

# Appendix D

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## Water Quality Monitoring Results

Report No. : 181172WA202235



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**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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**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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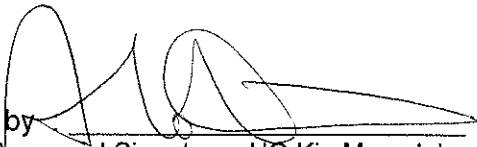
Report No. : 181172WA202235

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**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.

Certified by   
 Approved Signatory : HO Kin Man, John  
 Assistant General Manager – Laboratories  
 Date : 15/11/2021

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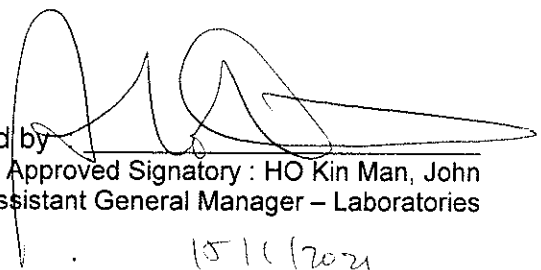


**Results :**

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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**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

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.*

Report No. : 181172WA202235(1)



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**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.*

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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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*



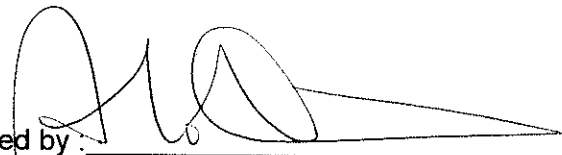
Report No. : 181172WA202235(1)

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**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 10 <sup>4</sup> (estimated)	9.9 x 10 <sup>3</sup>	9.8 x 10 <sup>3</sup>	1.1 x 10 <sup>4</sup> (estimated)	9.3 x 10 <sup>3</sup>	5.3 x 10 <sup>3</sup>	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<sub>5</sub> 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<sub>5</sub> test : 02/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202235(1)

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**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	$7.3 \times 10^3$	$7.4 \times 10^3$	$1.0 \times 10^4$ (estimated)	$1.1 \times 10^4$ (estimated)	$1.6 \times 10$	$2.1 \times 10$	$1.7 \times 10^4$ (estimated)	$1.7 \times 10^4$ (estimated)

- 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<sub>5</sub> 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<sub>5</sub> test : 02/12/2020 16:00
    - iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.
    - v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202235(1)

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**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	$1.2 \times 10^4$ (estimated)	$1.2 \times 10^4$ (estimated)	$1.0 \times 10^4$ (estimated)	$8.6 \times 10^3$	$6.9 \times 10^3$	$1.0 \times 10^4$ (estimated)	$3.7 \times 10^3$	$5.1 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 02/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202235(1)

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**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 x 10 <sup>3</sup>	5.0 x 10 <sup>3</sup>	1.1 x 10 <sup>4</sup> (estimated)	1.2 x 10 <sup>4</sup> (estimated)	1.0 x 10 <sup>4</sup> (estimated)	9.3 x 10 <sup>3</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 02/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

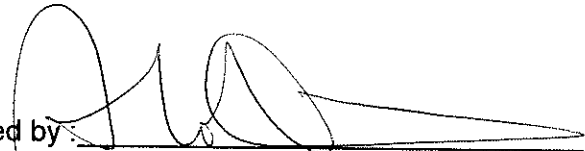
Report No. : 181172WA202235(1)

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**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)	$1.1 \times 10^4$ (estimated)	$8.5 \times 10^3$	$9.5 \times 10^3$	$7.0 \times 10^3$	$8.8 \times 10^3$	$8.3 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 02/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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 \*\*

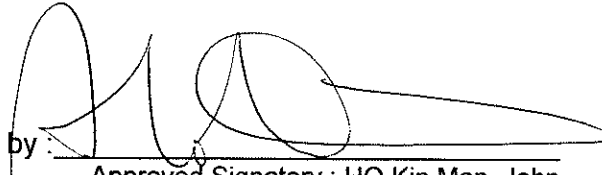
Note : This report refers only to the sample(s) tested.



**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  
 Date : 15/1/2024

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

**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	-	$7.5 \times 10^3$	$7.0 \times 10^3$	6.90
1	<1	-	$4.4 \times 10^3$	$4.7 \times 10^3$	6.59

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.

Report No. : 181172WA202253



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**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.*

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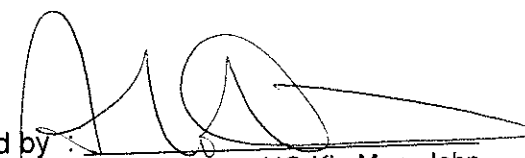
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**Results :**

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.

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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**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

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**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.*

Report No. : 181172WA202253(1)



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**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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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<sub>org</sub> B & 4500-NH<sub>3</sub>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											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 <sub>5</sub> (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.	Depth Ave.	Value	Ave.	Depth Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Depth Ave.	Value	Ave.	Depth Ave.	Depth Ave.	Value	Ave.	Depth 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	NA	NA	NA	NA	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	M	0.95	1			8.12	8.12	10.74	10.75	18.84	18.81	73.1	72.4	6.34	6.20	6.27	22.7	22.7	22.7	36	36	36	NA	NA	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	8.12	10.75	10.75	18.77	18.81	71.7	72.4	6.20	6.27	6.27	22.7	22.7	22.7	36	36	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
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	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		1	0.273	64.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	0.9	1			8.14	8.14	10.29	10.29	19.13	19.15	62.5	62.1	5.33	5.34	5.34	31.5	31.9	31.7	43	44	44	NA	NA	NA	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	8.14	10.28	10.29	19.16	19.15	61.7	62.1	5.34	5.34	5.34	31.9	31.9	31.7	44	44	44	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		1	0.000	104.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	0.1	1			7.52	7.53	10.40	10.40	20.77	20.78	49.8	49.7	4.20	4.18	4.19	119.9	119.1	119.1	180	185	185	NA	NA	NA	NA	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	7.53	10.40	10.40	20.79	20.78	49.6	49.7	4.18	4.18	4.19	118.2	119.1	119.1	190	185	185	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	S		1	0.064	171.4	8.17	8.17	14.95	14.97	17.04	17.12	81.8	81.7	7.12	7.09	7.11	27.8	27.8	27.8	55	55	55	<1.5	1.5	0.049	0.043	2.6	2.3	4.6	4.2	1.20	1.05	3.2	2.9	0.39	0.41	5000	4848
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	S	1	2			8.16	8.17	14.99	14.97	17.20	17.12	81.5	81.7	7.09	7.11	7.11	27.8	27.8	27.8	54	55	55	<1.5	1.5	0.036	0.031	2.0	2.0	3.7	3.7	0.89	0.89	2.6	2.6	0.42	0.41	4700	4848
E1	15/12/2020	Mid-Flood	Fine	Moderate	09:18	4.7	M	1	2			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	B	3.7	1	8.14	8.13	15.90	15.87	17.54	17.53	77.2	77.0	6.71	6.66	6.69	49.9	49.4	49.4	75	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		
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	S		1	0.109	311.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	0.85	1			7.74	7.75	19.97	19.94	18.32	18.33	84.4	84.4	7.01	7.02	7.02	21.5	21.5	21.5	34	34	34	<1.5	1.5	0.010	0.010	1.4	1.4	2.7	2.7	0.59	0.57	1.9	1.8	0.25	0.22	490	420
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	B	1	2			7.75	7.75	19.91	19.94	18.33	18.33	84.3	84.4	7.02	7.02	7.02	21.5	21.5	21.5	34	34	34	<1.5	1.5	0.010	0.010	1.4	1.4	2.6	2.6	0.57	0.58	1.7	1.7	0.22	0.21	360	420
E2a	15/12/2020	Mid-Flood	Fine	Moderate	08:54	1.7	B	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	S		1	0.235	211.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	0.95	1			7.69	7.65	25.48	25.45	19.03	19.04	95.8	95.8	7.69	7.65	7.65	13.2	13.3	13.3	22	23	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	7.65	25.42	25.45	19.04	19.04	95.7	95.7	7.61	7.65	7.65	13.3	13.3	13.3	23	23	23	<1.5	1.5	0.002	0.002	0.6	0.6	1.0	1.0	0.17	0.16	0.6	0.6	0.14	0.14	24	24
E3a	15/12/2020	Mid-Flood	Fine	Moderate	08:28	1.9	B	1	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	S		1	0.128	59.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	0.9	1			8.25	8.25	15.14	15.16	17.07	17.10	85.5	85.2	7.48	7.46	7.46	27.6	28.1	28.1	46	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	8.25	15.17	15.16	17.12	17.10	84.9	85.2	7.43	7.43	7.43	28.5	28.5	28.5	45	46	46	<1.5	1.5	0.044	0.042	1.8	1.7	3.1	3.1	0.91	0.91	2.2	2.2	0.25	0.25	3400	3779
E5a	15/12/2020	Mid-Flood	Fine	Moderate	09:43	1.8	S		1	0.164	24.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	0.9	1			8.16	8.17	10.72	10.73	18.51	18.51	74.4	73.8	6.44	6.39	6.39	25.9	25.9	25.9	43	44	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	8.17	10.73	10.73	18.50	18.51	73.2	73.8	6.34	6.34	6.34	25.9	25.9	25.9	44	44	44	<1.5	1.5	0.057	0.058	2.9	3.0	5.3	5.3	1.20	1.20	3.6	3.6	0.32	0.32	4900	4950
DB1	15/12/2020	Mid-Flood	Fine	Moderate	08:09	2.0	S		1	0.217	74.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	M	1	2			7.96	7.97	26.85	26.85	19.23	19.23	97.2	97.2	7.66	7.66	7.66	10.1	10.1	10.1	25	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	B	1	2			7.97	7.97	26.84	26.84	19.23	19.23	97.1	97.1	7.65	7.65	7.65	10.1	10.1	10.1	24	24	24	<1.5	1.5	0.003	0.003	0.8	0.8	1.2	1.2	0.11	0.11	0.5	0.5	0.12	0.12	27	27
SP1	15/12/2020	Mid																																										

























