Mid-Ebb	Fine	Calm	09:39	5.0	M		1				NA			NA			NA			NA			NA			NA																								
E1	10/12/2020	Mid-Ebb	Fine	Calm	09:39	5.0	M		2																																										
E1	10/12/2020	Mid-Ebb	Fine	Calm	09:39	5.0	B	4	1			7.06	7.03		14.13	14.12		21.22	21.22		28.6	28.6		2.32	2.31		23.5	23.5		63	63		<1.5	1.5		0.011	0.007		3.6	3.7		3.9	4.0		2.40	1.56		2.7	1.8		0.49	0.51		4000	3286	
E1	10/12/2020	Mid-Ebb	Fine	Calm	09:39	5.0	B	4	2			7.00			14.10			21.21			28.6			2.30			23.4			62			<1.5			0.003			3.7			4.0			0.72			1.0			0.52			2700		
E2a	10/12/2020	Mid-Ebb	Fine	Calm	09:15	2.4	S		1				NA			NA			NA			NA			NA			NA																								
E2a	10/12/2020	Mid-Ebb	Fine	Calm	09:15	2.4	S		2																																										
E2a	10/12/2020	Mid-Ebb	Fine	Calm	09:15	2.4	M	1.2	1	0.269	278.1	7.19	7.19		15.53	14.77		21.12	21.12		49.0	48.7		3.92	3.91	3.91	20.0	20.1	20.1	33	34	34	2.0	2.5	2.5	0.015	0.015	0.015	3.7	3.7	3.7	4.0	4.0	4.0	2.50	2.50	2.50	2.8	2.8	2.8	0.51	0.53	0.53	5900	5644	5644
E2a	10/12/2020	Mid-Ebb	Fine	Calm	09:15	2.4	M	1.2	2			7.19			14.00			21.12			48.4			3.90			20.1			34			3.0			0.015			3.7			4.0			2.50			2.8			0.55			5400		
E2a	10/12/2020	Mid-Ebb	Fine	Calm	09:15	2.4	B		1				NA			NA			NA			NA			NA			NA																								
E2a	10/12/2020	Mid-Ebb	Fine	Calm	09:15	2.4	B		2																																										
E3a	10/12/2020	Mid-Ebb	Fine	Calm	08:42	1.8	S		1				NA			NA			NA			NA			NA			NA																								
E3a	10/12/2020	Mid-Ebb	Fine	Calm	08:42	1.8	S		2																																										
E3a	10/12/2020	Mid-Ebb	Fine	Calm	08:42	1.8	M	0.9	1	0.193	60.1	7.72	7.73		26.24	26.22		20.86	20.78		97.1	97.3		7.53	7.54	7.54	13.1	13.1	13.1	33	33	33	<1.5	1.5	1.5	0.003	0.003	0.003	0.4	0.4	0.4	0.5	0.5	0.5	0.17	0.18	0.18	0.3	0.3	0.3	0.11	0.11	0.11	26	29	29
E3a	10/12/2020	Mid-Ebb	Fine	Calm	08:42	1.8	M	0.9	2			7.73			26.20			20.70			97.5			7.54			13.0			33			<1.5			0.003			0.4			0.5			0.18			0.3			0.11			32		
E3a	10/12/2020	Mid-Ebb	Fine	Calm	08:42	1.8	B		1				NA			NA			NA			NA			NA			NA																								
E3a	10/12/2020	Mid-Ebb	Fine	Calm	08:42	1.8	B		2																																										
E4	10/12/2020	Mid-Ebb	Fine	Calm	09:28	2.2	S		1				NA			NA			NA			NA			NA			NA																								
E4	10/12/2020	Mid-Ebb	Fine	Calm	09:28	2.2	S		2																																										
E4	10/12/2020	Mid-Ebb	Fine	Calm	09:28	2.2	M	1.1	1	0.210	86.7	7.13	7.13		10.00	10.00		21.33	21.34		39.4	39.2		3.23	3.22	3.22	19.8	20.2	20.2	31	31	31	3.0	3.0	3.0	0.016	0.018	0.018	5.6	5.5	5.5	6.0	5.9	5.9	2.90	3.30	3.30	3.3	3.7	3.7	0.68	0.66	0.66	5600	6216	6216
E4	10/12/2020	Mid-Ebb	Fine	Calm	09:28	2.2	M	1.1	2			7.13			10.00			21.35			39.0			3.21			20.6			30			3.0			0.020			5.4			5.8			3.70			4.1			0.63			6900		
E4	10/12/2020	Mid-Ebb	Fine	Calm	09:28	2.2	B		1				NA			NA			NA			NA			NA			NA																								
E4	10/12/2020	Mid-Ebb	Fine	Calm	09:28	2.2	B		2																																										
E5a	10/12/2020	Mid-Ebb	Fine	Calm	10:07	2.1	S		1				NA			NA			NA			NA			NA			NA																								
E5a	10/12/2020	Mid-Ebb	Fine	Calm	10:07	2.1	S		2																																										
E5a	10/12/2020	Mid-Ebb	Fine	Calm	10:07	2.1	M	1.1	1	0.101	267.7	7.07	7.08		9.44	9.44		22.11	22.12		34.3	33.7		2.62	2.59	2.59	25.6	25.6	25.6	47	48	48	2.0	2.3	2.3	0.038	0.038	0.038	8.3	8.9	8.9	9.6	10.3	10.3	7.50	7.35	7.35	8.9	8.7	8.7	1.00	1.00	1.00	12000	12490	12490
E5a	10/12/2020	Mid-Ebb	Fine	Calm	10:07	2.1	M	1.1	2			7.08			9.44			22.12			33.1			2.55			25.6			48			2.5			0.038			9.4			11.0			7.20			8.5			1.00			13000		
E5a	10/12/2020	Mid-Ebb	Fine	Calm	10:07	2.1	B		1				NA			NA			NA			NA			NA			NA																								
E5a	10/12/2020	Mid-Ebb	Fine	Calm	10:07	2.1	B		2																																										
DB1	10/12/2020	Mid-Ebb	Fine	Calm	08:27	2.4	S		1				NA			NA			NA			NA			NA			NA																								
DB1	10/12/2020	Mid-Ebb	Fine	Calm	08:27	2.4	S		2																																										
DB1	10/12/2020	Mid-Ebb	Fine	Calm	08:27	2.4	M	1.2	1	0.188	169.7	7.76	7.76		26.67	26.67		20.50	20.51		100.0	100.0		7.70	7.70	7.70	11.3	11.2	11.2	39	39	39	<1.5	1.5	1.5	0.008	0.008	0.008	0.7	0.7	0.7	0.8	0.8	0.8	0.42	0.39	0.39	0.5	0.5	0.5	0.08	0.09	0.09	65	73	73
DB1	10/12/2020	Mid-Ebb	Fine	Calm	08:27	2.4	M	1.2	2			7.76			26.67			20.51			100.0			7.70			11.0			38			<1.5			0.007			0.7			0.8			0.35			0.4			0.09			83		
DB1	10/12/2020	Mid-Ebb	Fine	Calm	08:27	2.4	B		1				NA			NA			NA			NA			NA			NA																								
DB1	10/12/2020	Mid-Ebb	Fine	Calm	08:27	2.4	B		2																																										
SP1	10/12/2020	Mid-Ebb	Fine	Calm	10:27	2.3	S		1				NA			NA			NA			NA			NA			NA																								
SP1	10/12/2020	Mid-Ebb	Fine	Calm	10:27	2.3	S		2																																										
SP1	10/12/2020	Mid-Ebb	Fine	Calm	10:27	2.3	M	1.15	1	0.098	106.7	7.05	7.05		8.94	8.94		21.87	21.88		16.2	16.6		1.31	1.30	1.30	21.2	21.1	21.1	38	38	38	2.5	2.3	2.3	0.010	0.011	0.011	7.8	7.2	7.2	8.1	7.5	7.5	2.10	2.25	2.25	2.4	2.6	2.6	0.86	0.87	0.87	65000	62450	62450
SP1	10/12/2020	Mid-Ebb	Fine	Calm	10:27	2.3	M	1.15	2			7.05			8.94			21.88			16.9			1.29			21.0			37			2.0			0.012			6.5			6.8			2.40			2.7			0.88			60000		
SP1	10/12/2020	Mid-Ebb	Fine	Calm	10:27	2.3	B		1				NA			NA			NA			NA			NA			NA																								
SP1	10/12/2020	Mid-Ebb	Fine	Calm	10:27	2.3	B		2																																										
KT1	10/12/2020	Mid-Ebb	Fine	Calm	09:57	2.1	S		1				NA			NA			NA			NA			NA			NA																								
KT1	10/12/2020	Mid-Ebb	Fine	Calm	09:57	2.1	S		2																																										
KT1	10/12/2020	Mid-Ebb	Fine	Calm	09:57	2.1	M	1.15	1	0.056	19.7	7.17	7.17		6.44	6.44		21.75	21.76		35.2	35.1		2.95	2.95	2.95	17.4	17.4	17.4	34	35	35	2.0	2.3	2.3	0.026	0.022	0.022	8.3	7.8	7.8	8.6	8.2	8.2	4.10	3.55	3.55	4.4	3.9	3.9	0.85	0.84	0.84	4600	4938	4938
KT1	10/12/2020	Mid-Ebb	Fine	Calm	09:57	2.1	M	1.15	2			7.17			6.44			21.76			35.0			2.94			17.4			35			2.5			0.019			7.3			7.7			3.00			3.4			0.83			5300		
KT1	10/12/2020	Mid-Ebb	Fine	Calm	09:57	2.1	B		1				NA			NA			NA			NA			NA			NA																								
KT1	10/12/2020	Mid-Ebb	Fine	Calm	09:57	2.1	B		2																																										

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.	Depth Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	12/12/2020	Mid-Flood	Fine	Calm	16:19	1.4	S		1	0.044	87.2		NA		NA		NA		NA		NA	3.35		NA	32.1		NA	45		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	12/12/2020	Mid-Flood	Fine	Calm	16:19	1.4	S		2																																											
M1	12/12/2020	Mid-Flood	Fine	Calm	16:19	1.4	M	0.7	1			7.16	7.16	8.54	8.52	22.21	22.32	41.3	40.3	3.46	3.35		31.8	32.1		45	45			NA			NA			NA			NA			NA			NA			NA			NA	
M1	12/12/2020	Mid-Flood	Fine	Calm	16:19	1.4	M	0.7	2			7.16		8.50		22.43		39.2		3.24			32.3			44																										
M1	12/12/2020	Mid-Flood	Fine	Calm	16:19	1.4	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	12/12/2020	Mid-Flood	Fine	Calm	16:19	1.4	B		2																																											
M2	12/12/2020	Mid-Flood	Fine	Calm	16:14	1.5	S		1	0.135	25.4		NA		NA		NA		NA		NA	2.30		NA	30.8		NA	47		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	12/12/2020	Mid-Flood	Fine	Calm	16:14	1.5	S		2																																											
M2	12/12/2020	Mid-Flood	Fine	Calm	16:14	1.5	M	0.75	1			7.10	7.10	8.74	8.79	22.73	22.74	28.2	28.1	2.31	2.30		30.7	30.8		48	47			NA			NA			NA			NA			NA			NA			NA			NA	
M2	12/12/2020	Mid-Flood	Fine	Calm	16:14	1.5	M	0.75	2			7.10		8.83		22.74		28.0		2.29			30.9			46																										
M2	12/12/2020	Mid-Flood	Fine	Calm	16:14	1.5	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	12/12/2020	Mid-Flood	Fine	Calm	16:14	1.5	B		2																																											
M3	12/12/2020	Mid-Flood	Fine	Calm	17:28	0.2	S		1	0.011	68.0		NA		NA		NA		NA		NA	4.46		NA	31.8		NA	37		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	12/12/2020	Mid-Flood	Fine	Calm	17:28	0.2	S		2																																											
M3	12/12/2020	Mid-Flood	Fine	Calm	17:28	0.2	M	0.1	1			7.81	7.82	6.86	6.87	25.25	25.25	55.0	54.6	4.48	4.46		32.1	31.8		36	37			NA			NA			NA			NA			NA			NA			NA			NA	
M3	12/12/2020	Mid-Flood	Fine	Calm	17:28	0.2	M	0.1	2			7.82		6.87		25.25		54.2		4.43			31.4			37																										
M3	12/12/2020	Mid-Flood	Fine	Calm	17:28	0.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	12/12/2020	Mid-Flood	Fine	Calm	17:28	0.2	B		2																																											
E1	12/12/2020	Mid-Flood	Fine	Calm	16:37	4.1	S	1	1	0.192	83.5	7.12	7.13	12.28	12.26	22.35	22.36	48.7	48.5	3.81	3.82	3.82	25.5	25.6	25.7	19	19	27	1.5	2.0	2.4	0.027	0.024	0.022	5.6	5.6	5.7	6.1	6.0	6.1	4.80	4.10	3.78	5.3	4.6	4.2	0.66	0.67	0.65	13000	13491	13743
E1	12/12/2020	Mid-Flood	Fine	Calm	16:37	4.1	S	1	2			7.13		12.24		22.37		48.3		3.82			25.6			19			2.5			0.020			5.6			5.9			3.40			3.8			0.68			14000		
E1	12/12/2020	Mid-Flood	Fine	Calm	16:37	4.1	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	12/12/2020	Mid-Flood	Fine	Calm	16:37	4.1	M		2																																											
E1	12/12/2020	Mid-Flood	Fine	Calm	16:37	4.1	B	3.1	1			7.13	7.14	12.39	12.38	22.57	22.56	47.6	47.5	3.64	3.65		25.9	25.9		34	34		2.5	2.8		0.021	0.021		5.6	5.8		5.9	6.1		3.50	3.45		3.8	3.8		0.64	0.63		14000	14000	
E1	12/12/2020	Mid-Flood	Fine	Calm	16:37	4.1	B	3.1	2			7.14		12.36		22.55		47.4		3.66			25.9			34			3.0			0.021			5.9			6.3			3.40			3.8			0.62			14000		
E2a	12/12/2020	Mid-Flood	Fine	Calm	17:04	1.8	S		1	0.173	134.6		NA		NA		NA		NA		NA	7.13		NA	15.4		NA	40		NA	1.5		NA	0.002		NA	1.5		NA	1.8		NA	0.20		NA	0.5		NA	0.14		NA	2638
E2a	12/12/2020	Mid-Flood	Fine	Calm	17:04	1.8	S		2																																											
E2a	12/12/2020	Mid-Flood	Fine	Calm	17:04	1.8	M	0.9	1			7.34	7.33	11.20	11.19	22.03	22.06	85.8	85.7	7.15	7.13		15.2	15.4		39	40		<1.5	1.5		0.002	0.002		1.5	1.5		1.7	1.8		0.20	0.20		0.5	0.5		0.15	0.14		2900	2638	
E2a	12/12/2020	Mid-Flood	Fine	Calm	17:04	1.8	M	0.9	2			7.32		11.17		22.09		85.5		7.11			15.6			40			<1.5			0.002			1.5			1.9			0.20			0.5			0.12			2400		
E2a	12/12/2020	Mid-Flood	Fine	Calm	17:04	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	12/12/2020	Mid-Flood	Fine	Calm	17:04	1.8	B		2																																											
E3a	12/12/2020	Mid-Flood	Fine	Calm	17:30	1.7	S		1	0.324	275.5		NA		NA		NA		NA		NA	7.68		NA	28.0		NA	21		NA	2.3		NA	0.017		NA	1.9		NA	2.8		NA	0.99		NA	1.9		NA	0.20		NA	42
E3a	12/12/2020	Mid-Flood	Fine	Calm	17:30	1.7	S		2																																											
E3a	12/12/2020	Mid-Flood	Fine	Calm	17:30	1.7	M	0.85	1			7.65	7.65	26.08	26.08	21.73	21.74	101.7	101.7	7.68	7.68		26.2	28.0		21	21		2.0	2.3		0.017	0.017		1.9	1.9		2.9	2.8		0.98	0.99		2.0	1.9		0.20	0.20		43	42	
E3a	12/12/2020	Mid-Flood	Fine	Calm	17:30	1.7	M	0.85	2			7.65		26.08		21.74		101.6		7.67			29.8			21			2.5			0.017			1.9			2.7			1.00			1.8			0.20			41		
E3a	12/12/2020	Mid-Flood	Fine	Calm	17:30	1.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	12/12/2020	Mid-Flood	Fine	Calm	17:30	1.7	B		2																																											
E4	12/12/2020	Mid-Flood	Fine	Calm	16:52	1.6	S		1	0.149	57.1		NA		NA		NA		NA		NA	3.31		NA	23.0		NA	51		NA	3.3		NA	0.014		NA	3.7		NA	4.3		NA	2.50		NA	3.1		NA	0.43		NA	9050
E4	12/12/2020	Mid-Flood	Fine	Calm	16:52	1.6	S		2																																											
E4	12/12/2020	Mid-Flood	Fine	Calm	16:52	1.6	M	0.8	1			7.12	7.12	12.13	12.15	22.52	22.52	41.4	41.1	3.32	3.31		22.9	23.0		51	51		3.5	3.3		0.014	0.014		3.6	3.7		4.3	4.3		2.40	2.50		3.1	3.1		0.44	0.43		9000	9050	
E4	12/12/2020	Mid-Flood	Fine	Calm	16:52	1.6	M	0.8	2			7.12		12.16		22.51		40.8		3.30			23.0			51			3.0			0.015			3.8			4.3			2.60			3.1			0.41			9100		
E4	12/12/2020	Mid-Flood	Fine	Calm	16:52	1.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	12/12/2020	Mid-Flood	Fine	Calm	16:52	1.6	B		2																																											
E5a	12/12/2020	Mid-Flood	Fine	Calm	16:20	1.6	S		1	0.074	31.4		NA		NA		NA		NA		NA	2.72		NA	36.8		NA	37		NA	4.5		NA	0.024		NA	5.7		NA	6.1		NA	3.70		NA	4.1		NA	0.78		NA	12490
E5a	12/12/2020	Mid-Flood	Fine	Calm	16:20	1.6	S		2																																											
E5a	12/12/2020	Mid-Flood	Fine	Calm	16:20	1.6	M	0.8	1			7.16	7.17	7.34	7.35	22.21	22.40	33.1	33.0	2.74	2.72		36.8	36.8		38	37		4.5	4.5		0.022	0.024		5.4	5.7		5.8	6.1		3.50	3.70		3.9	4.1		0.76	0.78		12000	12490	
E5a	12/12/2020	Mid-Flood	Fine	Calm	16:20	1.6	M	0.8	2			7.17		7.35		22.58		32.9		2.69			36.7			35			4.5			0.026			6.0			6.4			3.90			4.3			0.79			13000		
E5a	12/12/2020	Mid-Flood	Fine	Calm	16:20	1.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	12/12/2020	Mid-Flood	Fine	Calm	16:20	1.6	B		2																																											
DB1	12/12/2020	Mid-Flood	Fine	Calm	17:43	2.9	S		1	0.328	192.5		NA		NA		NA		NA		NA	8.05		NA	18.4		NA	34		NA	1.5		NA	0.005		NA	0.7		NA	0.9		NA	0.21		NA	0.4		NA	0.19		NA	22
DB1	12/12/2020	Mid-Flood	Fine	Calm	17:43	2.9	S		2																																											
DB1	12/12/2020	Mid-Flood	Fine	Calm	17:43	2.9	M	1.45	1			7.79	7.79	27.55	27.55	21.21	21.22	106.4	106.5	8.04	8.05		17.7	18.4		34	34		<1.5	1.5		0.005	0.005		0.7	0.7		1.0	0.9		0.21	0.21		0.5	0.4		0.19	0.19		17	22	
DB1	12/12/2020	Mid-Flood	Fine	Calm	17:43	2.9	M	1.45	2			7.79		27.54		21.22		106.5		8.05			19.1			33			1.5			0.004			0.7			0.9			0.20			0.4			0.18			28		
DB1	12/12/2020	Mid-Flood	Fine	Calm	17:43	2.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	12/12/2020	Mid-Flood	Fine	Calm	17:43	2.9	B		2																																											
SP1	12/12/2020	Mid-Flood	Fine	Calm	16:03	1.7	S		1	0.091	323.4		NA		NA		NA		NA		NA	1.20		NA	15.1		NA	27		NA	4.0		NA	0.013		NA	6.4		NA	6.9		NA	2.50		NA	2.9		NA	0.89		NA	154272
SP1	12/12/2020	Mid-Flood	Fine	Calm	16:03	1.7	S		2																																											
SP1	12/12/2020	Mid-Flood	Fine	Calm	16:03	1.7	M	0.85	1			7.06	7.06	8.98	8.98	22.54	22.54	14.5	14.3	1.20	1.20		15.1	15.1		27	27		4.0	4.0		0.013	0.013		6.2	6.4		6.6	6.9		2.60	2.50		2.9	2.9		0.88	0.89		140000	154272	
SP1	12/12/2020	Mid-Flood	Fine	Calm	16:03	1.7	M	0.85	2			7.06		8.98		22.54		14.1		1.20			15.0			27			4.0			0.012			6.6			7.1			2.40			2.8			0.89			170000		
SP1	12/12/2020	Mid-Flood	Fine	Calm	16:03	1.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	12/12/2020	Mid-Flood	Fine	Calm	16:03	1.7	B		2																																											
KT1	12/12/2020	Mid-Flood	Fine	Calm	16:25	2.9	S		1	0.141	71.2		NA		NA		NA		NA		NA	3.12		NA	36.7		NA	27		NA	5.0		NA	0.033		NA	6.5		NA	6.8		NA	5.00		NA	5.3		NA	0.90		NA	19975
KT1	12/12/2020	Mid-Flood	Fine	Calm	16:25	2.9	S		2																																											
KT1	12/12/2020	Mid-Flood	Fine	Calm	16:25	2.9	M	1.45	1			7.17	7.17	7.38	7.37	22.48	22.52	38.9	38.2	3.20	3.12		36.6	36.7		27	27		5.0	5.0		0.035	0.033		6.9	6.5		7.2	6.8		5.30	5.00		5.6	5.3		0.91	0.90		21000	19975	
KT1	12/12/2020	Mid-Flood	Fine	Calm	16:25	2.9	M	1.45	2			7.16		7.35		22.56		37.4		3.04			36.8			27			5.0			0.031			6.0			6.3			4.70			5.0			0.88			19000		
KT1	12/12/2020	Mid-Flood	Fine	Calm	16:25	2.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	12/12/2020	Mid-Flood	Fine	Calm	16:25	2.9	B		2																																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																					
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		S & M Ave.	Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	12/12/2020	Mid-Ebb	Fine	Calm	12:11	1.8	S		1				NA		NA		NA		NA		NA			NA			NA																				
M1	12/12/2020	Mid-Ebb	Fine	Calm	12:11	1.8	S		2																																							
M1	12/12/2020	Mid-Ebb	Fine	Calm	12:11	1.8	M	0.9	1	0.093	304.1	7.07	7.07	9.59	9.59	22.69	22.49	22.6	22.5	1.84	1.83	1.83	31.2	31.3	31.3	57	59	59		NA	NA																	
M1	12/12/2020	Mid-Ebb	Fine	Calm	12:11	1.8	M	0.9	2			7.06		9.58		22.29		22.3		1.82			31.4			60																				
M1	12/12/2020	Mid-Ebb	Fine	Calm	12:11	1.8	B		1				NA		NA		NA		NA		NA			NA			NA																				
M1	12/12/2020	Mid-Ebb	Fine	Calm	12:11	1.8	B		2																																						
M2	12/12/2020	Mid-Ebb	Fine	Calm	12:17	1.5	S		1				NA		NA		NA		NA		NA			NA			NA																				
M2	12/12/2020	Mid-Ebb	Fine	Calm	12:17	1.5	S		2																																						
M2	12/12/2020	Mid-Ebb	Fine	Calm	12:17	1.5	M	0.75	1	0.088	44.8	7.12	7.12	9.63	9.62	22.20	22.25	33.3	33.1	2.74	2.69	2.69	26.0	26.0	26.0	39	40	40		NA	NA																	
M2	12/12/2020	Mid-Ebb	Fine	Calm	12:17	1.5	M	0.75	2			7.11		9.61		22.29		32.8		2.64			25.9			40																				
M2	12/12/2020	Mid-Ebb	Fine	Calm	12:17	1.5	B		1				NA		NA		NA		NA		NA			NA			NA																				
M2	12/12/2020	Mid-Ebb	Fine	Calm	12:17	1.5	B		2																																						
M3	12/12/2020	Mid-Ebb	Fine	Calm	11:42	0.4	S		1				NA		NA		NA		NA		NA			NA			NA																				
M3	12/12/2020	Mid-Ebb	Fine	Calm	11:42	0.4	S		2																																						
M3	12/12/2020	Mid-Ebb	Fine	Calm	11:42	0.4	M	0.2	1	0.016	80.0	7.68	7.69	6.81	6.82	24.84	24.86	45.0	44.8	3.59	3.56	3.56	16.5	17.2	17.2	33	34	34		NA	NA																	
M3	12/12/2020	Mid-Ebb	Fine	Calm	11:42	0.4	M	0.2	2			7.69		6.82		24.87		44.6		3.53			17.8			34																				
M3	12/12/2020	Mid-Ebb	Fine	Calm	11:42	0.4	B		1				NA		NA		NA		NA		NA			NA			NA																				
M3	12/12/2020	Mid-Ebb	Fine	Calm	11:42	0.4	B		2																																						
E1	12/12/2020	Mid-Ebb	Fine	Calm	11:34	4.9	S	1	1			7.04	7.04	10.76	10.76	22.57	22.57	29.7	29.7	2.42	2.42	2.42	28.6	28.5		37	38		3.0	3.3		0.024	0.021		5.4	5.3		5.9	5.7		5.00	4.20		5.4	4.6		0.66	0.65		11000	11958	
E1	12/12/2020	Mid-Ebb	Fine	Calm	11:34	4.9	S	1	2			7.04		10.75		22.57		29.6		2.41			28.3			38			3.5			0.017			5.1			5.5			3.40			3.8			0.63			13000		
E1	12/12/2020	Mid-Ebb	Fine	Calm	11:34	4.9	M		1				NA		NA		NA		NA		NA			NA			NA																				
E1	12/12/2020	Mid-Ebb	Fine	Calm	11:34	4.9	M		2																																						
E1	12/12/2020	Mid-Ebb	Fine	Calm	11:34	4.9	B	3.9	1	0.132	16.3	7.04	7.05	10.71	10.72	22.58	22.59	29.3	29.2	2.38	2.36	2.42	28.3	28.4	28.4	36	36	37	3.5	3.8	3.5	0.018	0.018	0.019	5.4	5.4	5.3	5.8	5.9	5.8	3.70	3.60	3.90	4.1	4.0	4.3	0.59	0.61	0.63	12000	11489	11721
E1	12/12/2020	Mid-Ebb	Fine	Calm	11:34	4.9	B	3.9	2			7.05		10.73		22.59		29.1		2.34			28.4			35			4.0			0.018			5.4			5.9			3.50			3.9			0.63			11000		
E2a	12/12/2020	Mid-Ebb	Fine	Calm	11:08	2.8	S		1				NA		NA		NA		NA		NA			NA			NA																				
E2a	12/12/2020	Mid-Ebb	Fine	Calm	11:08	2.8	S		2																																						
E2a	12/12/2020	Mid-Ebb	Fine	Calm	11:08	2.8	M	1.4	1	0.123	113.4	7.15	7.15	14.02	14.08	22.28	22.28	48.1	48.1	3.86	3.86	3.86	45.2	45.7	45.7	17	17	17	2.0	2.0	2.0	0.001	0.001	0.001	1.6	1.7	1.7	1.8	1.9	1.9	0.22	0.24	0.24	0.4	0.4	0.4	0.14	0.14	0.14	22	27	27
E2a	12/12/2020	Mid-Ebb	Fine	Calm	11:08	2.8	M	1.4	2			7.15		14.14		22.28		48.0		3.85			46.2			17			2.0			0.002			1.8			1.9			0.26			0.4			0.13			33		
E2a	12/12/2020	Mid-Ebb	Fine	Calm	11:08	2.8	B		1				NA		NA		NA		NA		NA			NA			NA																				
E2a	12/12/2020	Mid-Ebb	Fine	Calm	11:08	2.8	B		2																																						
E3a	12/12/2020	Mid-Ebb	Fine	Calm	10:53	2.7	S		1				NA		NA		NA		NA		NA			NA			NA																				
E3a	12/12/2020	Mid-Ebb	Fine	Calm	10:53	2.7	S		2																																						
E3a	12/12/2020	Mid-Ebb	Fine	Calm	10:53	2.7	M	1.35	1	0.417	56.4	7.54	7.55	25.31	25.31	21.90	21.93	95.8	95.6	7.24	7.23	7.23	22.6	22.5	22.5	66	66	66	4.0	3.3	3.3	0.031	0.031	0.031	2.7	2.8	2.8	3.2	3.3	3.3	2.30	2.25	2.25	2.8	2.7	2.7	0.44	0.46	0.46	5900	6097	6097
E3a	12/12/2020	Mid-Ebb	Fine	Calm	10:53	2.7	M	1.35	2			7.55		25.30		21.95		95.3		7.21			22.4			65			2.5			0.030			2.8			3.3			2.20			2.6			0.47			6300		
E3a	12/12/2020	Mid-Ebb	Fine	Calm	10:53	2.7	B		1				NA		NA		NA		NA		NA			NA			NA																				
E3a	12/12/2020	Mid-Ebb	Fine	Calm	10:53	2.7	B		2																																						
E4	12/12/2020	Mid-Ebb	Fine	Calm	11:21	2.9	S		1				NA		NA		NA		NA		NA			NA			NA																				
E4	12/12/2020	Mid-Ebb	Fine	Calm	11:21	2.9	S		2																																						
E4	12/12/2020	Mid-Ebb	Fine	Calm	11:21	2.9	M	1.45	1	0.073	92.4	7.08	7.08	12.46	12.41	22.27	22.32	44.0	43.3	3.56	3.50	3.50	27.0	26.3	26.3	32	33	33	4.0	4.0	4.0	0.015	0.017	0.017	4.0	4.0	4.0	4.4	4.4	4.4	2.90	3.20	3.20	3.4	3.7	3.7	0.49	0.48	0.48	9600	12000	12000
E4	12/12/2020	Mid-Ebb	Fine	Calm	11:21	2.9	M	1.45	2			7.08		12.35		22.36		42.6		3.44			25.5			33			4.0			0.018			4.0			4.3			3.50			3.9			0.47			15000		
E4	12/12/2020	Mid-Ebb	Fine	Calm	11:21	2.9	B		1				NA		NA		NA		NA		NA			NA			NA																				
E4	12/12/2020	Mid-Ebb	Fine	Calm	11:21	2.9	B		2																																						
E5a	12/12/2020	Mid-Ebb	Fine	Calm	12:00	1.8	S		1				NA		NA		NA		NA		NA			NA			NA																				
E5a	12/12/2020	Mid-Ebb	Fine	Calm	12:00	1.8	S		2																																						
E5a	12/12/2020	Mid-Ebb	Fine	Calm	12:00	1.8	M	0.9	1	0.104	229.4	7.07	7.07	9.51	9.52	22.86	22.84	26.3	25.7	2.14	2.09	2.09	32.2	31.6	31.6	40	40	40	4.0	4.0	4.0	0.019	0.019	0.019	6.3	6.4	6.4	6.7	6.8	6.8	3.60	3.50	3.50	4.0	3.9	3.9	0.92	0.87	0.87	33000	33000	33000
E5a	12/12/2020	Mid-Ebb	Fine	Calm	12:00	1.8	M	0.9	2			7.06		9.53		22.82		25.1		2.04			30.9			39			4.0			0.018			6.5			6.8			3.40			3.7			0.81			33000		
E5a	12/12/2020	Mid-Ebb	Fine	Calm	12:00	1.8	B		1				NA		NA		NA		NA		NA			NA			NA																				
E5a	12/12/2020	Mid-Ebb	Fine	Calm	12:00	1.8	B		2																																						
DB1	12/12/2020	Mid-Ebb	Fine	Calm	10:39	2.0	S		1				NA		NA		NA		NA		NA			NA			NA																				
DB1	12/12/2020	Mid-Ebb	Fine	Calm	10:39	2.0	S		2																																						
DB1	12/12/2020	Mid-Ebb	Fine	Calm	10:39	2.0	M	1	1	0.312	156.1	7.61	7.64	26.67	26.67	21.38	21.38	99.1	99.1	7.51	7.54	7.54	10.7	10.7	10.7	21	22	22	1.5	1.8	1.8	0.004	0.004	0.004	0.9	0.9	0.9	1.1	1.0	1.0	0.26	0.23	0.23	0.4	0.4	0.4	0.12	0.12	0.12	25	22	22
DB1	12/12/2020	Mid-Ebb	Fine	Calm	10:39	2.0	M	1	2			7.67		26.67		21.38		99.1		7.56			10.6			22			2.0			0.003			0.8			0.9			0.20			0.4			0.11			19		
DB1	12/12/2020	Mid-Ebb	Fine	Calm	10:39	2.0	B		1				NA		NA		NA		NA		NA			NA			NA																				
DB1	12/12/2020	Mid-Ebb	Fine	Calm	10:39	2.0	B		2																																						
SP1	12/12/2020	Mid-Ebb	Fine	Calm	12:24	1.6	S		1				NA		NA		NA		NA		NA			NA			NA																				
SP1	12/12/2020	Mid-Ebb	Fine	Calm	12:24	1.6	S		2																																						
SP1	12/12/2020	Mid-Ebb	Fine	Calm	12:24	1.6	M	0.8	1	0.0.73	314.5	7.10	7.10	9.26	9.26	22.36	22.38	25.6	25.0	2.10	2.05	2.05	29.1	29.3	29.3	37	37	37	4.5	5.0	5.0	0.015	0.016	0.016	6.8	6.9	6.9	7.1	7.2	7.2	2.70	2.90	2.90	3.0	3.3	3.3	0.76	0.78	0.78	210000	214942	214942
SP1	12/12/2020	Mid-Ebb	Fine	Calm	12:24	1.6	M	0.8	2			7.10		9.25		22.40		24.3		2.00			29.4			36			5.5			0.017			6.9			7.3			3.10			3.5			0.80			220000		
SP1	12/12/2020	Mid-Ebb	Fine	Calm	12:24	1.6	B		1				NA		NA		NA		NA		NA			NA			NA																				
SP1	12/12/2020	Mid-Ebb	Fine	Calm	12:24	1.6	B		2																																						
KT1	12/12/2020	Mid-Ebb	Fine	Calm	11:47	1.6	S		1				NA		NA		NA		NA		NA			NA			NA																				
KT1	12/12/2020	Mid-Ebb	Fine	Calm	11:47	1.6	S		2																																						
KT1	12/12/2020	Mid-Ebb	Fine	Calm	11:47	1.6	M	0.8	1	0.093	304.5	7.18	7.17	8.27	8.24	21.63	21.82	54.9	54.4	4.61	4.57	4.57	45.6	45.3	45.3	56	56	56	6.0	6.0	6.0	0.029	0.027	0.027	6.6	6.7	6.7	6.9	7.0	7.0	4.50	4.30	4.30	4.8	4.6	4.6	0.93	0.97	0.97	15000	14491	14491
KT1	12/12/2020	Mid-Ebb	Fine	Calm	11:47	1.6	M	0.8	2			7.16		8.20		22.00		53.8		4.52			44.9			55			6.0			0.026			6.8			7.1			4.10			4.3			1.00			14000		
KT1	12/12/2020	Mid-Ebb	Fine	Calm	11:47	1.6	B		1				NA		NA		NA		NA		NA			NA			NA																				
KT1	12/12/2020	Mid-Ebb	Fine	Calm	11:47	1.6	B		2																																						

