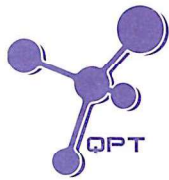


Annex G

## Water Quality

Annex G1

## Calibration Certificates for Water Quality



專業化驗有限公司  
QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong  
Email: info@qualityprotest.com; Website: www.qualityprotest.com  
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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060094  
Date of Issue : 27 June 2023  
Page No. : 1 of 2

### PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.  
Flat 2207, Yu Fun House Yu Chui Court, Shatin  
New Territories (HK) Hong Kong

### PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : 15M100005  
Date of Received : 23 June 2023  
Date of Calibration : 23 June 2023  
Date of Next Calibration : 22 September 2023  
Request No. : D-BC060094

### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H <sup>+</sup>
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

### PART D - CALIBRATION RESULT

#### (1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.04	0.04	Satisfactory
7.42	7.50	0.08	Satisfactory
10.01	9.98	-0.03	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  (pH unit)

#### (2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
25	24.9	-0.1	Satisfactory
45	45.1	0.1	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  (°C)


#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.18	1.80	Satisfactory
20	20.42	2.10	Satisfactory
30	30.20	0.67	Satisfactory

Tolerance of Salinity should be less than  $\pm 10.0$  (%)

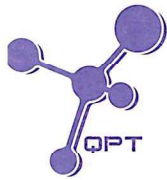
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AUTHORIZED  
SIGNATORY:



LEE Chun-ting

Assistant Manager (Chemical Testing)



## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060094  
Date of Issue : 27 June 2023  
Page No. : 2 of 2

### (4) Dissolved oxygen

Expected Reading ( mg/L )	Display Reading ( mg/L )	Tolerance	Result
7.29	7.41	0.12	Satisfactory
6.12	6.02	-0.10	Satisfactory
5.48	5.71	0.23	Satisfactory
2.72	2.38	-0.34	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  ( mg/L )

### (5) Turbidity

Expected Reading ( NTU )	Display Reading ( NTU )	Tolerance ( % )	Result
0	0.10	--	Satisfactory
10	9.88	-1.20	Satisfactory
20	20.21	1.10	Satisfactory
100	97.34	-2.70	Satisfactory
800	781.97	-2.30	Satisfactory

Tolerance of Turbidity should be less than  $\pm 10.0$  ( % )

### (6) Conductivity

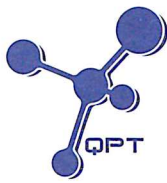
Expected Reading ( $\mu\text{S/cm}$ at 25°C )	Display Reading	Tolerance ( % )	Result
146.9	151.4	3.06	Satisfactory
1412	1288	-8.78	Satisfactory
12890	12793	-0.75	Satisfactory
58670	59287	1.05	Satisfactory
111900	112186	0.26	Satisfactory

Tolerance of Conductivity should be less than  $\pm 10.0$  ( % )

### Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated is checked with independent reference material and results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

--- END OF REPORT ---



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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060025  
Date of Issue : 06 June 2023  
Page No. : 1 of 2

### PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.  
Flat 2207, Yu Fun House Yu Chui Court, Shatin  
New Territories (HK) Hong Kong

### PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : S/N: 16H104233  
Date of Received : 02 June 2023  
Date of Calibration : 02 June 2023  
Date of Next Calibration : 01 September 2023  
Request No. : D-BC060025

### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H <sup>+</sup>
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

### PART D - CALIBRATION RESULT

#### (1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.07	0.07	Satisfactory
7.42	7.49	0.07	Satisfactory
10.01	10.09	0.08	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  (pH unit)

#### (2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
10	10.0	0.0	Satisfactory
25	25.0	0.0	Satisfactory
45	45.0	0.0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  (°C)

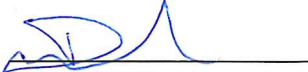
#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	10.09	0.90	Satisfactory
20	20.38	1.90	Satisfactory
30	30.33	1.10	Satisfactory

Tolerance of Salinity should be less than  $\pm 10.0$  (%)

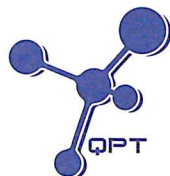
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SIGNATORY:



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Assistant Manager (Chemical Testing)



## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BC060025  
Date of Issue : 06 June 2023  
Page No. : 2 of 2

### (4) Dissolved oxygen

Expected Reading ( mg/L )	Display Reading ( mg/L )	Tolerance	Result
7.12	7.15	0.03	Satisfactory
4.61	4.39	-0.22	Satisfactory
1.57	1.27	-0.30	Satisfactory
0.16	0.56	0.40	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  ( mg/L )

### (5) Turbidity

Expected Reading ( NTU )	Display Reading ( NTU )	Tolerance ( % )	Result
0	0.10	--	Satisfactory
10	9.84	-1.60	Satisfactory
20	20.11	0.50	Satisfactory
100	107.60	7.60	Satisfactory
800	798.22	-0.20	Satisfactory

Tolerance of Turbidity should be less than  $\pm 10.0$  ( % )

### (6) Conductivity

Expected Reading ( $\mu\text{S/cm}$ at 25°C )	Display Reading	Tolerance ( % )	Result
146.9	148.7	1.23	Satisfactory
1412	1491	5.59	Satisfactory
12890	12677	-1.65	Satisfactory
58670	59440	1.31	Satisfactory
111900	113112	1.08	Satisfactory

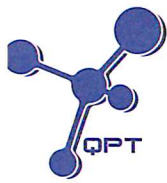
Tolerance of Conductivity should be less than  $\pm 10.0$  ( % )

### Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
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--- END OF REPORT ---





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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB120080  
Date of Issue : 20 December 2022  
Page No. : 1 of 2

### PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.  
Flat 2207, Yu Fun House Yu Chui Court, Shatin  
New Territories (HK) Hong Kong

### PART B - SAMPLE INFORMATION

Name of Equipment : YSI ProDSS (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : 17E100747  
Date of Received : 20 December 2022  
Date of Calibration : 20 December 2022  
Date of Next Calibration : 19 March 2023  
Request No. : D-BB120080

### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500 H <sup>+</sup>
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 21e 4500 O
Turbidity	APHA 21e 2130 B
Conductivity	APHA 21e 2510 B

### PART D - CALIBRATION RESULT

#### (1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.02	0.02	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.06	0.05	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  (pH unit)

#### (2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
15	14.9	-0.1	Satisfactory
30	30.0	0.0	Satisfactory
45	49.9	4.9	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  (°C)

#### (3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.94	-0.60	Satisfactory
20	20.21	1.05	Satisfactory
30	30.20	0.67	Satisfactory

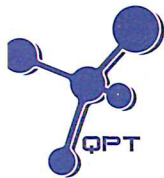
Tolerance of Salinity should be less than  $\pm 10.0$  (%)