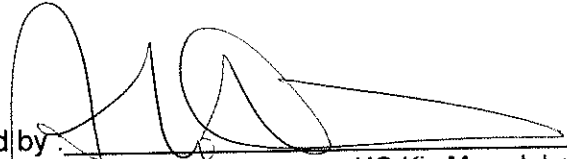
Report No. : 181172WA202253(1)

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**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 x 10 <sup>3</sup>	3.5 x 10 <sup>3</sup>	4.0 x 10 <sup>3</sup>	4.5 x 10 <sup>3</sup>	4.3 x 10 <sup>3</sup>	4.1 x 10 <sup>3</sup>	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<sub>5</sub> 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<sub>5</sub> test : 04/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.


Report No. : 181172WA202253(1)

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**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 x 10 <sup>3</sup>	3.4 x 10 <sup>3</sup>	3.6 x 10 <sup>3</sup>	1.2 x 10 <sup>4</sup>	5.2 x 10	5.5 x 10	1.3 x 10 <sup>4</sup>	6.5 x 10 <sup>3</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 04/12/2020 16:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.



**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	$5.7 \times 10^3$	$7.3 \times 10^3$	$3.2 \times 10^3$	$3.8 \times 10^3$	$4.2 \times 10^3$	$3.3 \times 10^3$	$4.9 \times 10^3$	$3.1 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 04/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

**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 x 10 <sup>3</sup>	3.6 x 10 <sup>3</sup>	3.2 x 10 <sup>3</sup>	3.1 x 10 <sup>3</sup>	4.7 x 10 <sup>3</sup>	4.0 x 10 <sup>3</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 04/12/2020 16:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

**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)	$5.4 \times 10^3$	$5.4 \times 10^3$	$3.9 \times 10^3$	$4.6 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 04/12/2020 16:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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

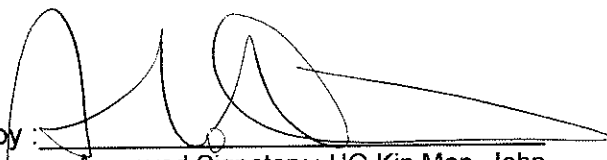
\*\* End of Report \*\*

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

**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

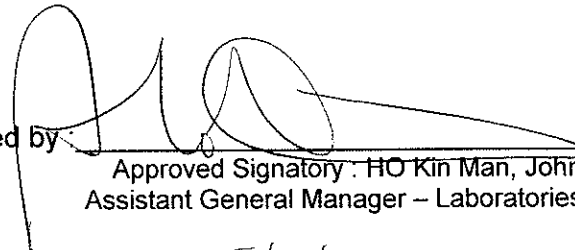
Date :

15/1/2021

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

**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	-	$2.4 \times 10^3$	$1.7 \times 10^3$	34.1
1	<1	-	$1.4 \times 10^3$	$1.0 \times 10^3$	33.3

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.

Report No. : 181172WA202260



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**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.*

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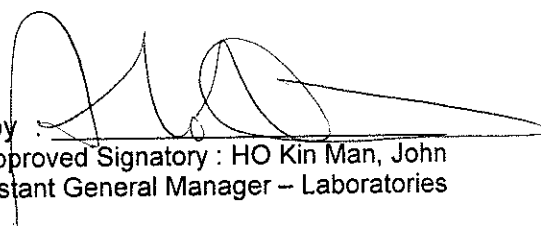
Page 2 of 2


**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.

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

Date :

15/11/2021

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Report No. : 181172WA202260

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**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.

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 Date : 15/1/2021

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



Report No. : 181172WA202260

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**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.

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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**

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.*

Report No. : 181172WA202260(1)



Page 1 of 7

**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.*

Report No. : 181172WA202260(1)

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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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*


Report No. : 181172WA202260(1)

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**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 x 10 <sup>3</sup>	1.4 x 10 <sup>3</sup>	1.6 x 10 <sup>3</sup>	1.6 x 10 <sup>3</sup>	1.9 x 10 <sup>3</sup>	1.3 x 10 <sup>3</sup>	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<sub>5</sub> 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<sub>5</sub> test : 05/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.


Report No. : 181172WA202260(1)

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**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	$8.0 \times 10^2$	$1.0 \times 10^3$	$3.3 \times 10^3$	$1.9 \times 10^3$	$2.4 \times 10$	$3.8 \times 10$	$3.1 \times 10^3$	$3.2 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 05/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.


Report No. : 181172WA202260(1)

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**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	$1.9 \times 10^3$	$2.1 \times 10^3$	$1.2 \times 10^3$	$1.9 \times 10^3$	$2.4 \times 10^3$	$2.2 \times 10^3$	$1.2 \times 10^3$	$6.0 \times 10^2$

- 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<sub>5</sub> 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<sub>5</sub> test : 05/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202260(1)

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**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 x 10 <sup>3</sup>	1.1 x 10 <sup>3</sup>	1.8 x 10 <sup>3</sup>	1.2 x 10 <sup>3</sup>	2.4 x 10 <sup>3</sup>	1.2 x 10 <sup>3</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 05/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*



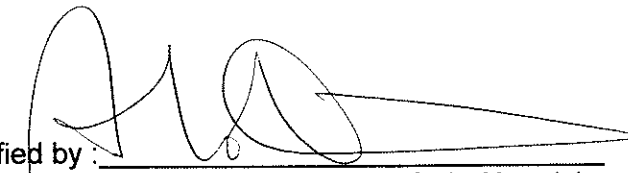
Report No. : 181172WA202260(1)

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**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)	$2.0 \times 10^3$	$1.4 \times 10^3$	$1.7 \times 10^3$	$1.2 \times 10^3$