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.	Depth Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	15/12/2020	Mid-Flood	Fine	Moderate	09:50	1.9	S		1	0.339	70.6		NA		NA		NA		NA		NA	6.27		NA	22.7		NA	36		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	15/12/2020	Mid-Flood	Fine	Moderate	09:50	1.9	S		2																																											
M1	15/12/2020	Mid-Flood	Fine	Moderate	09:50	1.9	M	0.95	1			8.12	8.12	10.74	10.75	18.84	18.81	73.1	72.4	6.34	6.27		22.7	22.7		36	36			NA			NA			NA			NA			NA			NA			NA			NA	
M1	15/12/2020	Mid-Flood	Fine	Moderate	09:50	1.9	M	0.95	2			8.11		10.75		18.77		71.7		6.20			22.7			36																										
M1	15/12/2020	Mid-Flood	Fine	Moderate	09:50	1.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	15/12/2020	Mid-Flood	Fine	Moderate	09:50	1.9	B		2																																											
M2	15/12/2020	Mid-Flood	Fine	Moderate	09:55	1.8	S		1	0.273	64.9		NA		NA		NA		NA		NA	5.34		NA	31.7		NA	44		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	15/12/2020	Mid-Flood	Fine	Moderate	09:55	1.8	S		2																																											
M2	15/12/2020	Mid-Flood	Fine	Moderate	09:55	1.8	M	0.9	1			8.14	8.14	10.29	10.29	19.13	19.15	62.5	62.1	5.33	5.34		31.5	31.7		43	44			NA			NA			NA			NA			NA			NA			NA			NA	
M2	15/12/2020	Mid-Flood	Fine	Moderate	09:55	1.8	M	0.9	2			8.13		10.28		19.16		61.7		5.34			31.9			44																										
M2	15/12/2020	Mid-Flood	Fine	Moderate	09:55	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	15/12/2020	Mid-Flood	Fine	Moderate	09:55	1.8	B		2																																											
M3	15/12/2020	Mid-Flood	Fine	Moderate	10:15	0.2	S		1	0.000	104.5		NA		NA		NA		NA		NA	4.19		NA	119.1		NA	185		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	15/12/2020	Mid-Flood	Fine	Moderate	10:15	0.2	S		2																																											
M3	15/12/2020	Mid-Flood	Fine	Moderate	10:15	0.2	M	0.1	1			7.52	7.53	10.40	10.40	20.77	20.78	49.8	49.7	4.20	4.19		119.9	119.1		180	185			NA			NA			NA			NA			NA			NA			NA			NA	
M3	15/12/2020	Mid-Flood	Fine	Moderate	10:15	0.2	M	0.1	2			7.53		10.40		20.79		49.6		4.18			118.2			190																										
M3	15/12/2020	Mid-Flood	Fine	Moderate	10:15	0.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	15/12/2020	Mid-Flood	Fine	Moderate	10:15	0.2	B		2																																											
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	S	1	1	0.064	171.4	8.17	8.17	14.95	14.97	17.04	17.12	81.8	81.7	7.12	7.11	7.11	27.8	27.8	38.6	55	55	65	<1.5	1.5	1.5	0.049	0.043	0.037	2.6	2.3	2.1	4.6	4.2	3.8	1.20	1.05	0.94	3.2	2.9	2.6	0.39	0.41	0.36	5000	4848	5017
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	S	1	2			8.16		14.99		17.20		81.5		7.09			27.8			54			<1.5			0.036			2.0			3.7			0.89			2.6			0.42			4700		
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	M		2																																											
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	B	3.7	1			8.14	8.13	15.90	15.87	17.54	17.53	77.2	77.0	6.71	6.69		49.9	49.4		75	75		<1.5	1.5		0.033	0.032		1.9	2.0		3.4	3.5		0.82	0.83		2.3	2.3		0.33	0.32		5500	5191	
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	B	3.7	2			8.11		15.83		17.51		76.8		6.66			48.8			74			<1.5			0.031			2.0			3.5			0.84			2.3			0.31			4900		
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	S		1	0.109	311.5		NA		NA		NA		NA		NA	7.02		NA	21.5		NA	34		NA	1.5		NA	0.010		NA	1.4		NA	2.7		NA	0.58		NA	1.8		NA	0.24		NA	420
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	S		2																																											
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	M	0.85	1			7.74	7.75	19.97	19.94	18.32	18.33	84.4	84.4	7.01	7.02		21.5	21.5		34	34		<1.5	1.5		0.010	0.010		1.4	1.4		2.7	2.7		0.59	0.58		1.9	1.8		0.25	0.24		490	420	
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	M	0.85	2			7.75		19.91		18.33		84.3		7.02			21.5			34			<1.5			0.010			1.4			2.6			0.57			1.7			0.22			360		
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	B		2																																											
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	S		1	0.235	211.7		NA		NA		NA		NA		NA	7.65		NA	13.3		NA	23		NA	1.5		NA	0.002		NA	0.6		NA	1.1		NA	0.16		NA	0.7		NA	0.15		NA	24
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	S		2																																											
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	M	0.95	1			7.69	7.65	25.48	25.45	19.03	19.04	95.8	95.8	7.69	7.65		13.2	13.3		22	23		<1.5	1.5		0.002	0.002		0.6	0.6		1.2	1.1		0.14	0.16		0.7	0.7		0.15	0.15		24	24	
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	M	0.95	2			7.61		25.42		19.04		95.7		7.61			13.3			23			<1.5			0.002			0.6			1.0			0.17			0.6			0.14			24		
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	B		2																																											
E4	15/12/2020	Mid-Flood	Fine	Moderate	09:06	1.8	S		1	0.128	59.9		NA		NA		NA		NA		NA	7.46		NA	28.1		NA	46		NA	1.5		NA	0.042		NA	1.7		NA	3.2		NA	0.87		NA	2.4		NA	0.27		NA	3779
E4	15/12/2020	Mid-Flood	Fine	Moderate	09:06	1.8	S		2																																											
E4	15/12/2020	Mid-Flood	Fine	Moderate	09:06	1.8	M	0.9	1			8.25	8.25	15.14	15.16	17.07	17.10	85.5	85.2	7.48	7.46		27.6	28.1		46	46		<1.5	1.5		0.041	0.042		1.6	1.7		3.3	3.2		0.83	0.87		2.5	2.4		0.29	0.27		4200	3779	
E4	15/12/2020	Mid-Flood	Fine	Moderate	09:06	1.8	M	0.9	2			8.24		15.17		17.12		84.9		7.43			28.5			45			<1.5			0.044			1.8			3.1			0.91			2.2			0.25			3400		
E4	15/12/2020	Mid-Flood	Fine	Moderate	09:06	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	15/12/2020	Mid-Flood	Fine	Moderate	09:06	1.8	B		2																																											
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	S		1	0.164	24.5		NA		NA		NA		NA		NA	6.39		NA	25.9		NA	44		NA	1.5		NA	0.058		NA	3.0		NA	5.5		NA	1.25		NA	3.8		NA	0.33		NA	4950
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	S		2																																											
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	M	0.9	1			8.16	8.17	10.72	10.73	18.51	18.51	74.4	73.8	6.44	6.39		25.9	25.9		43	44		<1.5	1.5		0.059	0.058		3.1	3.0		5.7	5.5		1.30	1.25		3.9	3.8		0.33	0.33		5000	4950	
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	M	0.9	2			8.18		10.73		18.50		73.2		6.34			25.9			44			<1.5			0.057			2.9			5.3			1.20			3.6			0.32			4900		
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	B		2																																											
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	S		1	0.217	74.1		NA		NA		NA		NA		NA	7.66		NA	10.1		NA	25		NA	1.5		NA	0.003		NA	0.7		NA	1.2		NA	0.11		NA	0.5		NA	0.12		NA	27
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	S		2																																											
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	M	1	1			7.96	7.97	26.85	26.85	19.23	19.23	97.2	97.2	7.66	7.66		10.1	10.1		25	25		<1.5	1.5		0.003	0.003		0.7	0.7		1.1	1.2		0.10	0.11		0.5	0.5		0.12	0.12		27	27	
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	M	1	2			7.97		26.84		19.23		97.1		7.65			10.1			24			<1.5			0.003			0.8			1.2			0.11			0.5			0.12			27		
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	B		2																																											
SP1	15/12/2020	Mid-Flood	Fine	Moderate	10:03	2.0	S		1	0.058	221.4		NA		NA		NA		NA		NA	4.37		NA	52.4		NA	41		NA	1.5		NA	0.059		NA	2.9		NA	4.6		NA	2.00		NA	3.8		NA	0.31		NA	9033
SP1	15/12/2020	Mid-Flood	Fine	Moderate	10:03	2.0	S		2																																											
SP1	15/12/2020	Mid-Flood	Fine	Moderate	10:03	2.0	M	1	1			7.93	7.95	10.30	10.35	18.97	18.96	50.6	50.5	4.38	4.37		53.0	52.4		41	41		<1.5	1.5		0.057	0.059		3.2	2.9		4.9	4.6		2.00	2.00		3.7	3.8		0.29	0.31		12000	9033	
SP1	15/12/2020	Mid-Flood	Fine	Moderate	10:03	2.0	M	1	2			7.96		10.40		18.94		50.4		4.36			51.7			41			<1.5			0.061			2.5			4.3			2.00			3.8			0.33			6800		
SP1	15/12/2020	Mid-Flood	Fine	Moderate	10:03	2.0	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	15/12/2020	Mid-Flood	Fine	Moderate	10:03	2.0	B		2																																											
KT1	15/12/2020	Mid-Flood	Fine	Moderate	09:34	2.2	S		1	0.039	113.1		NA		NA		NA		NA		NA	5.87		NA	25.4		NA	46		NA	1.5		NA	0.030		NA	1.7		NA	4.2		NA	1.09		NA	3.5		NA	0.30		NA	7197
KT1	15/12/2020	Mid-Flood	Fine	Moderate	09:34	2.2	S		2																																											
KT1	15/12/2020	Mid-Flood	Fine	Moderate	09:34	2.2	M	1.1	1			7.91	7.92	10.89	10.88	19.09	19.09	67.7	67.7	5.87	5.87		25.2	25.4		46	46		<1.5	1.5		0.033	0.030		1.8	1.7		4.3	4.2		1.20	1.09		3.6	3.5		0.28	0.30		7000	7197	
KT1	15/12/2020	Mid-Flood	Fine	Moderate	09:34	2.2	M	1.1	2			7.92		10.87		19.09		67.6		5.86			25.5			46			<1.5			0.027			1.6			4.0			0.98			3.4			0.32			7400		
KT1	15/12/2020	Mid-Flood	Fine	Moderate	09:34	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	15/12/2020	Mid-Flood	Fine	Moderate	09:34	2.2	B		2																																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																																	
										Current Speed (m/s)		Current Direction (°)		pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			S & M Ave.	Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value		Value		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.			Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	15/12/2020	Mid-Ebb	Moderate	Calm	13:51	1.9	S		1	0.109		65.1			NA			NA			NA			NA			NA		5.53		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	15/12/2020	Mid-Ebb	Moderate	Calm	13:51	1.9	S		2																																																			
M1	15/12/2020	Mid-Ebb	Moderate	Calm	13:51	1.9	M	0.95	1					8.01	8.02		10.21	10.22		19.00	19.08		64.2	63.7		5.57	5.53			38.7	38.6	38.6	44	45	45																										
M1	15/12/2020	Mid-Ebb	Moderate	Calm	13:51	1.9	M	0.95	2					8.03			10.22			19.15			63.2			5.48				38.5			45																										
M1	15/12/2020	Mid-Ebb	Moderate	Calm	13:51	1.9	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	15/12/2020	Mid-Ebb	Moderate	Calm	13:51	1.9	B		2																																																	
M2	15/12/2020	Mid-Ebb	Moderate	Calm	13:45	2.0	S		1	0.341		72.6			NA			NA			NA			NA			NA		4.51		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	15/12/2020	Mid-Ebb	Moderate	Calm	13:45	2.0	S		2																																																
M2	15/12/2020	Mid-Ebb	Moderate	Calm	13:45	2.0	M	1	1					7.55	7.56		10.39	10.39		19.44	19.44		52.0	51.9		4.56	4.51			44.0	44.2	44.2	38	38	38																										
M2	15/12/2020	Mid-Ebb	Moderate	Calm	13:45	2.0	M	1	2					7.56			10.38			19.44			51.8			4.45				44.3			37																										
M2	15/12/2020	Mid-Ebb	Moderate	Calm	13:45	2.0	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
M2	15/12/2020	Mid-Ebb	Moderate	Calm	13:45	2.0	B		2																																															
M3	15/12/2020	Mid-Ebb	Moderate	Calm	14:40	0.6	S		1	0.041		267.3			NA			NA			NA			NA			NA		4.59		NA			NA			NA			NA			NA			NA			NA			NA		
M3	15/12/2020	Mid-Ebb	Moderate	Calm	14:40	0.6	S		2																																															
M3	15/12/2020	Mid-Ebb	Moderate	Calm	14:40	0.6	M	0.3	1					7.55	7.56		7.91	7.91		21.68	21.68		54.8	54.7		4.60	4.59			30.4	30.5	30.5	59	60	60																										
M3	15/12/2020	Mid-Ebb	Moderate	Calm	14:40	0.6	M	0.3	2					7.56			7.91			21.68			54.5			4.58				30.5			60																										
M3	15/12/2020	Mid-Ebb	Moderate	Calm	14:40	0.6	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
M3	15/12/2020	Mid-Ebb	Moderate	Calm	14:40	0.6	B		2																																															
E1	15/12/2020	Mid-Ebb	Moderate	Calm	14:15	5.2	S	1	1	0.258		58.7		8.13	8.14		10.57	10.58		18.97	19.39		63.4	63.3		5.49	5.48			37.3	37.4	42.6	37	37	89	<1.5	1.5	1.6	0.075	0.076	0.063	1.9	1.8	1.9	4.5	4.1	3.9	1.70	1.65	1.38	4.3	4.0	3.4	0.27	0.28	0.36	6500	6697	7014
E1	15/12/2020	Mid-Ebb	Moderate	Calm	14:15	5.2	S	1	2					8.14			10.58			19.81			63.2			5.47		5.48		37.4			37			<1.5			0.077			1.7			3.6			1.60			3.6			0.29			6900		
E1	15/12/2020	Mid-Ebb	Moderate	Calm	14:15	5.2	M		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
E1	15/12/2020	Mid-Ebb	Moderate	Calm	14:15	5.2	M		2																																														
E1	15/12/2020	Mid-Ebb	Moderate	Calm	14:15	5.2	B	4.2	1					8.13	8.14		10.81	10.81		19.18	19.18		62.5	62.6		5.41	5.42			48.2	47.9		140	140		1.5	1.8		0.045	0.050		2.0	1.9		4.0	3.7		1.00	1.10		2.9	2.9		0.44	0.44		7600	7346	
E1	15/12/2020	Mid-Ebb	Moderate	Calm	14:15	5.2	B	4.2	2					8.14			10.80			19.18			62.6			5.43				47.6			140			2.0			0.055			1.8			3.3			1.20			2.8			0.44			7100		
E2a	15/12/2020	Mid-Ebb	Moderate	Calm	14:38	2.3	S		1	0.284		212.8			NA			NA			NA			NA			NA		6.55		NA			NA			NA			NA			NA			NA			NA			NA		
E2a	15/12/2020	Mid-Ebb	Moderate	Calm	14:38	2.3	S		2																																														
E2a	15/12/2020	Mid-Ebb	Moderate	Calm	14:38	2.3	M	1.15	1					8.27	8.28		13.34	13.35		18.06	18.11		75.4	75.7		6.52	6.55			44.9	44.9	44.9	58	60	60	<1.5	1.5	1.5	0.054	0.056	0.056	1.3	1.3	1.3	2.7	2.8	2.8	0.98	0.99	0.99	2.4	2.6	2.6	0.37	0.37	0.37	5900	5850	5850
E2a	15/12/2020	Mid-Ebb	Moderate	Calm	14:38	2.3	M	1.15	2					8.28			13.35			18.15			75.9			6.58				44.8			61			1.5			0.057			1.2			2.9			1.00			2.7			0.36			5800		
E2a	15/12/2020	Mid-Ebb	Moderate	Calm	14:38	2.3	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
E2a	15/12/2020	Mid-Ebb	Moderate	Calm	14:38	2.3	B		2																																														
E3a	15/12/2020	Mid-Ebb	Moderate	Calm	15:01	1.9	S		1	0.266		304.5			NA			NA			NA			NA			NA		7.79		NA			NA			NA			NA			NA			NA			NA			NA		
E3a	15/12/2020	Mid-Ebb	Moderate	Calm	15:01	1.9	S		2																																														
E3a	15/12/2020	Mid-Ebb	Moderate	Calm	15:01	1.9	M	0.95	1					7.92	7.91		23.42	23.42		18.91	18.91		96.2	96.2		7.79	7.79			14.1	14.2	14.2	26	26	26	<1.5	1.5	1.5	0.004	0.004	0.004	0.3	0.4	0.4	1.1	1.2	1.2	0.17	0.18	0.18	0.9	1.0	1.0	0.16	0.17	0.17	55	63	63
E3a	15/12/2020	Mid-Ebb	Moderate	Calm	15:01	1.9	M	0.95	2					7.90			23.41			18.90			96.1			7.78				14.2			26			<1.5			0.004			0.4			1.2			0.18			1.1			0.17			72		
E3a	15/12/2020	Mid-Ebb	Moderate	Calm	15:01	1.9	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
E3a	15/12/2020	Mid-Ebb	Moderate	Calm	15:01	1.9	B		2																																														
E4	15/12/2020	Mid-Ebb	Moderate	Calm	14:27	2.3	S		1	0.412		17.1			NA			NA			NA			NA			NA		6.38		NA			NA			NA			NA			NA			NA			NA			NA		
E4	15/12/2020	Mid-Ebb	Moderate	Calm	14:27	2.3	S		2																																														
E4	15/12/2020	Mid-Ebb	Moderate	Calm	14:27	2.3	M	1.15	1					8.21	8.22		12.07	12.08		18.79	18.80		73.9	73.8		6.39	6.38			39.0	38.5	38.5	48	48	48	<1.5	1.5	1.5	0.067	0.065	0.065	1.4	1.5	1.5	2.9	3.1	3.1	1.30	1.25	1.25	2.8	2.9	2.9	0.31	0.32	0.32	4600	5075	5075
E4	15/12/2020	Mid-Ebb	Moderate	Calm	14:27	2.3	M	1.15	2					8.22			12.08			18.80			73.6			6.37				38.0			48			<1.5			0.063			1.5			3.2			1.20			3.0			0.33			5600		
E4	15/12/2020	Mid-Ebb	Moderate	Calm	14:27	2.3	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
E4	15/12/2020	Mid-Ebb	Moderate	Calm	14:27	2.3	B		2																																														
E5a	15/12/2020	Mid-Ebb	Moderate	Calm	13:56	2.9	S	1	1	0.349		292.1			NA			NA			NA			NA			NA		4.82		NA			NA			NA			NA			NA			NA			NA			NA		
E5a	15/12/2020	Mid-Ebb	Moderate	Calm	13:56	2.9	S	1	2																																														
E5a	15/12/2020	Mid-Ebb	Moderate	Calm	13:56	2.9	M		1					8.07	8.05		10.26	10.26		19.23	19.29		55.7	55.7		4.81	4.82			40.8	40.7	40.7	49	49	49	2.0	1.8	1.8	0.091	0.085	0.085	3.8	3.9	3.9	5.5	5.5	5.5	2.30	2.25	2.25	4.0	3.9	3.9	0.49	0.48	0.48	18000	12296	12296
E5a	15/12/2020	Mid-Ebb	Moderate	Calm	13:56	2.9	M		2					8.02			10.25			19.35			55.6			4.82				40.5			49			1.5			0.078			3.9			5.4			2.20			3.7			0.47			8400		
E5a	15/12/2020	Mid-Ebb	Moderate	Calm	13:56	2.9	B	1.9	1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
E5a	15/12/2020	Mid-Ebb	Moderate	Calm	13:56	2.9	B	1.9	2																																														
DB1	15/12/2020	Mid-Ebb	Moderate	Calm	15:17	2.2	S		1	0.233		171.2			NA			NA			NA			NA			NA		8.12		NA			NA			NA			NA			NA			NA			NA			NA		
DB1	15/12/2020	Mid-Ebb	Moderate	Calm	15:17	2.2	S		2																																													
DB1	15/12/2020	Mid-Ebb	Moderate	Calm	15:17	2.2	M	1.1	1					7.94	7.96		25.09	25.09		18.92	18.96		101.7	101.7		8.14	8.12			7.8	7.8	7.8	15	15	15	<1.5	1.5	1.5	0.007	0.008	0.008	0.7	0.8	0.8	1.5	1.6	1.6	0.27	0.28	0.28	1.1	1.1	1.1	0.14	0.14	0.14	19	17	17
DB1	15/12/2020	Mid-Ebb	Moderate	Calm	15:17	2.2	M	1.1	2					7.97			25.08			19.00			101.6			8.10				7.8			14			<1.5			0.008			0.8			1.6			0.28			1.1			0.14			15		
DB1	15/12/2020	Mid-Ebb	Moderate	Calm	15:17	2.2	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
DB1	15/12/2020	Mid-Ebb	Moderate	Calm	15:17	2.2	B		2																																														
SP1	15/12/2020	Mid-Ebb	Moderate	Calm	13:39	1.7	S		1	0.264		191.4			NA			NA			NA			NA			NA		4.35		NA			NA			NA			NA			NA			NA			NA			NA		
SP1	15/12/2020	Mid-Ebb	Moderate	Calm	13:39	1.7	S		2																																														
SP1	15/12/2020	Mid-Ebb	Moderate	Calm	13:39	1.7	M	0.85	1					7.52	7.53		10.33	10.34		19.40	19.45		50.4	50.4		4.37	4.35			38.2	38.0	38.0	32	32	32	2.0	2.0	2.0	0.035	0.037	0.037	4.2	4.5	4.5	5.5	5.8	5.8	3.00	3.10	3.10	4.4	4.5	4.5	0.44	0.44	0.44	56000	52915	52915
SP1	15/12/2020	Mid-Ebb	Moderate	Calm	13:39	1.7	M	0.85	2					7.54			10.35			19.49			50.3			4.33				37.8			32			2.0			0.039			4.8			6.1			3.20			4.5			0.44			50000		
SP1	15/12/2020	Mid-Ebb	Moderate	Calm	13:39	1.7	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
SP1	15/12/2020	Mid-Ebb	Moderate	Calm	13:39	1.7	B		2																																														
KT1	15/12/2020	Mid-Ebb	Moderate	Calm	14:04	2.5	S		1	0.174		304.1			NA			NA			NA			NA			NA		4.28		NA			NA			NA			NA			NA			NA			NA			NA		
KT1	15/12/2020	Mid-Ebb	Moderate	Calm	14:04	2.5	S		2																																													
KT1	15/12/2020	Mid-Ebb	Moderate	Calm	14:04	2.5	M	1.25	1					8.08	8.09		10.38	10.39		19.34	19.34		49.2	49.3		4.27	4.28			36.8	37.1	37.1	45	45	45	<1.5	1.5	1.5	0.061	0.068	0.068	3.4	3.5	3.5	5.1	5.3	5.3	1.50	1.65	1.65	3.3	3.4	3.4	0.39	0.42	0.42	13000	10877	10877
KT1	15/12/2020	Mid-Ebb	Moderate	Calm	14:04	2.5	M	1.25	2					8.09			10.39			19.34			49.3			4.28				37.3			45			<1.5			0.075			3.5			5.4			1.80			3.4			0.45			9100		
KT1	15/12/2020	Mid-Ebb	Moderate	Calm	14:04	2.5	B		1						NA			NA			NA			NA			NA				NA			NA			NA			NA			NA			NA			NA			NA		
KT1	15/12/2020	Mid-Ebb	Moderate	Calm	14:04	2.5	B		2																																														

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)	Current Direction (°)	pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.	Depth Ave.	Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	17/12/2020	Mid-Flood	Fine	Calm	10:52	1.9	S		1	0.443	215.1		NA			NA			NA			NA			NA	3.71		NA			NA			NA			NA			NA			NA			NA			NA		
M1	17/12/2020	Mid-Flood	Fine	Calm	10:52	1.9	S		2																																								
M1	17/12/2020	Mid-Flood	Fine	Calm	10:52	1.9	M	0.95	1			7.09	7.09		11.63	11.63		16.50	16.50		41.1	41.1		3.72	3.71		41.6	41.7	41.7	70	71	71		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	17/12/2020	Mid-Flood	Fine	Calm	10:52	1.9	M	0.95	2			7.09			11.63			16.50			41.0			3.70			41.7			72																			
M1	17/12/2020	Mid-Flood	Fine	Calm	10:52	1.9	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	17/12/2020	Mid-Flood	Fine	Calm	10:52	1.9	B		2																																								
M2	17/12/2020	Mid-Flood	Fine	Calm	10:59	2.0	S		1	0.011	61.6		NA			NA			NA			NA			NA	3.34		NA			NA			NA			NA			NA			NA			NA		
M2	17/12/2020	Mid-Flood	Fine	Calm	10:59	2.0	S		2																																							
M2	17/12/2020	Mid-Flood	Fine	Calm	10:59	2.0	M	1	1			7.08	7.08		11.01	11.03		16.58	16.60		37.4	36.9		3.40	3.34		31.1	31.5	31.5	59	60	60		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	17/12/2020	Mid-Flood	Fine	Calm	10:59	2.0	M	1	2			7.08			11.04			16.61			36.3			3.27			31.9			60																			
M2	17/12/2020	Mid-Flood	Fine	Calm	10:59	2.0	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	17/12/2020	Mid-Flood	Fine	Calm	10:59	2.0	B		2																																							
M3	17/12/2020	Mid-Flood	Fine	Calm	10:15	0.2	S		1	0.000	337.2		NA			NA			NA			NA			NA	6.08		NA			NA			NA			NA			NA			NA			NA		
M3	17/12/2020	Mid-Flood	Fine	Calm	10:15	0.2	S		2																																							
M3	17/12/2020	Mid-Flood	Fine	Calm	10:15	0.2	M	0.1	1			7.55	7.58		1.84	1.84		19.14	19.33		68.7	66.6		6.29	6.08		29.1	29.4	29.4	41	41	41		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	17/12/2020	Mid-Flood	Fine	Calm	10:15	0.2	M	0.1	2			7.60			1.83			19.51			64.5			5.86			29.6			41																			
M3	17/12/2020	Mid-Flood	Fine	Calm	10:15	0.2	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M3	17/12/2020	Mid-Flood	Fine	Calm	10:15	0.2	B		2																																							
E1	17/12/2020	Mid-Flood	Fine	Calm	10:20	4.4	S	1	1	0.125	251.4	7.10	7.10		11.88	11.88		16.19	16.20		50.6	50.5		4.54	4.52		19.0	19.2		31	31		<1.5	1.5		0.011	0.011		4.0	4.3		5.5	5.4		3.30	3.20		4.8	4.3		0.40	0.38		9900	9334	
E1	17/12/2020	Mid-Flood	Fine	Calm	10:20	4.4	S	1	2			7.10			11.88			16.21			50.3			4.50			19.3			31			<1.5			0.011			4.5			5.2			3.10			3.8			0.36			8800		
E1	17/12/2020	Mid-Flood	Fine	Calm	10:20	4.4	M		1				NA			NA			NA			NA			NA			NA	22.0		NA	35		NA	1.5		NA	0.011		NA	3.9		NA	4.9		NA	3.08		NA	4.1		NA	0.40		NA	10762	
E1	17/12/2020	Mid-Flood	Fine	Calm	10:20	4.4	M		2																																							
E1	17/12/2020	Mid-Flood	Fine	Calm	10:20	4.4	B	3.4	1			7.09	7.09		12.25	12.27		16.34	16.34		44.2	43.8		4.01	3.98		25.7	24.9		39	40		<1.5	1.5		0.010	0.010		3.8	3.6		4.7	4.5		3.00	2.95		3.9	3.9		0.41	0.41		11000	12410	
E1	17/12/2020	Mid-Flood	Fine	Calm	10:20	4.4	B	3.4	2			7.09			12.29			16.34			43.3			3.94			24.1			40			<1.5			0.010			3.3			4.2			2.90			3.8			0.41			14000		
E2a	17/12/2020	Mid-Flood	Fine	Calm	09:58	1.3	S		1	0.158	10.9		NA			NA			NA			NA			NA	5.92		NA			NA			NA			NA			NA			NA			NA			NA		
E2a	17/12/2020	Mid-Flood	Fine	Calm	09:58	1.3	S		2																																							
E2a	17/12/2020	Mid-Flood	Fine	Calm	09:58	1.3	M	0.65	1			7.19	7.19		9.73	9.73		16.83	16.74		65.1	65.1		5.93	5.92		30.5	30.4	30.4	63	64	64	<1.5	1.5	1.5	0.007	0.007	0.007	2.4	2.4	2.4	4.5	4.2	4.2	1.60	1.60	1.60	3.7	3.5	3.5	0.30	0.30	0.30	6600	6240	6240
E2a	17/12/2020	Mid-Flood	Fine	Calm	09:58	1.3	M	0.65	2			7.19			9.72			16.64			65.0			5.91			30.2			64			<1.5			0.007			2.3			3.9			1.60			3.2			0.29			5900		
E2a	17/12/2020	Mid-Flood	Fine	Calm	09:58	1.3	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E2a	17/12/2020	Mid-Flood	Fine	Calm	09:58	1.3	B		2																																							
E3a	17/12/2020	Mid-Flood	Fine	Calm	09:34	1.3	S		1	0.175	352.8		NA			NA			NA			NA			NA	7.87		NA			NA			NA			NA			NA			NA			NA			NA		
E3a	17/12/2020	Mid-Flood	Fine	Calm	09:34	1.3	S		2																																							
E3a	17/12/2020	Mid-Flood	Fine	Calm	09:34	1.3	M	0.65	1			7.57	7.57		21.55	21.58		15.80	15.80		90.6	90.6		7.87	7.87		30.3	30.3	30.3	46	46	46	<1.5	1.5	1.5	0.006	0.006	0.006	0.7	0.8	0.8	1.6	1.5	1.5	0.65	0.69	0.69	1.5	1.5	1.5	0.18	0.20	0.20	450	397	397
E3a	17/12/2020	Mid-Flood	Fine	Calm	09:34	1.3	M	0.65	2			7.57			21.60			15.80			90.6			7.87			30.3			46			<1.5			0.007			0.8			1.4			0.72			1.4			0.21			350		
E3a	17/12/2020	Mid-Flood	Fine	Calm	09:34	1.3	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E3a	17/12/2020	Mid-Flood	Fine	Calm	09:34	1.3	B		2																																							
E4	17/12/2020	Mid-Flood	Fine	Calm	10:09	2.6	S		1	0.092	220.9		NA			NA			NA			NA			NA	6.30		NA			NA			NA			NA			NA			NA			NA			NA		
E4	17/12/2020	Mid-Flood	Fine	Calm	10:09	2.6	S		2																																							
E4	17/12/2020	Mid-Flood	Fine	Calm	10:09	2.6	M	1.3	1			7.20	7.20		9.73	9.74		16.61	16.62		69.5	69.3		6.32	6.30		23.3	23.2	23.2	46	47	47	<1.5	1.5	1.5	0.008	0.008	0.008	2.7	2.8	2.8	4.5	4.4	4.4	1.80	1.80	1.80	3.7	3.5	3.5	0.29	0.30	0.30	6900	7383	7383
E4	17/12/2020	Mid-Flood	Fine	Calm	10:09	2.6	M	1.3	2			7.20			9.75			16.63			69.1			6.28			23.1			47			<1.5			0.008			2.9			4.3			1.80			3.2			0.31			7900		
E4	17/12/2020	Mid-Flood	Fine	Calm	10:09	2.6	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E4	17/12/2020	Mid-Flood	Fine	Calm	10:09	2.6	B		2																																							
E5a	17/12/2020	Mid-Flood	Fine	Calm	10:45	2.3	S		1	0.349	217.7		NA			NA			NA			NA			NA	4.34		NA			NA			NA			NA			NA			NA			NA			NA		
E5a	17/12/2020	Mid-Flood	Fine	Calm	10:45	2.3	S		2																																							
E5a	17/12/2020	Mid-Flood	Fine	Calm	10:45	2.3	M	1.15	1			7.11	7.10		11.13	11.13		16.36	16.45		50.0	49.2		4.40	4.34		30.1	29.0	29.0	51	51	51	1.5	1.8	1.8	0.013	0.012	0.012	4.6	4.8	4.8	7.0	7.2	7.2	3.60	3.50	3.50	6.0	6.0	6.0	0.58	0.58	0.58	15000	14491	14491
E5a	17/12/2020	Mid-Flood	Fine	Calm	10:45	2.3	M	1.15	2			7.09			11.13			16.53			48.3			4.27			27.9			51			2.0			0.012			4.9			7.4			3.40			5.9			0.58			14000		
E5a	17/12/2020	Mid-Flood	Fine	Calm	10:45	2.3	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E5a	17/12/2020	Mid-Flood	Fine	Calm	10:45	2.3	B		2																																							
DB1	17/12/2020	Mid-Flood	Fine	Calm	09:21	1.8	S		1	0.017	213.2		NA			NA			NA			NA			NA	8.06		NA			NA			NA			NA			NA			NA			NA			NA		
DB1	17/12/2020	Mid-Flood	Fine	Calm	09:21	1.8	S		2																																							
DB1	17/12/2020	Mid-Flood	Fine	Calm	09:21	1.8	M	0.9	1			7.54	7.57		23.98	23.99		16.37	16.37		96.5	95.8		8.10	8.06		13.2	13.6	13.6	23	23	23	<1.5	1.5	1.5	0.003	0.003	0.003	0.7	0.7	0.7	2.3	2.4	2.4	0.28	0.29	0.29	1.9	2.0	2.0	0.16	0.16	0.16	98	98	98
DB1	17/12/2020	Mid-Flood	Fine	Calm	09:21	1.8	M	0.9	2			7.59			24.00			16.37			95.0			8.01			14.0			23			<1.5			0.003			0.8			2.4			0.29			2.0			0.15			98		
DB1	17/12/2020	Mid-Flood	Fine	Calm	09:21	1.8	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
DB1	17/12/2020	Mid-Flood	Fine	Calm	09:21	1.8	B		2																																							
SP1	17/12/2020	Mid-Flood	Fine	Calm	11:06	2.1	S		1	0.001	79.5		NA			NA			NA			NA			NA	3.99		NA			NA			NA			NA			NA			NA			NA			NA		
SP1	17/12/2020	Mid-Flood	Fine	Calm	11:06	2.1	S		2																																							
SP1	17/12/2020	Mid-Flood	Fine	Calm	11:06	2.1	M	1.05	1			7.09	7.09		10.75	10.75		16.52	16.53		46.0	45.7		4.01	3.99		52.3	52.6	52.6	170	175	175	2.5	3.0	3.0	0.016	0.016	0.016	6.3	6.3	6.3	8.7	8.6	8.6	4.50	4.55	4.55	6.9	6.9	6.9	0.74	0.73	0.73	19000	16882	16882
SP1	17/12/2020	Mid-Flood	Fine	Calm	11:06	2.1	M	1.05	2			7.09			10.75			16.53			45.3			3.96			52.8			180			3.5			0.016			6.2			8.5			4.60			6.9			0.72			15000		
SP1	17/12/2020	Mid-Flood	Fine	Calm	11:06	2.1	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
SP1	17/12/2020	Mid-Flood	Fine	Calm	11:06	2.1	B		2																																							
KT1	17/12/2020	Mid-Flood	Fine	Calm	10:35	2.2	S		1	0.153	90.4		NA			NA			NA			NA			NA	2.95		NA			NA			NA			NA			NA			NA			NA			NA		
KT1	17/12/2020	Mid-Flood	Fine	Calm	10:35	2.2	S		2																																							
KT1	17/12/2020	Mid-Flood	Fine	Calm	10:35	2.2	M	1.1	1			7.07	7.07		11.17	11.17		16.51	16.51		33.0	32.9		2.96	2.95		36.0	36.0	36.0	56	56	56	2.5	2.3	2.3	0.013	0.012	0.012	5.0	5.0	5.0	7.6	7.6	7.6	3.90	3.70	3.70	6.5	6.2	6.2	0.54	0.56	0.56	17000	16492	16492
KT1	17/12/2020	Mid-Flood	Fine	Calm	10:35	2.2	M	1.1	2			7.07			11.16			16.51			32.8			2.94			36.0			56			2.0			0.012			5.0			7.5			3.50			5.9			0.57			16000		
KT1	17/12/2020	Mid-Flood	Fine	Calm	10:35	2.2	B		1				NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
KT1	17/12/2020	Mid-Flood	Fine	Calm	10:35	2.2	B		2																																							