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AUTHORIZED  
SIGNATORY:

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Assistant Manager (Chemical Testing)



## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB120080  
Date of Issue : 20 December 2022  
Page No. : 2 of 2

### (4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
9.37	9.60	0.23	Satisfactory
7.08	6.64	-0.44	Satisfactory
4.84	4.48	-0.36	Satisfactory
3.10	2.81	-0.29	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  (mg/L)

### (5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10	--	Satisfactory
10	9.85	-1.50	Satisfactory
20	19.77	-1.20	Satisfactory
100	99.16	-0.80	Satisfactory
800	796.62	-0.40	Satisfactory

Tolerance of Turbidity should be less than  $\pm 10.0$  (%)

### (6) Conductivity

Expected Reading ( $\mu\text{S/cm}$ at 25°C)	Display Reading	Tolerance (%)	Result
146.9	151.2	2.93	Satisfactory
1412	1366	-3.26	Satisfactory
12890	13610	5.59	Satisfactory
58670	56516	-3.67	Satisfactory
111900	111612	-0.26	Satisfactory

Tolerance of Conductivity should be less than  $\pm 10.0$  (%)

### Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated is checked with independent reference material and results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
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--- END OF REPORT ---



Annex G2

## Monitoring Schedule for Water Quality

**Tung Chung New Town Extension (East)**  
**Impact Marine Water Quality Monitoring (WQM) Schedule (July 2023)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Jul
2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul	8-Jul
	ebb tide 11:07 - 14:37 flood tide 3:56 - 7:26		ebb tide 12:44 - 16:14 flood tide 5:33 - 9:03		ebb tide 14:21 - 17:51 flood tide 7:19 - 10:49	
9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul	15-Jul
	ebb tide 5:17 - 8:47 flood tide 10:48 - 14:18		ebb tide 7:26 - 10:56 flood tide 13:47 - 17:17		ebb tide 9:13 - 12:43 flood tide 16:35 - 20:05	
16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul
	WQM was cancelled due to No. 8 Gale or Storm Signal		ebb tide 12:28 - 15:58 flood tide 5:12 - 8:42		ebb tide 13:33 - 17:03 flood tide 6:29 - 9:59	
23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul
	ebb tide 3:13 - 6:43 flood tide 8:38 - 12:08		ebb tide 5:06 - 8:36 flood tide 11:00 - 14:30		ebb tide 7:18 - 10:48 flood tide 14:47 - 18:17	
30-Jul	31-Jul					
	ebb tide 10:05 - 13:35 flood tide 2:47 - 6:17					

Remark:  
Pickup time and place of 1st tide: 15 min before tidal window at Sham Tseng pier  
Pickup time and place of 2nd tide: 15 min before tidal window at Tung Chung pier

Annex G3

## Monitoring Results for Water Quality

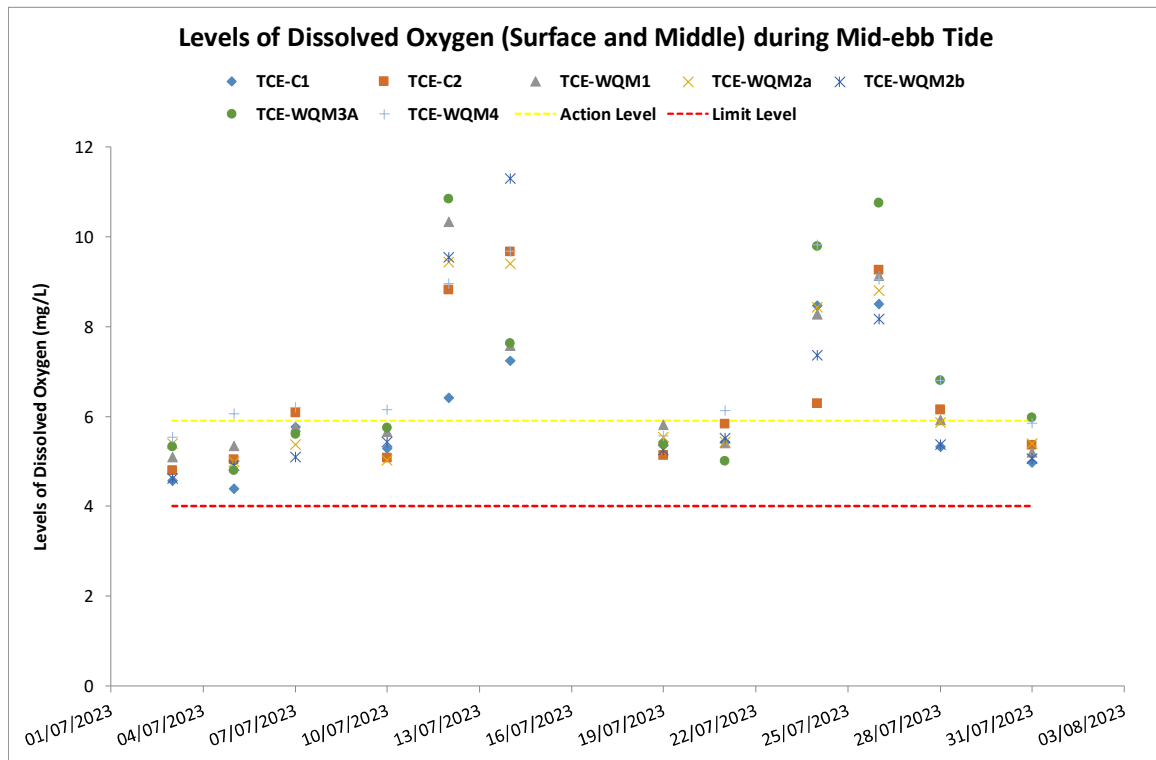


Figure 1: Levels of Dissolved Oxygen (Surface and Middle) (mg/L) recorded at Mid-ebb Tide during the Water Quality Monitoring between 1 to 31 July 2023