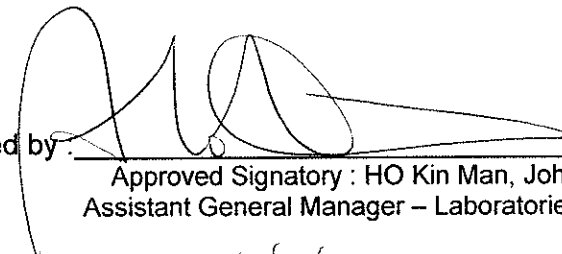
- Remark: 1. Disclaimer: Sampling is out of scope of accreditation.  
 2. Temperature of ice-box when samples being received were 3.1°C  
 3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.  
 4. Total Inorganic nitrogen is the sum of Ammonical nitrogen 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<sub>5</sub> 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<sub>5</sub> test : 05/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

**Note**
**Laboratory Duplicate, Quality Assurance/Quality Control Report**

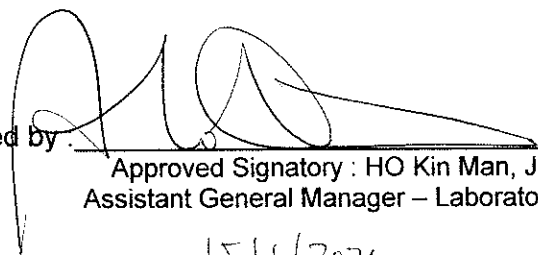
1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.86	2.89	1.04
1.5	<1.5	-	2.84	2.87	1.05
2. Total Kjeldahl nitrogen content, mg/L (Colorimetric Method)					
Reporting Limit	Blank	Spike recovery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

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 Date : 15/1/2021

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

**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	-	$2.4 \times 10^3$	$1.7 \times 10^3$	34.1
1	<1	-	$1.4 \times 10^3$	$1.0 \times 10^3$	33.3

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 Assistant General Manager – Laboratories  
 Date: 15/11/2021

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

Report No. : 181172WA202290



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**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 : Forty-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


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

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**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.

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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**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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 Assistant General Manager – Laboratories  
 Date : 15/1/2021

**\*\*End of Report\*\***

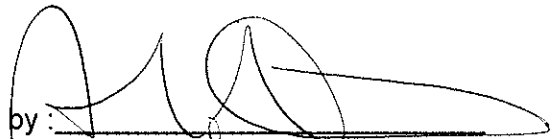
*Note : This report refers only to the sample(s) tested.*

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**Note**

**Laboratory Duplicate, Quality Assurance/Quality Control Report**

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.*



Report No. : 181172WA202290(1)



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**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.*

Report No. : 181172WA202290(1)

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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<sub>org</sub> B & 4500-NH<sub>3</sub> 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.*

Report No. : 181172WA202290(1)

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**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	$1.7 \times 10^4$	$1.7 \times 10^4$	$1.4 \times 10^4$ (estimated)	$1.5 \times 10^4$ (estimated)	$1.2 \times 10^4$ (estimated)	$1.3 \times 10^4$ (estimated)	$1.3 \times 10^2$ (estimated)	$1.3 \times 10^2$ (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<sub>5</sub> 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<sub>5</sub> test : 09/12/2020 17:00
    - iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.
    - v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202290(1)

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**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	$1.3 \times 10^4$ (estimated)	$1.2 \times 10^4$ (estimated)	$2.5 \times 10^4$	$4.0 \times 10^4$	$5.2 \times 10$	$4.4 \times 10$	$8.6 \times 10^4$	$5.4 \times 10^4$

- 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<sub>5</sub> 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<sub>5</sub> test : 09/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> seeding water.  
     vi. The samples were incubated at 19-21°C for 5 days

Certified by :



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 Assistant General Manager – Laboratories

Date :

15/11/2021

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

Report No. : 181172WA202290(1)

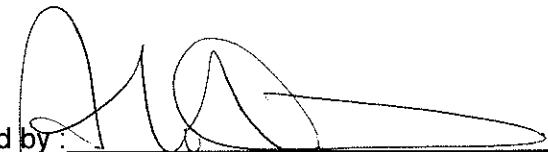
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**Results :**

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 x 10 <sup>4</sup> (estimated)	1.4 x 10 <sup>4</sup> (estimated)	3.8 x 10 <sup>4</sup>	3.1 x 10 <sup>4</sup>	5.3 x 10 <sup>4</sup>	4.3 x 10 <sup>4</sup>	5.5 x 10 <sup>3</sup>	4.2 x 10 <sup>3</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 09/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

Report No. : 181172WA202290(1)

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**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	$1.3 \times 10^2$ (estimated)	$1.2 \times 10^2$ (estimated)	$1.5 \times 10^4$ (estimated)	$1.4 \times 10^4$ (estimated)	$5.7 \times 10^4$	$4.6 \times 10^4$	$1.1 \times 10^2$ (estimated)	$1.0 \times 10^2$ (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.  
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     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<sub>5</sub> test : 09/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

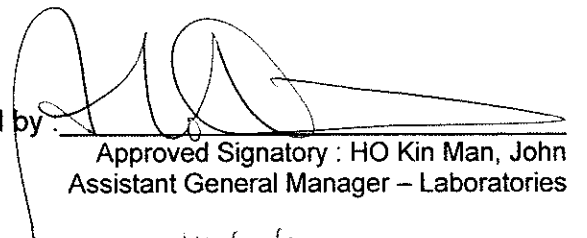
Report No. : 181172WA202290(1)

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**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	$7.6 \times 10^4$	$8.9 \times 10^4$	$3.0 \times 10^3$	$3.1 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 09/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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

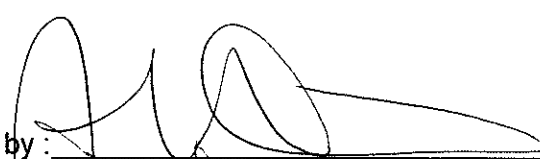
Date : 15/11/2021

**\*\* End of Report \*\***
*Note : This report refers only to the sample(s) tested.*

**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	-	1.82	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

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

Date :

15/1/2021

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





**Note**

**Laboratory Duplicate, Quality Assurance/Quality Control Report**

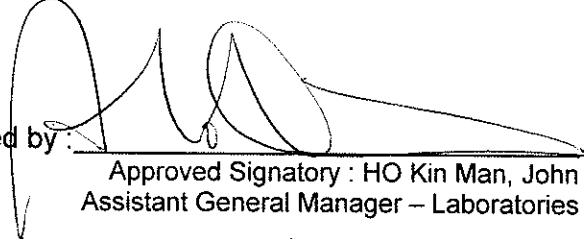
4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	102.42	3.57	3.51	1.69
0.02	<0.02	104.16	2.41	2.36	2.10

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 x 10 <sup>4</sup>	1.3 x 10 <sup>4</sup>	11.3
1	<1	-	2.7 x 10 <sup>3</sup>	3.5 x 10 <sup>3</sup>	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.

Report No. : 181172WA202298



Page 1 of 2

**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 : Forty-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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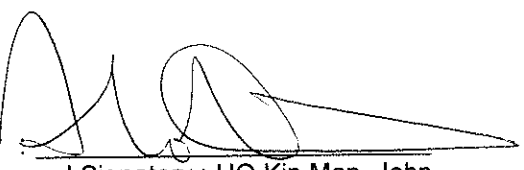
Page 2 of 2



**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.

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 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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**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.