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	17/12/2020	0	Fine	Calm	14:12	2.7	S		1	0.086	307.7		NA		NA		NA		NA		NA	6.76		NA	22.3		NA	35		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	17/12/2020	Mid-Ebb	Fine	Calm	14:12	2.7	S		2																																											
M1	17/12/2020	Mid-Ebb	Fine	Calm	14:12	2.7	M	1.35	1			7.29	7.29	9.98	9.98	17.01	17.02	75.1	74.9	6.76	6.76		22.3	22.3		34	35			NA			NA			NA			NA			NA			NA			NA			NA	
M1	17/12/2020	Mid-Ebb	Fine	Calm	14:12	2.7	M	1.35	2			7.29		9.98		17.02		74.6		6.75			22.3			35																										
M1	17/12/2020	Mid-Ebb	Fine	Calm	14:12	2.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	17/12/2020	Mid-Ebb	Fine	Calm	14:12	2.7	B		2																																											
M2	17/12/2020	Mid-Ebb	Fine	Calm	14:05	1.9	S		1	0.197	13.3		NA		NA		NA		NA		NA	6.68		NA	20.6		NA	35		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	17/12/2020	Mid-Ebb	Fine	Calm	14:05	1.9	S		2																																											
M2	17/12/2020	Mid-Ebb	Fine	Calm	14:05	1.9	M	0.95	1			7.21	7.21	10.22	10.20	16.53	16.55	74.6	74.2	6.67	6.68		20.2	20.6		34	35			NA			NA			NA			NA			NA			NA			NA			NA	
M2	17/12/2020	Mid-Ebb	Fine	Calm	14:05	1.9	M	0.95	2			7.21		10.18		16.57		73.8		6.69			21.0			35																										
M2	17/12/2020	Mid-Ebb	Fine	Calm	14:05	1.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	17/12/2020	Mid-Ebb	Fine	Calm	14:05	1.9	B		2																																											
M3	17/12/2020	Mid-Ebb	Fine	Calm	14:22	0.6	S		1	0.022	13.7		NA		NA		NA		NA		NA	6.28		NA	28.7		NA	27		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	17/12/2020	Mid-Ebb	Fine	Calm	14:22	0.6	S		2																																											
M3	17/12/2020	Mid-Ebb	Fine	Calm	14:22	0.6	M	0.3	1			7.70	7.73	10.18	10.17	19.42	19.42	73.7	72.5	6.39	6.28		28.4	28.7		25	27			NA			NA			NA			NA			NA			NA			NA			NA	
M3	17/12/2020	Mid-Ebb	Fine	Calm	14:22	0.6	M	0.3	2			7.75		10.16		19.42		71.3		6.17			28.9			28																										
M3	17/12/2020	Mid-Ebb	Fine	Calm	14:22	0.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	17/12/2020	Mid-Ebb	Fine	Calm	14:22	0.6	B		2																																											
E1	17/12/2020	Mid-Ebb	Fine	Calm	14:32	5.2	S	1	1	0.191	331.9	7.32	7.32	11.00	10.99	16.83	16.84	78.6	78.6	7.11	7.11	7.11	20.1	20.2	21.6	33	33	36	<1.5	1.5	1.5	0.010	0.008	0.007	1.8	2.0	1.9	3.4	3.4	3.2	1.60	1.35	1.25	3.1	2.9	2.6	0.24	0.24	0.25	4200	4583	4591
E1	17/12/2020	Mid-Ebb	Fine	Calm	14:32	5.2	S	1	2			7.32		10.97		16.84		78.5		7.10			20.3			32			<1.5			0.007			2.1			3.4			1.10			2.6			0.23			5000		
E1	17/12/2020	Mid-Ebb	Fine	Calm	14:32	5.2	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	17/12/2020	Mid-Ebb	Fine	Calm	14:32	5.2	M		2																																											
E1	17/12/2020	Mid-Ebb	Fine	Calm	14:32	5.2	B	4.2	1			7.31	7.31	11.55	11.56	16.85	16.85	76.1	76.1	6.87	6.86		23.0	23.1		41	40		<1.5	1.5		0.006	0.007		1.8	1.8		3.0	2.9		1.10	1.15		2.2	2.3		0.26	0.27		4700	4599	
E1	17/12/2020	Mid-Ebb	Fine	Calm	14:32	5.2	B	4.2	2			7.31		11.56		16.84		76.0		6.85			23.1			39			<1.5			0.007			1.8			2.8			1.20			2.3			0.27			4500		
E2a	17/12/2020	Mid-Ebb	Fine	Calm	15:01	2.8	S		1	0.176	181.3		NA		NA		NA		NA		NA	7.55		NA	16.3		NA	25		NA	1.5		NA	0.006		NA	0.9		NA	2.0		NA	0.83		NA	2.0		NA	0.24		NA	2956
E2a	17/12/2020	Mid-Ebb	Fine	Calm	15:01	2.8	S		2																																											
E2a	17/12/2020	Mid-Ebb	Fine	Calm	15:01	2.8	M	1.4	1			7.43	7.43	16.29	16.70	16.05	16.06	84.4	84.4	7.52	7.55		17.3	16.3		25	25		<1.5	1.5		0.006	0.006		0.8	0.9		2.2	2.0		0.78	0.83		2.2	2.0		0.22	0.24		3800	2956	
E2a	17/12/2020	Mid-Ebb	Fine	Calm	15:01	2.8	M	1.4	2			7.43		17.10		16.06		84.3		7.57			15.2			25			<1.5			0.006			1.0			1.8			0.88			1.8			0.25			2300		
E2a	17/12/2020	Mid-Ebb	Fine	Calm	15:01	2.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	17/12/2020	Mid-Ebb	Fine	Calm	15:01	2.8	B		2																																											
E3a	17/12/2020	Mid-Ebb	Fine	Calm	15:26	1.8	S		1	0.145	296.4		NA		NA		NA		NA		NA	8.48		NA	11.0		NA	21		NA	1.5		NA	0.005		NA	0.5		NA	1.7		NA	0.39		NA	1.6		NA	0.16		NA	64
E3a	17/12/2020	Mid-Ebb	Fine	Calm	15:26	1.8	S		2																																											
E3a	17/12/2020	Mid-Ebb	Fine	Calm	15:26	1.8	M	0.9	1			7.69	7.69	24.25	24.27	16.63	16.64	100.9	100.9	8.48	8.48		11.1	11.0		21	21		<1.5	1.5		0.005	0.005		0.5	0.5		1.7	1.7		0.37	0.39		1.6	1.6		0.14	0.16		75	64	
E3a	17/12/2020	Mid-Ebb	Fine	Calm	15:26	1.8	M	0.9	2			7.69		24.28		16.65		100.9		8.47			10.9			20			<1.5			0.005			0.5			1.6			0.41			1.6			0.17			54		
E3a	17/12/2020	Mid-Ebb	Fine	Calm	15:26	1.8	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	17/12/2020	Mid-Ebb	Fine	Calm	15:26	1.8	B		2																																											
E4	17/12/2020	Mid-Ebb	Fine	Calm	14:47	2.5	S		1	0.000	352.4		NA		NA		NA		NA		NA	7.96		NA	18.6		NA	29		NA	1.5		NA	0.009		NA	1.4		NA	2.2		NA	1.04		NA	1.8		NA	0.25		NA	4743
E4	17/12/2020	Mid-Ebb	Fine	Calm	14:47	2.5	S		2																																											
E4	17/12/2020	Mid-Ebb	Fine	Calm	14:47	2.5	M	1.25	1			7.47	7.47	13.77	13.79	16.57	16.56	88.6	88.6	7.96	7.96		18.4	18.6		29	29		<1.5	1.5		0.009	0.009		1.4	1.4		2.2	2.2		1.10	1.04		1.8	1.8		0.25	0.25		5000	4743	
E4	17/12/2020	Mid-Ebb	Fine	Calm	14:47	2.5	M	1.25	2			7.47		13.80		16.55		88.6		7.96			18.7			28			<1.5			0.008			1.4			2.2			0.98			1.7			0.25			4500		
E4	17/12/2020	Mid-Ebb	Fine	Calm	14:47	2.5	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	17/12/2020	Mid-Ebb	Fine	Calm	14:47	2.5	B		2																																											
E5a	17/12/2020	Mid-Ebb	Fine	Calm	14:16	2.9	S		1	0.107	37.3		NA		NA		NA		NA		NA	6.59		NA	25.0		NA	43		NA	1.5		NA	0.018		NA	6.4		NA	7.5		NA	3.30		NA	4.5		NA	0.72		NA	7937
E5a	17/12/2020	Mid-Ebb	Fine	Calm	14:16	2.9	S		2																																											
E5a	17/12/2020	Mid-Ebb	Fine	Calm	14:16	2.9	M	1.45	1			7.26	7.26	10.00	10.00	16.99	16.99	72.8	72.8	6.60	6.59		24.5	25.0		43	43		1.5	1.5		0.018	0.018		6.5	6.4		7.7	7.5		3.40	3.30		4.6	4.5		0.75	0.72		9000	7937	
E5a	17/12/2020	Mid-Ebb	Fine	Calm	14:16	2.9	M	1.45	2			7.26		9.99		16.99		72.7		6.58			25.5			42			1.5			0.017			6.3			7.3			3.20			4.4			0.68			7000		
E5a	17/12/2020	Mid-Ebb	Fine	Calm	14:16	2.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	17/12/2020	Mid-Ebb	Fine	Calm	14:16	2.9	B		2																																											
DB1	17/12/2020	Mid-Ebb	Fine	Calm	15:40	2.4	S		1	0.180	284.1		NA		NA		NA		NA		NA	8.40		NA	7.0		NA	16		NA	1.5		NA	0.005		NA	0.4		NA	0.6		NA	0.34		NA	0.6		NA	0.13		NA	27
DB1	17/12/2020	Mid-Ebb	Fine	Calm	15:40	2.4	S		2																																											
DB1	17/12/2020	Mid-Ebb	Fine	Calm	15:40	2.4	M	1.2	1			7.75	7.75	26.04	26.03	16.86	16.92	102.4	102.3	8.40	8.40		7.0	7.0		16	16		<1.5	1.5		0.005	0.005		0.4	0.4		0.6	0.6		0.33	0.34		0.6	0.6		0.13	0.13		27	27	
DB1	17/12/2020	Mid-Ebb	Fine	Calm	15:40	2.4	M	1.2	2			7.75		26.02		16.97		102.2		8.40			7.0			16			<1.5			0.005			0.4			0.6			0.34			0.6			0.13			28		
DB1	17/12/2020	Mid-Ebb	Fine	Calm	15:40	2.4	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	17/12/2020	Mid-Ebb	Fine	Calm	15:40	2.4	B		2																																											
SP1	17/12/2020	Mid-Ebb	Fine	Calm	13:59	2.6	S		1	0.044	184.7		NA		NA		NA		NA		NA	5.58		NA	22.6		NA	41		NA	1.5		NA	0.008		NA	2.9		NA	3.6		NA	1.95		NA	2.6		NA	0.33		NA	6148
SP1	17/12/2020	Mid-Ebb	Fine	Calm	13:59	2.6	S		2																																											
SP1	17/12/2020	Mid-Ebb	Fine	Calm	13:59	2.6	M	1.3	1			7.18	7.18	10.41	10.41	16.75	16.76	66.3	66.2	5.58	5.58		22.5	22.6		42	41		<1.5	1.5		0.009	0.008		3.0	2.9		3.7	3.6		2.10	1.95		2.8	2.6		0.31	0.33		6300	6148	
SP1	17/12/2020	Mid-Ebb	Fine	Calm	13:59	2.6	M	1.3	2			7.17		10.41		16.76		66.0		5.58			22.7			40			<1.5			0.008			2.7			3.4			1.80			2.4			0.35			6000		
SP1	17/12/2020	Mid-Ebb	Fine	Calm	13:59	2.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	17/12/2020	Mid-Ebb	Fine	Calm	13:59	2.6	B		2																																											
KT1	17/12/2020	Mid-Ebb	Fine	Calm	14:23	2.9	S		1	0.254	298.0		NA		NA		NA		NA		NA	6.79		NA	18.4		NA	30		NA	1.5		NA	0.006		NA	2.7		NA	3.7		NA	1.35		NA	2.4		NA	0.25		NA	5450
KT1	17/12/2020	Mid-Ebb	Fine	Calm	14:23	2.9	S		2																																											
KT1	17/12/2020	Mid-Ebb	Fine	Calm	14:23	2.9	M	1.45	1			7.23	7.23	10.01	10.01	15.87	15.88	77.7	73.2	7.04	6.79		18.5	18.4		31	30		<1.5	1.5		0.006	0.006		2.5	2.7		3.6	3.7		1.30	1.35		2.4	2.4		0.25	0.25		5400	5450	
KT1	17/12/2020	Mid-Ebb	Fine	Calm	14:23	2.9	M	1.45	2			7.22		10.01		15.88		68.7		6.53			18.2			29			<1.5			0.006			2.8			3.8			1.40			2.3			0.25			5500		
KT1	17/12/2020	Mid-Ebb	Fine	Calm	14:23	2.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	17/12/2020	Mid-Ebb	Fine	Calm	14:23	2.9	B		2																																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)		Current Direction (°)		pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.		Depth Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	19/12/2020	Mid-Flood	Fine	Moderate	12:13	1.9	S		1						NA		NA			NA			NA			NA			NA																				
M1	19/12/2020	Mid-Flood	Fine	Moderate	12:13	1.9	S		2																																								
M1	19/12/2020	Mid-Flood	Fine	Moderate	12:13	1.9	M	0.95	1	0.109		327.1		7.07	7.08		9.72	9.73		16.57	16.56		42.3	42.3		3.69	3.69	3.69	36.1	36.1	36.1	49	50	50		NA	NA		NA	NA		NA	NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	NA
M1	19/12/2020	Mid-Flood	Fine	Moderate	12:13	1.9	M	0.95	2					7.08			9.73			16.54			42.2			3.68			36.1			50																		
M1	19/12/2020	Mid-Flood	Fine	Moderate	12:13	1.9	B		1						NA		NA			NA			NA			NA			NA																				
M1	19/12/2020	Mid-Flood	Fine	Moderate	12:13	1.9	B		2																																							
M2	19/12/2020	Mid-Flood	Fine	Moderate	12:18	2.4	S		1						NA		NA			NA			NA			NA			NA																				
M2	19/12/2020	Mid-Flood	Fine	Moderate	12:18	2.4	S		2																																							
M2	19/12/2020	Mid-Flood	Fine	Moderate	12:18	2.4	M	1.2	1	0.074		58.1		7.12	7.12		9.47	9.46		16.35	16.48		45.5	45.2		4.13	4.10	4.10	30.0	29.9	29.9	52	52	52		NA	NA		NA	NA		NA	NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	NA
M2	19/12/2020	Mid-Flood	Fine	Moderate	12:18	2.4	M	1.2	2					7.11			9.45			16.61			44.8			4.07			29.7			51																		
M2	19/12/2020	Mid-Flood	Fine	Moderate	12:18	2.4	B		1						NA		NA			NA			NA			NA			NA																				
M2	19/12/2020	Mid-Flood	Fine	Moderate	12:18	2.4	B		2																																							
M3	19/12/2020	Mid-Flood	Fine	Moderate	11:48	0.2	S		1						NA		NA			NA			NA			NA			NA																				
M3	19/12/2020	Mid-Flood	Fine	Moderate	11:48	0.2	S		2																																							
M3	19/12/2020	Mid-Flood	Fine	Moderate	11:48	0.2	M	0.1	1	0.000		27.6		7.65	7.42		1.19	1.19		20.67	20.86		72.1	71.1		6.42	6.31	6.31	28.0	29.0	29.0	29	30	30		NA	NA		NA	NA		NA	NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	NA
M3	19/12/2020	Mid-Flood	Fine	Moderate	11:48	0.2	M	0.1	2					7.18			1.18			21.05			70.0			6.20			30.0			31																		
M3	19/12/2020	Mid-Flood	Fine	Moderate	11:48	0.2	B		1						NA		NA			NA			NA			NA			NA																				
M3	19/12/2020	Mid-Flood	Fine	Moderate	11:48	0.2	B		2																																							
E1	19/12/2020	Mid-Flood	Fine	Moderate	11:51	4.6	S	1	1					7.15	7.14		10.31	10.31		16.98	16.99		49.0	49.0		4.44	4.43	4.43	19.4	19.4		31	31		2.0	2.3		0.016	0.013		3.9	3.8		4.5	4.3		3.80	3.30		4.4	3.8		0.48	0.48		6500	7029	
E1	19/12/2020	Mid-Flood	Fine	Moderate	11:51	4.6	S	1	2					7.13			10.30			16.99			48.9			4.42			19.4			30			2.5			0.011			3.6			4.0			2.80			3.2			0.47			7600		
E1	19/12/2020	Mid-Flood	Fine	Moderate	11:51	4.6	M		1						NA		NA			NA			NA			NA			NA																				
E1	19/12/2020	Mid-Flood	Fine	Moderate	11:51	4.6	M		2																																							
E1	19/12/2020	Mid-Flood	Fine	Moderate	11:51	4.6	B	3.6	1	0.102		57.2		7.10	7.10		10.61	10.62		16.83	16.83		40.7	40.6		3.67	3.66	4.43	22.2	22.3	20.8	30	30	30		2.5	2.3		0.010	0.010		4.3	4.3		4.7	4.8		2.60	2.70		3.0	3.2		0.45	0.46		5900	6380	
E1	19/12/2020	Mid-Flood	Fine	Moderate	11:51	4.6	B	3.6	2					7.10			10.62			16.83			40.5			3.64			22.3			30			2.0			0.010			4.3			4.8			2.80			3.3			0.46			6900		
E2a	19/12/2020	Mid-Flood	Fine	Moderate	11:34	2.3	S		1						NA		NA			NA			NA			NA			NA																				
E2a	19/12/2020	Mid-Flood	Fine	Moderate	11:34	2.3	S		2																																							
E2a	19/12/2020	Mid-Flood	Fine	Moderate	11:34	2.3	M	1.15	1	0.194		144.2		7.28	7.29		8.86	8.85		16.36	16.36		77.4	77.5		7.12	7.13	7.13	23.4	23.5	23.5	38	38	38		<1.5	1.5	1.5	0.008	0.007	0.007	1.9	2.1	2.1	2.5	2.6	2.6	1.40	1.35	1.35	2.0	1.9	1.9	0.29	0.28	0.28	5100	5932	5932
E2a	19/12/2020	Mid-Flood	Fine	Moderate	11:34	2.3	M	1.15	2					7.29			8.84			16.35			77.5			7.13			23.5			38			<1.5			0.007			2.3			2.7			1.30			1.8			0.27			6900		
E2a	19/12/2020	Mid-Flood	Fine	Moderate	11:34	2.3	B		1						NA		NA			NA			NA			NA			NA																				
E2a	19/12/2020	Mid-Flood	Fine	Moderate	11:34	2.3	B		2																																							
E3a	19/12/2020	Mid-Flood	Fine	Moderate	11:10	1.1	S		1						NA		NA			NA			NA			NA			NA																				
E3a	19/12/2020	Mid-Flood	Fine	Moderate	11:10	1.1	S		2																																							
E3a	19/12/2020	Mid-Flood	Fine	Moderate	11:10	1.1	M	0.55	1	0.419		121.5		7.54	7.53		19.54	19.55		16.20	16.21		95.3	95.2		8.34	8.33	8.33	19.9	19.9	19.9	38	39	39		<1.5	1.5	1.5	0.003	0.003	0.003	0.6	0.6	0.6	0.8	0.9	0.9	0.31	0.32	0.32	0.6	0.6	0.6	0.18	0.18	0.18	200	173	173
E3a	19/12/2020	Mid-Flood	Fine	Moderate	11:10	1.1	M	0.55	2					7.52			19.55			16.22			95.1			8.32			19.8			39			<1.5			0.003			0.7			0.9			0.32			0.6			0.18			150		
E3a	19/12/2020	Mid-Flood	Fine	Moderate	11:10	1.1	B		1						NA		NA			NA			NA			NA			NA																				
E3a	19/12/2020	Mid-Flood	Fine	Moderate	11:10	1.1	B		2																																							
E4	19/12/2020	Mid-Flood	Fine	Moderate	11:43	2.8	S		1						NA		NA			NA			NA			NA			NA																				
E4	19/12/2020	Mid-Flood	Fine	Moderate	11:43	2.8	S		2																																							
E4	19/12/2020	Mid-Flood	Fine	Moderate	11:43	2.8	M	1.4	1	0.087		17.1		7.26	7.27		8.43	8.44		16.97	16.97		72.4	72.0		6.58	6.54	6.54	29.5	29.5	29.5	41	41	41		<1.5	1.5	1.5	0.008	0.008	0.008	2.9	2.6	2.6	3.6	3.3	3.3	1.50	1.50	1.50	2.2	2.2	2.2	0.26	0.30	0.30	6000	5639	5639
E4	19/12/2020	Mid-Flood	Fine	Moderate	11:43	2.8	M	1.4	2					7.28			8.44			16.97			71.6			6.49			29.4			41			<1.5			0.008			2.3			3.0			1.50			2.1			0.33			5300		
E4	19/12/2020	Mid-Flood	Fine	Moderate	11:43	2.8	B		1						NA		NA			NA			NA			NA			NA																				
E4	19/12/2020	Mid-Flood	Fine	Moderate	11:43	2.8	B		2																																							
E5a	19/12/2020	Mid-Flood	Fine	Moderate	12:09	2.6	S		1						NA		NA			NA			NA			NA			NA																				
E5a	19/12/2020	Mid-Flood	Fine	Moderate	12:09	2.6	S		2																																							
E5a	19/12/2020	Mid-Flood	Fine	Moderate	12:09	2.6	M	1.3	1	0.154		223.4		7.10	7.11		9.58	9.58		16.94	16.96		41.1	41.0		3.68	3.67	3.67	31.9	32.0	32.0	46	46	46		2.5	2.8	2.8	0.012	0.013	0.013	4.4	4.5	4.5	5.1	5.2	5.2	3.10	3.40	3.40	3.8	4.1	4.1	0.50	0.53	0.53	15000	13416	13416
E5a	19/12/2020	Mid-Flood	Fine	Moderate	12:09	2.6	M	1.3	2					7.11			9.57			16.97			40.9			3.65			32.0			45			3.0			0.014			4.6			5.2			3.70			4.3			0.55			12000		
E5a	19/12/2020	Mid-Flood	Fine	Moderate	12:09	2.6	B		1						NA		NA			NA			NA			NA			NA																				
E5a	19/12/2020	Mid-Flood	Fine	Moderate	12:09	2.6	B		2																																							
DB1	19/12/2020	Mid-Flood	Fine	Moderate	11:01	1.8	S		1						NA		NA			NA			NA			NA			NA																				
DB1	19/12/2020	Mid-Flood	Fine	Moderate	11:01	1.8	S		2																																							
DB1	19/12/2020	Mid-Flood	Fine	Moderate	11:01	1.8	M	0.9	1	0.371		76.4		7.56	7.57		22.39	22.40		16.34	16.35		96.6	96.6		8.26	8.26	8.26	30.1	30.2	30.2	30	30	30		<1.5	1.5	1.5	0.003	0.003	0.003	0.4	0.3	0.3	0.5	0.5	0.5	0.31	0.31	0.31	0.5	0.5	0.5	0.17	0.17	0.17	84	75	75
DB1	19/12/2020	Mid-Flood	Fine	Moderate	11:01	1.8	M	0.9	2					7.58			22.41			16.35			96.5			8.25			30.2			29			<1.5			0.003			0.3			0.5			0.30			0.5			0.17			67		
DB1	19/12/2020	Mid-Flood	Fine	Moderate	11:01	1.8	B		1						NA		NA			NA			NA			NA			NA																				
DB1	19/12/2020	Mid-Flood	Fine	Moderate	11:01	1.8	B		2																																							
SP1	19/12/2020	Mid-Flood	Fine	Moderate	12:22	2.1	S		1						NA		NA			NA			NA			NA			NA																				
SP1	19/12/2020	Mid-Flood	Fine	Moderate	12:22	2.1	S		2																																							
SP1	19/12/2020	Mid-Flood	Fine	Moderate	12:22	2.1	M	1.05	1	0.099		306.3		7.11	7.12		9.16	9.16		16.67	16.68		37.4	37.5		3.43	3.43	3.43	50.7	50.8	50.8	64	65	65		4.0	4.3	4.3	0.017	0.017	0.017	5.6	5.6	5.6	6.3	6.2	6.2	4.50	4.50	4.50	5.2	5.2	5.2	0.56	0.60	0.60	17000	17000	17000
SP1	19/12/2020	Mid-Flood	Fine	Moderate	12:22	2.1	M	1.05	2					7.12			9.15			16.68			37.5			3.42			50.8			65			4.5			0.017			5.5			6.1			4.50			5.1			0.64			17000		
SP1	19/12/2020	Mid-Flood	Fine	Moderate	12:22	2.1	B		1						NA		NA			NA			NA			NA			NA																				
SP1	19/12/2020	Mid-Flood	Fine	Moderate	12:22	2.1	B		2																																							
KT1	19/12/2020	Mid-Flood	Fine	Moderate	12:02	1.9	S		1						NA		NA			NA			NA			NA			NA																				
KT1	19/12/2020	Mid-Flood	Fine	Moderate	12:02	1.9	S		2																																							
KT1	19/12/2020	Mid-Flood	Fine	Moderate	12:02	1.9	M	0.95	1	0.037		77.1		7.11	7.11		9.37	9.38		16.60	16.61		44.5	44.3		3.94	3.93	3.93	21.0	21.0	21.0	35	35	35		3.5	3.8	3.8	0.014	0.014	0.014	6.2	6.0	6.0	6.6	6.6	6.6	3.80	3.90	3.90	4.3	4.5	4.5	0.59	0.61	0.61	13000	13000	13000
KT1	19/12/2020	Mid-Flood	Fine	Moderate	12:02	1.9	M	0.95	2					7.10			9.38			16.62			44.1			3.92			21.0			35			4.0			0.015			5.8			6.5			4.00			4.6			0.62			13000		
KT1	19/12/2020	Mid-Flood	Fine	Moderate	12:02	1.9	B		1						NA		NA			NA			NA			NA			NA																				
KT1	19/12/2020	Mid-Flood	Fine	Moderate	12:02	1.9	B		2																																							