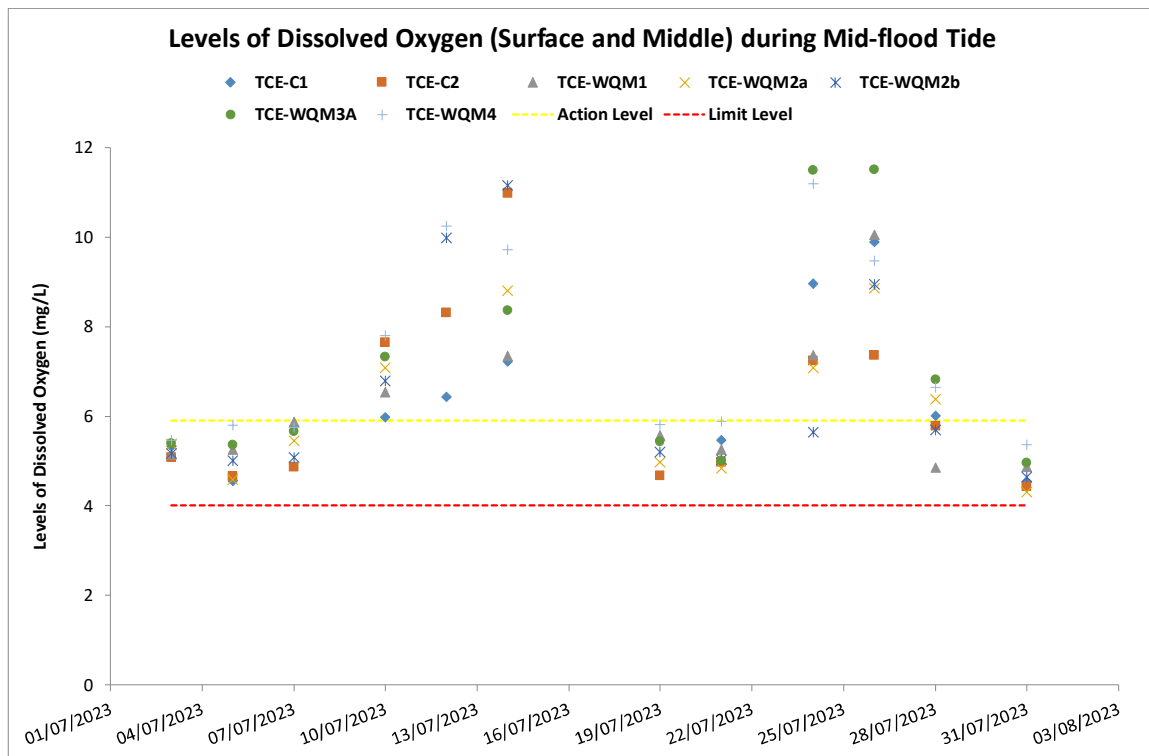


Figure 2: Levels of Dissolved Oxygen (Surface and Middle) (mg/L) recorded at Mid-flood Tide during the Water Quality Monitoring between 1 to 31 July 2023

Source: P:\Projects\0445700 CEDD ET for Tung Chung\JT\02\_Deliverable\10 Monthly EM&A Report\  
 Date: July 2023

**Environmental  
 Resources  
 Management**



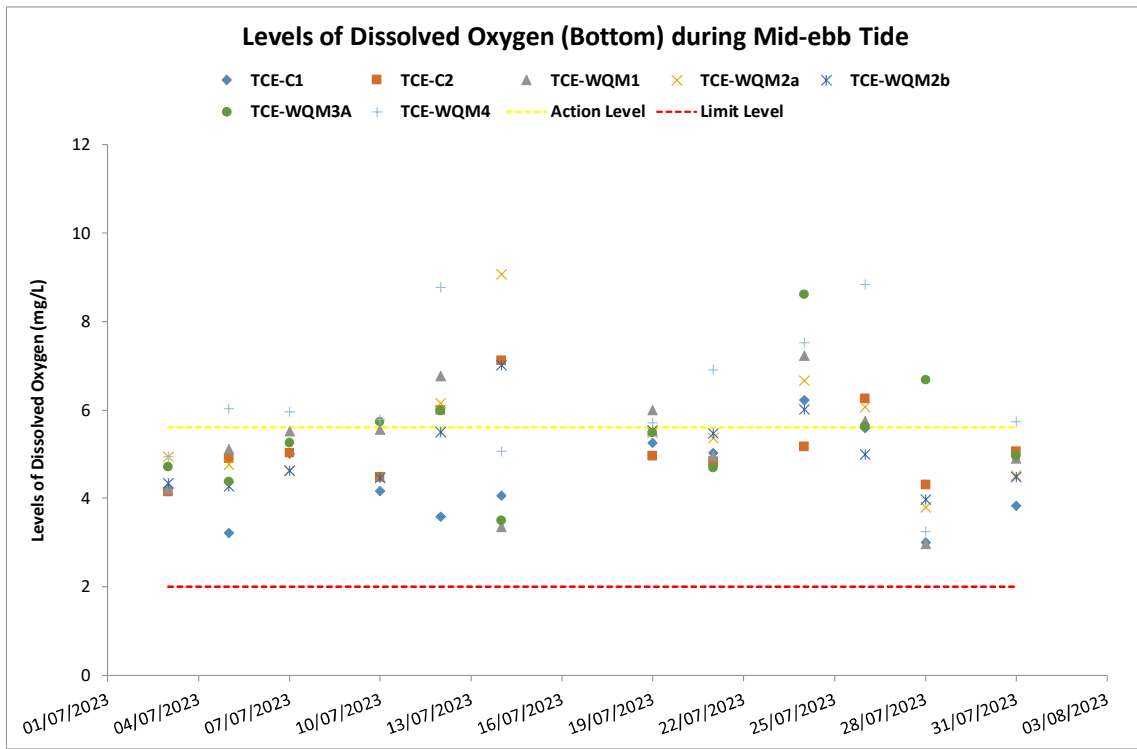


Figure 3: Levels of Dissolved Oxygen (Bottom) (mg/L) recorded at Mid-ebb Tide during the Water Quality Monitoring between 1 to 31 July 2023