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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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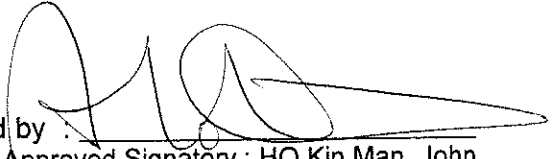
Page 2 of 2



**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.

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 Assistant General Manager – Laboratories  
 Date : 15/1/2021

**\*\*End of Report\*\***

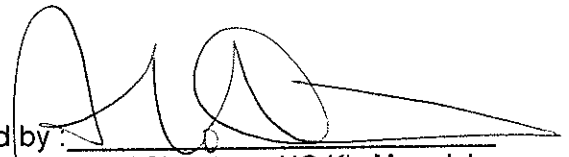
*Note : This report refers only to the sample(s) tested.*

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**Note**

**Laboratory Duplicate, Quality Assurance/Quality Control Report**

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

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 Assistant General Manager – Laboratories  
 Date : 15/1/2021

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

Report No. : 181172WA202298(1)



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**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.*

Report No. : 181172WA202298(1)

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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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*




Report No. : 181172WA202298(1)

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**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	$3.0 \times 10^3$	$4.1 \times 10^3$	$3.0 \times 10^3$	$3.5 \times 10^3$	$4.0 \times 10^2$	$4.0 \times 10^2$	$3.6 \times 10$	$4.6 \times 10$

- 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<sub>5</sub> 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<sub>5</sub> test : 11/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.


Report No. : 181172WA202298(1)

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**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	$1.6 \times 10^3$	$1.7 \times 10^3$	$3.5 \times 10^3$	$3.8 \times 10^3$	$1.3 \times 10$	$1.0 \times 10$	$4.5 \times 10^3$	$3.9 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 11/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> seeding water.  
     vi. The samples were incubated at 19-21°C for 5 days

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 Date : 15/11/2021

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

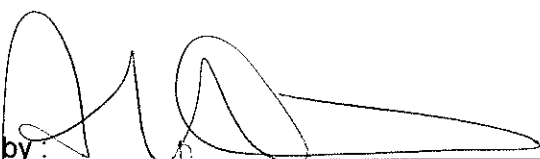
Report No. : 181172WA202298(1)

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**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	$2.6 \times 10^3$	$2.8 \times 10^3$	$5.2 \times 10^3$	$4.5 \times 10^3$	$4.0 \times 10^3$	$2.7 \times 10^3$	$5.9 \times 10^3$	$5.4 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 11/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

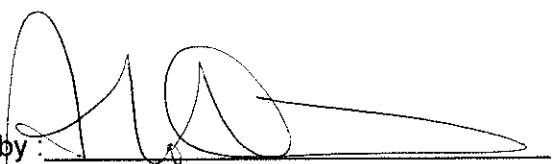
Report No. : 181172WA202298(1)

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**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 x 10 <sup>3</sup>	6.9 x 10 <sup>3</sup>	1.2 x 10 <sup>4</sup>	1.3 x 10 <sup>4</sup>	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<sub>5</sub> 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<sub>5</sub> test : 11/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

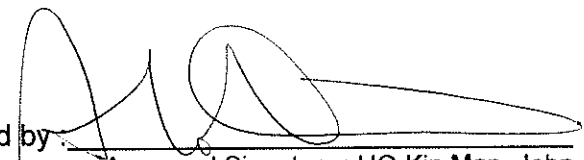
Report No. : 181172WA202298(1)

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**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	$6.5 \times 10^4$	$6.0 \times 10^4$	$4.6 \times 10^3$	$5.3 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 11/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

**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

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 Assistant General Manager – Laboratories  
 Date : 15/1/2021

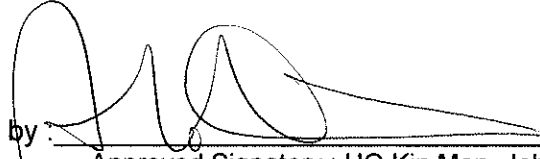
*Note : This report refers only to the sample(s) tested.*



**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 x 10 <sup>3</sup>	2.9 x 10 <sup>3</sup>	7.14
1	<1	-	5.0 x 10 <sup>3</sup>	5.5 x 10 <sup>3</sup>	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.*

Report No. : 181172WA202299



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**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 : Forty-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.*

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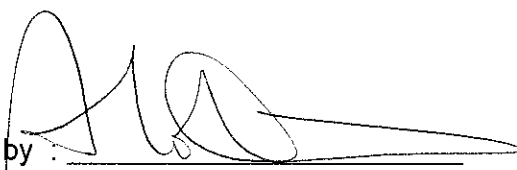
Report No. : 181172WA202299

Page 2 of 2


**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.

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 Date : 15/1/2021

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Report No. : 181172WA202299

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**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.

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 Assistant General Manager – Laboratories

Date :

15/11/2024

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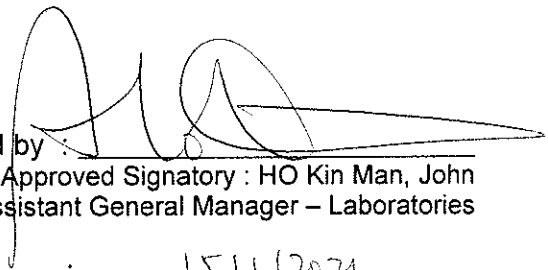
Page 2 of 2



**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.

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**\*\*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	99.96	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 : 15/1/2021

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

Report No. : 181172WA202299(1)



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**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.*

Report No. : 181172WA202299(1)

Page 2 of 7

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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*

Report No. : 181172WA202299(1)

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**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 x 10 <sup>4</sup> (estimated)	1.4 x 10 <sup>4</sup> (estimated)	1.4 x 10 <sup>4</sup> (estimated)	1.4 x 10 <sup>4</sup> (estimated)	2.9 x 10 <sup>3</sup>	2.4 x 10 <sup>3</sup>	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<sub>5</sub> 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<sub>5</sub> test : 12/12/2020 17:00
    - iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.
    - v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202299(1)

Page 4 of 7

**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	$9.0 \times 10^3$	$9.1 \times 10^3$	$1.2 \times 10^4$ (estimated)	$1.3 \times 10^4$ (estimated)	$1.7 \times 10^4$	$2.8 \times 10^4$	$1.4 \times 10^5$ (estimated)	$1.7 \times 10^5$ (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<sub>5</sub> 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<sub>5</sub> test : 12/12/2020 17:00
    - iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.
    - v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.



Report No. : 181172WA202299(1)

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**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	$2.1 \times 10^4$ (estimated)	$1.9 \times 10^4$ (estimated)	$1.1 \times 10^4$ (estimated)	$1.3 \times 10^4$ (estimated)	$1.2 \times 10^4$ (estimated)	$1.1 \times 10^4$ (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<sub>5</sub> 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<sub>5</sub> test : 12/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202299(1)

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**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	$5.9 \times 10^3$	$6.3 \times 10^3$	$9.6 \times 10^3$	$1.5 \times 10^4$ (estimated)	$3.3 \times 10^4$	$3.3 \times 10^4$	$2.5 \times 10$	$1.9 \times 10$

- 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<sub>5</sub> 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<sub>5</sub> test : 12/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

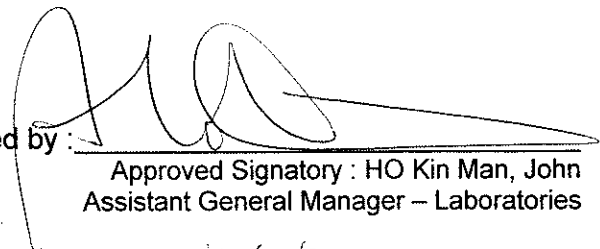
Report No. : 181172WA202299(1)

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**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 x 10 <sup>5</sup> (estimated)	2.2 x 10 <sup>5</sup> (estimated)	1.5 x 10 <sup>4</sup>	1.4 x 10 <sup>4</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 12/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

**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 : 15/1/2021

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

**Note**
**Laboratory Duplicate, Quality Assurance/Quality Control Report**

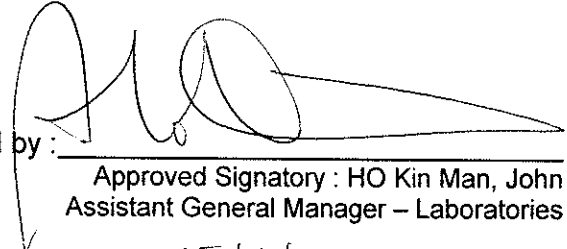
4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	96.60	4.81	4.80	0.21
0.02	<0.02	87.53	4.93	4.99	1.21

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 x 10 <sup>4</sup>	1.9 x 10 <sup>4</sup>	0.00
1	<1	-	1.5 x 10 <sup>4</sup>	1.3 x 10 <sup>4</sup>	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.