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																															
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		S & M Ave.	Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	19/12/2020	Mid-Ebb	Fine	Moderate	15:58	2.8	S		1				NA		NA		NA		NA		NA	6.42		NA			NA																										
M1	19/12/2020	Mid-Ebb	Fine	Moderate	15:58	2.8	S		2																																													
M1	19/12/2020	Mid-Ebb	Fine	Moderate	15:58	2.8	M	1.4	1	0.107	321.4	7.27	7.27	9.26	9.28	17.23	17.23	72.5	71.8	6.43	6.42		22.1	22.2	22.2	33	33	33		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M1	19/12/2020	Mid-Ebb	Fine	Moderate	15:58	2.8	M	1.4	2			7.26		9.29		17.23		71.0		6.40			22.3			33																										
M1	19/12/2020	Mid-Ebb	Fine	Moderate	15:58	2.8	B		1				NA		NA		NA		NA		NA			NA			NA																										
M1	19/12/2020	Mid-Ebb	Fine	Moderate	15:58	2.8	B		2																																													
M2	19/12/2020	Mid-Ebb	Fine	Moderate	15:43	2.5	S		1				NA		NA		NA		NA		NA	6.33		NA			NA																										
M2	19/12/2020	Mid-Ebb	Fine	Moderate	15:43	2.5	S		2																																												
M2	19/12/2020	Mid-Ebb	Fine	Moderate	15:43	2.5	M	1.25	1	0.084	141.5	7.21	7.22	9.62	9.63	17.15	17.07	69.7	69.7	6.34	6.33		26.0	26.1	26.1	45	45	45		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M2	19/12/2020	Mid-Ebb	Fine	Moderate	15:43	2.5	M	1.25	2			7.23		9.63		16.99		69.6		6.32			26.1			45																										
M2	19/12/2020	Mid-Ebb	Fine	Moderate	15:43	2.5	B		1				NA		NA		NA		NA		NA			NA			NA																										
M2	19/12/2020	Mid-Ebb	Fine	Moderate	15:43	2.5	B		2																																												
M3	19/12/2020	Mid-Ebb	Fine	Moderate	17:04	0.7	S		1				NA		NA		NA		NA		NA	5.61		NA			NA																										
M3	19/12/2020	Mid-Ebb	Fine	Moderate	17:04	0.7	S		2																																												
M3	19/12/2020	Mid-Ebb	Fine	Moderate	17:04	0.7	M	0.35	1	0.034	324.5	7.82	7.82	9.66	9.68	20.28	20.27	67.4	65.7	5.76	5.61		43.3	42.4	42.4	52	51	51		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M3	19/12/2020	Mid-Ebb	Fine	Moderate	17:04	0.7	M	0.35	2			7.82		9.69		20.26		63.9		5.46			41.5			49																										
M3	19/12/2020	Mid-Ebb	Fine	Moderate	17:04	0.7	B		1				NA		NA		NA		NA		NA			NA			NA																										
M3	19/12/2020	Mid-Ebb	Fine	Moderate	17:04	0.7	B		2																																												
E1	19/12/2020	Mid-Ebb	Fine	Moderate	16:13	5.3	S	1	1			7.44	7.43	9.66	9.66	16.48	16.63	89.7	89.7	8.08	8.07		26.6	26.8		36	36		<1.5	1.5		0.011	0.010		1.5	1.4		2.1	1.9		1.40	1.25		2.0	1.9		0.25	0.26		4300	4543	
E1	19/12/2020	Mid-Ebb	Fine	Moderate	16:13	5.3	S	1	2			7.41		9.65		16.78		89.6		8.06			26.9			36			1.5			0.008			1.2			1.7			1.10			1.7			0.26			4800		
E1	19/12/2020	Mid-Ebb	Fine	Moderate	16:13	5.3	M		1				NA		NA		NA		NA		NA	8.07		NA	26.9		NA	34		NA	1.6		NA	0.009		NA	1.5		NA	2.1		NA	1.15		NA	1.8		NA	0.25		NA	4368	
E1	19/12/2020	Mid-Ebb	Fine	Moderate	16:13	5.3	M		2																																												
E1	19/12/2020	Mid-Ebb	Fine	Moderate	16:13	5.3	B	4.3	1	0.127	342.5	7.42	7.42	9.84	9.85	17.68	17.68	87.4	87.3	7.86	7.85		27.1	27.1		33	32		<1.5	1.8		0.009	0.008		1.9	1.7		2.5	2.3		1.10	1.05		1.7	1.7		0.25	0.24		4300	4199	
E1	19/12/2020	Mid-Ebb	Fine	Moderate	16:13	5.3	B	4.3	2			7.41		9.86		17.67		87.2		7.84			27.0			31			2.0			0.008			1.4			2.0			1.00			1.7			0.23			4100		
E2a	19/12/2020	Mid-Ebb	Fine	Moderate	16:31	2.4	S		1				NA		NA		NA		NA		NA	8.79		NA			NA																										
E2a	19/12/2020	Mid-Ebb	Fine	Moderate	16:31	2.4	S		2																																												
E2a	19/12/2020	Mid-Ebb	Fine	Moderate	16:31	2.4	M	1.2	1	0.154	47.1	7.58	7.59	14.57	14.58	17.40	17.40	100.1	100.3	8.78	8.79		23.2	23.3	23.3	38	38	38	<1.5	1.5	1.5	0.011	0.011	0.011	1.3	1.3	1.3	1.7	1.7	1.7	1.00	1.00	1.00	1.4	1.4	1.4	0.25	0.26	0.26	1800	1697	1697
E2a	19/12/2020	Mid-Ebb	Fine	Moderate	16:31	2.4	M	1.2	2			7.59		14.58		17.40		100.4		8.79			23.3			37			<1.5			0.011			1.3			1.7			0.99			1.4			0.26			1600		
E2a	19/12/2020	Mid-Ebb	Fine	Moderate	16:31	2.4	B		1				NA		NA		NA		NA		NA			NA			NA																										
E2a	19/12/2020	Mid-Ebb	Fine	Moderate	16:31	2.4	B		2																																											
E3a	19/12/2020	Mid-Ebb	Fine	Moderate	16:54	1.9	S		1				NA		NA		NA		NA		NA	8.58		NA			NA																										
E3a	19/12/2020	Mid-Ebb	Fine	Moderate	16:54	1.9	S		2																																											
E3a	19/12/2020	Mid-Ebb	Fine	Moderate	16:54	1.9	M	0.95	1	0.236	129.2	7.65	7.66	23.35	23.40	16.56	16.56	101.3	101.4	8.57	8.58		8.4	8.4	8.4	23	23	23	<1.5	1.5	1.5	0.002	0.002	0.002	0.3	0.3	0.3	0.4	0.4	0.4	0.20	0.19	0.19	0.3	0.3	0.3	0.14	0.14	0.14	37	37	37
E3a	19/12/2020	Mid-Ebb	Fine	Moderate	16:54	1.9	M	0.95	2			7.67		23.45		16.56		101.4		8.58			8.4			23			<1.5			0.002			0.3			0.4			0.18			0.3			0.14			38		
E3a	19/12/2020	Mid-Ebb	Fine	Moderate	16:54	1.9	B		1				NA		NA		NA		NA		NA			NA			NA																										
E3a	19/12/2020	Mid-Ebb	Fine	Moderate	16:54	1.9	B		2																																											
E4	19/12/2020	Mid-Ebb	Fine	Moderate	16:21	2.9	S		1				NA		NA		NA		NA		NA	8.63		NA			NA																										
E4	19/12/2020	Mid-Ebb	Fine	Moderate	16:21	2.9	S		2																																											
E4	19/12/2020	Mid-Ebb	Fine	Moderate	16:21	2.9	M	1.45	1	0.121	304.1	7.64	7.64	11.39	11.38	17.48	17.48	96.7	96.8	8.61	8.63		21.5	21.5	21.5	36	36	36	2.0	1.8	1.8	0.012	0.012	0.012	1.9	1.8	1.8	2.4	2.3	2.3	0.94	0.95	0.95	1.4	1.4	1.4	0.24	0.24	0.24	7500	5477	5477
E4	19/12/2020	Mid-Ebb	Fine	Moderate	16:21	2.9	M	1.45	2			7.63		11.36		17.48		96.8		8.64			21.4						<1.5			0.012			1.7			2.2			0.96			1.4			0.24			4000		
E4	19/12/2020	Mid-Ebb	Fine	Moderate	16:21	2.9	B		1				NA		NA		NA		NA		NA			NA			NA																										
E4	19/12/2020	Mid-Ebb	Fine	Moderate	16:21	2.9	B		2																																											
E5a	19/12/2020	Mid-Ebb	Fine	Moderate	16:02	2.9	S		1				NA		NA		NA		NA		NA	6.83		NA			NA																										
E5a	19/12/2020	Mid-Ebb	Fine	Moderate	16:02	2.9	S		2																																											
E5a	19/12/2020	Mid-Ebb	Fine	Moderate	16:02	2.9	M	1.45	1	0.246	123.4	7.23	7.25	9.25	9.26	16.41	16.41	79.2	79.2	6.83	6.83		23.2	23.2	23.2	33	34	34	1.5	1.5	1.5	0.009	0.010	0.010	2.8	3.0	3.0	3.3	3.5	3.5	1.80	1.95	1.95	2.3	2.5	2.5	0.30	0.31	0.31	5500	4919	4919
E5a	19/12/2020	Mid-Ebb	Fine	Moderate	16:02	2.9	M	1.45	2			7.26		9.26		16.41		79.1		6.82			23.2			34			<1.5			0.011			3.2			3.7			2.10			2.6			0.32			4400		
E5a	19/12/2020	Mid-Ebb	Fine	Moderate	16:02	2.9	B		1				NA		NA		NA		NA		NA			NA			NA																										
E5a	19/12/2020	Mid-Ebb	Fine	Moderate	16:02	2.9	B		2																																											
DB1	19/12/2020	Mid-Ebb	Fine	Moderate	17:05	2.3	S		1				NA		NA		NA		NA		NA	8.45		NA			NA																										
DB1	19/12/2020	Mid-Ebb	Fine	Moderate	17:05	2.3	S		2																																											
DB1	19/12/2020	Mid-Ebb	Fine	Moderate	17:05	2.3	M	1.15	1	0.317	59.1	7.72	7.72	25.76	25.77	16.85	16.86	101.8	101.8	8.45	8.45		7.0	7.0	7.0	17	17	17	<1.5	1.5	1.5	0.003	0.003	0.003	0.6	0.5	0.5	0.7	0.6	0.6	0.21	0.21	0.21	0.3	0.3	0.3	0.13	0.13	0.13	23	21	21
DB1	19/12/2020	Mid-Ebb	Fine	Moderate	17:05	2.3	M	1.15	2			7.71		25.78		16.86		101.7		8.44			7.0			16			<1.5			0.003			0.5			0.6			0.21			0.3			0.12			19		
DB1	19/12/2020	Mid-Ebb	Fine	Moderate	17:05	2.3	B		1				NA		NA		NA		NA		NA			NA			NA																										
DB1	19/12/2020	Mid-Ebb	Fine	Moderate	17:05	2.3	B		2																																											
SP1	19/12/2020	Mid-Ebb	Fine	Moderate	15:38	2.1	S		1				NA		NA		NA		NA		NA	5.66		NA			NA																										
SP1	19/12/2020	Mid-Ebb	Fine	Moderate	15:38	2.1	S		2																																											
SP1	19/12/2020	Mid-Ebb	Fine	Moderate	15:38	2.1	M	1.05	1	0.192	89.7	7.20	7.20	9.93	9.94	17.39	17.39	62.8	62.7	5.67	5.66		22.8	22.8	22.8	42	42	42	2.0	2.0	2.0	0.014	0.014	0.014	3.8	4.4	4.4	4.2	4.8	4.8	2.90	3.00	3.00	3.3	3.5	3.5	0.41	0.42	0.42	6900	6047	6047
SP1	19/12/2020	Mid-Ebb	Fine	Moderate	15:38	2.1	M	1.05	2			7.20		9.94		17.39		62.6		5.64			22.7			42			2.0			0.015			4.9			5.4			3.10			3.6			0.42			5300		
SP1	19/12/2020	Mid-Ebb	Fine	Moderate	15:38	2.1	B		1				NA		NA		NA		NA		NA			NA			NA																										
SP1	19/12/2020	Mid-Ebb	Fine	Moderate	15:38	2.1	B		2																																											
KT1	19/12/2020	Mid-Ebb	Fine	Moderate	16:06	2.7	S		1				NA		NA		NA		NA		NA	6.15		NA			NA																										
KT1	19/12/2020	Mid-Ebb	Fine	Moderate	16:06	2.7	S		2																																											
KT1	19/12/2020	Mid-Ebb	Fine	Moderate	16:06	2.7	M	1.35	1	0.093	317.2	7.24	7.25	9.35	9.35	17.37	17.38	67.9	68.0	6.14	6.15		19.7	19.7	19.7	31	31	31	1.5	1.5	1.5	0.008	0.009	0.009	2.7	2.8	2.8	3.2	3.3	3.3	1.60	1.70	1.70	2.1	2.2	2.2	0.33	0.33	0.33	6500	6033	6033
KT1	19/12/2020	Mid-Ebb	Fine	Moderate	16:06	2.7	M	1.35	2			7.25		9.34		17.38		68.0		6.16			19.7			31			1.5			0.010			2.8			3.3			1.80			2.3			0.32			5600		
KT1	19/12/2020	Mid-Ebb	Fine	Moderate	16:06	2.7	B		1				NA		NA		NA		NA		NA			NA			NA																										
KT1	19/12/2020	Mid-Ebb	Fine	Moderate	16:06	2.7	B		2																																											

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																				Laboratory Analysis																					
										Current Speed (m/s)		Current Direction (°)		pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.		Depth Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		S & M Ave.		Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	22/12/2020	Mid-Flood	Fine	Calm	13:43	2.3	S		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	22/12/2020	Mid-Flood	Fine	Calm	13:43	2.3	S		2																																											
M1	22/12/2020	Mid-Flood	Fine	Calm	13:43	2.3	M	1.15	1	0.103		289.7		7.19	7.19		8.66	8.66		18.25	18.25		63.0	63.0		5.67	5.67	5.67	17.8	17.8	17.8	26	26	26		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M1	22/12/2020	Mid-Flood	Fine	Calm	13:43	2.3	M	1.15	2					7.19			8.66			18.25			63.0			5.67			17.8			26																				
M1	22/12/2020	Mid-Flood	Fine	Calm	13:43	2.3	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	22/12/2020	Mid-Flood	Fine	Calm	13:43	2.3	B		2																																											
M2	22/12/2020	Mid-Flood	Fine	Calm	13:37	2.0	S		1						NA			NA			NA			NA			NA			4.02			NA																				
M2	22/12/2020	Mid-Flood	Fine	Calm	13:37	2.0	S		2																																											
M2	22/12/2020	Mid-Flood	Fine	Calm	13:37	2.0	M	1	1	0.056		176.4		7.20	7.20		8.26	8.27		18.04	18.04		45.1	45.0		4.02	4.02		29.8	29.8	29.8	30	30	30		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M2	22/12/2020	Mid-Flood	Fine	Calm	13:37	2.0	M	1	2					7.20			8.27			18.04			44.9			4.02			29.8			29																				
M2	22/12/2020	Mid-Flood	Fine	Calm	13:37	2.0	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	22/12/2020	Mid-Flood	Fine	Calm	13:37	2.0	B		2																																										
M3	22/12/2020	Mid-Flood	Fine	Calm	14:40	0.2	S		1						NA			NA			NA			NA			NA			5.35			NA																				
M3	22/12/2020	Mid-Flood	Fine	Calm	14:40	0.2	S		2																																											
M3	22/12/2020	Mid-Flood	Fine	Calm	14:40	0.2	M	0.1	1	0.132		276.4		7.81	7.81		8.14	8.14		21.86	21.86		64.1	64.0		5.36	5.35	5.35	47.1	46.8	46.8	70	70	70		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M3	22/12/2020	Mid-Flood	Fine	Calm	14:40	0.2	M	0.1	2					7.81			8.14			21.86			63.8			5.34			46.5			69																				
M3	22/12/2020	Mid-Flood	Fine	Calm	14:40	0.2	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
M3	22/12/2020	Mid-Flood	Fine	Calm	14:40	0.2	B		2																																										
E1	22/12/2020	Mid-Flood	Fine	Calm	14:05	5.2	S	1	1					7.29	7.29		9.35	9.36		18.58	18.59		64.4	64.4		5.70	5.70	5.70	18.3	18.3		27	27		5.0	4.5		0.027	0.024		4.3	4.2		4.7	4.6		4.20	3.65		4.6	4.1		0.60	0.63		10000	9644	
E1	22/12/2020	Mid-Flood	Fine	Calm	14:05	5.2	S	1	2					7.29			9.36			18.59			64.4			5.70			18.3			26			4.0			0.020			4.1			4.5			3.10			3.5			0.65			9300		
E1	22/12/2020	Mid-Flood	Fine	Calm	14:05	5.2	M		1						NA			NA			NA			NA			NA			NA			NA																				
E1	22/12/2020	Mid-Flood	Fine	Calm	14:05	5.2	M		2																																											
E1	22/12/2020	Mid-Flood	Fine	Calm	14:05	5.2	B	4.2	1	0.218		78.9		7.25	7.25		12.64	12.64		18.20	18.20		61.4	61.3		5.38	5.38	5.70	18.2	18.2	18.3	34	34	30	3.5	3.8	4.1	0.018	0.017	0.020	3.5	3.8	4.0	3.8	4.1	4.4	3.20	2.95	3.30	3.6	3.4	3.7	0.56	0.56	0.59	9300	8407	9004
E1	22/12/2020	Mid-Flood	Fine	Calm	14:05	5.2	B	4.2	2					7.25			12.64			18.20			61.2			5.38			18.2			33			4.0			0.015			4.0			4.4			2.70			3.1			0.56			7600		
E2a	22/12/2020	Mid-Flood	Fine	Calm	14:40	2.2	S		1						NA			NA			NA			NA			NA			8.76			NA																				
E2a	22/12/2020	Mid-Flood	Fine	Calm	14:40	2.2	S		2																																											
E2a	22/12/2020	Mid-Flood	Fine	Calm	14:40	2.2	M	1.1	1	0.311		321.8		7.64	7.64		15.18	15.20		18.41	18.40		102.1	102.1		8.76	8.76	8.76	18.4	18.4	18.4	25	25	25	3.0	3.0	3.0	0.018	0.018	0.018	1.5	1.5	1.5	1.7	1.7	1.7	1.30	1.30	1.30	1.6	1.6	1.6	0.26	0.26	0.26	2100	1587	1587
E2a	22/12/2020	Mid-Flood	Fine	Calm	14:40	2.2	M	1.1	2					7.64			15.21			18.39			102.0			8.76			18.4			24			3.0			0.018			1.4			1.7			1.30			1.5			0.26			1200		
E2a	22/12/2020	Mid-Flood	Fine	Calm	14:40	2.2	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E2a	22/12/2020	Mid-Flood	Fine	Calm	14:40	2.2	B		2																																										
E3a	22/12/2020	Mid-Flood	Fine	Calm	15:03	1.8	S		1						NA			NA			NA			NA			NA			8.16			NA																				
E3a	22/12/2020	Mid-Flood	Fine	Calm	15:03	1.8	S		2																																											
E3a	22/12/2020	Mid-Flood	Fine	Calm	15:03	1.8	M	0.9	1	0.187		100.9		7.81	7.81		26.50	26.50		17.81	17.81		100.5	100.6		8.15	8.16	8.16	4.6	4.6	4.6	12	12	12	<1.5	1.5	1.5	0.003	0.003	0.003	0.2	0.2	0.2	0.3	0.3	0.3	0.15	0.16	0.16	0.2	0.2	0.2	0.12	0.12	0.12	42	39	39
E3a	22/12/2020	Mid-Flood	Fine	Calm	15:03	1.8	M	0.9	2					7.81			26.50			17.80			100.7			8.16			4.5			12			<1.5			0.003			0.2			0.3			0.16			0.3			0.11			37		
E3a	22/12/2020	Mid-Flood	Fine	Calm	15:03	1.8	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E3a	22/12/2020	Mid-Flood	Fine	Calm	15:03	1.8	B		2																																										
E4	22/12/2020	Mid-Flood	Fine	Calm	14:20	2.1	S		1						NA			NA			NA			NA			NA			7.66			NA																				
E4	22/12/2020	Mid-Flood	Fine	Calm	14:20	2.1	S		2																																											
E4	22/12/2020	Mid-Flood	Fine	Calm	14:20	2.1	M	1.05	1	0.187		76.9		7.47	7.47		13.89	13.94		18.00	17.95		87.7	87.6		7.67	7.66	7.66	15.9	15.9	15.9	37	37	37	3.0	3.3	3.3	0.015	0.015	0.015	1.7	1.9	1.9	2.0	2.2	2.2	1.60	1.60	1.60	1.9	1.9	1.9	0.33	0.32	0.32	9700	8586	8586
E4	22/12/2020	Mid-Flood	Fine	Calm	14:20	2.1	M	1.05	2					7.47			13.99			17.89			87.5			7.64			15.9			37			3.5			0.015			2.0			2.3			1.60			1.9			0.30			7600		
E4	22/12/2020	Mid-Flood	Fine	Calm	14:20	2.1	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E4	22/12/2020	Mid-Flood	Fine	Calm	14:20	2.1	B		2																																										
E5a	22/12/2020	Mid-Flood	Fine	Calm	13:47	1.9	S		1						NA			NA			NA			NA			NA			4.38			NA																				
E5a	22/12/2020	Mid-Flood	Fine	Calm	13:47	1.9	S		2																																											
E5a	22/12/2020	Mid-Flood	Fine	Calm	13:47	1.9	M	0.95	1	0.228		247.8		7.19	7.19		9.28	9.48		17.53	17.55		47.0	47.3		4.35	4.38	4.38	20.2	20.4	20.4	23	23	23	3.0	3.5	3.5	0.019	0.020	0.020	4.9	4.7	4.7	5.3	5.1	5.1	4.00	4.10	4.10	4.3	4.5	4.5	0.83	0.84	0.84	7900	6651	6651
E5a	22/12/2020	Mid-Flood	Fine	Calm	13:47	1.9	M	0.95	2					7.19			9.67			17.57			47.5			4.40			20.6			23			4.0			0.020			4.5			4.9			4.20			4.6			0.85			5600		
E5a	22/12/2020	Mid-Flood	Fine	Calm	13:47	1.9	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
E5a	22/12/2020	Mid-Flood	Fine	Calm	13:47	1.9	B		2																																										
DB1	22/12/2020	Mid-Flood	Fine	Calm	15:15	2.4	S		1						NA			NA			NA			NA			NA			8.46			NA																				
DB1	22/12/2020	Mid-Flood	Fine	Calm	15:15	2.4	S		2																																										
DB1	22/12/2020	Mid-Flood	Fine	Calm	15:15	2.4	M	1.2	1	0.289		36.7		7.81	7.81		26.11	26.11		17.83	17.85		104.5	104.6		8.46	8.46	8.46	3.2	3.2	3.2	13	13	13	<1.5	1.5	1.5	0.002	0.002	0.002	0.3	0.3	0.3	0.3	0.4	0.4	0.13	0.13	0.13	0.2	0.2	0.2	0.21	0.22	0.22	13	11	11
DB1	22/12/2020	Mid-Flood	Fine	Calm	15:15	2.4	M	1.2	2					7.81			26.11			17.87			104.7			8.45			3.2			12			<1.5			0.002			0.3			0.4			0.12			0.2			0.22			10		
DB1	22/12/2020	Mid-Flood	Fine	Calm	15:15	2.4	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
DB1	22/12/2020	Mid-Flood	Fine	Calm	15:15	2.4	B		2																																										
SP1	22/12/2020	Mid-Flood	Fine	Calm	13:28	2.1	S		1						NA			NA			NA			NA			NA			3.73			NA																				
SP1	22/12/2020	Mid-Flood	Fine	Calm	13:28	2.1	S		2																																										
SP1	22/12/2020	Mid-Flood	Fine	Calm	13:28	2.1	M	1.05	1	0.072		166.2		7.18	7.18		8.01	8.01		18.06	18.06		41.4	41.5		3.73	3.73	3.73	27.4	27.5	27.5	42	42	42	5.0	4.5	4.5	0.033	0.033	0.033	7.5	7.6	7.6	7.9	8.0	8.0	6.80	6.85	6.85	7.2	7.2	7.2	0.96	0.94	0.94	21000	14346	14346
SP1	22/12/2020	Mid-Flood	Fine	Calm	13:28	2.1	M	1.05	2					7.18			8.01			18.06			41.6			3.73			27.5			41			4.0			0.034			7.7			8.0			6.90			7.2			0.92			9800		
SP1	22/12/2020	Mid-Flood	Fine	Calm	13:28	2.1	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
SP1	22/12/2020	Mid-Flood	Fine	Calm	13:28	2.1	B		2																																										
KT1	22/12/2020	Mid-Flood	Fine	Calm	13:53	2.2	S		1						NA			NA			NA			NA			NA			4.69			NA																				
KT1	22/12/2020	Mid-Flood	Fine	Calm	13:53	2.2	S		2																																										
KT1	22/12/2020	Mid-Flood	Fine	Calm	13:53	2.2	M	1.1	1	0.301		236.5		7.17	7.17		9.49	9.45		17.43	17.43		53.3	53.0		4.73	4.69	4.69	13.3	13.3	13.3	19	19	19	4.0	3.8	3.8	0.014	0.015	0.015	5.1	5.2	5.2	5.4	5.5	5.5	3.20	3.40	3.40	3.5	3.7	3.7	0.68	0.70	0.70	5000	5196	5196
KT1	22/12/2020	Mid-Flood	Fine	Calm	13:53	2.2	M	1.1	2					7.17			9.41			17.42			52.7			4.65			13.2			19			3.5			0.016			5.2			5.5			3.60			3.9			0.72			5400		
KT1	22/12/2020	Mid-Flood	Fine	Calm	13:53	2.2	B		1						NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA		
KT1	22/12/2020	Mid-Flood	Fine	Calm	13:53	2.2	B		2																																										

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement															Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH			Salinity (ppt)			Temperature (degree C)			DO Saturation (%)			DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.		Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	22/12/2020	Mid-Ebb	Fine	Calm	07:49	2.1	S		1				NA			NA			NA			NA			NA			NA																								
M1	22/12/2020	Mid-Ebb	Fine	Calm	07:49	2.1	S		2																																											
M1	22/12/2020	Mid-Ebb	Fine	Calm	07:49	2.1	M	1.05	1	0.080	145.6	7.08	7.08		10.11	10.10		17.19	17.19		24.1	24.1		2.18	2.18	2.18	23.7	23.9	23.9	53	54	54		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	22/12/2020	Mid-Ebb	Fine	Calm	07:49	2.1	M	1.05	2			7.08			10.08			17.19			24.1			2.18			24.0			54																						
M1	22/12/2020	Mid-Ebb	Fine	Calm	07:49	2.1	B		1				NA			NA			NA			NA			NA			NA																								
M1	22/12/2020	Mid-Ebb	Fine	Calm	07:49	2.1	B		2																																										
M2	22/12/2020	Mid-Ebb	Fine	Calm	07:56	2.4	S		1				NA			NA			NA			NA			NA			NA																								
M2	22/12/2020	Mid-Ebb	Fine	Calm	07:56	2.4	S		2																																										
M2	22/12/2020	Mid-Ebb	Fine	Calm	07:56	2.4	M	1.2	1	0.117	237.7	7.09	7.09		8.87	8.86		17.50	17.50		26.4	26.4		2.38	2.38	2.38	20.9	20.9	20.9	27	28	28		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	22/12/2020	Mid-Ebb	Fine	Calm	07:56	2.4	M	1.2	2			7.09			8.85			17.50			26.3			2.38			20.9			28																						
M2	22/12/2020	Mid-Ebb	Fine	Calm	07:56	2.4	B		1				NA			NA			NA			NA			NA			NA																								
M2	22/12/2020	Mid-Ebb	Fine	Calm	07:56	2.4	B		2																																										
M3	22/12/2020	Mid-Ebb	Fine	Calm	07:41	0.6	S		1				NA			NA			NA			NA			NA			NA																								
M3	22/12/2020	Mid-Ebb	Fine	Calm	07:41	0.6	S		2																																										
M3	22/12/2020	Mid-Ebb	Fine	Calm	07:41	0.6	M	0.3	1	0.069	79.2	7.43	7.43		4.18	4.18		19.62	19.64		42.9	42.7		3.84	3.82	3.82	35.7	35.6	35.6	68	70	70		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	22/12/2020	Mid-Ebb	Fine	Calm	07:41	0.6	M	0.3	2			7.43			4.18			19.65			42.4			3.79			35.5			71																						
M3	22/12/2020	Mid-Ebb	Fine	Calm	07:41	0.6	B		1				NA			NA			NA			NA			NA			NA																								
M3	22/12/2020	Mid-Ebb	Fine	Calm	07:41	0.6	B		2																																										
E1	22/12/2020	Mid-Ebb	Fine	Calm	07:16	5.0	S	1	1			7.21	7.21		7.79	7.79		16.48	16.60		51.0	50.9		4.51	4.51	4.51	16.3	16.3		25	25		3.0	2.8		0.025	0.023		6.8	6.8		7.2	7.2		5.40	4.95		5.7	5.4		0.73	0.75		7000	7436	
E1	22/12/2020	Mid-Ebb	Fine	Calm	07:16	5.0	S	1	2			7.21			7.79			16.71			50.7			4.50			16.3			25			2.5			0.021			6.7			7.2			4.50			5.0			0.76			7900		
E1	22/12/2020	Mid-Ebb	Fine	Calm	07:16	5.0	M		1				NA			NA			NA			NA			NA			NA																								
E1	22/12/2020	Mid-Ebb	Fine	Calm	07:16	5.0	M		2																																										
E1	22/12/2020	Mid-Ebb	Fine	Calm	07:16	5.0	B	4	1	0.168	137.9	7.13	7.13		9.98	9.99		16.89	16.88		39.2	39.1		3.53	3.52	4.51	14.5	14.6	15.4	30	30	27	3.0	3.0	2.9	0.016	0.013	0.018	5.2	5.4	6.1	5.5	5.7	6.4	4.00	3.40	4.18	4.3	3.7	4.5	0.55	0.57	0.66	8900	7664	7549
E1	22/12/2020	Mid-Ebb	Fine	Calm	07:16	5.0	B	4	2			7.13			9.99			16.86			39.0			3.50			14.6			29			3.0			0.011			5.5			5.8			2.80			3.1			0.58			6600		
E2a	22/12/2020	Mid-Ebb	Fine	Calm	06:54	2.5	S		1				NA			NA			NA			NA			NA			NA																								
E2a	22/12/2020	Mid-Ebb	Fine	Calm	06:54	2.5	S		2																																										
E2a	22/12/2020	Mid-Ebb	Fine	Calm	06:54	2.5	M	1.25	1	0.187	90.7	7.26	7.26		12.24	12.26		17.24	17.24		60.5	60.3		5.33	5.32	5.32	19.7	19.8	19.8	26	26	26	2.5	2.0	2.0	0.014	0.014	0.014	3.8	4.0	4.0	4.2	4.4	4.4	2.50	2.60	2.60	2.9	3.0	3.0	0.45	0.47	0.47	24000	24000	24000
E2a	22/12/2020	Mid-Ebb	Fine	Calm	06:54	2.5	M	1.25	2			7.26			12.27			17.24			60.0			5.31			19.8			26			<1.5			0.015			4.2			4.6			2.70			3.1			0.49			24000		
E2a	22/12/2020	Mid-Ebb	Fine	Calm	06:54	2.5	B		1				NA			NA			NA			NA			NA			NA																								
E2a	22/12/2020	Mid-Ebb	Fine	Calm	06:54	2.5	B		2																																										
E3a	22/12/2020	Mid-Ebb	Fine	Calm	06:27	1.9	S		1				NA			NA			NA			NA			NA			NA																								
E3a	22/12/2020	Mid-Ebb	Fine	Calm	06:27	1.9	S		2																																										
E3a	22/12/2020	Mid-Ebb	Fine	Calm	06:27	1.9	M	0.95	1	0.188	173.8	7.67	7.67		24.99	24.99		16.81	16.82		96.9	96.9		8.09	8.09	8.09	19.6	19.5	19.5	19	19	19	<1.5	1.5	1.5	0.002	0.002	0.002	0.4	0.4	0.4	0.5	0.5	0.5	0.17	0.19	0.19	0.3	0.3	0.3	0.13	0.14	0.14	250	255	255
E3a	22/12/2020	Mid-Ebb	Fine	Calm	06:27	1.9	M	0.95	2			7.67			24.98			16.83			96.9			8.09			19.4			19			<1.5			0.003			0.4			0.5			0.21			0.4			0.14			260		
E3a	22/12/2020	Mid-Ebb	Fine	Calm	06:27	1.9	B		1				NA			NA			NA			NA			NA			NA																								
E3a	22/12/2020	Mid-Ebb	Fine	Calm	06:27	1.9	B		2																																										
E4	22/12/2020	Mid-Ebb	Fine	Calm	07:06	2.6	S		1				NA			NA			NA			NA			NA			NA																								
E4	22/12/2020	Mid-Ebb	Fine	Calm	07:06	2.6	S		2																																										
E4	22/12/2020	Mid-Ebb	Fine	Calm	07:06	2.6	M	1.3	1	0.091	156.7	7.19	7.19		9.32	9.32		17.17	17.14		46.7	46.7		4.22	4.22	4.22	17.5	17.6	17.6	26	26	26	3.0	3.0	3.0	0.017	0.016	0.016	5.1	5.2	5.2	5.5	5.6	5.6	3.60	3.40	3.40	4.1	3.8	3.8	0.61	0.63	0.63	9100	9395	9395
E4	22/12/2020	Mid-Ebb	Fine	Calm	07:06	2.6	M	1.3	2			7.19			9.32			17.11			46.7			4.22			17.6			26			3.0			0.015			5.3			5.7			3.20			3.5			0.65			9700		
E4	22/12/2020	Mid-Ebb	Fine	Calm	07:06	2.6	B		1				NA			NA			NA			NA			NA			NA																								
E4	22/12/2020	Mid-Ebb	Fine	Calm	07:06	2.6	B		2																																										
E5a	22/12/2020	Mid-Ebb	Fine	Calm	07:41	2.8	S	1	1				NA			NA			NA			NA			NA			NA																								
E5a	22/12/2020	Mid-Ebb	Fine	Calm	07:41	2.8	S	1	2																																										
E5a	22/12/2020	Mid-Ebb	Fine	Calm	07:41	2.8	M		1	0.046	127.7	7.08	7.08		10.05	10.05		17.15	17.15		29.0	28.9		2.58	2.58	2.58	21.7	21.7	21.7	30	30	30	3.5	3.5	3.5	0.016	0.017	0.017	7.7	7.8	7.8	8.0	8.1	8.1	4.50	4.85	4.85	4.9	5.2	5.2	0.87	0.87	0.87	8200	8826	8826
E5a	22/12/2020	Mid-Ebb	Fine	Calm	07:41	2.8	M		2			7.08			10.04			17.15			28.8			2.58			21.7			30			3.5			0.019			7.8			8.1			5.20			5.4			0.86			9500		
E5a	22/12/2020	Mid-Ebb	Fine	Calm	07:41	2.8	B	1.8	1				NA			NA			NA			NA			NA			NA																								
E5a	22/12/2020	Mid-Ebb	Fine	Calm	07:41	2.8	B	1.8	2																																										
DB1	22/12/2020	Mid-Ebb	Fine	Calm	06:10	2.6	S		1				NA			NA			NA			NA			NA			NA																								
DB1	22/12/2020	Mid-Ebb	Fine	Calm	06:10	2.6	S		2																																										
DB1	22/12/2020	Mid-Ebb	Fine	Calm	06:10	2.6	M	1.3	1	0.324	283.7	7.65	7.65		24.57	24.57		17.03	17.03		96.3	96.3		8.02	8.02	8.02	6.4	6.5	6.5	16	16	16	2.5	2.0	2.0	0.002	0.002	0.002	0.5	0.5	0.5	0.6	0.6	0.6	0.16	0.15	0.15	0.3	0.2	0.2	0.51	0.53	0.53	480	353	353
DB1	22/12/2020	Mid-Ebb	Fine	Calm	06:10	2.6	M	1.3	2			7.65			24.57			17.03			96.3			8.02			6.5			16			<1.5			0.002			0.5			0.6			0.13			0.2			0.54			260		
DB1	22/12/2020	Mid-Ebb	Fine	Calm	06:10	2.6	B		1				NA			NA			NA			NA			NA			NA																								
DB1	22/12/2020	Mid-Ebb	Fine	Calm	06:10	2.6	B		2																																										
SP1	22/12/2020	Mid-Ebb	Fine	Calm	08:02	2.6	S		1				NA			NA			NA			NA			NA			NA																								
SP1	22/12/2020	Mid-Ebb	Fine	Calm	08:02	2.6	S		2																																										
SP1	22/12/2020	Mid-Ebb	Fine	Calm	08:02	2.6	M	1.3	1	0.083	193.8	7.10	7.10		8.02	8.02		18.13	18.15		33.3	33.2		2.91	2.87	2.87	29.0	29.0	29.0	41	42	42	3.0	3.0	3.0	0.012	0.011	0.011	8.3	8.8	8.8	8.8	9.2	9.2	2.90	2.80	2.80	3.3	3.2	3.2	0.72	0.75	0.75	14000	14491	14491
SP1	22/12/2020	Mid-Ebb	Fine	Calm	08:02	2.6	M	1.3	2			7.10			8.02			18.16			33.0			2.82			29.0			42			3.0			0.011			9.2			9.6			2.70			3.1			0.78			15000		
SP1	22/12/2020	Mid-Ebb	Fine	Calm	08:02	2.6	B		1				NA			NA			NA			NA			NA			NA																								
SP1	22/12/2020	Mid-Ebb	Fine	Calm	08:02	2.6	B		2																																										
KT1	22/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	S		1				NA			NA			NA			NA			NA			NA																								
KT1	22/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	S		2																																										
KT1	22/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	M	1.3	1	0.236	187.7	7.19	7.19		7.06	7.06		16.88	17.04		41.2	40.9		3.73	3.68	3.68	18.2	18.1	18.1	24	24	24	4.0	4.0	4.0	0.028	0.028	0.028	8.1	8.4	8.4	8.4	8.8	8.8	6.00	6.10	6.10	6.3	6.4	6.4	0.94	0.94	0.94	6000	6663	6663
KT1	22/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	M	1.3	2			7.19			7.05			17.20			40.6			3.63			18.0			24			4.0			0.029			8.6			9.2			6.20			6.5			0.93			7400		
KT1	22/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	B		1				NA			NA			NA			NA			NA			NA																								
KT1	22/12/2020	Mid-Ebb	Fine	Calm	07:32	2.6	B		2																																										