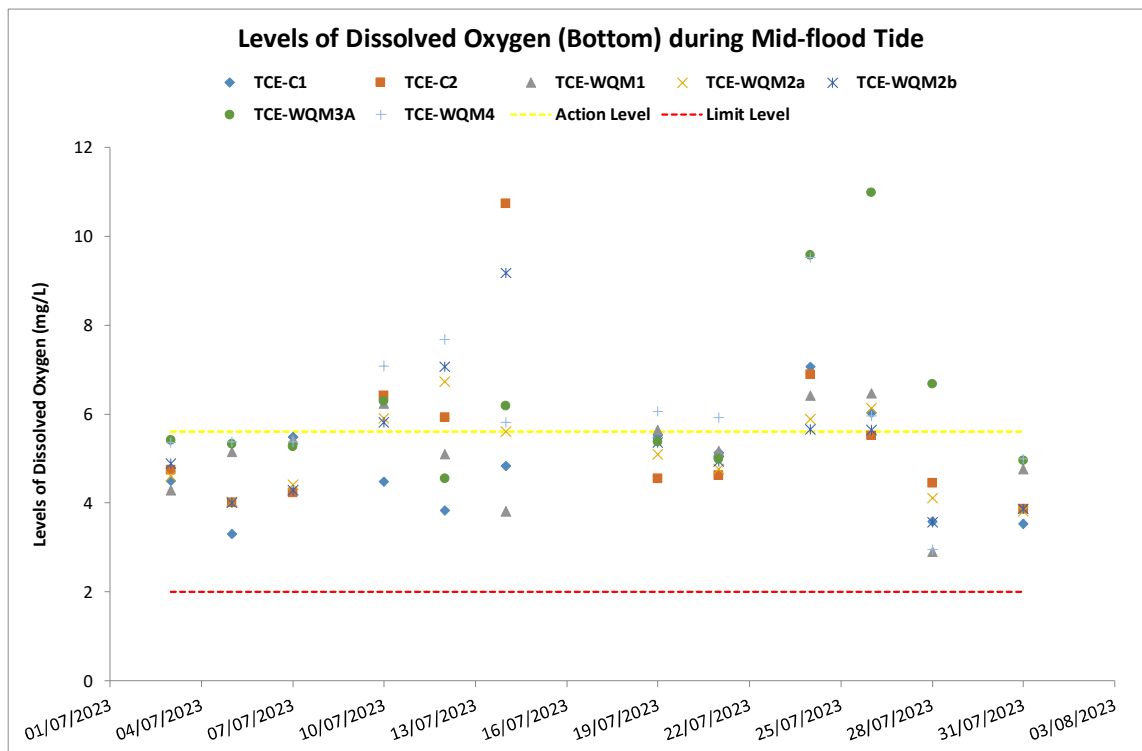


Figure 4: Levels of Dissolved Oxygen (Bottom) (mg/L) recorded at Mid-flood Tide during the Water Quality Monitoring between 1 to 31 July 2023

Source: P:\Projects\0445700 CEDD ET for Tung Chung, JT\02\_Deliverable\10 Monthly EM&A Report\  
 Date: July 2023

**Environmental  
 Resources  
 Management**





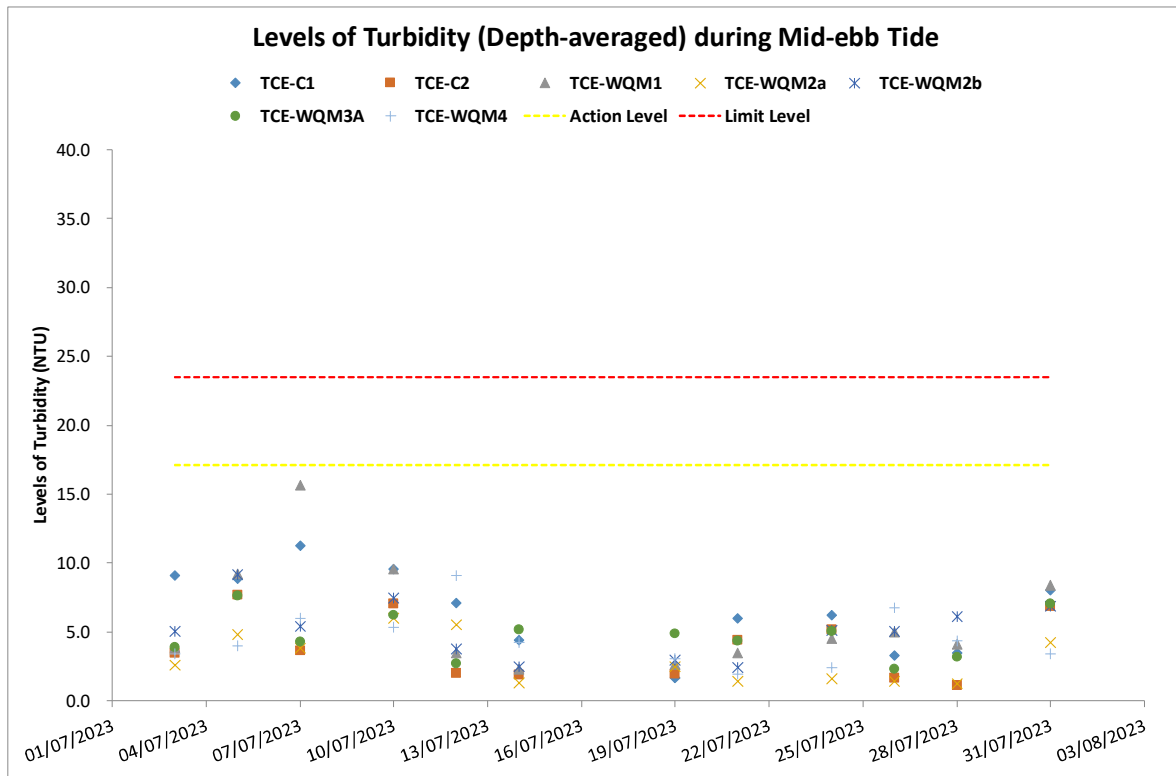


Figure 5: Levels of Turbidity (Depth-averaged) (NTU) recorded at Mid-ebb Tide during the Water Quality Monitoring between 1 to 31 July 2023