Report No. : 181172WA202322



Page 1 of 2

**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 : Forty-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.*

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Report No. : 181172WA202322

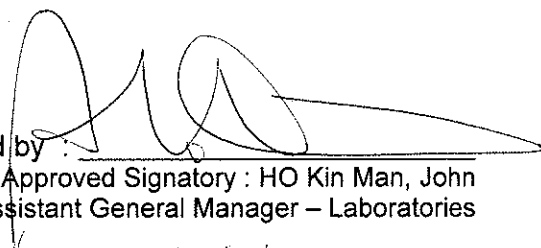
Page 2 of 2


**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.*

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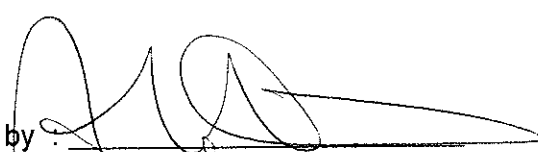
Report No. : 181172WA202322

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**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 : 15/1/2021

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

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Report No. : 181172WA202322

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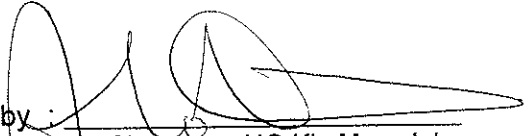


**Results :**

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 :

15/1/2024

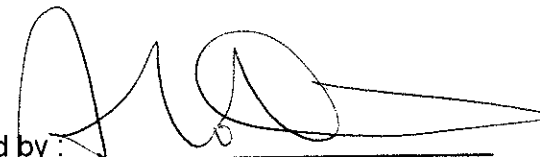
**\*\*End of Report\*\***

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

**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.*

Report No. : 181172WA202322(1)



Page 1 of 7

**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.*

Report No. : 181172WA202322(1)

Page 2 of 7

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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*

Report No. : 181172WA202322(1)

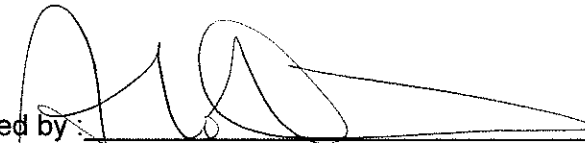
Page 3 of 7

**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	$5.0 \times 10^3$	$4.7 \times 10^3$	$5.5 \times 10^3$	$4.9 \times 10^3$	$4.9 \times 10^2$	$3.6 \times 10^2$	$2.4 \times 10$	$2.4 \times 10$

- 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<sub>5</sub> 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<sub>5</sub> test : 16/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

Report No. : 181172WA202322(1)

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**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	$4.2 \times 10^3$	$3.4 \times 10^3$	$5.0 \times 10^3$	$4.9 \times 10^3$	$2.7 \times 10$	$2.7 \times 10$	$1.2 \times 10^4$	$6.8 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 16/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

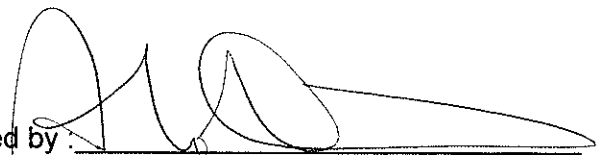
Report No. : 181172WA202322(1)

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**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	$7.0 \times 10^3$	$7.4 \times 10^3$	$6.5 \times 10^3$	$6.9 \times 10^3$	$7.6 \times 10^3$	$7.1 \times 10^3$	$5.9 \times 10^3$	$5.8 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 16/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202322(1)

Page 6 of 7

**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 x 10 <sup>3</sup>	5.6 x 10 <sup>3</sup>	1.8 x 10 <sup>4</sup>	8.4 x 10 <sup>3</sup>	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.  
 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<sub>5</sub> 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<sub>5</sub> test : 16/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.



Report No. : 181172WA202322(1)

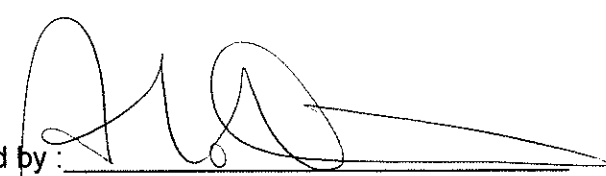
Page 7 of 7

**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	$5.6 \times 10^4$	$5.0 \times 10^4$	$1.3 \times 10^4$	$9.1 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 16/12/2020 17:00
    - iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.
    - v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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

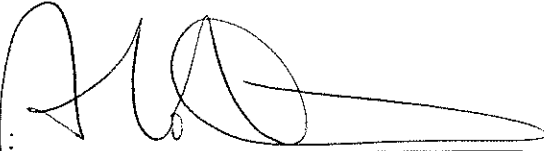
Date :

15/11/2021
**\*\* End of Report \*\***
*Note : This report refers only to the sample(s) tested.*

**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.*

**Note**
**Laboratory Duplicate, Quality Assurance/Quality Control Report**

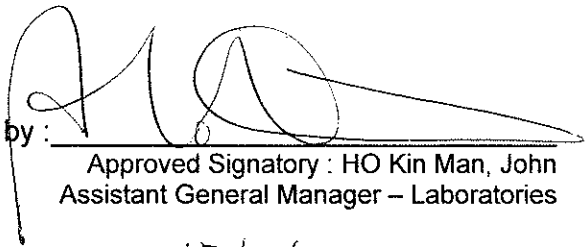
4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	114.48	1.18	1.15	2.58
0.02	<0.02	112.41	1.72	1.70	1.17

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	-	$7.3 \times 10^3$	$7.5 \times 10^3$	2.70
1	<1	-	$9.3 \times 10^3$	$8.8 \times 10^3$	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.

Report No. : 181172WA202351



Page 1 of 2

**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 : Forty-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.*

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**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

: 15/11/2021

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

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**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 :

15/1/2024

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

Report No. : 181172WA202351

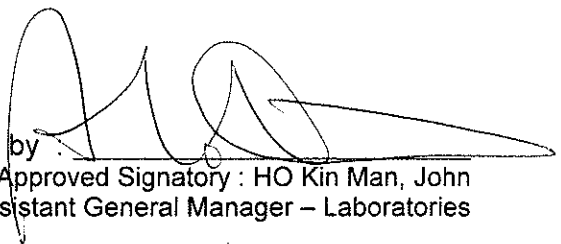
Page 2 of 2



**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 : 15/1/2021

**\*\*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**

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 : 15/1/2021

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



Report No. : 181172WA202351(1)



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**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.*

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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<sub>org</sub> B & 4500-NH<sub>3</sub>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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**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	$9.9 \times 10^3$	$8.8 \times 10^3$	$1.1 \times 10^4$ (estimated)	$1.4 \times 10^4$ (estimated)	$6.6 \times 10^3$	$5.9 \times 10^3$	$4.5 \times 10^2$	$3.5 \times 10^2$

- 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<sub>5</sub> 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<sub>5</sub> test : 18/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202351(1)

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**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	$6.9 \times 10^3$	$7.9 \times 10^3$	$1.5 \times 10^4$	$1.4 \times 10^4$	$9.8 \times 10$	$9.8 \times 10$	$1.9 \times 10^4$	$1.5 \times 10^4$

- 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<sub>5</sub> 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<sub>5</sub> test : 18/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202351(1)


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**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	$1.7 \times 10^4$	$1.6 \times 10^4$	$4.2 \times 10^3$	$5.0 \times 10^3$	$4.7 \times 10^3$	$4.5 \times 10^3$	$3.8 \times 10^3$	$2.3 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 18/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.