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

In-situ Measurement

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)		
										Depth Ave.	Depth Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.
M1	24/12/2020	Mid-Flood	Fine	Calm	15:02	1.9	S		1				NA		NA		NA		NA		NA	4.17		NA	
M1	24/12/2020	Mid-Flood	Fine	Calm	15:02	1.9	S		2																
M1	24/12/2020	Mid-Flood	Fine	Calm	15:02	1.9	M	0.95	1	0.053	239.7	7.15	7.15	9.40	9.43	21.17	21.26	50.6	50.1	4.20	4.17		28.6	28.4	28.4
M1	24/12/2020	Mid-Flood	Fine	Calm	15:02	1.9	M	0.95	2			7.15		9.45		21.34		49.5		4.13			28.2		
M1	24/12/2020	Mid-Flood	Fine	Calm	15:02	1.9	B		1				NA		NA		NA		NA		NA			NA	
M1	24/12/2020	Mid-Flood	Fine	Calm	15:02	1.9	B		2																
M2	24/12/2020	Mid-Flood	Fine	Calm	14:55	1.7	S		1				NA		NA		NA		NA		NA	3.77		NA	
M2	24/12/2020	Mid-Flood	Fine	Calm	14:55	1.7	S		2																
M2	24/12/2020	Mid-Flood	Fine	Calm	14:55	1.7	M	0.85	1	0.066	307.2	7.15	7.15	8.99	8.99	22.23	22.22	45.6	45.4	3.79	3.77		54.4	54.8	54.8
M2	24/12/2020	Mid-Flood	Fine	Calm	14:55	1.7	M	0.85	2			7.14		8.98		22.21		45.2		3.74			55.2		
M2	24/12/2020	Mid-Flood	Fine	Calm	14:55	1.7	B		1				NA		NA		NA		NA		NA			NA	
M2	24/12/2020	Mid-Flood	Fine	Calm	14:55	1.7	B		2																
M3	24/12/2020	Mid-Flood	Fine	Calm	15:32	0.3	S		1				NA		NA		NA		NA		NA	4.26		NA	
M3	24/12/2020	Mid-Flood	Fine	Calm	15:32	0.3	S		2																
M3	24/12/2020	Mid-Flood	Fine	Calm	15:32	0.3	M	0.15	1	0.009	271.2	7.68	7.68	7.93	7.93	24.72	24.73	52.5	53.8	4.16	4.26		102.9	103.1	103.1
M3	24/12/2020	Mid-Flood	Fine	Calm	15:32	0.3	M	0.15	2			7.67		7.92		24.74		55.0		4.36			103.2		
M3	24/12/2020	Mid-Flood	Fine	Calm	15:32	0.3	B		1				NA		NA		NA		NA		NA			NA	
M3	24/12/2020	Mid-Flood	Fine	Calm	15:32	0.3	B		2																
E1	24/12/2020	Mid-Flood	Fine	Calm	15:26	4.7	S	1	1			7.13	7.12	10.19	10.19	22.45	22.45	49.4	49.2	4.07	4.03	4.03	32.7	32.8	
E1	24/12/2020	Mid-Flood	Fine	Calm	15:26	4.7	S	1	2			7.11		10.18		22.45		49.0		3.99			32.9		
E1	24/12/2020	Mid-Flood	Fine	Calm	15:26	4.7	M		1	0.041	241.7		NA		NA		NA		NA		NA			NA	29.5
E1	24/12/2020	Mid-Flood	Fine	Calm	15:26	4.7	M		2																
E1	24/12/2020	Mid-Flood	Fine	Calm	15:26	4.7	B	3.7	1			7.33	7.33	21.64	21.71	19.43	19.41	52.5	52.8	4.34	4.37		26.2	26.2	
E1	24/12/2020	Mid-Flood	Fine	Calm	15:26	4.7	B	3.7	2			7.32		21.77		19.39		53.1		4.39			26.2		
E2a	24/12/2020	Mid-Flood	Fine	Calm	15:50	1.7	S		1				NA		NA		NA		NA		NA	7.95		NA	
E2a	24/12/2020	Mid-Flood	Fine	Calm	15:50	1.7	S		2																
E2a	24/12/2020	Mid-Flood	Fine	Calm	15:50	1.7	M	0.85	1	0.324	203.4	7.59	7.59	16.72	16.70	21.50	21.50	99.1	99.2	7.94	7.95		26.7	26.7	26.7
E2a	24/12/2020	Mid-Flood	Fine	Calm	15:50	1.7	M	0.85	2			7.58		16.67		21.49		99.2		7.95			26.6		
E2a	24/12/2020	Mid-Flood	Fine	Calm	15:50	1.7	B		1				NA		NA		NA		NA		NA			NA	
E2a	24/12/2020	Mid-Flood	Fine	Calm	15:50	1.7	B		2																
E3a	24/12/2020	Mid-Flood	Fine	Calm	16:19	1.5	S		1				NA		NA		NA		NA		NA	7.80		NA	
E3a	24/12/2020	Mid-Flood	Fine	Calm	16:19	1.5	S		2																
E3a	24/12/2020	Mid-Flood	Fine	Calm	16:19	1.5	M	0.75	1	0.418	354.8	7.72	7.73	26.69	26.69	19.66	19.66	99.9	99.8	7.81	7.80		10.3	10.4	10.4
E3a	24/12/2020	Mid-Flood	Fine	Calm	16:19	1.5	M	0.75	2			7.74		26.69		19.65		99.7		7.78			10.5		
E3a	24/12/2020	Mid-Flood	Fine	Calm	16:19	1.5	B		1				NA		NA		NA		NA		NA			NA	
E3a	24/12/2020	Mid-Flood	Fine	Calm	16:19	1.5	B		2																
E4	24/12/2020	Mid-Flood	Fine	Calm	15:38	1.8	S		1				NA		NA		NA		NA		NA	6.71		NA	
E4	24/12/2020	Mid-Flood	Fine	Calm	15:38	1.8	S		2																
E4	24/12/2020	Mid-Flood	Fine	Calm	15:38	1.8	M	0.9	1	0.153	109.3	7.41	7.42	14.95	14.93	21.20	21.19	83.4	83.3	6.73	6.71		21.5	21.5	21.5
E4	24/12/2020	Mid-Flood	Fine	Calm	15:38	1.8	M	0.9	2			7.42		14.90		21.18		83.1		6.69			21.5		
E4	24/12/2020	Mid-Flood	Fine	Calm	15:38	1.8	B		1				NA		NA		NA		NA		NA			NA	
E4	24/12/2020	Mid-Flood	Fine	Calm	15:38	1.8	B		2																
E5a	24/12/2020	Mid-Flood	Fine	Calm	15:04	2.1	S		1				NA		NA		NA		NA		NA	4.46		NA	
E5a	24/12/2020	Mid-Flood	Fine	Calm	15:04	2.1	S		2																
E5a	24/12/2020	Mid-Flood	Fine	Calm	15:04	2.1	M	1.05	1	0.108	28.7	7.20	7.19	9.11	9.14	21.27	21.23	54.1	53.3	4.53	4.46		20.7	20.5	20.5
E5a	24/12/2020	Mid-Flood	Fine	Calm	15:04	2.1	M	1.05	2			7.18		9.16		21.19		52.4		4.39			20.2		
E5a	24/12/2020	Mid-Flood	Fine	Calm	15:04	2.1	B		1				NA		NA		NA		NA		NA			NA	
E5a	24/12/2020	Mid-Flood	Fine	Calm	15:04	2.1	B		2																
DB1	24/12/2020	Mid-Flood	Fine	Calm	16:31	2.4	S		1				NA		NA		NA		NA		NA	7.61		NA	
DB1	24/12/2020	Mid-Flood	Fine	Calm	16:31	2.4	S		2																
DB1	24/12/2020	Mid-Flood	Fine	Calm	16:31	2.4	M	1.2	1	0.407	72.3	7.81	7.82	27.83	27.85	19.42	19.42	97.4	97.5	7.60	7.61		5.4	5.4	5.4
DB1	24/12/2020	Mid-Flood	Fine	Calm	16:31	2.4	M	1.2	2			7.82		27.87		19.41		97.6		7.62			5.3		
DB1	24/12/2020	Mid-Flood	Fine	Calm	16:31	2.4	B		1				NA		NA		NA		NA		NA			NA	
DB1	24/12/2020	Mid-Flood	Fine	Calm	16:31	2.4	B		2																
SP1	24/12/2020	Mid-Flood	Fine	Calm	14:48	1.8	S		1				NA		NA		NA		NA		NA	3.50		NA	
SP1	24/12/2020	Mid-Flood	Fine	Calm	14:48	1.8	S		2																
SP1	24/12/2020	Mid-Flood	Fine	Calm	14:48	1.8	M	0.9	1	0.093	153.4	7.13	7.14	8.58	8.59	22.39	22.24	42.6	42.1	3.54	3.50		35.9	35.4	35.4
SP1	24/12/2020	Mid-Flood	Fine	Calm	14:48	1.8	M	0.9	2			7.14		8.59		22.08		41.6		3.45			34.8		
SP1	24/12/2020	Mid-Flood	Fine	Calm	14:48	1.8	B		1				NA		NA		NA		NA		NA			NA	
SP1	24/12/2020	Mid-Flood	Fine	Calm	14:48	1.8	B		2																
KT1	24/12/2020	Mid-Flood	Fine	Calm	15:11	2.1	S		1				NA		NA		NA		NA		NA	3.42		NA	
KT1	24/12/2020	Mid-Flood	Fine	Calm	15:11	2.1	S		2																
KT1	24/12/2020	Mid-Flood	Fine	Calm	15:11	2.1	M	1.05	1	0.149	325.4	7.17	7.18	9.66	9.66	20.24	20.27	34.8	34.9	3.41	3.42		26.8	26.8	26.8
KT1	24/12/2020	Mid-Flood	Fine	Calm	15:11	2.1	M	1.05	2			7.18		9.65		20.30		34.9		3.43			26.8		
KT1	24/12/2020	Mid-Flood	Fine	Calm	15:11	2.1	B		1				NA		NA		NA		NA		NA			NA	
KT1	24/12/2020	Mid-Flood	Fine	Calm	15:11	2.1	B		2																

Laboratory Analysis

Monitoring Location	Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1																											
M1	39	39	39		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	38																										
M1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1																											
M2		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2																											
M2	57	57	57		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	57																										
M2		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2																											
M3		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3																											
M3	79	80	80		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	81																										
M3		NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3																											
E1	34	34		3.5	3.5		0.033	0.031		7.0	6.8		7.2	7.0		5.60	5.30		5.9	5.6		0.65	0.66		17000	15969	
E1	33			3.5			0.029			6.6			6.8			5.00			5.3			0.66			15000		
E1		NA	41		NA	3.1		NA	0.031		NA	6.4		NA	6.6		NA	4.90		NA	5.2		NA	0.60		NA	12181
E1																											
E1	48	48		3.0	2.8		0.033	0.031		5.7	6.0		6.0	6.2		4.70	4.50		4.9	4.7		0.58	0.54		8900	9291	
E1	48			2.5			0.030			6.2			6.4			4.30			4.5			0.50			9700		
E2a		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a																											
E2a	43	44	44	2.5	2.5	2.5	0.018	0.019	0.019	1.7	1.7	1.7	2.0	2.0	2.0	1.20	1.25	1.25	1.5	1.6	1.6	0.32	0.32	0.32	1900	2179	2179
E2a	44			2.5			0.019			1.7			2.0			1.30			1.6			0.31			2500		
E2a		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a																											
E3a		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a																											
E3a	26	26	26	1.5	1.5	1.5	0.004	0.004	0.004	0.6	0.6	0.6	0.9	0.9	0.9	0.23	0.23	0.23	0.5	0.6	0.6	0.18	0.19	0.19	46	49	49
E3a	25			<1.5			0.004			0.6			0.9			0.22			0.6			0.20			53		
E3a		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a																											
E4		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4																											
E4	34	34	34	3.0	3.5	3.5	0.029	0.030	0.030	3.6	3.7	3.7	3.9	4.0	4.0	2.90	2.95	2.95	3.2	3.2	3.2	0.37	0.40	0.40	7800	6898	6898
E4	34			4.0			0.031			3.7			4.0			3.00			3.2			0.42			6100		
E4		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4																											
E5a		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a																											
E5a	31	31	31	4.0	3.8	3.8	0.037	0.037	0.037	6.4	6.5	6.5	6.7	6.8	6.8	5.80	5.85	5.85	6.1	6.2	6.2	0.77	0.78	0.78	12000	12961	12961
E5a	30			3.5			0.036			6.6			6.8			5.90			6.2			0.79			14000		
E5a		NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a																											
DB1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1																											
DB1	16	16	16	1.5	1.8	1.8	0.004	0.004	0.004	0.5	0.5	0.5	0.8	0.8	0.8	0.20	0.20	0.20	0.5	0.5	0.5	0.10	0.10	0.10	11	11	11
DB1	15			2.0			0.004			0.5			0.8			0.20			0.5			0.09			12		
DB1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1																											
SP1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1																											
SP1	34	35	35	4.0	3.8	3.8	0.043	0.045	0.045	8.5	8.3	8.3	8.8	8.6	8.6	7.20	7.45	7.45	7.5	7.8	7.8	0.99	1.00	1.00	28000	25377	25377
SP1	35			3.5			0.046			8.1			8.4			7.70			8.0			1.00			23000		
SP1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1																											
KT1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1																											
KT1	36	36	36	4.5	4.0	4.0	0.067	0.073	0.073	14.0	14.5	14.5	14.0	14.5	14.5	12.00	13.00	13.00	12.0	13.0	13.0	0.92	0.92	0.92	15000	15000	15000
KT1	36			3.5			0.080			15.0			15.0			14.00			14.0			0.92			15000		
KT1		NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																										
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	24/12/2020	Mid-Ebb	Fine	Calm	09:01	2.4	S		1	0.082	317.3		NA		NA		NA		NA		NA	2.95		NA	20.3		NA	31		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	24/12/2020	Mid-Ebb	Fine	Calm	09:01	2.4	S		2																																											
M1	24/12/2020	Mid-Ebb	Fine	Calm	09:01	2.4	M	1.2	1			7.05	7.06	8.98	8.88	21.96	21.96	35.1	34.9	3.02	2.95		20.3	20.3		31	31			NA			NA			NA			NA			NA			NA			NA			NA	
M1	24/12/2020	Mid-Ebb	Fine	Calm	09:01	2.4	M	1.2	2			7.06		8.78		21.95		34.6		2.87			20.2			30																										
M1	24/12/2020	Mid-Ebb	Fine	Calm	09:01	2.4	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M1	24/12/2020	Mid-Ebb	Fine	Calm	09:01	2.4	B		2																																											
M2	24/12/2020	Mid-Ebb	Fine	Calm	09:06	1.9	S		1	0.093	263.7		NA		NA		NA		NA		NA	2.17		NA	26.0		NA	33		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	24/12/2020	Mid-Ebb	Fine	Calm	09:06	1.9	S		2																																											
M2	24/12/2020	Mid-Ebb	Fine	Calm	09:06	1.9	M	0.95	1			7.05	7.05	9.12	9.10	21.54	21.54	26.1	26.0	2.18	2.17		26.0	26.0		33	33			NA			NA			NA			NA			NA			NA			NA			NA	
M2	24/12/2020	Mid-Ebb	Fine	Calm	09:06	1.9	M	0.95	2			7.04		9.08		21.53		25.9		2.16			26.0			32																										
M2	24/12/2020	Mid-Ebb	Fine	Calm	09:06	1.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M2	24/12/2020	Mid-Ebb	Fine	Calm	09:06	1.9	B		2																																											
M3	24/12/2020	Mid-Ebb	Fine	Calm	09:27	0.1	S		1	0.006	75.1		NA		NA		NA		NA		NA	5.18		NA	55.1		NA	100		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	24/12/2020	Mid-Ebb	Fine	Calm	09:27	0.1	S		2																																											
M3	24/12/2020	Mid-Ebb	Fine	Calm	09:27	0.1	M	0.05	1			7.43	7.49	1.01	1.01	22.92	22.96	60.1	60.6	5.14	5.18		56.2	55.1		100	100			NA			NA			NA			NA			NA			NA			NA			NA	
M3	24/12/2020	Mid-Ebb	Fine	Calm	09:27	0.1	M	0.05	2			7.55		1.01		23.00		61.1		5.21			53.9			100																										
M3	24/12/2020	Mid-Ebb	Fine	Calm	09:27	0.1	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
M3	24/12/2020	Mid-Ebb	Fine	Calm	09:27	0.1	B		2																																											
E1	24/12/2020	Mid-Ebb	Fine	Calm	08:32	5.2	S	1	1	0.124	183.3	7.14	7.14	8.74	8.74	20.85	20.84	39.8	39.7	3.36	3.35	3.35	18.1	18.1	17.9	27	27	26	3.5	3.3	3.4	0.039	0.038	0.032	7.4	7.4	6.8	7.7	7.7	7.0	7.10	7.00	6.18	7.4	7.3	6.4	1.00	0.98	0.94	16000	18330	17109
E1	24/12/2020	Mid-Ebb	Fine	Calm	08:32	5.2	S	1	2			7.13		8.73		20.82		39.6		3.34			18.1			26			3.0			0.037			7.4			7.7			6.90			7.2			0.96			21000		
E1	24/12/2020	Mid-Ebb	Fine	Calm	08:32	5.2	M		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E1	24/12/2020	Mid-Ebb	Fine	Calm	08:32	5.2	M		2																																											
E1	24/12/2020	Mid-Ebb	Fine	Calm	08:32	5.2	B	4.2	1			7.13	7.14	19.38	19.38	20.66	20.10	31.1	31.4	2.58	2.60		17.7	17.7		26	25		3.5	3.5		0.027	0.026		6.2	6.1		6.4	6.3		5.40	5.35		5.6	5.6		0.90	0.90		17000	15969	
E1	24/12/2020	Mid-Ebb	Fine	Calm	08:32	5.2	B	4.2	2			7.14		19.37		19.54		31.6		2.62			17.7			24			3.5			0.025			6.0			6.2			5.30			5.5			0.89			15000		
E2a	24/12/2020	Mid-Ebb	Fine	Calm	08:18	2.2	S		1	0.458	258.3		NA		NA		NA		NA		NA	3.69		NA	23.9		NA	41		NA	3.5		NA	0.022		NA	4.4		NA	4.7		NA	3.85		NA	4.2		NA	0.66		NA	7488
E2a	24/12/2020	Mid-Ebb	Fine	Calm	08:18	2.2	S		2																																											
E2a	24/12/2020	Mid-Ebb	Fine	Calm	08:18	2.2	M	1.1	1			7.16	7.16	12.53	12.51	20.78	20.84	44.2	44.3	3.68	3.69		23.9	23.9		40	41		3.0	3.5		0.022	0.022		4.6	4.4		4.9	4.7		3.90	3.85		4.2	4.2		0.73	0.66		6300	7488	
E2a	24/12/2020	Mid-Ebb	Fine	Calm	08:18	2.2	M	1.1	2			7.16		12.48		20.89		44.4		3.69			23.8			41			4.0			0.021			4.1			4.4			3.80			4.1			0.59			8900		
E2a	24/12/2020	Mid-Ebb	Fine	Calm	08:18	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E2a	24/12/2020	Mid-Ebb	Fine	Calm	08:18	2.2	B		2																																											
E3a	24/12/2020	Mid-Ebb	Fine	Calm	07:49	1.6	S		1	0.212	319.2		NA		NA		NA		NA		NA	7.19		NA	8.4		NA	17		NA	1.8		NA	0.006		NA	1.4		NA	1.7		NA	0.49		NA	0.8		NA	0.20		NA	712
E3a	24/12/2020	Mid-Ebb	Fine	Calm	07:49	1.6	S		2																																											
E3a	24/12/2020	Mid-Ebb	Fine	Calm	07:49	1.6	M	0.8	1			7.55	7.56	22.24	22.24	19.92	19.92	89.9	89.9	7.20	7.19		8.4	8.4		17	17		2.0	1.8		0.006	0.006		1.4	1.4		1.7	1.7		0.49	0.49		0.8	0.8		0.20	0.20		780	712	
E3a	24/12/2020	Mid-Ebb	Fine	Calm	07:49	1.6	M	0.8	2			7.57		22.23		19.92		89.8		7.18			8.4			17			1.5			0.006			1.3			1.6			0.49			0.8			0.19			650		
E3a	24/12/2020	Mid-Ebb	Fine	Calm	07:49	1.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E3a	24/12/2020	Mid-Ebb	Fine	Calm	07:49	1.6	B		2																																											
E4	24/12/2020	Mid-Ebb	Fine	Calm	08:25	2.3	S		1	0.068	103.7		NA		NA		NA		NA		NA	2.60		NA	21.0		NA	37		NA	3.3		NA	0.024		NA	6.6		NA	6.9		NA	5.55		NA	5.9		NA	0.87		NA	31417
E4	24/12/2020	Mid-Ebb	Fine	Calm	08:25	2.3	S		2																																											
E4	24/12/2020	Mid-Ebb	Fine	Calm	08:25	2.3	M	1.15	1			7.05	7.05	9.48	9.45	20.51	20.59	30.8	30.6	2.62	2.60		21.4	21.0		37	37		3.5	3.3		0.024	0.024		6.4	6.6		6.8	6.9		5.50	5.55		5.9	5.9		0.87	0.87		47000	31417	
E4	24/12/2020	Mid-Ebb	Fine	Calm	08:25	2.3	M	1.15	2			7.05		9.41		20.67		30.3		2.57			20.6			36			3.0			0.024			6.7			7.0			5.60			5.9			0.87			21000		
E4	24/12/2020	Mid-Ebb	Fine	Calm	08:25	2.3	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E4	24/12/2020	Mid-Ebb	Fine	Calm	08:25	2.3	B		2																																											
E5a	24/12/2020	Mid-Ebb	Fine	Calm	08:55	2.6	S	1	1	0.052	84.1		NA		NA		NA		NA		NA	2.18		NA	20.4		NA	32		NA	3.0		NA	0.035		NA	8.2		NA	8.8		NA	7.95		NA	8.5		NA	0.85		NA	32031
E5a	24/12/2020	Mid-Ebb	Fine	Calm	08:55	2.6	S	1	2																																											
E5a	24/12/2020	Mid-Ebb	Fine	Calm	08:55	2.6	M		1			7.03	7.04	9.36	9.34	21.16	21.27	26.2	26.1	2.19	2.18		20.3	20.4		32	32		3.0	3.0		0.034	0.035		8.1	8.2		8.6	8.8		7.90	7.95		8.4	8.5		0.85	0.85		38000	32031	
E5a	24/12/2020	Mid-Ebb	Fine	Calm	08:55	2.6	M		2			7.04		9.31		21.37		26.0		2.17			20.4			32			3.0			0.036			8.3			8.9			8.00			8.5			0.85			27000		
E5a	24/12/2020	Mid-Ebb	Fine	Calm	08:55	2.6	B	1.6	1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
E5a	24/12/2020	Mid-Ebb	Fine	Calm	08:55	2.6	B	1.6	2																																											
DB1	24/12/2020	Mid-Ebb	Fine	Calm	07:29	2.4	S		1	0.171	74.1		NA		NA		NA		NA		NA	7.32		NA	5.4		NA	12		NA	2.0		NA	0.004		NA	0.8		NA	1.0		NA	0.32		NA	0.6		NA	0.15		NA	284
DB1	24/12/2020	Mid-Ebb	Fine	Calm	07:29	2.4	S		2																																											
DB1	24/12/2020	Mid-Ebb	Fine	Calm	07:29	2.4	M	1.2	1			7.60	7.60	25.07	25.07	19.18	19.18	91.7	91.7	7.33	7.32		5.4	5.4		11	12		2.0	2.0		0.004	0.004		0.7	0.8		1.0	1.0		0.33	0.32		0.6	0.6		0.16	0.15		260	284	
DB1	24/12/2020	Mid-Ebb	Fine	Calm	07:29	2.4	M	1.2	2			7.60		25.06		19.18		91.6		7.30			5.4			12			2.0			0.004			0.8			1.1			0.31			0.6			0.13			310		
DB1	24/12/2020	Mid-Ebb	Fine	Calm	07:29	2.4	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
DB1	24/12/2020	Mid-Ebb	Fine	Calm	07:29	2.4	B		2																																											
SP1	24/12/2020	Mid-Ebb	Fine	Calm	09:12	2.2	S		1	0.043	145.8		NA		NA		NA		NA		NA	2.83		NA	27.9		NA	31		NA	2.8		NA	0.027		NA	6.5		NA	6.8		NA	5.75		NA	6.1		NA	0.84		NA	58310
SP1	24/12/2020	Mid-Ebb	Fine	Calm	09:12	2.2	S		2																																											
SP1	24/12/2020	Mid-Ebb	Fine	Calm	09:12	2.2	M	1.1	1			7.06	7.06	9.39	9.41	21.42	21.44	35.3	34.7	2.91	2.83		27.8	27.9		31	31		3.0	2.8		0.029	0.027		6.3	6.5		6.6	6.8		6.20	5.75		6.5	6.1		0.83	0.84		68000	58310	
SP1	24/12/2020	Mid-Ebb	Fine	Calm	09:12	2.2	M	1.1	2			7.05		9.42		21.45		34.1		2.74			27.9			31			2.5			0.025			6.6			6.9			5.30			5.6			0.85			50000		
SP1	24/12/2020	Mid-Ebb	Fine	Calm	09:12	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
SP1	24/12/2020	Mid-Ebb	Fine	Calm	09:12	2.2	B		2																																											
KT1	24/12/2020	Mid-Ebb	Fine	Calm	08:48	2.4	S		1	0.093	114.7		NA		NA		NA		NA		NA	2.22		NA	33.5		NA	36		NA	3.8		NA	0.036		NA	8.4		NA	8.6		NA	7.45		NA	7.7		NA	1.25		NA	27276
KT1	24/12/2020	Mid-Ebb	Fine	Calm	08:48	2.4	S		2																																											
KT1	24/12/2020	Mid-Ebb	Fine	Calm	08:48	2.4	M	1.2	1			7.10	7.11	10.04	10.05	20.60	20.44	25.9	25.9	2.23	2.22		33.3	33.5		35	36		4.0	3.8		0.037	0.036		8.3	8.4		8.6	8.6		7.70	7.45		7.9	7.7		1.30	1.25		31000	27276	
KT1	24/12/2020	Mid-Ebb	Fine	Calm	08:48	2.4	M	1.2	2			7.11		10.06		20.28		25.8		2.20			33.7			36			3.5			0.035			8.5			8.6			7.20			7.4			1.20			24000		
KT1	24/12/2020	Mid-Ebb	Fine	Calm	08:48	2.4	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA			NA			NA	
KT1	24/12/2020	Mid-Ebb	Fine	Calm	08:48	2.4	B		2																																											