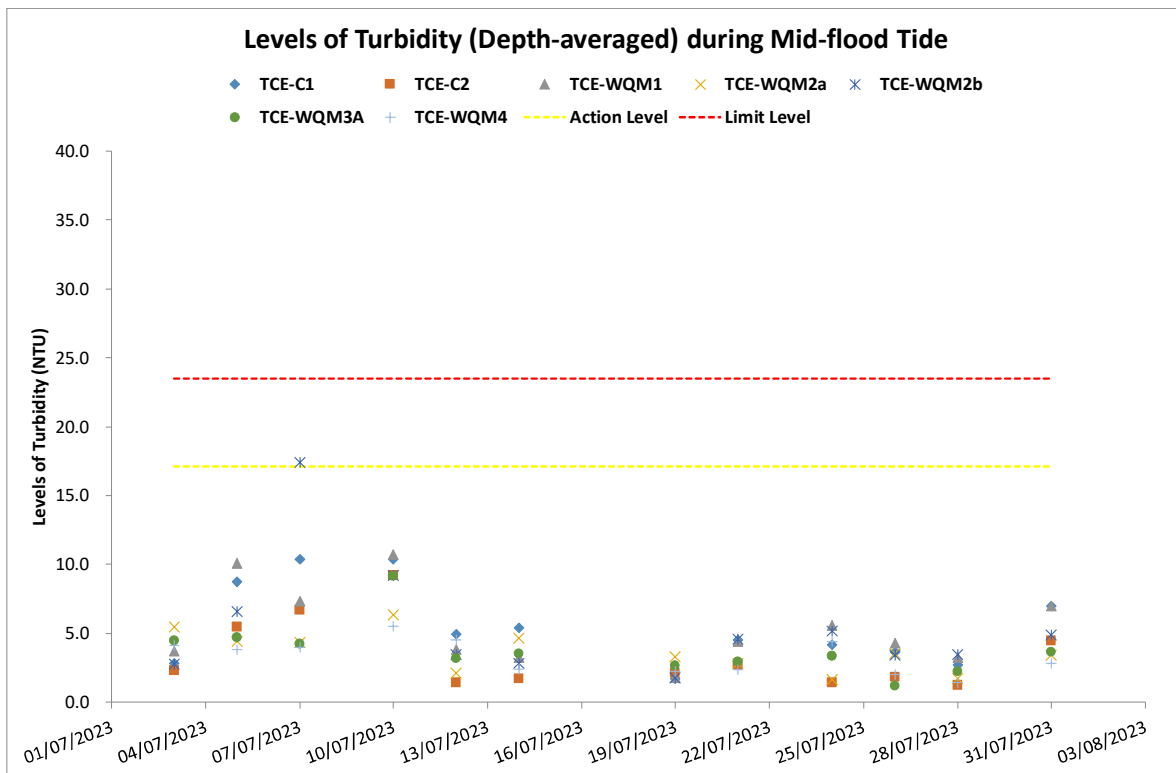


Figure 6: Levels of Turbidity (Depth-averaged) (NTU) recorded at Mid-flood Tide during the Water Quality Monitoring between 1 to 31 July 2023

Source: P:\Projects\0445700 CEDD ET for Tung Chung\JT\02\_Deliverable\10 Monthly EM&A Report\  
 Date: July 2023

**Environmental Resources Management**





Figure 7: Levels of Suspended Solids (Depth-averaged) (mg/L) recorded at Mid-ebb Tide during the Water Quality Monitoring between 1 to 31 July 2023

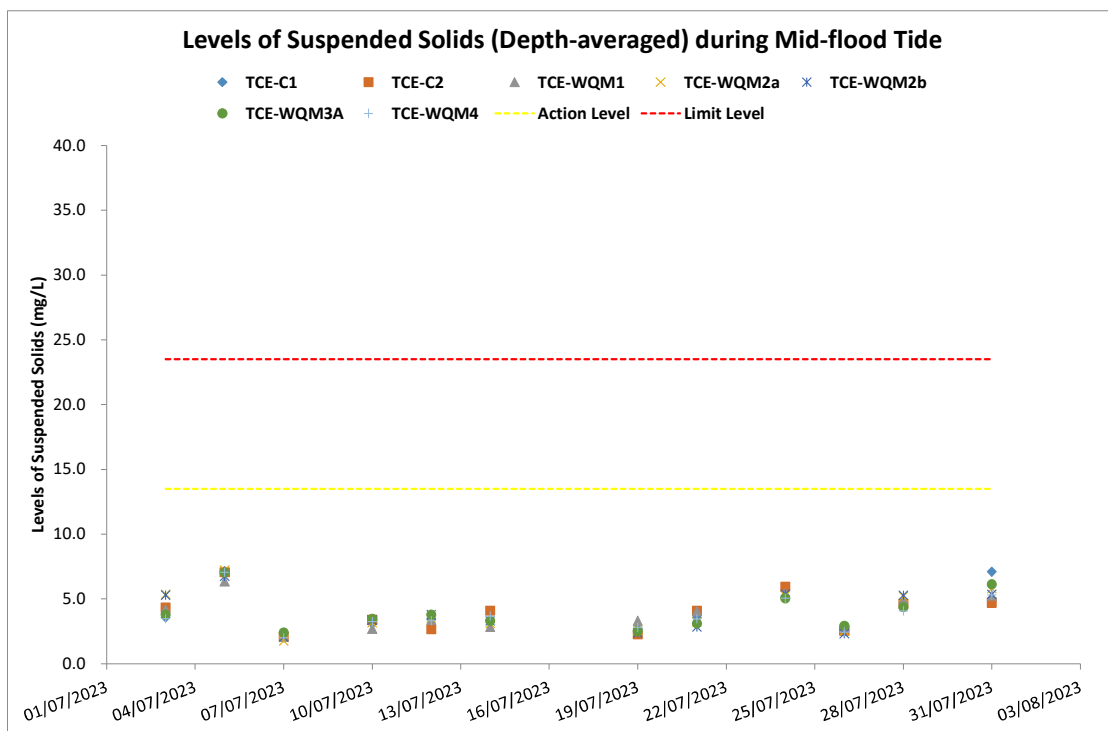


Figure 8: Levels of Suspended Solids (Depth-averaged) (mg/L) recorded at Mid-flood Tide during the Water Quality Monitoring between 1 to 31 July 2023

Source: P:\Projects\0445700 CEDD ET for Tung Chung.JT\02\_Deliverable\10 Monthly EM&A Report\  
 Date: July 2023