Report No. : 181172WA202351(1)

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**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 x 10 <sup>3</sup>	4.5 x 10 <sup>3</sup>	9.0 x 10 <sup>3</sup>	7.0 x 10 <sup>3</sup>	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<sub>5</sub> 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<sub>5</sub> test : 18/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202351(1)

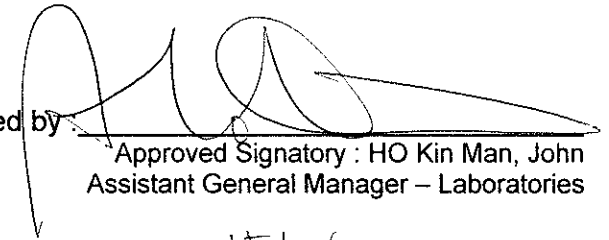
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**Results :**

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	$6.3 \times 10^3$	$6.0 \times 10^3$	$5.4 \times 10^3$	$5.5 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 18/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> seeding water.  
     vi. The samples were incubated at 19-21°C for 5 days

Certified by:



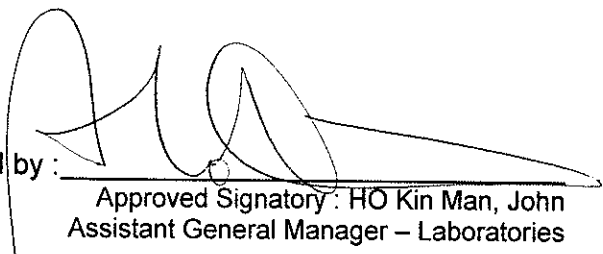
 Approved Signatory : HO Kin Man, John  
 Assistant General Manager – Laboratories

Date :

15/11/2021
**\*\* End of Report \*\***
*Note : This report refers only to the sample(s) tested.*

**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

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.



**Note**
**Laboratory Duplicate, Quality Assurance/Quality Control Report**

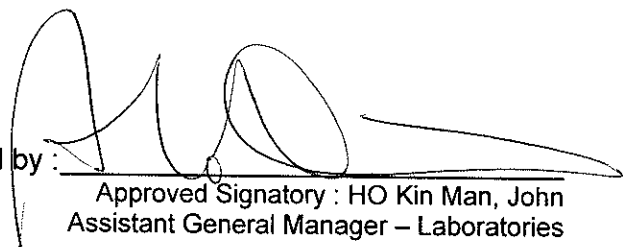
4. Ammonical nitrogen content, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
0.02	<0.02	113.91	3.30	3.27	0.91
0.02	<0.02	108.51	1.57	1.54	1.93

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 x 10 <sup>4</sup>	1.5 x 10 <sup>4</sup>	6.45
1	<1	-	6.0 x 10 <sup>3</sup>	4.9 x 10 <sup>3</sup>	20.2

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.

Report No. : 181172WA202352



Page 1 of 2

**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 : Forty-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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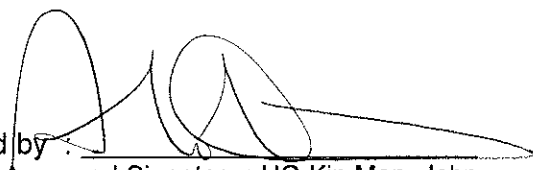
Page 2 of 2


**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.*

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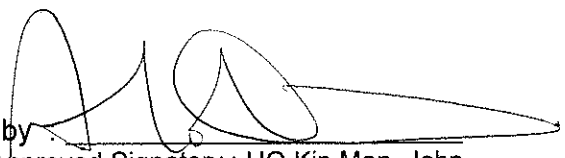
Page 2 of 2



**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.*

Report No. : 181172WA202352

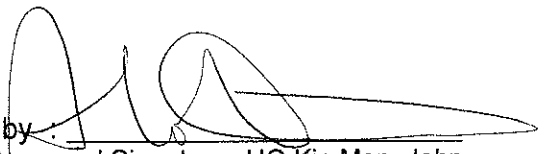
Page 2 of 2



**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:   
 Approved Signatory : HO Kin Man, John  
 Assistant General Manager – Laboratories  
 Date : 15/11/2021

**\*\*End of Report\*\***

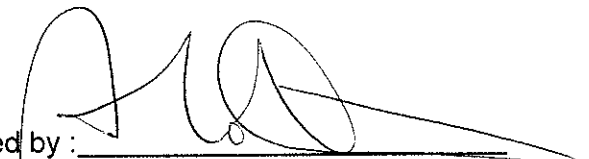
*Note : This report refers only to the sample(s) tested.*

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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	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 / 2024

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

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.*

Report No. : 181172WA202352(1)

Page 2 of 7

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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*



Report No. : 181172WA202352(1)

Page 3 of 7

**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	$6.5 \times 10^3$	$7.6 \times 10^3$	$5.9 \times 10^3$	$6.9 \times 10^3$	$5.1 \times 10^3$	$6.9 \times 10^3$	$2.0 \times 10^2$	$1.5 \times 10^2$

- 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<sub>5</sub> 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<sub>5</sub> test : 20/12/2020 17:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

Report No. : 181172WA202352(1)

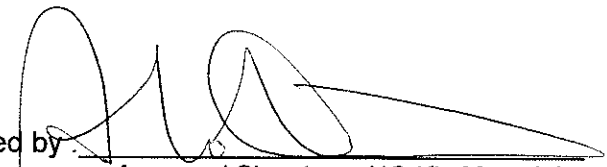
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**Results :**

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	$6.0 \times 10^3$	$5.3 \times 10^3$	$1.5 \times 10^4$	$1.2 \times 10^4$	$8.4 \times 10$	$6.7 \times 10$	$1.7 \times 10^4$	$1.7 \times 10^4$

- 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<sub>5</sub> 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<sub>5</sub> test : 20/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202352(1)

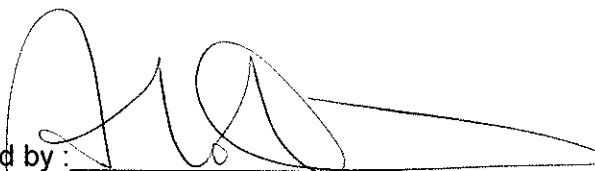
Page 5 of 7

**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	$1.3 \times 10^4$	$1.3 \times 10^4$	$4.3 \times 10^3$	$4.8 \times 10^3$	$4.3 \times 10^3$	$4.1 \times 10^3$	$1.8 \times 10^3$	$1.6 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 20/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> seeding water.  
     vi. The samples were incubated at 19-21°C for 5 days

Certified by :



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 Assistant General Manager – Laboratories

Date :

15/1/2021

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

Report No. : 181172WA202352(1)

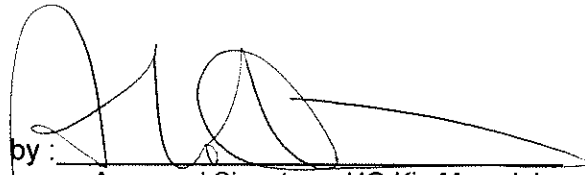
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**Results :**

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 x 10 <sup>3</sup>	4.0 x 10 <sup>3</sup>	5.5 x 10 <sup>3</sup>	4.4 x 10 <sup>3</sup>	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<sub>5</sub> 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<sub>5</sub> test : 20/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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

Date

15/1/2021

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

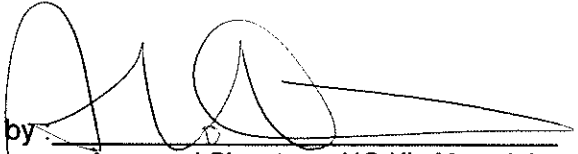
Report No. : 181172WA202352(1)