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;
2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;
3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																		Laboratory Analysis																					
										Current Speed (m/s)		Current Direction (°)		pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Depth Ave.		Depth Ave.		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	26/12/2020	Mid-Flood	Fine	Calm	15:46	1.5	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
M1	26/12/2020	Mid-Flood	Fine	Calm	15:46	1.5	S		2																																								
M1	26/12/2020	Mid-Flood	Fine	Calm	15:46	1.5	M	0.75	1	0.236		89.7		7.23	7.23	11.10	11.10	21.99	22.09	46.0	44.1	3.50	3.40	3.40	32.1	32.8	32.8	36	36	36		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M1	26/12/2020	Mid-Flood	Fine	Calm	15:46	1.5	M	0.75	2					7.22		11.09		22.19		42.1		3.29			33.5			35																					
M1	26/12/2020	Mid-Flood	Fine	Calm	15:46	1.5	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
M1	26/12/2020	Mid-Flood	Fine	Calm	15:46	1.5	B		2																																							
M2	26/12/2020	Mid-Flood	Fine	Calm	15:40	1.9	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
M2	26/12/2020	Mid-Flood	Fine	Calm	15:40	1.9	S		2																																							
M2	26/12/2020	Mid-Flood	Fine	Calm	15:40	1.9	M	0.95	1	0.301		149.5		7.19	7.19	10.42	10.39	22.52	22.53	31.6	31.6	2.61	2.65	2.65	24.5	24.5	24.5	38	38	38		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M2	26/12/2020	Mid-Flood	Fine	Calm	15:40	1.9	M	0.95	2					7.19		10.36		22.53		31.5		2.68			24.5			37																					
M2	26/12/2020	Mid-Flood	Fine	Calm	15:40	1.9	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
M2	26/12/2020	Mid-Flood	Fine	Calm	15:40	1.9	B		2																																							
M3	26/12/2020	Mid-Flood	Fine	Calm	16:00	0.3	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
M3	26/12/2020	Mid-Flood	Fine	Calm	16:00	0.3	S		2																																							
M3	26/12/2020	Mid-Flood	Fine	Calm	16:00	0.3	M	0.15	1	0.008		280.4		7.99	8.00	0.97	0.97	26.07	26.12	57.9	56.5	4.67	4.55	4.55	38.5	38.7	38.7	24	23	23		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA	
M3	26/12/2020	Mid-Flood	Fine	Calm	16:00	0.3	M	0.15	2					8.01		0.97		26.17		55.0		4.42			38.9			22																					
M3	26/12/2020	Mid-Flood	Fine	Calm	16:00	0.3	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
M3	26/12/2020	Mid-Flood	Fine	Calm	16:00	0.3	B		2																																							
E1	26/12/2020	Mid-Flood	Fine	Calm	15:59	4.5	S	1	1					7.20	7.20	13.87	13.88	21.04	21.11	61.6	60.7	4.88	4.81	4.81	18.4	18.4		27	27		2.5	2.8		0.034	0.036		7.5	7.6		7.7	7.8		5.50	5.80		5.8	6.1		0.78	0.77		9200	10507	
E1	26/12/2020	Mid-Flood	Fine	Calm	15:59	4.5	S	1	2					7.20		13.88		21.18		59.7		4.73			18.3			27			3.0			0.038			7.6			7.8			6.10			6.4			0.76			12000		
E1	26/12/2020	Mid-Flood	Fine	Calm	15:59	4.5	M		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E1	26/12/2020	Mid-Flood	Fine	Calm	15:59	4.5	M		2																																							
E1	26/12/2020	Mid-Flood	Fine	Calm	15:59	4.5	B	3.5	1	0.139		156.3		7.14	7.14	16.76	16.75	20.68	20.59	38.7	39.1	3.25	3.25	4.81	22.1	22.4	20.4	27	28	27	3.0	2.8	2.8	0.026	0.027	0.032	7.7	7.6	7.6	7.9	7.8	7.8	5.10	5.25	5.53	5.3	5.5	5.8	0.78	0.77	0.77	14000	12410	11419
E1	26/12/2020	Mid-Flood	Fine	Calm	15:59	4.5	B	3.5	2					7.14		16.73		20.50		39.4		3.25			22.6			28			2.5			0.028			7.5			7.7			5.40			5.7			0.76			11000		
E2a	26/12/2020	Mid-Flood	Fine	Calm	16:16	1.8	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E2a	26/12/2020	Mid-Flood	Fine	Calm	16:16	1.8	S		2																																							
E2a	26/12/2020	Mid-Flood	Fine	Calm	16:16	1.8	M	0.9	1	0.125		256.7		7.48	7.48	16.79	16.79	21.25	21.28	90.0	88.8	7.20	7.10	7.10	23.5	23.5	23.5	35	36	36	<1.5	1.5	1.5	0.015	0.015	0.015	2.5	2.5	2.5	2.7	2.8	2.8	1.30	1.30	1.30	1.5	1.5	1.5	0.39	0.39	0.39	4200	4347	4347
E2a	26/12/2020	Mid-Flood	Fine	Calm	16:16	1.8	M	0.9	2					7.48		16.79		21.31		87.5		7.00			23.5			36			1.5			0.015			2.5			2.8			1.30			1.5			0.38			4500		
E2a	26/12/2020	Mid-Flood	Fine	Calm	16:16	1.8	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E2a	26/12/2020	Mid-Flood	Fine	Calm	16:16	1.8	B		2																																							
E3a	26/12/2020	Mid-Flood	Fine	Calm	16:39	2.2	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E3a	26/12/2020	Mid-Flood	Fine	Calm	16:39	2.2	S		2																																							
E3a	26/12/2020	Mid-Flood	Fine	Calm	16:39	2.2	M	1.1	1	0.088		36.1		7.76	7.76	26.76	26.76	20.72	20.71	100.8	101.1	7.78	7.78	7.78	14.7	15.0	15.0	25	25	25	<1.5	1.5	1.5	0.005	0.005	0.005	0.2	0.2	0.2	0.3	0.3	0.3	0.23	0.23	0.23	0.3	0.3	0.3	0.11	0.12	0.12	64	54	54
E3a	26/12/2020	Mid-Flood	Fine	Calm	16:39	2.2	M	1.1	2					7.76		26.76		20.70		101.3		7.78			15.3			25			<1.5			0.004			0.3			0.3			0.22			0.3			0.13			46		
E3a	26/12/2020	Mid-Flood	Fine	Calm	16:39	2.2	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E3a	26/12/2020	Mid-Flood	Fine	Calm	16:39	2.2	B		2																																							
E4	26/12/2020	Mid-Flood	Fine	Calm	16:06	1.9	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E4	26/12/2020	Mid-Flood	Fine	Calm	16:06	1.9	S		2																																							
E4	26/12/2020	Mid-Flood	Fine	Calm	16:06	1.9	M	0.95	1	0.180		89.7		7.34	7.34	14.31	14.30	21.41	21.41	68.3	68.4	5.56	5.57	5.57	16.7	16.7	16.7	27	27	27	2.0	2.0	2.0	0.028	0.029	0.029	4.5	4.6	4.6	4.7	4.8	4.8	3.20	3.30	3.30	3.4	3.6	3.6	0.60	0.58	0.58	7500	7297	7297
E4	26/12/2020	Mid-Flood	Fine	Calm	16:06	1.9	M	0.95	2					7.34		14.29		21.41		68.4		5.57			16.7			27			2.0			0.030			4.6			4.8			3.40			3.7			0.55			7100		
E4	26/12/2020	Mid-Flood	Fine	Calm	16:06	1.9	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E4	26/12/2020	Mid-Flood	Fine	Calm	16:06	1.9	B		2																																							
E5a	26/12/2020	Mid-Flood	Fine	Calm	15:48	2.2	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E5a	26/12/2020	Mid-Flood	Fine	Calm	15:48	2.2	S		2																																							
E5a	26/12/2020	Mid-Flood	Fine	Calm	15:48	2.2	M	1.1	1	0.210		83.9		7.23	7.23	10.84	10.84	21.66	21.63	48.0	47.1	3.69	3.49	3.49	30.0	30.4	30.4	43	44	44	1.5	1.5	1.5	0.045	0.046	0.046	11.0	11.5	11.5	12.0	12.5	12.5	6.40	6.65	6.65	6.7	7.0	7.0	0.85	0.88	0.88	29000	31859	31859
E5a	26/12/2020	Mid-Flood	Fine	Calm	15:48	2.2	M	1.1	2					7.22		10.84		21.59		46.1		3.29			30.8			44			1.5			0.047			12.0			13.0			6.90			7.2			0.91			35000		
E5a	26/12/2020	Mid-Flood	Fine	Calm	15:48	2.2	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
E5a	26/12/2020	Mid-Flood	Fine	Calm	15:48	2.2	B		2																																							
DB1	26/12/2020	Mid-Flood	Fine	Calm	16:51	1.8	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
DB1	26/12/2020	Mid-Flood	Fine	Calm	16:51	1.8	S		2																																							
DB1	26/12/2020	Mid-Flood	Fine	Calm	16:51	1.8	M	0.9	1	0.310		300.6		7.82	7.82	27.73	27.73	20.60	20.58	100.5	100.7	7.74	7.75	7.75	5.5	5.5	5.5	13	14	14	<1.5	1.5	1.5	0.005	0.005	0.005	0.2	0.2	0.2	0.3	0.3	0.3	0.22	0.21	0.21	0.3	0.3	0.3	0.10	0.10	0.10	11	11	11
DB1	26/12/2020	Mid-Flood	Fine	Calm	16:51	1.8	M	0.9	2					7.82		27.73		20.55		100.8		7.76			5.5			14			<1.5			0.005			0.2			0.3			0.20			0.3			0.09			12		
DB1	26/12/2020	Mid-Flood	Fine	Calm	16:51	1.8	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
DB1	26/12/2020	Mid-Flood	Fine	Calm	16:51	1.8	B		2																																							
SP1	26/12/2020	Mid-Flood	Fine	Calm	15:36	2.4	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
SP1	26/12/2020	Mid-Flood	Fine	Calm	15:36	2.4	S		2																																							
SP1	26/12/2020	Mid-Flood	Fine	Calm	15:36	2.4	M	1.2	1	0.310		129.3		7.12	7.12	11.29	11.32	21.50	21.50	22.1	21.8	1.78	1.75	1.75	25.1	24.1	24.1	41	41	41	<1.5	1.5	1.5	0.043	0.041	0.041	11.0	10.5	10.5	11.0	11.0	11.0	7.90	7.70	7.70	8.1	7.9	7.9	0.98	0.98	0.98	31000	39762	39762
SP1	26/12/2020	Mid-Flood	Fine	Calm	15:36	2.4	M	1.2	2					7.11		11.35		21.50		21.5		1.72			23.0			41			1.5			0.040			10.0			11.0			7.50			7.7			0.98			51000		
SP1	26/12/2020	Mid-Flood	Fine	Calm	15:36	2.4	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
SP1	26/12/2020	Mid-Flood	Fine	Calm	15:36	2.4	B		2																																							
KT1	26/12/2020	Mid-Flood	Fine	Calm	15:54	2.0	S		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
KT1	26/12/2020	Mid-Flood	Fine	Calm	15:54	2.0	S		2																																							
KT1	26/12/2020	Mid-Flood	Fine	Calm	15:54	2.0	M	1	1	0.164		109.7		7.30	7.30	11.17	11.19	21.59	21.71	70.0	69.3	5.56	5.43	5.43	25.1	25.1	25.1	37	37	37	2.5	2.0	2.0	0.056	0.057	0.057	7.0	7.1	7.1	7.2	7.3	7.3	6.80	6.90	6.90	7.0	7.1	7.1	1.00	1.00	1.00	5500	5450	5450
KT1	26/12/2020	Mid-Flood	Fine	Calm	15:54	2.0	M	1	2					7.29		11.20		21.83		68.5		5.30			25.0			36			<1.5			0.057			7.2			7.4			7.00			7.2			1.00			5400		
KT1	26/12/2020	Mid-Flood	Fine	Calm	15:54	2.0	B		1						NA		NA		NA		NA		NA			NA				NA			NA			NA			NA			NA			NA			NA		
KT1	26/12/2020	Mid-Flood	Fine	Calm	15:54	2.0	B		2																																							

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement																Laboratory Analysis																					
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)			Turbidity (NTU)			Total Suspended Solids (mg/L)			BOD_5 (mg/L)			UIA (mg/L-N)			Total Kjeldahl Nitrogen (mg/L-N)			Total Nitrogen (mg/L-N)			Ammonical Nitrogen (mg/L)			Total Inorganic nitrogen (mg/L)			Total Phosphorus (mg/L)			E.coli (cfu/100mL)		
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	S & M Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Value	Ave.	Depth Ave.
M1	26/12/2020	Mid-Ebb	Fine	Calm	11:15	1.7	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	26/12/2020	Mid-Ebb	Fine	Calm	11:15	1.7	S		2																																							
M1	26/12/2020	Mid-Ebb	Fine	Calm	11:15	1.7	M	0.85	1	0.261	136.7	7.20	7.20	10.55	10.55	21.92	21.92	46.0	46.0	4.07	4.07	4.07	39.1	40.2	40.2	24	24	24		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M1	26/12/2020	Mid-Ebb	Fine	Calm	11:15	1.7	M	0.85	2			7.19		10.55		21.92		46.0		4.07			41.3			24																					
M1	26/12/2020	Mid-Ebb	Fine	Calm	11:15	1.7	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M1	26/12/2020	Mid-Ebb	Fine	Calm	11:15	1.7	B		2																																							
M2	26/12/2020	Mid-Ebb	Fine	Calm	11:21	0.9	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	26/12/2020	Mid-Ebb	Fine	Calm	11:21	0.9	S		2																																							
M2	26/12/2020	Mid-Ebb	Fine	Calm	11:21	0.9	M	0.45	1	0.206	79.8	7.19	7.19	9.97	9.98	22.11	22.13	29.0	28.7	2.26	2.25	2.25	19.0	19.1	19.1	31	31	31		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M2	26/12/2020	Mid-Ebb	Fine	Calm	11:21	0.9	M	0.45	2			7.19		9.98		22.15		28.3		2.23			19.1			31																					
M2	26/12/2020	Mid-Ebb	Fine	Calm	11:21	0.9	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M2	26/12/2020	Mid-Ebb	Fine	Calm	11:21	0.9	B		2																																							
M3	26/12/2020	Mid-Ebb	Fine	Calm	11:25	0.2	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M3	26/12/2020	Mid-Ebb	Fine	Calm	11:25	0.2	S		2																																							
M3	26/12/2020	Mid-Ebb	Fine	Calm	11:25	0.2	M	0.1	1	0.002	80.1	7.65	7.67	5.57	5.58	22.91	23.04	40.0	37.6	3.33	3.12	3.12	13.7	14.4	14.4	28	28	28		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA		NA	NA
M3	26/12/2020	Mid-Ebb	Fine	Calm	11:25	0.2	M	0.1	2			7.68		5.58		23.16		35.1		2.91			15.1			28																					
M3	26/12/2020	Mid-Ebb	Fine	Calm	11:25	0.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
M3	26/12/2020	Mid-Ebb	Fine	Calm	11:25	0.2	B		2																																							
E1	26/12/2020	Mid-Ebb	Fine	Calm	10:55	5.0	S	1	1			7.15	7.15	13.55	13.56	20.92	20.92	41.0	40.9	3.32	3.31	3.31	20.4	20.4		29	29		2.5	2.5		0.038	0.037		7.2	7.0		7.4	7.3		7.00	6.70		7.2	6.9		0.76	0.76		12000	11489	
E1	26/12/2020	Mid-Ebb	Fine	Calm	10:55	5.0	S	1	2			7.15		13.56		20.92		40.7		3.30			20.4			28			2.5			0.035			6.8			7.1			6.40			6.6			0.75			11000		
E1	26/12/2020	Mid-Ebb	Fine	Calm	10:55	5.0	M		1				NA		NA		NA		NA		NA			NA			NA		27		NA	2.5			NA	0.037		NA	7.5			NA	7.8			NA	6.23			NA	6.4			NA	0.79			NA		10632
E1	26/12/2020	Mid-Ebb	Fine	Calm	10:55	5.0	M		2																																							
E1	26/12/2020	Mid-Ebb	Fine	Calm	10:55	5.0	B	4	1	0.066	198.5	7.25	7.25	19.83	19.83	20.43	20.44	49.5	49.7	4.07	4.08		39.2	39.2	29.8	26	26		2.5	2.5		0.039	0.037		8.2	8.1		8.5	8.4		6.10	5.75		6.3	6.0		0.83	0.82		8800	9839	
E1	26/12/2020	Mid-Ebb	Fine	Calm	10:55	5.0	B	4	2			7.25		19.83		20.45		49.8		4.08			39.1			26			2.5			0.035			7.9			8.2			5.40			5.6			0.81			11000		
E2a	26/12/2020	Mid-Ebb	Fine	Calm	10:38	2.2	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E2a	26/12/2020	Mid-Ebb	Fine	Calm	10:38	2.2	S		2																																							
E2a	26/12/2020	Mid-Ebb	Fine	Calm	10:38	2.2	M	1.1	1	0.220	137.8	7.29	7.29	16.70	16.72	19.99	20.11	69.0	68.6	5.50	5.47	5.47	24.2	24.2	24.2	43	43	43	3.0	2.8	2.8	0.040	0.043	0.043	6.2	6.5	6.5	6.4	6.8	6.8	5.80	6.20	6.20	6.0	6.4	6.4	0.41	0.41	0.41	7000	6148	6148
E2a	26/12/2020	Mid-Ebb	Fine	Calm	10:38	2.2	M	1.1	2			7.28		16.74		20.23		68.1		5.43			24.2			43			2.5			0.045			6.8			7.1			6.60			6.8			0.40			5400		
E2a	26/12/2020	Mid-Ebb	Fine	Calm	10:38	2.2	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E2a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	B		2																																							
E3a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E3a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	S		2																																							
E3a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	M	1.3	1	0.326	309.7	7.68	7.68	26.31	26.31	20.03	20.03	96.5	96.4	7.49	7.48	7.48	17.4	17.6	17.6	32	32	32	<1.5	1.5	1.5	0.008	0.008	0.008	0.5	0.5	0.5	0.6	0.6	0.6	0.50	0.49	0.49	0.6	0.6	0.6	0.14	0.14	0.14	130	130	130
E3a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	M	1.3	2			7.68		26.31		20.02		96.2		7.47			17.8			31			<1.5			0.008			0.5			0.6			0.48			0.6			0.14			130		
E3a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E3a	26/12/2020	Mid-Ebb	Fine	Calm	10:16	2.6	B		2																																							
E4	26/12/2020	Mid-Ebb	Fine	Calm	10:48	2.3	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E4	26/12/2020	Mid-Ebb	Fine	Calm	10:48	2.3	S		2																																							
E4	26/12/2020	Mid-Ebb	Fine	Calm	10:48	2.3	M	1.15	1	0.192	78.9	7.23	7.23	14.38	14.38	21.09	21.07	53.8	53.7	4.39	4.38	4.38	25.7	25.7	25.7	30	31	31	3.0	3.3	3.3	0.029	0.029	0.029	4.5	4.6	4.6	4.7	4.8	4.8	4.30	4.45	4.45	4.6	4.8	4.8	0.56	0.58	0.58	13000	9192	9192
E4	26/12/2020	Mid-Ebb	Fine	Calm	10:48	2.3	M	1.15	2			7.23		14.38		21.04		53.6		4.36			25.7			31			3.5			0.030			4.7			4.9			4.60			4.9			0.59			6500		
E4	26/12/2020	Mid-Ebb	Fine	Calm	10:48	2.3	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E4	26/12/2020	Mid-Ebb	Fine	Calm	10:48	2.3	B		2																																							
E5a	26/12/2020	Mid-Ebb	Fine	Calm	11:11	2.9	S	1	1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E5a	26/12/2020	Mid-Ebb	Fine	Calm	11:11	2.9	S	1	2																																							
E5a	26/12/2020	Mid-Ebb	Fine	Calm	11:11	2.9	M		1	0.361	188.6	7.21	7.21	10.04	10.04	22.18	22.19	24.9	24.7	2.00	2.00	2.00	19.0	19.1	19.1	29	29	29	3.0	3.0	3.0	0.091	0.098	0.098	14.0	15.0	15.0	14.0	16.0	16.0	13.00	14.00	14.00	14.0	15.0	15.0	0.96	0.97	0.97	58000	57498	57498
E5a	26/12/2020	Mid-Ebb	Fine	Calm	11:11	2.9	M		2			7.21		10.04		22.19		24.5		2.00			19.2			29			3.0			0.106			16.0			16.0			15.00			16.0			0.97			57000		
E5a	26/12/2020	Mid-Ebb	Fine	Calm	11:11	2.9	B	1.9	1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
E5a	26/12/2020	Mid-Ebb	Fine	Calm	11:11	2.9	B	1.9	2																																							
DB1	26/12/2020	Mid-Ebb	Fine	Calm	10:05	2.1	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
DB1	26/12/2020	Mid-Ebb	Fine	Calm	10:05	2.1	S		2																																							
DB1	26/12/2020	Mid-Ebb	Fine	Calm	10:05	2.1	M	1.05	1	0.297	31.7	7.67	7.67	27.57	27.57	19.77	19.77	97.2	97.2	7.52	7.52	7.52	6.4	6.4	6.4	17	17	17	<1.5	1.5	1.5	0.003	0.003	0.003	0.3	0.3	0.3	0.3	0.3	0.3	0.20	0.19	0.19	0.3	0.3	0.3	0.11	0.10	0.10	34	33	33
DB1	26/12/2020	Mid-Ebb	Fine	Calm	10:05	2.1	M	1.05	2			7.67		27.57		19.77		97.1		7.51			6.4			16			<1.5			0.003			0.3			0.3			0.18			0.3			0.08			33		
DB1	26/12/2020	Mid-Ebb	Fine	Calm	10:05	2.1	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
DB1	26/12/2020	Mid-Ebb	Fine	Calm	10:05	2.1	B		2																																							
SP1	26/12/2020	Mid-Ebb	Fine	Calm	11:29	2.6	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
SP1	26/12/2020	Mid-Ebb	Fine	Calm	11:29	2.6	S		2																																							
SP1	26/12/2020	Mid-Ebb	Fine	Calm	11:29	2.6	M	1.3	1	0.153	321.3	7.17	7.17	10.31	10.32	22.71	22.72	23.4	23.3	1.87	1.87	1.87	35.1	36.0	36.0	28	28	28	2.5	2.5	2.5	0.073	0.073	0.073	13.0	12.5	12.5	13.0	13.0	13.0	11.00	11.00	11.00	11.0	11.0	11.0	0.94	0.97	0.97	46000	46989	46989
SP1	26/12/2020	Mid-Ebb	Fine	Calm	11:29	2.6	M	1.3	2			7.17		10.33		22.72		23.2		1.86			36.8			28			2.5			0.073			12.0			13.0			11.00			11.0			1.00			48000		
SP1	26/12/2020	Mid-Ebb	Fine	Calm	11:29	2.6	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
SP1	26/12/2020	Mid-Ebb	Fine	Calm	11:29	2.6	B		2																																							
KT1	26/12/2020	Mid-Ebb	Fine	Calm	11:04	2.3	S		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
KT1	26/12/2020	Mid-Ebb	Fine	Calm	11:04	2.3	S		2																																							
KT1	26/12/2020	Mid-Ebb	Fine	Calm	11:04	2.3	M	1.15	1	0.108	103.2	7.15	7.15	11.16	11.16	21.57	21.58	53.2	52.6	4.11	4.10	4.10	28.9	28.6	28.6	36	36	36	4.0	4.0	4.0	0.037	0.037	0.037	7.4	7.3	7.3	7.5	7.6	7.6	6.30	6.30	6.30	6.4	6.5	6.5	0.97	0.95	0.95	6900	7522	7522
KT1	26/12/2020	Mid-Ebb	Fine	Calm	11:04	2.3	M	1.15	2			7.15		11.15		21.58		52.0		4.09			28.3			35			4.0			0.037			7.2			7.6			6.30			6.5			0.93			8200		
KT1	26/12/2020	Mid-Ebb	Fine	Calm	11:04	2.3	B		1				NA		NA		NA		NA		NA			NA			NA			NA			NA			NA			NA			NA			NA		
KT1	26/12/2020	Mid-Ebb	Fine	Calm	11:04	2.3	B		2																																							

Notes: 1. Monitoring level: S – Surface; M – Middle; B – Bottom;

2. NA refers to "Not Applicable" as monitoring is not applicable for that water level or parameter;

3. Depth Average of E.coli is calculated by taking geometric mean of the monitoring results of the surface, middle and bottom levels.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	2.0	3.0	2.5	3.0	1.5	2.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	2.3	2.5	2.6	2.9	2.5	2.7	0.79	0.79
3. Total nitrogen content, mg/L	4.7	5.2	4.4	5.4	5.5	6.0	1.9	1.9
4. Ammonical nitrogen content, mg/L	1.9	1.9	2.2	1.8	1.2	1.2	0.32	0.3
5. Total Inorganic nitrogen, mg/L	4.2	4.5	4.0	4.4	4.2	4.4	1.5	1.4
6. Total phosphorus content, mgP/L	0.33	0.32	0.48	0.49	0.22	0.25	0.39	0.34
7. E. coli count, cfu/100ml	3.8×10^3	3.5×10^3	4.0×10^3	4.5×10^3	4.3×10^3	4.1×10^3	3.8 x 10	4.1 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 03/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 04/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	3.0	3.5	4.0	3.0	1.5	<1.5	3.5	3.5
2. Total Kjeldahl nitrogen content, mg/L	1.4	1.6	2.4	2.1	2.7	2.6	2.9	3.3
3. Total nitrogen content, mg/L	4.4	4.5	4.1	3.6	4.1	3.8	3.9	4.2
4. Ammonical nitrogen content, mg/L	1.3	1.1	2.1	1.9	2.5	2.5	2.4	2.7
5. Total Inorganic nitrogen, mg/L	4.2	4.0	3.7	3.4	3.9	3.7	3.3	3.6
6. Total phosphorus content, mgP/L	0.49	0.44	0.38	0.35	0.26	0.25	0.79	0.78
7. E. coli count, cfu/100ml	4.8×10^3	3.4×10^3	3.6×10^3	1.2×10^4	5.2 x 10	5.5 x 10	1.3×10^4	6.5×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 03/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 04/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	4.0	3.5	2.5	3.0	4.5	3.0	2.5	3.5
2. Total Kjeldahl nitrogen content, mg/L	3.0	3.6	2.0	2.0	1.9	2.0	2.2	1.9
3. Total nitrogen content, mg/L	4.4	5.1	4.6	5.2	5.0	4.3	4.6	4.4
4. Ammonical nitrogen content, mg/L	1.8	2.2	1.3	1.2	1.4	1.0	1.0	0.82
5. Total Inorganic nitrogen, mg/L	3.2	3.7	4.0	4.4	4.5	3.4	3.5	3.4
6. Total phosphorus content, mgP/L	0.84	0.83	0.44	0.49	0.46	0.49	0.57	0.54
7. E. coli count, cfu/100ml	5.7×10^3	7.3×10^3	3.2×10^3	3.8×10^3	4.2×10^3	3.3×10^3	4.9×10^3	3.1×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 03/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 04/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE S	E5aE S Dup	E5aE B	E5aE B Dup
1. Biochemical oxygen demand, mg/L	2.0	<1.5	3.0	3.5	3.5	3.5	3.0	3.0
2. Total Kjeldahl nitrogen content, mg/L	0.96	0.80	2.0	2.2	3.7	3.6	3.2	3.3
3. Total nitrogen content, mg/L	2.1	1.9	4.6	4.4	6.0	5.9	5.3	5.7
4. Ammonical nitrogen content, mg/L	0.25	0.25	0.91	0.96	2.4	2.2	2.0	1.8
5. Total Inorganic nitrogen, mg/L	1.4	1.3	3.5	3.2	4.6	4.4	4.1	4.1
6. Total phosphorus content, mgP/L	0.18	0.20	0.45	0.49	0.36	0.34	0.42	0.41
7. E. coli count, cfu/100ml	5.5 x 10	2.6 x 10	3.4×10^3	3.6×10^3	3.2×10^3	3.1×10^3	4.7×10^3	4.0×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 03/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 04/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202253(1)

Results :

Test parameters	Sample identification					
	DB1E M	DB1E M Dup	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	2.5	3.0	3.0	3.0
2. Total Kjeldahl nitrogen content, mg/L	0.68	0.42	3.7	3.6	3.3	3.1
3. Total nitrogen content, mg/L	2.2	2.3	4.4	4.4	5.6	5.4
4. Ammonical nitrogen content, mg/L	0.19	0.18	2.6	2.5	1.5	1.8
5. Total Inorganic nitrogen, mg/L	1.7	2.0	3.3	3.3	3.9	4.1
6. Total phosphorus content, mgP/L	0.21	0.21	0.33	0.35	0.40	0.47
7. E. coli count, cfu/100ml	6 (estimated)	1 (estimated)	5.4×10^3	5.4×10^3	3.9×10^3	4.6×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 03/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 04/12/2020 16:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.86	2.89	1.04
1.5	<1.5	-	2.84	2.87	1.05

2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	104.90	1.91	1.80	5.93
0.05	<0.05	97.40	3.01	3.10	2.95

3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	-	-	-	-

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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5 Lok Yi Street, Tai Lam
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Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	84.58	2.02	2.10	3.88
0.02	<0.02	117.25	0.60	0.54	10.5
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	103.90	0.52	0.52	0.00
0.01	<0.01	103.26	0.35	0.36	2.82
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	2.4×10^3	1.7×10^3	34.1
1	<1	-	1.4×10^3	1.0×10^3	33.3

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fifty samples of water taken by the staff of FTS on 05/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202260/1-50
Date of receipt of sample	:	05/12/2020
Date test commenced	:	06/12/2020
Date test completed	:	08/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	47
2. M1F M Dup	47
3. M2F M	37
4. M2F M Dup	37
5. E1F S	25
6. E1F S Dup	25
7. E1F B	32
8. E1F B Dup	34
9. E2aF M	40
10. E2aF M Dup	41
11. E3aF M	22
12. E3aF M Dup	22
13. E4F M	38
14. E4F M Dup	37
15. E5aF M	57
16. E5aF M Dup	59
17. DB1F M	20
18. DB1F M Dup	19
19. SP1F M	55
20. SP1F M Dup	56
21. KT1F M	28
22. KT1F M Dup	30

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	29
24. M1E M Dup	30
25. M2E M	37
26. M2E M Dup	36
27. E1E S	42
28. E1E S Dup	43
29. E1E B	53
30. E1E B Dup	54
31. E2aE M	26
32. E2aE M Dup	24
33. E3aE M	16
34. E3aE M Dup	17
35. E4E M	29
36. E4E M Dup	31
37. E5aE S	58
38. E5aE S Dup	58
39. E5aE B	69
40. E5aE B Dup	69
41. DB1E M	88
42. DB1E M Dup	89
43. SP1E M	50
44. SP1E M Dup	52

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. KT1E M	45
46. KT1E M Dup	45
47. M3F M	43
48. M3F M Dup	42
49. M3E M	50
50. M3E M Dup	51

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	99.16	37.7	36.2	4.06
	<1	100.10	55.8	55.8	0.00
	<1	99.60	24.7	23.3	5.83
	<1	100.36	41.7	43.3	3.76
	<1	99.46	49.3	51.7	4.75

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-eight samples of water taken by the staff of FTS on 05/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202260/5-22, 27-46	WA202260/5B-22B, 27B-46B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-eight 2 L plastic bottles and thirty-eight 0.18 mL plastic bottles	Thirty-eight sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	05/12/2020
Date test commenced	:	05/12/2020
Date test completed	:	13/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
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Tuen Mun, NT
Hong Kong

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	4.0	4.0	5.0	5.0	3.0	1.5	2.0	<1.5
2. Total Kjeldahl nitrogen content, mg/L	2.1	2.3	3.2	3.0	2.0	1.9	0.91	0.73
3. Total nitrogen content, mg/L	3.7	3.6	4.6	4.6	4.4	4.4	1.9	1.6
4. Ammonical nitrogen content, mg/L	2.1	2.1	1.3	1.6	0.76	0.6	0.45	0.45
5. Total Inorganic nitrogen, mg/L	3.6	3.4	2.8	3.1	3.2	3.1	1.5	1.3
6. Total phosphorus content, mgP/L	0.34	0.32	0.38	0.37	0.29	0.27	0.17	0.19
7. E. coli count, cfu/100ml	1.4×10^3	1.4×10^3	1.6×10^3	1.6×10^3	1.9×10^3	1.3×10^3	9.8 x 10	8.0 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 3.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 05/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 05/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	3.5	2.5	4.5	3.5	2.0	<1.5	5.0	4.5
2. Total Kjeldahl nitrogen content, mg/L	2.5	2.3	3.4	3.0	0.67	0.64	4.6	4.1
3. Total nitrogen content, mg/L	4.4	4.2	4.8	4.2	1.6	1.8	5.2	4.8
4. Ammonical nitrogen content, mg/L	1.3	1.4	1.8	1.8	0.28	0.26	1.5	1.7
5. Total Inorganic nitrogen, mg/L	3.1	3.3	3.2	3.0	1.2	1.4	2.1	2.4
6. Total phosphorus content, mgP/L	0.17	0.16	0.31	0.31	0.08	0.07	0.24	0.24
7. E. coli count, cfu/100ml	8.0×10^2	1.0×10^3	3.3×10^3	1.9×10^3	2.4 x 10	3.8 x 10	3.1×10^3	3.2×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 3.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 05/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 05/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	5.0	4.0	3.5	3.0	4.0	3.0	2.5	1.5
2. Total Kjeldahl nitrogen content, mg/L	3.8	3.8	1.8	1.9	1.9	1.9	1.3	1.2
3. Total nitrogen content, mg/L	4.9	4.7	3.6	3.9	3.7	3.7	2.7	2.6
4. Ammonical nitrogen content, mg/L	2.7	2.7	0.57	0.75	0.53	0.53	0.72	0.76
5. Total Inorganic nitrogen, mg/L	3.8	3.6	2.5	2.7	2.3	2.4	2.2	2.2
6. Total phosphorus content, mgP/L	0.27	0.26	0.52	0.52	0.32	0.34	0.28	0.26
7. E. coli count, cfu/100ml	1.9×10^3	2.1×10^3	1.2×10^3	1.9×10^3	2.4×10^3	2.2×10^3	1.2×10^3	6.0×10^2

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 3.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 05/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 05/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE S	E5aE S Dup	E5aE B	E5aE B Dup
1. Biochemical oxygen demand, mg/L	2.0	<1.5	3.5	3.0	3.0	3.5	3.0	3.5
2. Total Kjeldahl nitrogen content, mg/L	0.53	0.52	1.4	1.7	2.8	3.0	3.4	2.7
3. Total nitrogen content, mg/L	1.1	1.1	2.7	3.3	4.1	4.3	4.8	4.1
4. Ammonical nitrogen content, mg/L	0.24	0.24	0.88	0.86	1.0	1.1	0.94	1.3
5. Total Inorganic nitrogen, mg/L	0.81	0.83	2.1	2.5	2.3	2.3	2.3	2.7
6. Total phosphorus content, mgP/L	0.11	0.13	0.25	0.23	0.31	0.29	0.33	0.32
7. E. coli count, cfu/100ml	1.4 x 10	1.8 x 10	1.0×10^3	1.1×10^3	1.8×10^3	1.2×10^3	2.4×10^3	1.2×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 3.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 05/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 05/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202260(1)

Results :

Test parameters	Sample identification					
	DB1E M	DB1E M Dup	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	4.0	3.5	3.0	3.0
2. Total Kjeldahl nitrogen content, mg/L	0.40	0.36	4.1	4.4	3.2	3.1
3. Total nitrogen content, mg/L	1.4	1.4	4.5	4.8	4.3	4.2
4. Ammonical nitrogen content, mg/L	0.24	0.24	2.7	2.5	1.0	0.96
5. Total Inorganic nitrogen, mg/L	1.3	1.3	3.1	2.9	2.1	2.1
6. Total phosphorus content, mgP/L	0.09	0.09	0.39	0.39	0.38	0.35
7. E. coli count, cfu/100ml	3 (estimated)	4 (estimated)	2.0×10^3	1.4×10^3	1.7×10^3	1.2×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 3.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 05/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 05/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.86	2.89	1.04
1.5	<1.5	-	2.84	2.87	1.05
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	104.90	1.91	1.80	5.93
0.05	<0.05	97.40	3.01	3.10	2.95
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	-	-	-	-

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Note

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4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	84.58	2.02	2.10	3.88
0.02	<0.02	117.25	0.60	0.54	10.5
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	103.90	0.52	0.52	0.00
0.01	<0.01	103.26	0.35	0.36	2.82
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	2.4×10^3	1.7×10^3	34.1
1	<1	-	1.4×10^3	1.0×10^3	33.3

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Assistant General Manager – Laboratories

Date : 15/11/2021

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Report No. : 181172WA202290

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 08/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202290/1-48
Date of receipt of sample	:	08/12/2020
Date test commenced	:	09/12/2020
Date test completed	:	10/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	60
2. M1F M Dup	59
3. M2F M	84
4. M2F M Dup	85
5. E1F S	27
6. E1F S Dup	26
7. E1F B	30
8. E1F B Dup	30
9. E2aF M	26
10. E2aF M Dup	26
11. E3aF M	13
12. E3aF M Dup	14
13. E4F M	30
14. E4F M Dup	29
15. E5aF M	60
16. E5aF M Dup	59
17. DB1F M	14
18. DB1F M Dup	14
19. SP1F M	66
20. SP1F M Dup	67
21. KT1F M	26
22. KT1F M Dup	27

Remark: Disclaimer: Sampling is out of scope of accreditation.