**Environmental  
 Resources  
 Management**



Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-03	Mid-Ebb	TCE-C1	Cloudy	Rough	11:12	8.3	Surface	1.0	1	23.8	7.9	21.1	4.7	62.3	9.4	5.1	4.6	9.1	5.2
									2	23.8	7.9	21.1	4.7	62.2	9.4	5.3			
							Middle	4.2	1	23.7	7.9	21.8	4.5	60.1	10.0	5.1			
							Bottom	7.3	1	23.3	7.9	24.1	4.3	57.2	7.9	5.0			
				2	23.3	7.9	24.1	4.2	57.2	7.9	5.4								
		TCE-C2	Cloudy	Rough	13:21	13.9	Surface	1.0	1	23.8	7.9	21.9	5.2	70.3	2.3	4.1	4.8	3.5	4.0
				2	23.7	7.9	22.0	5.2	70.3	2.3	4.0								
		Middle	7.0	1	23.3	7.9	24.2	4.4	59.1	3.8	4.2								
		Bottom	12.9	1	23.3	7.9	24.2	4.4	59.1	3.8	3.7								
				2	22.6	7.9	27.4	4.1	56.1	4.3	3.9								
		TCE-WQM1	Cloudy	Moderate	12:06	9.4	Surface	1.0	1	24.5	7.9	19.7	5.5	73.5	2.8	4.6	5.1	3.9	5.3
				2	24.5	7.9	19.7	5.5	73.5	2.7	5.4								
	Middle	4.7	1	24.1	7.9	20.3	4.7	63.1	4.3	5.4									
	Bottom	8.4	1	23.8	7.9	21.8	4.2	56.5	4.6	5.4									
			2	23.8	7.9	21.8	4.2	56.6	4.6	5.7									
	TCE-WQM2a	Cloudy	Moderate	12:42	7.9	Surface	1.0	1	24.3	7.9	20.6	5.4	72.8	2.4	3.8	5.4	2.6	4.1	
			2	24.3	7.9	20.6	5.4	72.8	2.4	5.2									
	Middle	4.0	1	24.2	7.9	20.7	5.4	72.2	2.6	3.9									
	Bottom	6.9	1	24.2	7.9	20.7	5.4	72.2	2.6	4.1									
			2	24.2	7.9	20.8	4.9	66.7	2.8	3.1									
	TCE-WQM2b	Cloudy	Rough	12:57	10.6	Surface	1.0	1	23.6	7.9	22.9	4.8	63.9	3.4	3.8	4.6	5.1	4.1	
			2	23.6	7.9	22.9	4.8	64.0	3.5	4.0									
	Middle	5.3	1	23.3	7.9	23.9	4.5	60.4	4.8	4.4									
	Bottom	9.6	1	23.3	8.0	23.9	4.5	60.5	4.9	4.0									
		2	22.9	8.0	26.1	4.3	58.6	6.9	4.8										
TCE-WQM3A	Cloudy	Moderate	12:29	5.2	Surface	1.0	1	24.2	7.9	20.8	5.3	71.5	2.8	5.7	5.3	3.9	5.4		
		2	24.2	7.9	20.9	5.3	71.5	2.9	5.9										
Bottom	4.2	1	23.1	7.9	25.3	4.7	63.7	4.9	4.2										
		2	23.1	7.9	25.3	4.7	63.7	4.9	5.6										
TCE-WQM4	Cloudy	Moderate	12:20	4.3	Surface	1.0	1	24.5	7.9	19.7	5.5	74.2	2.4	5.1	5.5	3.4	5.4		
		2	24.5	7.9	19.7	5.5	74.2	2.5	5.8										
Bottom	3.3	1	24.1	7.9	20.3	4.9	66.1	4.4	5.3										
		2	24.1	7.9	20.3	4.9	66.0	4.4	5.5										
2023-07-03	Mid-Flood	TCE-C1	Fine	Rough	6:34	7.8	Surface	1.0	1	24.4	7.9	20.2	5.5	73.5	2.4	3.9	5.3	2.8	3.6
									2	24.4	7.9	20.2	5.5	73.4	2.5	3.4			
							Middle	3.9	1	24.2	7.9	20.8	5.2	69.6	2.6	3.4			
									2	24.2	7.9	20.8	5.2	69.5	2.6	3.6			
							Bottom	6.8	1	23.0	7.9	26.0	4.5	60.8	3.5	3.4			
									2	23.0	7.9	26.0	4.5	61.0	3.4	3.8			
		TCE-C2	Fine	Moderate	4:22	12.7	Surface	1.0	1	23.8	7.8	21.8	5.3	70.9	1.9	4.7	5.1	2.3	4.3
				2	23.7	7.8	21.9	5.3	70.8	1.9	4.3								
		Middle	6.4	1	23.0	7.8	25.2	4.9	65.6	2.4	4.3								
				2	23.0	7.8	25.2	4.9	65.6	2.5	4.2								
		Bottom	11.7	1	22.8	7.8	26.3	4.8	64.2	2.5	4.1								
				2	22.8	7.8	26.3	4.8	64.2	2.5	4.4								
		TCE-WQM1	Fine	Moderate	5:39	8.9	Surface	1.0	1	24.2	7.9	20.6	5.3	70.7	2.6	4.3	5.1	3.7	4.2
				2	24.2	7.9	20.7	5.3	70.6	2.6	4.1								
		Middle	4.5	1	23.9	7.9	21.7	5.0	67.5	2.9	4.0								
				2	23.9	7.9	21.7	5.0	67.4	3.0	4.3								
		Bottom	7.9	1	22.5	7.9	28.2	4.3	58.4	5.5	4.4								
				2	22.5	7.9	28.2	4.3	58.5	5.6	4.0								
		TCE-WQM2a	Fine	Moderate	4:59	7.3	Surface	1.0	1	24.2	7.9	20.4	5.4	72.7	3.6	6.0	5.4	5.4	5.4
				2	24.2	7.9	20.4	5.4	72.7	3.6	6.0								
		Middle	3.7	1	24.2	7.9	20.4	5.3	71.6	4.7	5.3								
				2	24.2	7.9	20.4	5.3	71.4	4.7	4.8								
		Bottom	6.3	1	22.8	8.0	27.1	4.6	62.4	7.9	4.8								
				2	22.8	8.0	27.1	4.6	62.8	8.0	5.2								
TCE-WQM2b	Fine	Moderate	4:47	9.2	Surface	1.0	1	24.0	7.8	21.2	5.4	72.4	1.4	4.6	5.2	2.8	5.3		
		2	24.0	7.8	21.2	5.4	72.4	1.4	5.7										
Middle	4.6	1	23.5	7.8	23.2	5.0	66.5	2.1	4.9										
		2	23.5	7.8	23.2	5.0	66.5	2.2	5.3										
Bottom	8.2	1	23.0	7.8	25.3	4.9	66.0	4.7	5.2										
		2	23.0	7.8	25.3	4.9	66.0	4.7	6.0										
TCE-WQM3A	Fine	Calm	5:14	4.7	Surface	1.0	1	24.2	7.9	20.6	5.4	72.2	4.5	3.7	5.4	4.4	3.8		
		2	24.2	7.9	20.6	5.4	72.2	4.5	3.6										
Bottom	3.7	1	24.2	7.9	20.5	5.4	72.5	4.4	3.8										
		2	24.2	7.9	20.5	5.4	72.5	4.4	4.0										
TCE-WQM4	Fine	Calm	5:25	3.9	Surface	1.0	1	24.1	7.9	20.6	5.5	73.0	4.0	3.1	5.5	4.1	3.5		
		2	24.2	7.9	20.6	5.5	73.2	4.1	3.9										
Bottom	2.9	1	24.2	7.9	20.6	5.4	71.9	4.2	3.3										
		2	24.2	7.9	20.6	5.4	71.9	4.1	3.6										