Page 7 of 7

**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 x 10 <sup>3</sup>	5.3 x 10 <sup>3</sup>	6.5 x 10 <sup>3</sup>	5.6 x 10 <sup>3</sup>

- 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<sub>5</sub> 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<sub>5</sub> test : 20/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

**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 :

15/11/2021

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

**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	-	$1.2 \times 10^4$	$1.4 \times 10^4$	15.4
1	<1	-	$5.4 \times 10^3$	$5.7 \times 10^3$	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.*

Report No. : 181172WA202385



Page 1 of 2

**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 : Forty-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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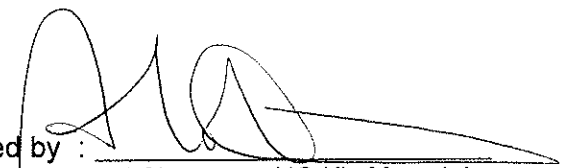
Page 2 of 2



**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 : 15/11/2021

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

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Report No. : 181172WA202385

Page 2 of 2


**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.

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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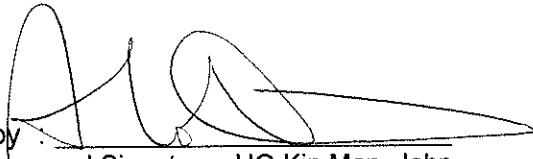
Page 2 of 2



**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  
Assistant General Manager – Laboratories  
Date : 15/1/2024

**\*\*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	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.*

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.*

Report No. : 181172WA202385(1)

Page 2 of 7

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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*

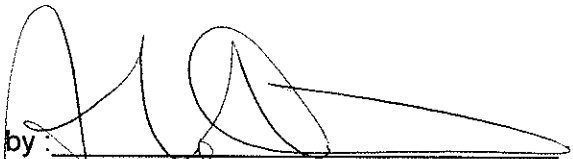
Report No. : 181172WA202385(1)

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**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 x 10 <sup>4</sup> (estimated)	9.3 x 10 <sup>3</sup>	9.3 x 10 <sup>3</sup>	7.6 x 10 <sup>3</sup>	2.1 x 10 <sup>3</sup>	1.2 x 10 <sup>3</sup>	4.2 x 10	3.7 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<sub>5</sub> 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<sub>5</sub> test : 23/12/2020 11:00  
 iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202385(1)

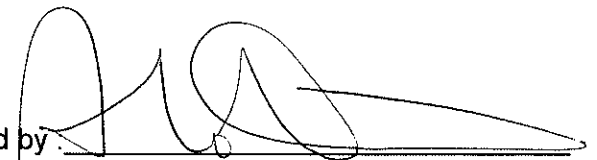
Page 4 of 7

**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	$9.7 \times 10^3$	$7.6 \times 10^3$	$7.9 \times 10^3$	$5.6 \times 10^3$	$1.3 \times 10$	$1.0 \times 10$	$2.1 \times 10^4$	$9.8 \times 10^3$

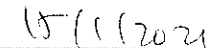
- Remark: 1. Disclaimer: Sampling is out of scope of accreditation.  
 2. Temperature of ice-box when samples being received were 5.1°C  
 3. Total nitrogen is the sum of Total Kjeldahl nitrogen content and total oxidized nitrogen content.  
 4. Total Inorganic nitrogen is the sum of Ammonical nitrogen 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<sub>5</sub> 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<sub>5</sub> test : 23/12/2020 11:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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 :


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



Report No. : 181172WA202385(1)

Page 5 of 7

**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	$5.0 \times 10^3$	$5.4 \times 10^3$	$7.0 \times 10^3$	$7.9 \times 10^3$	$8.9 \times 10^3$	$6.6 \times 10^3$	$2.4 \times 10^4$	$2.4 \times 10^4$

- 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<sub>5</sub> 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<sub>5</sub> test : 23/12/2020 11:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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 : 10/1/2021

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

Report No. : 181172WA202385(1)

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**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	$2.5 \times 10^2$	$2.6 \times 10^2$	$9.1 \times 10^3$	$9.7 \times 10^3$	$8.2 \times 10^3$	$9.5 \times 10^3$	$4.8 \times 10^2$	$2.6 \times 10^2$

- 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<sub>5</sub> 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<sub>5</sub> test : 23/12/2020 11:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202385(1)

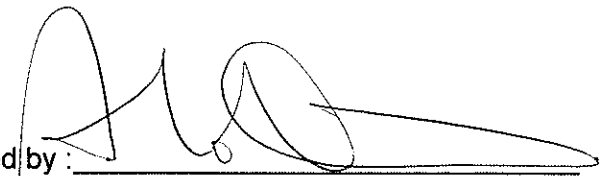
Page 7 of 7

**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	$1.4 \times 10^4$	$1.5 \times 10^4$	$6.0 \times 10^3$	$7.4 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 23/12/2020 11:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

**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

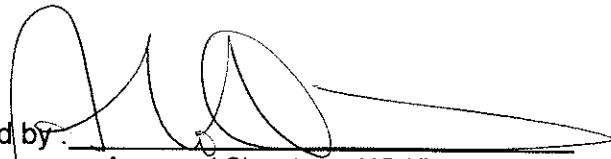
Certified by :   
 Approved Signatory : HO Kin Man, John  
 Assistant General Manager – Laboratories  
 Date : 15/1/2021

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

**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	-	$5.5 \times 10^3$	$5.2 \times 10^3$	5.61
1	<1	-	$7.8 \times 10^3$	$6.9 \times 10^3$	12.2

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.*

Report No. : 181172WA202409



Page 1 of 2

**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 : Forty-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

Page 2 of 2



**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

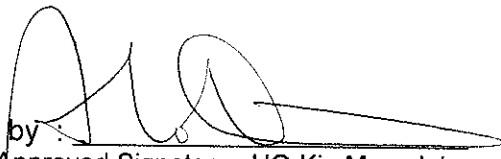
Page 2 of 2



**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 : 15/1/2021

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

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Report No. : 181172WA202409

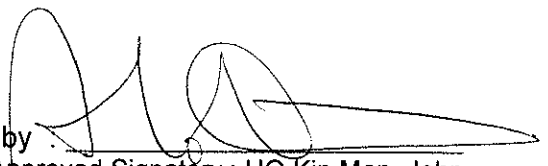
Page 2 of 2



**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 : 15/1/2021

**\*\*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**

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 : 15/1/2021

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

Report No. : 181172WA202409(1)



Page 1 of 7

**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.*

Report No. : 181172WA202409(1)

Page 2 of 7

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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*

Report No. : 181172WA202409(1)

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**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	$1.7 \times 10^4$	$1.5 \times 10^4$	$8.9 \times 10^3$	$9.7 \times 10^3$	$1.9 \times 10^3$	$2.5 \times 10^3$	$4.6 \times 10$	$5.3 \times 10$

- 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<sub>5</sub> 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<sub>5</sub> test : 25/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202409(1)


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**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	$7.8 \times 10^3$	$6.1 \times 10^3$	$1.2 \times 10^4$ (estimated)	$1.4 \times 10^4$ (estimated)	$1.1 \times 10$	$1.2 \times 10$	$2.8 \times 10^4$	$2.3 \times 10^4$

- 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<sub>5</sub> 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<sub>5</sub> test : 25/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

Report No. : 181172WA202409(1)

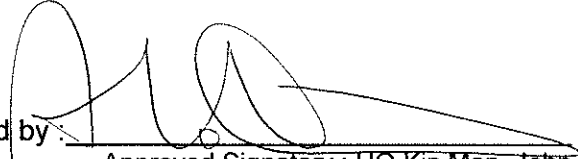
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**Results :**

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	$1.5 \times 10^4$	$1.5 \times 10^4$	$1.6 \times 10^4$	$2.1 \times 10^4$	$1.7 \times 10^4$	$1.5 \times 10^4$	$6.3 \times 10^3$	$8.9 \times 10^3$

- 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<sub>5</sub> 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<sub>5</sub> test : 25/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.*

Report No. : 181172WA202409(1)

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**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	$7.8 \times 10^2$	$6.5 \times 10^2$	$4.7 \times 10^4$	$2.1 \times 10^4$	$3.8 \times 10^4$	$2.7 \times 10^4$	$2.6 \times 10^2$	$3.1 \times 10^2$

- 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<sub>5</sub> 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<sub>5</sub> test : 25/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.