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Report No. : 181172WA202290

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	42
24. M1E M Dup	41
25. M2E M	120
26. M2E M Dup	120
27. E1E S	27
28. E1E S Dup	26
29. E1E B	26
30. E1E B Dup	26
31. E2aE M	66
32. E2aE M Dup	66
33. E3aE M	19
34. E3aE M Dup	19
35. E4E M	39
36. E4E M Dup	37
37. E5aE M	30
38. E5aE M Dup	31
39. DB1E M	12
40. DB1E M Dup	11
41. SP1E M	33
42. SP1E M Dup	32
43. KT1E M	44
44. KT1E M Dup	44

Remark: Disclaimer: Sampling is out of scope of accreditation.

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Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	87
46. M3F M Dup	85
47. M3E M	87
48. M3E M Dup	91

Remark: Disclaimer: Sampling is out of scope of accreditation.

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End of Report

Note : This report refers only to the sample(s) tested.

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Note

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Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	99.90	14.0	13.3	5.13
	<1	99.30	13.8	14.2	2.86
	<1	99.86	122	121	0.82
	<1	99.06	31.0	32.8	5.64
	<1	100.56	91.7	90.3	1.54

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Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 08/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202290/5-22, 27-44	WA202290/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample : 08/12/2020

Date test commenced : 09/12/2020

Date test completed : 14/12/2020

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	2.0	<1.5	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	5.1	5.9	5.0	4.8	3.1	3.3	0.78	0.85
3. Total nitrogen content, mg/L	5.8	6.6	5.5	5.4	3.8	4.1	1.3	1.3
4. Ammonical nitrogen content, mg/L	3.5	4.1	3.2	2.7	1.8	2.1	0.41	0.38
5. Total Inorganic nitrogen, mg/L	4.2	4.8	3.8	3.4	2.4	2.9	0.95	0.87
6. Total phosphorus content, mgP/L	0.55	0.57	0.54	0.57	0.38	0.36	0.11	0.12
7. E. coli count, cfu/100ml	1.7×10^4	1.7×10^4	1.4×10^4 (estimated)	1.5×10^4 (estimated)	1.2×10^4 (estimated)	1.3×10^4 (estimated)	1.3×10^2 (estimated)	1.3×10^2 (estimated)

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.6°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 08/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 09/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

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Date : 15/1/2021

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Report No. : 181172WA202290(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	2.5	2.5	2.0	2.5	<1.5	<1.5	3.0	1.5
2. Total Kjeldahl nitrogen content, mg/L	5.0	5.0	4.9	5.0	0.96	0.88	5.1	5.6
3. Total nitrogen content, mg/L	5.7	5.7	5.6	5.6	1.5	1.3	5.6	6.1
4. Ammonical nitrogen content, mg/L	2.9	3.0	3.4	3.9	0.66	0.63	4.2	4.0
5. Total Inorganic nitrogen, mg/L	3.6	3.7	4.0	4.5	1.2	1.1	4.7	4.6
6. Total phosphorus content, mgP/L	0.43	0.46	0.67	0.71	0.10	0.10	0.66	0.68
7. E. coli count, cfu/100ml	1.3×10^4 (estimated)	1.2×10^4 (estimated)	2.5×10^4	4.0×10^4	5.2 x 10	4.4 x 10	8.6×10^4	5.4×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.6°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 08/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 09/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Assistant General Manager – Laboratories

Date : 15/12/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	3.0	3.0	1.5	2.0	<1.5	3.0	3.0	2.5
2. Total Kjeldahl nitrogen content, mg/L	6.8	7.4	4.3	4.6	4.2	4.4	1.8	2.1
3. Total nitrogen content, mg/L	7.4	7.9	4.8	5.2	4.9	4.9	2.4	2.6
4. Ammonical nitrogen content, mg/L	5.6	4.9	2.4	2.7	2.5	2.4	0.88	0.97
5. Total Inorganic nitrogen, mg/L	6.2	5.4	2.9	3.2	3.2	2.9	1.4	1.5
6. Total phosphorus content, mgP/L	0.77	0.77	0.43	0.47	0.46	0.43	0.30	0.31
7. E. coli count, cfu/100ml	1.6×10^4 (estimated)	1.4×10^4 (estimated)	3.8×10^4	3.1×10^4	5.3×10^4	4.3×10^4	5.5×10^3	4.2×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.6°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 08/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 09/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	2.5	2.5	<1.5	1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.76	0.67	2.4	2.3	4.6	4.5	0.84	1.0
3. Total nitrogen content, mg/L	1.0	0.96	3.0	2.9	5.3	5.1	1.1	1.3
4. Ammonical nitrogen content, mg/L	0.35	0.36	1.3	1.3	3.9	2.8	0.61	0.66
5. Total Inorganic nitrogen, mg/L	0.62	0.65	1.9	1.8	4.5	3.4	0.84	0.90
6. Total phosphorus content, mgP/L	0.13	0.13	0.35	0.34	0.01	0.01	0.09	0.10
7. E. coli count, cfu/100ml	1.3×10^2 (estimated)	1.2×10^2 (estimated)	1.5×10^4 (estimated)	1.4×10^4 (estimated)	5.7×10^4	4.6×10^4	1.1×10^2 (estimated)	1.0×10^2 (estimated)

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.6°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 08/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 09/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202290(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	2.0	1.5	2.5	3.0
2. Total Kjeldahl nitrogen content, mg/L	5.6	5.2	4.7	4.8
3. Total nitrogen content, mg/L	6.1	5.6	5.2	5.1
4. Ammonical nitrogen content, mg/L	3.3	3.3	3.7	3.8
5. Total Inorganic nitrogen, mg/L	3.8	3.8	4.1	4.2
6. Total phosphorus content, mgP/L	0.62	0.56	0.63	0.67
7. E. coli count, cfu/100ml	7.6×10^4	8.9×10^4	3.0×10^3	3.1×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.6°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 08/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 09/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

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Assistant General Manager – Laboratories

Date : 15/11/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

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Note

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1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	1.82	1.89	3.77
1.5	<1.5	-	2.77	2.68	3.30

2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	97.40	4.68	4.52	3.48
0.05	<0.05	86.10	4.74	4.89	3.12

3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	101.02	5.13	5.23	2.88

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Note

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4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	102.42	3.57	3.51	1.69
0.02	<0.02	104.16	2.41	2.36	2.10

5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	97.80	0.47	0.48	2.11
0.01	<0.01	115.50	0.66	0.69	4.44

6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	1.5×10^4	1.3×10^4	11.3
1	<1	-	2.7×10^3	3.5×10^3	25.8

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Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Hong Kong

Report No. : 181172WA202298

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 10/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202298/1-48
Date of receipt of sample	:	10/12/2020
Date test commenced	:	11/12/2020
Date test completed	:	12/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202298

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	32
2. M1F M Dup	32
3. M2F M	35
4. M2F M Dup	36
5. E1F S	39
6. E1F S Dup	40
7. E1F B	51
8. E1F B Dup	50
9. E2aF M	43
10. E2aF M Dup	43
11. E3aF M	25
12. E3aF M Dup	25
13. E4F M	37
14. E4F M Dup	36
15. E5aF M	47
16. E5aF M Dup	48
17. DB1F M	18
18. DB1F M Dup	18
19. SP1F M	48
20. SP1F M Dup	49
21. KT1F M	27
22. KT1F M Dup	29

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	42
24. M1E M Dup	43
25. M2E M	42
26. M2E M Dup	41
27. E1E S	37
28. E1E S Dup	36
29. E1E B	63
30. E1E B Dup	62
31. E2aE M	33
32. E2aE M Dup	34
33. E3aE M	33
34. E3aE M Dup	33
35. E4E M	31
36. E4E M Dup	30
37. E5aE M	45
38. E5aE M Dup	44
39. DB1E M	39
40. DB1E M Dup	38
41. SP1E M	38
42. SP1E M Dup	37
43. KT1E M	34
44. KT1E M Dup	35

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	110
46. M3F M Dup	100
47. M3E M	27
48. M3E M Dup	26

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	98.26	24.3	25.5	4.82
	<1	100.06	18.2	18.0	1.10
	<1	100.60	41.2	41.5	0.73
	<1	100.76	36.0	37.8	4.88
	<1	101.26	24.3	27.7	13.1

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 10/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202298/5-22, 27-44	WA202298/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	10/12/2020
Date test commenced	:	10/12/2020
Date test completed	:	16/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
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5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	2.0	<1.5	1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	3.5	4.1	2.8	2.8	1.3	1.1	0.44	0.50
3. Total nitrogen content, mg/L	3.9	4.5	3.2	3.2	1.6	1.4	0.52	0.58
4. Ammonical nitrogen content, mg/L	3.2	2.6	2.2	1.4	0.75	0.76	0.17	0.17
5. Total Inorganic nitrogen, mg/L	3.6	3.0	2.5	1.8	1.1	1.1	0.25	0.25
6. Total phosphorus content, mgP/L	0.47	0.53	0.48	0.51	0.25	0.25	0.09	0.09
7. E. coli count, cfu/100ml	3.0×10^3	4.1×10^3	3.0×10^3	3.5×10^3	4.0×10^2	4.0×10^2	3.6 x 10	4.6 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.9°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 10/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 11/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	2.0	2.0	2.0	2.0	<1.5	<1.5	2.0	2.0
2. Total Kjeldahl nitrogen content, mg/L	1.4	1.3	3.3	4.1	0.49	0.44	6.0	5.7
3. Total nitrogen content, mg/L	1.7	1.7	3.7	4.4	0.65	0.57	6.7	6.1
4. Ammonical nitrogen content, mg/L	0.99	0.98	2.4	2.7	0.14	0.19	2.4	2.7
5. Total Inorganic nitrogen, mg/L	1.3	1.4	2.8	3.0	0.30	0.32	2.8	3.0
6. Total phosphorus content, mgP/L	0.33	0.33	0.64	0.67	0.07	0.06	0.82	0.81
7. E. coli count, cfu/100ml	1.6×10^3	1.7×10^3	3.5×10^3	3.8×10^3	1.3 x 10	1.0 x 10	4.5×10^3	3.9×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.9°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 10/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 11/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	2.5	2.0	2.0	2.0	<1.5	<1.5	2.0	3.0
2. Total Kjeldahl nitrogen content, mg/L	4.6	3.9	5.7	4.5	3.6	3.7	3.7	3.7
3. Total nitrogen content, mg/L	5.0	4.2	6.0	4.8	3.9	4.0	4.0	4.0
4. Ammonical nitrogen content, mg/L	3.0	3.1	5.6	2.5	2.4	0.72	2.5	2.5
5. Total Inorganic nitrogen, mg/L	3.3	3.4	5.9	2.8	2.7	0.95	2.8	2.8
6. Total phosphorus content, mgP/L	0.60	0.60	0.54	0.74	0.49	0.52	0.51	0.55
7. E. coli count, cfu/100ml	2.6×10^3	2.8×10^3	5.2×10^3	4.5×10^3	4.0×10^3	2.7×10^3	5.9×10^3	5.4×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.9°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 10/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 11/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	3.0	3.0	2.0	2.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.39	0.38	5.6	5.4	8.3	9.4	0.70	0.72
3. Total nitrogen content, mg/L	0.48	0.47	6.0	5.8	9.6	11	0.78	0.79
4. Ammonical nitrogen content, mg/L	0.17	0.16	2.9	3.7	7.5	7.2	0.42	0.35
5. Total Inorganic nitrogen, mg/L	0.27	0.25	3.3	4.1	8.9	8.5	0.51	0.43
6. Total phosphorus content, mgP/L	0.11	0.11	0.68	0.63	1.0	1.0	0.08	0.09
7. E. coli count, cfu/100ml	2.6 x 10	3.2 x 10	5.6×10^3	6.9×10^3	1.2×10^4	1.3×10^4	6.5 x 10	8.3 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.9°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 10/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 11/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202298(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	2.5	2.0	2.0	2.5
2. Total Kjeldahl nitrogen content, mg/L	7.8	6.5	8.3	7.3
3. Total nitrogen content, mg/L	8.1	6.8	8.6	7.7
4. Ammonical nitrogen content, mg/L	2.1	2.4	4.1	3.0
5. Total Inorganic nitrogen, mg/L	2.4	2.7	4.4	3.4
6. Total phosphorus content, mgP/L	0.86	0.88	0.85	0.83
7. E. coli count, cfu/100ml	6.5×10^4	6.0×10^4	4.6×10^3	5.3×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.9°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 10/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 11/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/12/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.22	2.17	2.28
1.5	<1.5	-	2.51	2.46	2.01

2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	99.20	4.58	4.38	4.46
0.05	<0.05	99.90	0.73	0.71	2.78

3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	99.22	7.24	7.39	2.05

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	113.95	3.17	3.20	0.94
0.02	<0.02	105.25	5.60	5.59	0.18
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	102.10	0.74	0.74	0.00
0.01	<0.01	103.10	0.83	0.84	1.20
6. E. coli count, cfu/100ml					
Reporting Limit1-	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	2.7×10^3	2.9×10^3	7.14
1	<1	-	5.0×10^3	5.5×10^3	9.52

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 12/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202299/1-48
Date of receipt of sample	:	12/12/2020
Date test commenced	:	12/12/2020
Date test completed	:	15/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	45
2. M1F M Dup	44
3. M2F M	48
4. M2F M Dup	46
5. E1F S	19
6. E1F S Dup	19
7. E1F B	34
8. E1F B Dup	34
9. E2aF M	39
10. E2aF M Dup	40
11. E3aF M	21
12. E3aF M Dup	21
13. E4F M	51
14. E4F M Dup	51
15. E5aF M	38
16. E5aF M Dup	35
17. DB1F M	34
18. DB1F M Dup	33
19. SP1F M	27
20. SP1F M Dup	27
21. KT1F M	27
22. KT1F M Dup	27

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	57
24. M1E M Dup	60
25. M2E M	39
26. M2E M Dup	40
27. E1E S	37
28. E1E S Dup	38
29. E1E B	36
30. E1E B Dup	35
31. E2aE M	17
32. E2aE M Dup	17
33. E3aE M	66
34. E3aE M Dup	65
35. E4E M	32
36. E4E M Dup	33
37. E5aE M	40
38. E5aE M Dup	39
39. DB1E M	21
40. DB1E M Dup	22
41. SP1E M	37
42. SP1E M Dup	36
43. KT1E M	56
44. KT1E M Dup	55

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2024

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	36
46. M3F M Dup	37
47. M3E M	33
48. M3E M Dup	34

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2024

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	99.96	39.2	40.3	2.77
	<1	100.86	34.3	34.5	0.58
	<1	100.10	39.3	39.0	0.77
	<1	99.40	37.3	36.0	3.55
	<1	99.90	33.7	33.7	0.00

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 12/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202299/5-22, 27-44	WA202299/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample : 12/12/2020

Date test commenced : 12/12/2020

Date test completed : 17/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	1.5	2.5	2.5	3.0	<1.5	<1.5	2.0	2.5
2. Total Kjeldahl nitrogen content, mg/L	5.6	5.6	5.6	5.9	1.5	1.5	1.9	1.9
3. Total nitrogen content, mg/L	6.1	5.9	5.9	6.3	1.7	1.9	2.9	2.7
4. Ammonical nitrogen content, mg/L	4.8	3.4	3.5	3.4	0.2	0.2	0.98	1.0
5. Total Inorganic nitrogen, mg/L	5.3	3.8	3.8	3.8	0.47	0.51	2.0	1.8
6. Total phosphorus content, mgP/L	0.66	0.68	0.64	0.62	0.15	0.12	0.20	0.20
7. E. coli count, cfu/100ml	1.3×10^4 (estimated)	1.4×10^4 (estimated)	1.4×10^4 (estimated)	1.4×10^4 (estimated)	2.9×10^3	2.4×10^3	4.3 x 10	4.1 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 12/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 12/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/11/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	3.5	3.0	4.5	4.5	<1.5	1.5	4.0	4.0
2. Total Kjeldahl nitrogen content, mg/L	3.6	3.8	5.4	6.0	0.70	0.69	6.2	6.6
3. Total nitrogen content, mg/L	4.3	4.3	5.8	6.4	0.96	0.90	6.6	7.1
4. Ammonical nitrogen content, mg/L	2.4	2.6	3.5	3.9	0.21	0.2	2.6	2.4
5. Total Inorganic nitrogen, mg/L	3.1	3.1	3.9	4.3	0.47	0.41	2.9	2.8
6. Total phosphorus content, mgP/L	0.44	0.41	0.76	0.79	0.19	0.16	0.88	0.89
7. E. coli count, cfu/100ml	9.0×10^3	9.1×10^3	1.2×10^4 (estimated)	1.3×10^4 (estimated)	1.7 x10	2.8 x 10	1.4×10^5 (estimated)	1.7×10^5 (estimated)

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 12/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 12/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	5.0	5.0	3.0	3.5	3.5	4.0	2.0	2.0
2. Total Kjeldahl nitrogen content, mg/L	6.9	6.0	5.4	5.1	5.4	5.4	1.60	1.80
3. Total nitrogen content, mg/L	7.2	6.3	5.9	5.5	5.8	5.9	1.8	1.9
4. Ammonical nitrogen content, mg/L	5.3	4.7	5.0	3.4	3.7	3.5	0.22	0.26
5. Total Inorganic nitrogen, mg/L	5.6	5.0	5.4	3.8	4.1	3.9	0.40	0.42
6. Total phosphorus content, mgP/L	0.91	0.88	0.66	0.63	0.59	0.63	0.14	0.13
7. E. coli count, cfu/100ml	2.1×10^4 (estimated)	1.9×10^4 (estimated)	1.1×10^4 (estimated)	1.3×10^4 (estimated)	1.2×10^4 (estimated)	1.1×10^4 (estimated)	2.2 x 10	3.3 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 12/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 12/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	4.0	2.5	4.0	4.0	4.0	4.0	1.5	2.0
2. Total Kjeldahl nitrogen content, mg/L	2.7	2.8	4.0	4.0	6.3	6.5	0.93	0.77
3. Total nitrogen content, mg/L	3.2	3.3	4.4	4.3	6.7	6.8	1.1	0.92
4. Ammonical nitrogen content, mg/L	2.3	2.2	2.9	3.5	3.6	3.4	0.26	0.20
5. Total Inorganic nitrogen, mg/L	2.8	2.6	3.4	3.9	4.0	3.7	0.42	0.36
6. Total phosphorus content, mgP/L	0.44	0.47	0.49	0.47	0.92	0.81	0.12	0.11
7. E. coli count, cfu/100ml	5.9×10^3	6.3×10^3	9.6×10^3	1.5×10^4 (estimated)	3.3×10^4	3.3×10^4	2.5 x 10	1.9 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 12/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 12/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202299(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	4.5	5.5	6.0	6.0
2. Total Kjeldahl nitrogen content, mg/L	6.8	6.9	6.6	6.8
3. Total nitrogen content, mg/L	7.1	7.3	6.9	7.1
4. Ammonical nitrogen content, mg/L	2.7	3.1	4.5	4.1
5. Total Inorganic nitrogen, mg/L	3.0	3.5	4.8	4.3
6. Total phosphorus content, mgP/L	0.76	0.80	0.93	1.0
7. E. coli count, cfu/100ml	2.1×10^5 (estimated)	2.2×10^5 (estimated)	1.5×10^4	1.4×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 12/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 12/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	3.39	3.32	2.09
1.5	<1.5	-	6.07	5.98	1.49
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	100.40	1.74	1.80	3.39
0.05	<0.05	101.20	0.76	0.78	2.60
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	100.10	6.63	6.94	4.57

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	96.60	4.81	4.80	0.21
0.02	<0.02	87.53	4.93	4.99	1.21
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	101.32	0.63	0.62	1.60
0.01	<0.01	101.52	1.01	0.99	2.00
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	1.9×10^4	1.9×10^4	0.00
1	<1	-	1.5×10^4	1.3×10^4	14.3

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 15/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202322/1-48
Date of receipt of sample	:	15/12/2020
Date test commenced	:	16/12/2020
Date test completed	:	17/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	36
2. M1F M Dup	36
3. M2F M	43
4. M2F M Dup	44
5. E1F S	55
6. E1F S Dup	54
7. E1F B	75
8. E1F B Dup	74
9. E2aF M	34
10. E2aF M Dup	34
11. E3aF M	22
12. E3aF M Dup	23
13. E4F M	46
14. E4F M Dup	45
15. E5aF M	43
16. E5aF M Dup	44
17. DB1F M	25
18. DB1F M Dup	24
19. SP1F M	41
20. SP1F M Dup	41
21. KT1F M	46
22. KT1F M Dup	46

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	44
24. M1E M Dup	45
25. M2E M	38
26. M2E M Dup	37
27. E1E S	37
28. E1E S Dup	37
29. E1E B	140
30. E1E B Dup	140
31. E2aE M	58
32. E2aE M Dup	61
33. E3aE M	26
34. E3aE M Dup	26
35. E4E M	48
36. E4E M Dup	48
37. E5aE M	49
38. E5aE M Dup	49
39. DB1E M	15
40. DB1E M Dup	14
41. SP1E M	32
42. SP1E M Dup	32
43. KT1E M	45
44. KT1E M Dup	45

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	180
46. M3F M Dup	190
47. M3E M	59
48. M3E M Dup	60

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2024

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	100.20	43.5	43.5	0.00
	<1	99.06	41.7	40.5	2.92
	<1	99.76	25.0	26.5	5.83
	<1	99.70	14.5	13.8	4.95
	<1	101.46	58.7	61.0	3.84

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 15/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202322/5-22, 27-44	WA202322/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	15/12/2020
Date test commenced	:	16/12/2020
Date test completed	:	21/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	2.6	2.0	1.9	2.0	1.4	1.4	0.62	0.59
3. Total nitrogen content, mg/L	4.6	3.7	3.4	3.5	2.7	2.6	1.2	1.0
4. Ammonical nitrogen content, mg/L	1.2	0.89	0.82	0.84	0.59	0.57	0.14	0.17
5. Total Inorganic nitrogen, mg/L	3.2	2.6	2.3	2.3	1.9	1.7	0.71	0.59
6. Total phosphorus content, mgP/L	0.39	0.42	0.33	0.31	0.25	0.22	0.15	0.14
7. E. coli count, cfu/100ml	5.0×10^3	4.7×10^3	5.5×10^3	4.9×10^3	4.9×10^2	3.6×10^2	2.4 x 10	2.4 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.8°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 15/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 16/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	1.6	1.8	3.1	2.9	0.69	0.80	3.2	2.5
3. Total nitrogen content, mg/L	3.3	3.1	5.7	5.3	1.1	1.2	4.9	4.3
4. Ammonical nitrogen content, mg/L	0.83	0.91	1.3	1.2	0.10	0.11	2.0	2.0
5. Total Inorganic nitrogen, mg/L	2.5	2.2	3.9	3.6	0.47	0.47	3.7	3.8
6. Total phosphorus content, mgP/L	0.29	0.25	0.33	0.32	0.12	0.12	0.29	0.33
7. E. coli count, cfu/100ml	4.2×10^3	3.4×10^3	5.0×10^3	4.9×10^3	2.7×10	2.7×10	1.2×10^4	6.8×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.8°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 15/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 16/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	1.5	2.0	<1.5	1.5
2. Total Kjeldahl nitrogen content, mg/L	1.8	1.6	1.9	1.7	2.0	1.8	1.3	1.2
3. Total nitrogen content, mg/L	4.3	4.0	4.5	3.6	4.0	3.3	2.7	2.9
4. Ammonical nitrogen content, mg/L	1.2	0.98	1.7	1.6	1.0	1.2	0.98	1.0
5. Total Inorganic nitrogen, mg/L	3.6	3.4	4.3	3.6	2.9	2.8	2.4	2.7
6. Total phosphorus content, mgP/L	0.28	0.32	0.27	0.29	0.44	0.44	0.37	0.36
7. E. coli count, cfu/100ml	7.0×10^3	7.4×10^3	6.5×10^3	6.9×10^3	7.6×10^3	7.1×10^3	5.9×10^3	5.8×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.8°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 15/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 16/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

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FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	2.0	1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.34	0.36	1.4	1.5	3.8	3.9	0.68	0.82
3. Total nitrogen content, mg/L	1.1	1.2	2.9	3.2	5.5	5.4	1.5	1.6
4. Ammonical nitrogen content, mg/L	0.17	0.18	1.3	1.2	2.3	2.2	0.27	0.28
5. Total Inorganic nitrogen, mg/L	0.92	1.1	2.8	3.0	4.0	3.7	1.1	1.1
6. Total phosphorus content, mgP/L	0.16	0.17	0.31	0.33	0.49	0.47	0.14	0.14
7. E. coli count, cfu/100ml	5.5 x 10	7.2 x 10	4.6×10^3	5.6×10^3	1.8×10^4	8.4×10^3	1.9 x 10	1.5 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.8°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
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Assistant General Manager – Laboratories

Date : 15/1/2021

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FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202322(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	2.0	2.0	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	4.2	4.8	3.4	3.5
3. Total nitrogen content, mg/L	5.5	6.1	5.1	5.4
4. Ammonical nitrogen content, mg/L	3.0	3.2	1.5	1.8
5. Total Inorganic nitrogen, mg/L	4.4	4.5	3.3	3.4
6. Total phosphorus content, mgP/L	0.44	0.44	0.39	0.45
7. E. coli count, cfu/100ml	5.6×10^4	5.0×10^4	1.3×10^4	9.1×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.8°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 15/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 16/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	1.42	1.45	2.09
1.5	<1.5	-	1.44	1.40	2.82
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	102.30	1.66	1.84	10.3
0.05	<0.05	105.20	3.70	3.39	8.74
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	-	-	-	-

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
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Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	114.48	1.18	1.15	2.58
0.02	<0.02	112.41	1.72	1.70	1.17
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	101.00	0.30	0.29	3.39
0.01	<0.01	100.36	0.45	0.46	2.20
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	7.3×10^3	7.5×10^3	2.70
1	<1	-	9.3×10^3	8.8×10^3	5.52

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 17/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202351/1-48
Date of receipt of sample	:	17/12/2020
Date test commenced	:	18/12/2020
Date test completed	:	19/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	70
2. M1F M Dup	72
3. M2F M	59
4. M2F M Dup	60
5. E1F S	31
6. E1F S Dup	31
7. E1F B	39
8. E1F B Dup	40
9. E2aF M	63
10. E2aF M Dup	64
11. E3aF M	46
12. E3aF M Dup	46
13. E4F M	46
14. E4F M Dup	47
15. E5aF M	51
16. E5aF M Dup	51
17. DB1F M	23
18. DB1F M Dup	23
19. SP1F M	170
20. SP1F M Dup	180
21. KT1F M	56
22. KT1F M Dup	56

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2024

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	34
24. M1E M Dup	35
25. M2E M	34
26. M2E M Dup	35
27. E1E S	33
28. E1E S Dup	32
29. E1E B	41
30. E1E B Dup	39
31. E2aE M	25
32. E2aE M Dup	25
33. E3aE M	21
34. E3aE M Dup	20
35. E4E M	29
36. E4E M Dup	28
37. E5aE M	43
38. E5aE M Dup	42
39. DB1E M	16
40. DB1E M Dup	16
41. SP1E M	42
42. SP1E M Dup	40
43. KT1E M	31
44. KT1E M Dup	29

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2024

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	41
46. M3F M Dup	41
47. M3E M	25
48. M3E M Dup	28

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	100.06	59.0	60.1	1.85
	<1	100.70	178	175	1.70
	<1	100.06	20.5	20.0	2.47
	<1	99.66	16.2	15.7	3.13
	<1	100.76	41.7	41.3	0.96

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 17/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202351/5-22, 27-44	WA202351/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample : 17/12/2020

Date test commenced : 18/12/2020

Date test completed : 23/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
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Hong Kong

Report No. : 181172WA202351(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	4.0	4.5	3.8	3.3	2.4	2.3	0.74	0.80
3. Total nitrogen content, mg/L	5.5	5.2	4.7	4.2	4.5	3.9	1.6	1.4
4. Ammonical nitrogen content, mg/L	3.3	3.1	3.0	2.9	1.6	1.6	0.65	0.72
5. Total Inorganic nitrogen, mg/L	4.8	3.8	3.9	3.8	3.7	3.2	1.5	1.4
6. Total phosphorus content, mgP/L	0.40	0.36	0.41	0.41	0.30	0.29	0.18	0.21
7. E. coli count, cfu/100ml	9.9×10^3	8.8×10^3	1.1×10^4 (estimated)	1.4×10^4 (estimated)	6.6×10^3	5.9×10^3	4.5×10^2	3.5×10^2

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 17/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 18/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
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Hong Kong

Report No. : 181172WA202351(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	1.5	2.0	<1.5	<1.5	2.5	3.5
2. Total Kjeldahl nitrogen content, mg/L	2.7	2.9	4.6	4.9	0.65	0.77	6.3	6.2
3. Total nitrogen content, mg/L	4.5	4.3	7.0	7.4	2.3	2.4	8.7	8.5
4. Ammonical nitrogen content, mg/L	1.8	1.8	3.6	3.4	0.28	0.29	4.5	4.6
5. Total Inorganic nitrogen, mg/L	3.7	3.2	6.0	5.9	1.9	2.0	6.9	6.9
6. Total phosphorus content, mgP/L	0.29	0.31	0.58	0.58	0.16	0.15	0.74	0.72
7. E. coli count, cfu/100ml	6.9×10^3	7.9×10^3	1.5×10^4	1.4×10^4	9.8 x 10	9.8 x 10	1.9×10^4	1.5×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
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Hong Kong