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-05	Mid-Ebb	TCE-C1	Sunny	Moderate	12:44	8.2	Surface	1.0	1	24.2	7.9	21.8	5.5	74.5	5.9	6.6	4.4	8.8	6.3
									2	24.2	7.9	21.8	5.5	73.9	6.4	6.9			
							Middle	4.1	1	22.1	7.9	29.1	3.4	46.6	9.7	6.2			
							Bottom	7.2	1	22.0	7.9	29.9	3.2	43.8	10.8	5.6			
				2	22.0	7.9	29.9	3.2	43.9	10.4	6.0								
		TCE-C2	Sunny	Moderate	14:46	14.0	Surface	1.0	1	23.7	7.9	22.8	5.2	70.2	7.1	7.1	5.1	7.7	6.5
									2	23.7	7.9	22.8	5.2	70.3	7.1	6.7			
							Middle	7.0	1	23.4	7.9	23.1	4.9	65.2	7.8	6.5			
							Bottom	13.0	1	23.2	7.9	23.1	4.9	65.1	7.8	6.4			
				2	23.2	7.9	25.4	4.9	66.4	8.1	6.2								
				2	23.2	7.9	25.4	4.9	66.7	8.1	6.0								
		TCE-WQM1	Sunny	Moderate	13:33	8.7	Surface	1.0	1	24.1	7.9	21.6	5.5	74.4	7.7	5.0	5.4	9.2	6.0
								2	24.1	7.9	21.6	5.5	74.2	7.8	5.4				
	Middle						4.4	1	23.8	7.9	22.3	5.2	69.4	9.3	6.0				
	Bottom						7.7	1	23.7	7.9	22.3	5.2	69.3	9.4	5.6				
			2	23.6	7.9	22.6	5.1	68.6	10.9	6.7									
			2	23.6	7.9	22.6	5.1	68.7	10.1	7.2									
	TCE-WQM2a	Sunny	Moderate	14:03	7.7	Surface	1.0	1	23.9	7.9	22.2	5.2	69.4	4.3	6.6	5.0	4.8	6.4	
								2	23.9	7.9	22.2	5.2	69.4	4.3	6.9				
						Middle	3.9	1	23.5	7.9	23.2	4.8	65.1	5.0	6.3				
						Bottom	6.7	1	23.5	7.9	23.2	4.8	64.9	5.0	6.6				
			2	23.3	7.9	23.6	4.8	64.0	5.1	6.2									
			2	23.3	7.9	23.6	4.8	63.9	5.1	5.8									
	TCE-WQM2b	Sunny	Moderate	14:12	11.8	Surface	1.0	1	23.8	7.9	21.2	5.4	72.8	6.8	6.3	4.9	9.1	5.8	
							2	23.8	7.9	21.3	5.4	72.7	6.3	6.6					
Middle						5.9	1	23.0	7.9	24.6	4.4	58.5	8.6	6.0					
Bottom						10.8	1	22.7	7.9	26.3	4.3	57.6	12.2	5.3					
		2	22.7	7.9	26.3	4.3	57.6	12.2	5.1										
TCE-WQM3A	Sunny	Moderate	13:53	4.4	Surface	1.0	1	23.6	7.8	21.4	4.8	64.3	7.2	6.2	4.8	7.6	5.3		
							2	23.6	7.8	21.4	4.8	63.8	7.3	5.9					
					Bottom	3.4	1	23.4	7.8	23.1	4.4	58.7	8.0	4.2					
							2	23.4	7.8	23.1	4.4	58.8	7.9	4.8					
TCE-WQM4	Sunny	Moderate	13:43	3.2	Surface	1.0	1	24.7	7.8	20.3	6.1	81.9	3.9	6.2	6.1	4.0	6.7		
							2	24.7	7.8	20.3	6.1	81.8	4.0	6.6					
					Bottom	2.2	1	24.7	7.8	20.3	6.0	81.4	4.0	6.8					
							2	24.7	7.8	20.3	6.0	81.5	4.1	7.1					
		2	22.7	7.9	26.3	4.3	57.6	12.2	5.3										
		2	22.7	7.9	26.3	4.3	57.6	12.2	5.1										
2023-07-05	Mid-Flood	TCE-C1	Sunny	Moderate	8:42	8.5	Surface	1.0	1	24.1	7.9	21.8	5.5	74.2	7.0	6.7	4.6	8.8	7.1
									2	24.1	7.9	21.8	5.2	70.5	7.3	7.0			
							Middle	4.3	1	22.4	7.9	27.6	3.8	50.7	10.4	7.0			
							Bottom	7.6	1	22.0	7.9	29.9	3.3	44.8	8.8	7.4			
				2	22.0	7.9	29.9	3.3	45.0	8.8	7.5								
		TCE-C2	Sunny	Moderate	6:24	14.2	Surface	1.0	1	23.4	7.8	23.8	5.2	70.0	5.0	6.2	4.7	5.5	7.1
									2	23.4	7.8	23.8	5.2	69.9	5.1	6.7			
							Middle	7.1	1	21.8	7.9	28.8	4.1	55.3	5.3	7.0			
							Bottom	13.2	1	21.7	7.9	28.8	4.1	55.1	5.4	7.2			
				2	21.5	7.8	30.9	4.0	54.4	6.1	7.8								
				2	21.5	7.8	30.9	4.0	54.5	6.0	7.4								
		TCE-WQM1	Sunny	Moderate	7:51	8.3	Surface	1.0	1	24.0	7.8	21.5	5.3	71.8	9.4	7.1	5.3	10.1	6.4
								2	24.0	7.8	21.6	5.3	71.5	9.0	6.8				
	Middle						4.2	1	23.7	7.8	22.1	5.2	69.6	11.8	5.9				
	Bottom						7.3	1	23.7	7.8	22.2	5.2	69.5	11.9	6.4				
			2	23.6	7.8	22.5	5.2	69.1	9.2	5.8									
			2	23.6	7.8	22.4	5.2	69.2	9.2	6.1									
	TCE-WQM2a	Sunny	Moderate	7:17	6.9	Surface	1.0	1	23.8	7.9	21.8	4.8	64.8	3.8	7.3	4.6	4.4	7.2	
								2	23.8	7.9	21.8	4.8	64.8	3.8	7.7				
						Middle	3.5	1	22.6	7.9	27.0	4.4	58.8	4.2	7.1				
						Bottom	5.9	1	22.6	7.9	27.0	4.4	58.8	4.2	7.5				
			2	22.4	7.9	27.7	4.0	54.5	5.3	7.0									
			2	22.4	7.9	27.7	4.0	54.5	5.3	6.7									
	TCE-WQM2b	Sunny	Moderate	7:04	12.2	Surface	1.0	1	23.9	7.9	21.2	5.3	71.4	3.6	6.1	5.0	6.6	6.8	
							2	23.9	7.9	21.2	5.3	71.3	3.6	6.4					
Middle						6.1	1	23.5	7.9	22.5	4.7	63.1	6.2	6.8					
Bottom						11.2	1	23.5	7.9	22.5	4.7	63.0	6.3	7.1					
		2	21.8	8.0	30.2	4.0	54.3	9.9	7.0										
		2	21.8	8.0	30.2	4.0	54.4	9.8	7.1										
TCE-WQM3A	Sunny	Moderate	7:29	4.2	Surface	1.0	1	24.1	7.8	20.1	5.4	71.6	4.3	6.9	5.4	4.7	7.0		
							2	24.1	7.8	20.2	5.4	71.4	4.4	6.6					
					Bottom	3.2	1	23.9	7.8	20.7	5.3	71.2	5.0	7.4					
							2	23.9	7.8	20.7	5.3	71.2	5.0	7.2					
TCE-WQM4	Sunny	Moderate	7:39	3.9	Surface	1.0	1	24.2	7.7	20.3	5.8	78.1	3.6	7.3	5.8	3.8	7.1		
							2	24.2	7.7	20.3	5.8	77.1	3.7	7.6					
					Bottom	2.9	1	24.1	7.7	20.5	5.4	72.1	3.9	6.4					
							2	24.1	7.7	20.5	5.4	72.0	3.9	6.9					