Report No. : 181172WA202409(1)

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**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	$6.8 \times 10^4$	$5.0 \times 10^4$	$3.1 \times 10^4$	$2.4 \times 10^4$

- 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<sub>5</sub> 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<sub>5</sub> test : 25/12/2020 17:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> seeding water.  
     vi. The samples were incubated at 19-21°C for 5 days

Certified by :   
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 Assistant General Manager – Laboratories

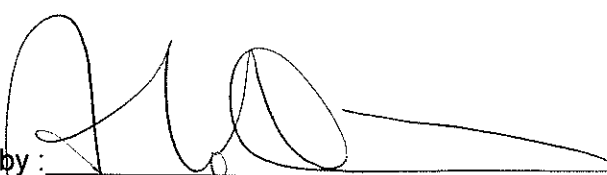
Date : 15/11/2021

**\*\* End of Report \*\***
*Note : This report refers only to the sample(s) tested.*

**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.*

**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 x 10 <sup>4</sup>	1.1 x 10 <sup>4</sup>	48.3
1	<1	-	2.3 x 10 <sup>4</sup>	2.5 x 10 <sup>4</sup>	8.33

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.*

Report No. : 181172WA202411



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**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 : Forty-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.*

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Report No. : 181172WA202411

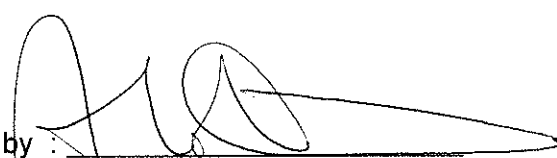
Page 2 of 2


**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

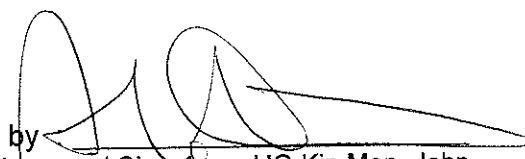
*Note : This report refers only to the sample(s) tested.*

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**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.

Report No. : 181172WA202411

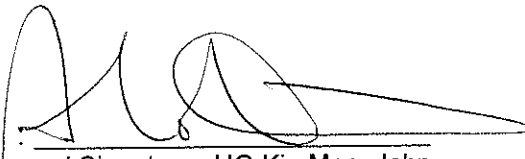
Page 2 of 2



**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\*\***

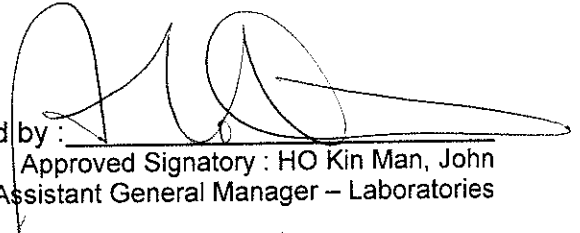
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**Note**

**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	99.00	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.*



Report No. : 181172WA202411(1)



Page 1 of 7

**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.*

Report No. : 181172WA202411(1)

Page 2 of 7

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<sub>org</sub> B & 4500-NH<sub>3</sub>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.*

Report No. : 181172WA202411(1)

Page 3 of 7

**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	$9.2 \times 10^3$	$1.2 \times 10^4$ (estimated)	$1.4 \times 10^4$ (estimated)	$1.1 \times 10^4$ (estimated)	$4.2 \times 10^3$	$4.5 \times 10^3$	$6.4 \times 10$	$4.6 \times 10$

- 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<sub>5</sub> 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<sub>5</sub> test : 27/12/2020 12:00
    - iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.
    - v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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.

Report No. : 181172WA202411(1)

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**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	$7.5 \times 10^3$	$7.1 \times 10^3$	$2.9 \times 10^4$	$3.5 \times 10^4$	$1.1 \times 10$	$1.2 \times 10$	$3.1 \times 10^4$	$5.1 \times 10^4$

- 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.  
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 i. Samples taken by staff of FTS on 26/12/2020  
 ii. Samples stored at 0-4°C refrigerator prior to testing.  
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 v. Type of seeding water used was Polyseed BOD<sub>5</sub> 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

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Report No. : 181172WA202411(1)

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**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	$5.5 \times 10^3$	$5.4 \times 10^3$	$1.2 \times 10^4$ (estimated)	$1.1 \times 10^4$ (estimated)	$8.8 \times 10^3$	$1.1 \times 10^4$ (estimated)	$7.0 \times 10^3$	$5.4 \times 10^3$

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     iii. Date and hour of commencing BOD<sub>5</sub> test : 27/12/2020 12:00  
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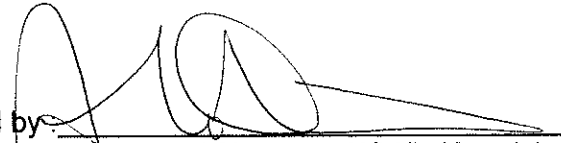
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**Results :**

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	$1.3 \times 10^2$	$1.3 \times 10^2$	$1.3 \times 10^4$	$6.5 \times 10^3$	$5.8 \times 10^4$	$5.7 \times 10^4$	$3.4 \times 10$	$3.3 \times 10$

- 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.  
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 6. Detailed information for BOD<sub>5</sub> test :  
     i. Samples taken by staff of FTS on 26/12/2020  
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     iii. Date and hour of commencing BOD<sub>5</sub> test : 27/12/2020 12:00  
     iv. The BOD<sub>5</sub> test was conducted without suppression of nitrification by ATU.  
     v. Type of seeding water used was Polyseed BOD<sub>5</sub> seeding water.  
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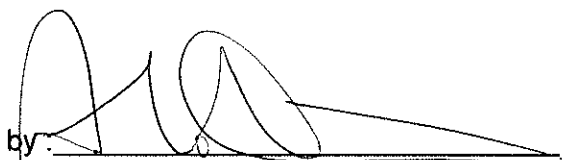
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**Results :**

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	$4.6 \times 10^4$	$4.8 \times 10^4$	$6.9 \times 10^3$	$8.2 \times 10^3$

- 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.  
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 6. Detailed information for BOD<sub>5</sub> test :  
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15/1/2021

**\*\* End of Report \*\***
*Note : This report refers only to the sample(s) tested.*



**Note**

**Laboratory Duplicate, Quality Assurance/Quality Control Report**

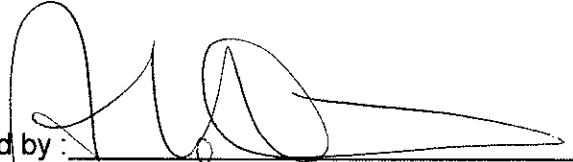
1. Biochemical oxygen demand, mg/L					
Reporting Limit	Blank	Spike recovery (%)	Laboratory Duplicate		
			Original result	Duplicate result	RPD%
1.5	<1.5	-	2.59	2.62	1.15
1.5	<1.5	-	4.16	4.14	0.48

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	-	-	-	-

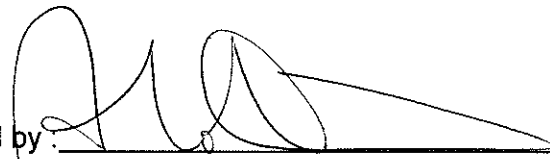
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**Note**
**Laboratory Duplicate, Quality Assurance/Quality Control Report**

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	-	$4.5 \times 10^3$	$6.3 \times 10^3$	33.3
1	<1	-	$7.7 \times 10^3$	$8.6 \times 10^3$	11.0

Certified by :   
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