Report No. : 181172WA202351(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	2.5	2.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	5.0	5.0	1.8	2.1	1.8	1.8	0.84	0.95
3. Total nitrogen content, mg/L	7.6	7.5	3.4	3.4	3.0	2.8	2.2	1.8
4. Ammonical nitrogen content, mg/L	3.9	3.5	1.6	1.1	1.1	1.2	0.78	0.88
5. Total Inorganic nitrogen, mg/L	6.5	5.9	3.1	2.6	2.2	2.3	2.2	1.8
6. Total phosphorus content, mgP/L	0.54	0.57	0.24	0.23	0.26	0.27	0.22	0.25
7. E. coli count, cfu/100ml	1.7×10^4	1.6×10^4	4.2×10^3	5.0×10^3	4.7×10^3	4.5×10^3	3.8×10^3	2.3×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
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   i. Samples taken by staff of FTS on 17/12/2020
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   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
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Certified by : _____
Approved Signatory : HO Kin Man, John
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Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
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Report No. : 181172WA202351(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5	1.5	1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.47	0.48	1.4	1.4	6.5	6.3	0.37	0.39
3. Total nitrogen content, mg/L	1.7	1.6	2.2	2.2	7.7	7.3	0.59	0.62
4. Ammonical nitrogen content, mg/L	0.37	0.41	1.1	0.98	3.4	3.2	0.33	0.34
5. Total Inorganic nitrogen, mg/L	1.6	1.6	1.8	1.7	4.6	4.4	0.55	0.57
6. Total phosphorus content, mgP/L	0.14	0.17	0.25	0.25	0.75	0.68	0.13	0.13
7. E. coli count, cfu/100ml	7.5 x 10	5.4 x 10	5.0×10^3	4.5×10^3	9.0×10^3	7.0×10^3	2.7 x 10	2.8 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 17/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 18/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202351(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	3.0	2.7	2.5	2.8
3. Total nitrogen content, mg/L	3.7	3.4	3.6	3.8
4. Ammonical nitrogen content, mg/L	2.1	1.8	1.3	1.4
5. Total Inorganic nitrogen, mg/L	2.8	2.4	2.4	2.3
6. Total phosphorus content, mgP/L	0.31	0.35	0.25	0.25
7. E. coli count, cfu/100ml	6.3×10^3	6.0×10^3	5.4×10^3	5.5×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 17/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 18/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	1.14	0.98	15.1
1.5	<1.5	-	1.22	1.32	7.87
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	99.60	1.97	2.13	7.80
0.05	<0.05	100.80	2.90	2.71	6.77
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	99.82	6.18	6.33	2.40

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Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	113.91	3.30	3.27	0.91
0.02	<0.02	108.51	1.57	1.54	1.93

5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	98.90	0.23	0.23	0.00
0.01	<0.01	99.10	0.25	0.24	4.08

6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	1.6×10^4	1.5×10^4	6.45
1	<1	-	6.0×10^3	4.9×10^3	20.2

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Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352

HOKLAS 015 TEST

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 19/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202352/1-48
Date of receipt of sample	:	19/12/2020
Date test commenced	:	19/12/2020
Date test completed	:	22/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

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Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	49
2. M1F M Dup	50
3. M2F M	52
4. M2F M Dup	51
5. E1F S	31
6. E1F S Dup	30
7. E1F B	30
8. E1F B Dup	30
9. E2aF M	38
10. E2aF M Dup	38
11. E3aF M	38
12. E3aF M Dup	39
13. E4F M	41
14. E4F M Dup	41
15. E5aF M	46
16. E5aF M Dup	45
17. DB1F M	30
18. DB1F M Dup	29
19. SP1F M	64
20. SP1F M Dup	65
21. KT1F M	35
22. KT1F M Dup	35

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	33
24. M1E M Dup	33
25. M2E M	45
26. M2E M Dup	45
27. E1E S	36
28. E1E S Dup	36
29. E1E B	33
30. E1E B Dup	31
31. E2aE M	38
32. E2aE M Dup	37
33. E3aE M	23
34. E3aE M Dup	23
35. E4E M	36
36. E4E M Dup	36
37. E5aE M	33
38. E5aE M Dup	34
39. DB1E M	17
40. DB1E M Dup	16
41. SP1E M	42
42. SP1E M Dup	42
43. KT1E M	31
44. KT1E M Dup	31

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
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Hong Kong

Report No. : 181172WA202352

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	29
46. M3F M Dup	31
47. M3E M	52
48. M3E M Dup	49

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
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Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
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Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	101.10	49.2	50.8	3.2
	<1	98.90	51.0	51.3	0.59
	<1	99.06	32.7	32.5	0.61
	<1	99.66	44.8	46.0	2.64
	<1	99.90	49.0	49.7	1.42

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 19/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202352/5-22, 27-44	WA202352/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	19/12/2020
Date test commenced	:	20/12/2020
Date test completed	:	27/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	2.0	2.5	2.5	2.0	<1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	3.9	3.6	4.3	4.3	1.9	2.3	0.57	0.65
3. Total nitrogen content, mg/L	4.5	4.0	4.7	4.8	2.5	2.7	0.81	0.89
4. Ammonical nitrogen content, mg/L	3.8	2.8	2.6	2.8	1.4	1.3	0.31	0.32
5. Total Inorganic nitrogen, mg/L	4.4	3.2	3.0	3.3	2.0	1.8	0.55	0.56
6. Total phosphorus content, mgP/L	0.48	0.47	0.45	0.46	0.29	0.27	0.18	0.18
7. E. coli count, cfu/100ml	6.5×10^3	7.6×10^3	5.9×10^3	6.9×10^3	5.1×10^3	6.9×10^3	2.0×10^2	1.5×10^2

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 19/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 20/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202352(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	<1.5	1.5	2.5	3.0	<1.5	<1.5	4.0	4.5
2. Total Kjeldahl nitrogen content, mg/L	2.9	2.3	4.4	4.6	0.36	0.32	5.6	5.5
3. Total nitrogen content, mg/L	3.6	3.0	5.1	5.2	0.51	0.48	6.3	6.1
4. Ammonical nitrogen content, mg/L	1.5	1.5	3.1	3.7	0.31	0.30	4.5	4.5
5. Total Inorganic nitrogen, mg/L	2.2	2.1	3.8	4.3	0.46	0.46	5.2	5.1
6. Total phosphorus content, mgP/L	0.26	0.33	0.50	0.55	0.17	0.17	0.56	0.64
7. E. coli count, cfu/100ml	6.0×10^3	5.3×10^3	1.5×10^4	1.2×10^4	8.4 x 10	6.7 x 10	1.7×10^4	1.7×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 19/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 20/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/11/2021

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Hong Kong

Report No. : 181172WA202352(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	3.5	4.0	<1.5	1.5	<1.5	2.0	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	6.2	5.8	1.5	1.2	1.9	1.4	1.3	1.3
3. Total nitrogen content, mg/L	6.6	6.5	2.1	1.7	2.5	2.0	1.7	1.7
4. Ammonical nitrogen content, mg/L	3.8	4.0	1.4	1.1	1.1	1.0	1.0	0.99
5. Total Inorganic nitrogen, mg/L	4.3	4.6	2.0	1.7	1.7	1.7	1.4	1.4
6. Total phosphorus content, mgP/L	0.59	0.62	0.25	0.26	0.25	0.23	0.25	0.26
7. E. coli count, cfu/100ml	1.3×10^4	1.3×10^4	4.3×10^3	4.8×10^3	4.3×10^3	4.1×10^3	1.8×10^3	1.6×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 19/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 20/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
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Hong Kong

Report No. : 181172WA202352(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	2.0	<1.5	1.5	<1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.30	0.31	1.9	1.7	2.8	3.2	0.55	0.53
3. Total nitrogen content, mg/L	0.42	0.44	2.4	2.2	3.3	3.7	0.65	0.62
4. Ammonical nitrogen content, mg/L	0.20	0.18	0.94	0.96	1.8	2.1	0.21	0.21
5. Total Inorganic nitrogen, mg/L	0.32	0.31	1.4	1.4	2.3	2.6	0.31	0.31
6. Total phosphorus content, mgP/L	0.14	0.14	0.24	0.24	0.30	0.32	0.13	0.12
7. E. coli count, cfu/100ml	3.7 x 10	3.8 x 10	7.5×10^3	4.0×10^3	5.5×10^3	4.4×10^3	2.3 x 10	1.9 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 19/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 20/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
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Hong Kong

Report No. : 181172WA202352(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	2.0	2.0	1.5	1.5
2. Total Kjeldahl nitrogen content, mg/L	3.8	4.9	2.7	2.8
3. Total nitrogen content, mg/L	4.2	5.4	3.2	3.3
4. Ammonical nitrogen content, mg/L	2.9	3.1	1.6	1.8
5. Total Inorganic nitrogen, mg/L	3.3	3.6	2.1	2.3
6. Total phosphorus content, mgP/L	0.41	0.42	0.33	0.32
7. E. coli count, cfu/100ml	6.9×10^3	5.3×10^3	6.5×10^3	5.6×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 19/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 20/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	1.67	1.73	3.53
1.5	<1.5	-	1.52	1.68	10.0
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	101.60	1.18	1.22	3.33
0.05	<0.05	100.20	2.77	2.78	0.36
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	99.24	5.88	5.74	2.41

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	109.92	3.81	3.79	0.53
0.02	<0.02	111.96	1.37	1.34	2.21
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	96.30	0.27	0.26	3.77
0.01	<0.01	96.00	0.32	0.32	0.00
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	1.2×10^4	1.4×10^4	15.4
1	<1	-	5.4×10^3	5.7×10^3	5.41

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Hong Kong

Report No. : 181172WA202385

HOKLAS 015 TEST

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 22/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202385/1-48
Date of receipt of sample	:	22/12/2020
Date test commenced	:	23/12/2020
Date test completed	:	24/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

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Hong Kong

Report No. : 181172WA202385

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	26
2. M1F M Dup	26
3. M2F M	30
4. M2F M Dup	29
5. E1F S	27
6. E1F S Dup	26
7. E1F B	34
8. E1F B Dup	33
9. E2aF M	25
10. E2aF M Dup	24
11. E3aF M	12
12. E3aF M Dup	12
13. E4F M	37
14. E4F M Dup	37
15. E5aF M	23
16. E5aF M Dup	23
17. DB1F M	13
18. DB1F M Dup	12
19. SP1F M	42
20. SP1F M Dup	41
21. KT1F M	19
22. KT1F M Dup	19

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2024

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	53
24. M1E M Dup	54
25. M2E M	27
26. M2E M Dup	28
27. E1E S	25
28. E1E S Dup	25
29. E1E B	30
30. E1E B Dup	29
31. E2aE M	26
32. E2aE M Dup	26
33. E3aE M	19
34. E3aE M Dup	19
35. E4E M	26
36. E4E M Dup	26
37. E5aE M	30
38. E5aE M Dup	30
39. DB1E M	16
40. DB1E M Dup	16
41. SP1E M	41
42. SP1E M Dup	42
43. KT1E M	24
44. KT1E M Dup	24

Remark: Disclaimer: Sampling is out of scope of accreditation.

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Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	70
46. M3F M Dup	69
47. M3E M	68
48. M3E M Dup	71

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
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Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

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Note

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Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	100.16	11.7	11.5	1.72
	<1	100.56	12.3	12.5	1.61
	<1	100.30	27.8	27.5	1.08
	<1	100.20	42.0	41.0	2.41
	<1	99.56	67.3	68.0	1.03

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Hong Kong

Report No. : 181172WA202385(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 22/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202385/5-22, 27-44	WA202385/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	22/12/2020
Date test commenced	:	23/12/2020
Date test completed	:	28/12/2020

Note : This report refers only to the sample(s) tested.

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Hong Kong

Report No. : 181172WA202385(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	5.0	4.0	3.5	4.0	3.0	3.0	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	4.3	4.1	3.5	4.0	1.5	1.4	0.22	0.20
3. Total nitrogen content, mg/L	4.7	4.5	3.8	4.4	1.7	1.7	0.30	0.30
4. Ammonical nitrogen content, mg/L	4.2	3.1	3.2	2.7	1.3	1.3	0.15	0.16
5. Total Inorganic nitrogen, mg/L	4.6	3.5	3.6	3.1	1.6	1.5	0.23	0.26
6. Total phosphorus content, mgP/L	0.60	0.65	0.56	0.56	0.26	0.26	0.12	0.11
7. E. coli count, cfu/100ml	1.0×10^4 (estimated)	9.3×10^3	9.3×10^3	7.6×10^3	2.1×10^3	1.2×10^3	4.2×10	3.7×10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 22/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 23/12/2020 11:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	3.0	3.5	3.0	4.0	<1.5	<1.5	5.0	4.0
2. Total Kjeldahl nitrogen content, mg/L	1.7	2.0	4.9	4.5	0.25	0.30	7.5	7.7
3. Total nitrogen content, mg/L	2.0	2.3	5.3	4.9	0.34	0.41	7.9	8.0
4. Ammonical nitrogen content, mg/L	1.6	1.6	4.0	4.2	0.13	0.12	6.8	6.9
5. Total Inorganic nitrogen, mg/L	1.9	1.9	4.3	4.6	0.22	0.23	7.2	7.2
6. Total phosphorus content, mgP/L	0.33	0.33	0.83	0.85	0.21	0.22	0.96	0.92
7. E. coli count, cfu/100ml	9.7×10^3	7.6×10^3	7.9×10^3	5.6×10^3	1.3 x 10	1.0 x 10	2.1×10^4	9.8×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 22/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 23/12/2020 11:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	4.0	3.5	3.0	2.5	3.0	3.0	2.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	5.1	5.2	6.8	6.7	5.2	5.5	3.8	4.2
3. Total nitrogen content, mg/L	5.4	5.5	7.2	7.2	5.5	5.8	4.2	4.6
4. Ammonical nitrogen content, mg/L	3.2	3.6	5.4	4.5	4.0	2.8	2.5	2.7
5. Total Inorganic nitrogen, mg/L	3.5	3.9	5.7	5.0	4.3	3.1	2.9	3.1
6. Total phosphorus content, mgP/L	0.68	0.72	0.73	0.76	0.55	0.58	0.45	0.49
7. E. coli count, cfu/100ml	5.0×10^3	5.4×10^3	7.0×10^3	7.9×10^3	8.9×10^3	6.6×10^3	2.4×10^4	2.4×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 22/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 23/12/2020 11:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	3.0	3.0	3.5	3.5	2.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.36	0.39	5.1	5.3	7.7	7.8	0.54	0.51
3. Total nitrogen content, mg/L	0.48	0.54	5.5	5.7	8.0	8.1	0.63	0.62
4. Ammonical nitrogen content, mg/L	0.17	0.21	3.6	3.2	4.5	5.2	0.16	0.13
5. Total Inorganic nitrogen, mg/L	0.30	0.36	4.1	3.5	4.9	5.4	0.25	0.23
6. Total phosphorus content, mgP/L	0.13	0.14	0.61	0.65	0.87	0.86	0.51	0.54
7. E. coli count, cfu/100ml	2.5×10^2	2.6×10^2	9.1×10^3	9.7×10^3	8.2×10^3	9.5×10^3	4.8×10^2	2.6×10^2

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 22/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 23/12/2020 11:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202385(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	3.0	3.0	4.0	4.0
2. Total Kjeldahl nitrogen content, mg/L	8.3	9.2	8.1	8.6
3. Total nitrogen content, mg/L	8.8	9.6	8.4	9.2
4. Ammonical nitrogen content, mg/L	2.9	2.7	6.0	6.2
5. Total Inorganic nitrogen, mg/L	3.3	3.1	6.3	6.5
6. Total phosphorus content, mgP/L	0.72	0.78	0.94	0.93
7. E. coli count, cfu/100ml	1.4×10^4	1.5×10^4	6.0×10^3	7.4×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 5.1°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 22/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 23/12/2020 11:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	3.10	2.91	6.32
1.5	<1.5	-	3.86	4.02	4.06
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	104.80	0.51	0.51	0.00
0.05	<0.05	-	-	-	-
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	104.44	8.88	8.34	6.27

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	111.21	4.20	4.16	0.96
0.02	<0.02	106.74	5.36	5.35	0.19

5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	103.52	0.77	0.75	2.63
0.01	<0.01	101.88	0.96	0.91	5.35

6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	5.5×10^3	5.2×10^3	5.61
1	<1	-	7.8×10^3	6.9×10^3	12.2

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202409

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 24/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202409/1-48
Date of receipt of sample	:	24/12/2020
Date test commenced	:	24/12/2020
Date test completed	:	28/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202409

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	39
2. M1F M Dup	38
3. M2F M	57
4. M2F M Dup	57
5. E1F S	34
6. E1F S Dup	33
7. E1F B	48
8. E1F B Dup	48
9. E2aF M	43
10. E2aF M Dup	44
11. E3aF M	26
12. E3aF M Dup	25
13. E4F M	34
14. E4F M Dup	34
15. E5aF M	31
16. E5aF M Dup	30
17. DB1F M	16
18. DB1F M Dup	15
19. SP1F M	34
20. SP1F M Dup	35
21. KT1F M	36
22. KT1F M Dup	36

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202409

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	31
24. M1E M Dup	30
25. M2E M	33
26. M2E M Dup	32
27. E1E S	27
28. E1E S Dup	26
29. E1E B	26
30. E1E B Dup	24
31. E2aE M	40
32. E2aE M Dup	41
33. E3aE M	17
34. E3aE M Dup	17
35. E4E M	37
36. E4E M Dup	36
37. E5aE M	32
38. E5aE M Dup	32
39. DB1E M	11
40. DB1E M Dup	12
41. SP1E M	31
42. SP1E M Dup	31
43. KT1E M	35
44. KT1E M Dup	36

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	79
46. M3F M Dup	81
47. M3E M	100
48. M3E M Dup	100

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	100.80	25.3	25.3	0.00
	<1	100.76	15.5	15.3	1.30
	<1	100.56	32.3	32.5	0.62
	<1	99.60	31.3	30.0	4.24
	<1	99.66	78.7	82.3	4.47

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 24/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202409/5-22, 27-44	WA202409/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample	:	24/12/2020
Date test commenced	:	25/12/2020
Date test completed	:	31/12/2020

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

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Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	3.5	3.5	3.0	2.5	2.5	2.5	1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	7.0	6.6	5.7	6.2	1.7	1.7	0.64	0.58
3. Total nitrogen content, mg/L	7.2	6.8	6.0	6.4	2.0	2.0	0.94	0.94
4. Ammonical nitrogen content, mg/L	5.6	5.0	4.7	4.3	1.2	1.3	0.23	0.22
5. Total Inorganic nitrogen, mg/L	5.9	5.3	4.9	4.5	1.5	1.6	0.53	0.57
6. Total phosphorus content, mgP/L	0.65	0.66	0.58	0.55	0.32	0.31	0.18	0.20
7. E. coli count, cfu/100ml	1.7×10^4	1.5×10^4	8.9×10^3	9.7×10^3	1.9×10^3	2.5×10^3	4.6 x 10	5.3 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 24/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 25/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	3.0	4.0	4.0	3.5	1.5	2.0	4.0	3.5
2. Total Kjeldahl nitrogen content, mg/L	3.6	3.7	6.4	6.6	0.47	0.47	8.5	8.1
3. Total nitrogen content, mg/L	3.9	4.0	6.7	6.8	0.75	0.81	8.8	8.4
4. Ammonical nitrogen content, mg/L	2.9	3.0	5.8	5.9	0.20	0.20	7.2	7.7
5. Total Inorganic nitrogen, mg/L	3.2	3.2	6.1	6.2	0.49	0.54	7.5	8.0
6. Total phosphorus content, mgP/L	0.37	0.42	0.77	0.79	0.10	0.09	0.99	1.0
7. E. coli count, cfu/100ml	7.8×10^3	6.1×10^3	1.2×10^4 (estimated)	1.4×10^4 (estimated)	1.1 x 10	1.2 x 10	2.8×10^4	2.3×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 24/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 25/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 5/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	4.5	3.5	3.5	3.0	3.5	3.5	3.0	4.0
2. Total Kjeldahl nitrogen content, mg/L	14	15	7.4	7.4	6.2	6.0	4.6	4.1
3. Total nitrogen content, mg/L	14	15	7.7	7.7	6.4	6.2	4.9	4.4
4. Ammonical nitrogen content, mg/L	12	14	7.1	6.9	5.4	5.3	3.9	3.8
5. Total Inorganic nitrogen, mg/L	12	14	7.4	7.2	5.6	5.5	4.2	4.1
6. Total phosphorus content, mgP/L	0.92	0.92	1.0	0.96	0.90	0.89	0.73	0.59
7. E. coli count, cfu/100ml	1.5×10^4	1.5×10^4	1.6×10^4	2.1×10^4	1.7×10^4	1.5×10^4	6.3×10^3	8.9×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 24/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 25/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	2.0	1.5	3.5	3.0	3.0	3.0	2.0	2.0
2. Total Kjeldahl nitrogen content, mg/L	1.4	1.3	6.4	6.7	8.1	8.3	0.73	0.81
3. Total nitrogen content, mg/L	1.7	1.6	6.8	7.0	8.6	8.9	0.95	1.1
4. Ammonical nitrogen content, mg/L	0.49	0.49	5.5	5.6	7.9	8.0	0.33	0.31
5. Total Inorganic nitrogen, mg/L	0.76	0.77	5.9	5.9	8.4	8.5	0.55	0.56
6. Total phosphorus content, mgP/L	0.20	0.19	0.87	0.87	0.85	0.85	0.16	0.13
7. E. coli count, cfu/100ml	7.8×10^2	6.5×10^2	4.7×10^4	2.1×10^4	3.8×10^4	2.7×10^4	2.6×10^2	3.1×10^2

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 24/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 25/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Note : This report refers only to the sample(s) tested.

Date : 15/1/2021

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202409(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	3.0	2.5	4.0	3.5
2. Total Kjeldahl nitrogen content, mg/L	6.3	6.6	8.3	8.5
3. Total nitrogen content, mg/L	6.6	6.9	8.6	8.6
4. Ammonical nitrogen content, mg/L	6.2	5.3	7.7	7.2
5. Total Inorganic nitrogen, mg/L	6.5	5.6	7.9	7.4
6. Total phosphorus content, mgP/L	0.83	0.85	1.3	1.2
7. E. coli count, cfu/100ml	6.8×10^4	5.0×10^4	3.1×10^4	2.4×10^4

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 6.0°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 24/12/2020
   ii. Samples stored at 0-4^{0}C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 25/12/2020 17:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.89	3.07	6.04
1.5	<1.5	-	3.32	3.49	4.99

2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	98.80	0.82	0.80	2.47
0.05	<0.05	-	-	-	-

3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	100.32	6.56	6.70	2.11
5	<5	100.30	8.34	8.75	4.80

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

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Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	111.93	5.59	5.57	0.36
0.02	<0.02	112.56	7.10	7.11	0.14

5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	100.38	0.96	0.96	0.00
0.01	<0.01	97.72	1.23	1.24	0.81

6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	1.8×10^4	1.1×10^4	48.3
1	<1	-	2.3×10^4	2.5×10^4	8.33

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Fourty-eight samples of water taken by the staff of FTS on 26/12/2020
Client sample ID	:	Refer to results pages
Test required	:	Total suspended solids dried at 103°C - 105°C

Laboratory Information

Lab. sample ID	:	WA202411/1-48
Date of receipt of sample	:	26/12/2020
Date test commenced	:	26/12/2020
Date test completed	:	28/12/2020
Test method used	:	APHA 17ed. 2540D

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
1. M1F M	36
2. M1F M Dup	35
3. M2F M	38
4. M2F M Dup	37
5. E1F S	27
6. E1F S Dup	27
7. E1F B	27
8. E1F B Dup	28
9. E2aF M	35
10. E2aF M Dup	36
11. E3aF M	25
12. E3aF M Dup	25
13. E4F M	27
14. E4F M Dup	27
15. E5aF M	43
16. E5aF M Dup	44
17. DB1F M	13
18. DB1F M Dup	14
19. SP1F M	41
20. SP1F M Dup	41
21. KT1F M	37
22. KT1F M Dup	36

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411

HOKLAS 015 TEST

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
23. M1E M	24
24. M1E M Dup	24
25. M2E M	31
26. M2E M Dup	31
27. E1E S	29
28. E1E S Dup	28
29. E1E B	26
30. E1E B Dup	26
31. E2aE M	43
32. E2aE M Dup	43
33. E3aE M	32
34. E3aE M Dup	31
35. E4E M	30
36. E4E M Dup	31
37. E5aE M	29
38. E5aE M Dup	29
39. DB1E M	17
40. DB1E M Dup	16
41. SP1E M	28
42. SP1E M Dup	28
43. KT1E M	36
44. KT1E M Dup	35

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411

Results :

Sample identification	Test result Total suspended solids dried at 103°C – 105°C, mg/L
45. M3F M	24
46. M3F M Dup	22
47. M3E M	28
48. M3E M Dup	28

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/11/2021

End of Report

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1 mg/L	<1	99.00	25.7	24.3	5.6
	<1	99.50	30.3	31.7	4.52
	<1	99.46	27.5	27.7	0.72
	<1	101.36	21.3	23.0	7.67
	<1	99.56	28.3	28.0	1.07

Certified by : _____
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411(1)

Test Report on Analysis of Water

Information Supplied by Client

Client	:	Drainage Services Department
Client's address	:	-
Project	:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Sample description	:	Thirty-six samples of water taken by the staff of FTS on 26/12/2020
Client sample ID	:	Refer to result pages
Tests required	:	Biochemical oxygen demand Total Kjeldahl Nitrogen content Total Nitrogen content Ammonical Nitrogen content Total Inorganic Nitrogen Total phosphorus content E. coli count

Laboratory Information

Lab. sample ID :

Chemical tests	Microbiological tests
WA202411/5-22, 27-44	WA202411/5B-22B, 27B-44B

Sample condition :

	Chemical tests	Microbiological tests
Container	Thirty-six 2 L plastic bottles and Thirty-six 0.18 mL plastic bottles	Thirty-six sterilized 250 ml plastic bottles with thiosulphate added
Appearance	Colorless	
Temperature	Cooled	

Date of receipt of sample : 26/12/2020

Date test commenced : 27/12/2020

Date test completed : 01/01/2021

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411(1)

Test methods used :

Biochemical oxygen demand
BS 6068: Section 2.14: 1990

Total Kjeldahl Nitrogen content
In house method E-T-037 & APHA 18ed. 4500-N_{org} B & 4500-NH_3 E

Total Nitrogen content
By Calculation

Ammonical Nitrogen content
In house method E-T-095 Segmented flow-salicylate method

Total Inorganic Nitrogen
By Calculation

Total phosphorus content
APHA, 17th edition, 4500-PB5 (Digestion) &
In house method E-T-056 (Determination)

E. coli count
The Bacteriological Examination of Drinking Water Supplies 1982, DoE (1983) Membrane Filtration Procedure: Sections 7.8, 7.9.4.2 Bacterial Confirmation: Section 7.9.4.4 & in-situ urease test

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
5 Lok Yi Street, Tai Lam
Tuen Mun, NT
Hong Kong

Report No. : 181172WA202411(1)

Results :

Test parameters	Sample identification							
	E1F S	E1F S Dup	E1F B	E1F B Dup	E2aF M	E2aF M Dup	E3aF M	E3aF M Dup
1. Biochemical oxygen demand, mg/L	2.5	3.0	3.0	2.5	<1.5	1.5	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	7.5	7.6	7.7	7.5	2.5	2.5	0.24	0.25
3. Total nitrogen content, mg/L	7.7	7.8	7.9	7.7	2.7	2.8	0.31	0.32
4. Ammonical nitrogen content, mg/L	5.5	6.1	5.1	5.4	1.3	1.3	0.23	0.22
5. Total Inorganic nitrogen, mg/L	5.8	6.4	5.3	5.7	1.5	1.5	0.30	0.28
6. Total phosphorus content, mgP/L	0.78	0.76	0.78	0.76	0.39	0.38	0.11	0.13
7. E. coli count, cfu/100ml	9.2×10^3	1.2×10^4 (estimated)	1.4×10^4 (estimated)	1.1×10^4 (estimated)	4.2×10^3	4.5×10^3	6.4 x 10	4.6 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. Temperature of ice-box when samples being received were 4.8°C
3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.
4. Total Inorganic nitrogen is the sum of Ammonical nitrogen content and total oxidized nitrogen content.
5. 'Estimated' for E. coli count means the colonies counted was not within the range of 10 to 100 cfu/100ml.
6. Detailed information for BOD_5 test :
   i. Samples taken by staff of FTS on 26/12/2020
   ii. Samples stored at 0-4°C refrigerator prior to testing.
   iii. Date and hour of commencing BOD_5 test : 27/12/2020 12:00
   iv. The BOD_5 test was conducted without suppression of nitrification by ATU.
   v. Type of seeding water used was Polyseed BOD_5 seeding water.
   vi. The samples were incubated at 19-21°C for 5 days

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 15/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 181172WA202411(1)

Results :

Test parameters	Sample identification							
	E4F M	E4F M Dup	E5aF M	E5aF M Dup	DB1F M	DB1F M Dup	SP1F M	SP1F M Dup
1. Biochemical oxygen demand, mg/L	2.0	2.0	1.5	1.5	<1.5	<1.5	<1.5	1.5
2. Total Kjeldahl nitrogen content, mg/L	4.5	4.6	11	12	0.23	0.21	11	10
3. Total nitrogen content, mg/L	4.7	4.8	12	13	0.29	0.28	11	11
4. Ammonical nitrogen content, mg/L	3.2	3.4	6.4	6.9	0.22	0.20	7.9	7.5
5. Total Inorganic nitrogen, mg/L	3.4	3.7	6.7	7.2	0.29	0.27	8.1	7.7
6. Total phosphorus content, mgP/L	0.60	0.55	0.85	0.91	0.10	0.09	0.98	0.98
7. E. coli count, cfu/100ml	7.5×10^3	7.1×10^3	2.9×10^4	3.5×10^4	1.1 x 10	1.2 x 10	3.1×10^4	5.1×10^4

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Report No. : 181172WA202411(1)

Results :

Test parameters	Sample identification							
	KT1F M	KT1F M Dup	E1E S	E1E S Dup	E1E B	E1E B Dup	E2aE M	E2aE M Dup
1. Biochemical oxygen demand, mg/L	2.5	<1.5	2.5	2.5	2.5	2.5	3.0	2.5
2. Total Kjeldahl nitrogen content, mg/L	7.0	7.2	7.2	6.8	8.2	7.9	6.2	6.8
3. Total nitrogen content, mg/L	7.2	7.4	7.4	7.1	8.5	8.2	6.4	7.1
4. Ammonical nitrogen content, mg/L	6.8	7.0	7.0	6.4	6.1	5.4	5.8	6.6
5. Total Inorganic nitrogen, mg/L	7.0	7.2	7.2	6.6	6.3	5.6	6.0	6.8
6. Total phosphorus content, mgP/L	1.0	1.0	0.76	0.75	0.83	0.81	0.41	0.40
7. E. coli count, cfu/100ml	5.5×10^3	5.4×10^3	1.2×10^4 (estimated)	1.1×10^4 (estimated)	8.8×10^3	1.1×10^4 (estimated)	7.0×10^3	5.4×10^3

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
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Report No. : 181172WA202411(1)

Results :

Test parameters	Sample identification							
	E3aE M	E3aE M Dup	E4E M	E4E M Dup	E5aE M	E5aE M Dup	DB1E M	DB1E M Dup
1. Biochemical oxygen demand, mg/L	<1.5	<1.5	3.0	3.5	3.0	3.0	<1.5	<1.5
2. Total Kjeldahl nitrogen content, mg/L	0.54	0.54	4.5	4.7	14	16	0.26	0.25
3. Total nitrogen content, mg/L	0.63	0.62	4.7	4.9	14	16	0.34	0.32
4. Ammonical nitrogen content, mg/L	0.50	0.48	4.3	4.6	13	15	0.20	0.18
5. Total Inorganic nitrogen, mg/L	0.60	0.56	4.6	4.9	14	16	0.28	0.25
6. Total phosphorus content, mgP/L	0.14	0.14	0.56	0.59	0.96	0.97	0.11	0.08
7. E. coli count, cfu/100ml	1.3×10^2	1.3×10^2	1.3×10^4	6.5×10^3	5.8×10^4	5.7×10^4	3.4 x 10	3.3 x 10

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
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Report No. : 181172WA202411(1)

Results :

Test parameters	Sample identification			
	SP1E M	SP1E M Dup	KT1E M	KT1E M Dup
1. Biochemical oxygen demand, mg/L	2.5	2.5	4.0	4.0
2. Total Kjeldahl nitrogen content, mg/L	13	12	7.4	7.2
3. Total nitrogen content, mg/L	13	13	7.5	7.6
4. Ammonical nitrogen content, mg/L	11	11	6.3	6.3
5. Total Inorganic nitrogen, mg/L	11	11	6.4	6.5
6. Total phosphorus content, mgP/L	0.94	1.0	0.97	0.93
7. E. coli count, cfu/100ml	4.6×10^4	4.8×10^4	6.9×10^3	8.2×10^3

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** End of Report **

Note : This report refers only to the sample(s) tested.

FUGRO TECHNICAL SERVICES LIMITED
Fugro Development Centre
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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.59	2.62	1.15
1.5	<1.5	-	4.16	4.14	0.48
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.05	<0.05	102.60	0.27	0.26	3.77
0.05	<0.05	-	-	-	-
3. Total Kjeldahl nitrogen content, mg/L (Titrimetric Method)					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
5	<5	100.34	7.38	6.97	5.71
5	<5	-	-	-	-

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Note

Laboratory Duplicate, Quality Assurance/Quality Control Report

4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	115.06	5.56	5.50	1.08
0.02	<0.02	112.13	7.00	6.92	1.15
5. Total phosphorus content, mgP/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.01	<0.01	101.10	0.74	0.76	2.67
0.01	<0.01	98.30	0.91	0.96	5.35
6. E. coli count, cfu/100ml					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1	<1	-	4.5×10^3	6.3×10^3	33.3
1	<1	-	7.7×10^3	8.6×10^3	11.0

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