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-07	Mid-Ebb	TCE-C1	Fine	Moderate	14:25	10.2	Surface	1.0	1	24.7	8.0	21.5	5.9	80.6	7.3	2.7	5.8	11.2	1.9
									2	24.7	8.0	21.5	5.9	80.6	7.4	2.4			
							Middle	5.1	1	24.5	8.0	22.0	5.6	76.4	12.0	1.9			
							Bottom	9.2	1	24.1	8.0	23.3	5.0	68.1	15.3	1.3			
				2	24.1	8.0	23.4	5.0	68.1	13.2	1.5								
		TCE-C2	Fine	Moderate	16:34	12.8	Surface	1.0	1	24.4	8.2	22.2	6.3	85.8	3.0	2.3	6.1	3.6	2.1
									2	24.4	8.2	22.2	6.3	85.8	3.0	2.3			
							Middle	6.4	1	23.6	8.2	25.3	5.9	79.9	3.4	2.0			
							Bottom	11.8	1	22.4	8.2	29.7	5.0	68.8	4.5	2.1			
				2	22.3	8.2	29.9	5.0	68.8	4.5	2.0								
		TCE-WQM1	Fine	Moderate	15:13	7.0	Surface	1.0	1	24.6	8.0	21.7	5.8	78.8	13.1	1.3	5.8	15.6	1.7
									2	24.6	8.0	21.7	5.8	78.8	13.4	1.4			
	Middle						3.5	1	24.6	8.0	21.8	5.7	77.7	16.2	1.5				
	Bottom						6.0	1	24.4	8.0	22.3	5.5	74.9	18.4	2.3				
			2	24.4	8.0	22.3	5.5	75.0	17.3	2.1									
	TCE-WQM2a	Fine	Moderate	15:52	7.2	Surface	1.0	1	24.4	8.0	21.7	5.6	76.5	3.0	1.9	5.4	3.8	2.2	
								2	24.4	8.0	21.7	5.6	76.5	3.0	1.7				
						Middle	3.6	1	23.5	8.1	24.9	5.1	69.5	3.6	2.1				
						Bottom	6.2	1	23.5	8.1	24.9	5.1	69.5	3.5	2.2				
			2	22.6	8.2	28.2	4.6	63.1	4.9	2.4									
	TCE-WQM2b	Fine	Moderate	16:05	11.2	Surface	1.0	1	24.1	8.0	23.2	5.2	70.2	5.0	1.9	5.1	5.4	2.2	
								2	24.1	8.0	23.2	5.2	70.3	5.0	1.8				
						Middle	5.6	1	23.5	8.1	24.9	5.0	68.2	5.2	2.1				
						Bottom	10.2	1	22.5	8.1	28.8	4.6	63.0	6.1	2.6				
		2	22.5	8.1	28.8	4.6	63.1	6.1	2.4										
TCE-WQM3A	Fine	Moderate	15:40	4.4	Surface	1.0	1	24.6	8.0	20.8	5.6	75.9	3.8	1.7	5.6	4.3	1.5		
							2	24.6	8.0	20.8	5.6	75.9	3.8	1.6					
					Bottom	3.4	1	24.4	8.0	21.4	5.3	71.0	4.8	1.2					
							2	24.4	8.0	21.4	5.3	71.1	4.8	1.4					
TCE-WQM4	Fine	Moderate	15:28	4.4	Surface	1.0	1	24.9	8.0	21.5	6.2	84.8	5.5	1.3	6.2	6.0	1.8		
							2	24.9	8.0	21.5	6.2	84.7	5.5	1.4					
					Bottom	3.4	1	24.7	8.0	21.6	6.0	81.1	6.5	2.2					
							2	24.8	8.0	21.6	6.0	81.2	6.5	2.1					
2023-07-07	Mid-Flood	TCE-C1	Fine	Moderate	10:43	8.8	Surface	1.0	1	24.8	8.0	21.5	5.9	80.8	6.6	1.7	5.8	10.4	2.4
									2	24.8	8.0	21.5	5.9	80.7	6.7	1.9			
							Middle	4.4	1	24.5	8.0	21.9	5.6	76.4	10.9	2.4			
							Bottom	7.8	1	24.5	8.0	22.0	5.5	74.6	13.9	3.2			
				2	24.5	8.0	21.9	5.5	74.4	13.6	2.9								
		TCE-C2	Fine	Moderate	8:45	12.6	Surface	1.0	1	23.8	7.8	24.4	5.5	74.4	2.4	1.8	4.9	6.7	2.1
									2	23.8	7.8	24.4	5.5	74.3	2.4	1.6			
							Middle	6.3	1	21.6	8.0	31.2	4.3	58.2	7.1	2.0			
							Bottom	11.6	1	21.4	7.9	30.4	4.2	57.3	10.5	2.3			
				2	21.4	7.9	30.3	4.3	57.3	10.6	2.6								
		TCE-WQM1	Fine	Moderate	10:01	9.2	Surface	1.0	1	24.8	8.0	21.5	5.9	80.7	6.9	1.7	5.9	7.3	2.1
									2	24.8	8.0	21.5	5.9	80.7	6.9	1.6			
	Middle						4.6	1	24.8	8.0	21.5	5.8	79.4	7.6	2.1				
	Bottom						8.2	1	24.5	8.0	22.3	5.4	73.9	7.3	2.4				
			2	24.5	8.0	22.3	5.4	73.9	7.5	2.4									
	TCE-WQM2a	Fine	Moderate	9:29	8.0	Surface	1.0	1	25.1	7.8	20.2	6.1	83.2	2.0	2.1	5.4	4.3	1.8	
								2	25.1	7.8	20.2	6.1	83.2	2.0	2.2				
						Middle	4.0	1	23.9	7.9	23.6	4.8	64.8	4.0	1.8				
						Bottom	7.0	1	23.9	7.9	23.5	4.8	64.8	4.0	1.6				
			2	23.2	7.9	26.2	4.4	60.0	7.1	1.5									
	TCE-WQM2b	Fine	Moderate	9:16	10.4	Surface	1.0	1	24.7	7.8	20.7	5.8	77.9	2.7	1.4	5.1	17.4	2.1	
								2	24.7	7.8	20.7	5.7	77.7	2.7	1.6				
						Middle	5.2	1	23.5	7.9	27.8	4.4	60.9	14.6	2.1				
						Bottom	9.4	1	23.6	7.9	27.7	4.4	61.2	13.8	2.2				
		2	22.7	7.9	28.7	4.3	58.5	32.4	2.4										
TCE-WQM3A	Fine	Moderate	9:39	4.2	Surface	1.0	1	24.8	7.8	20.5	5.7	76.7	3.7	2.2	5.7	4.2	2.4		
							2	24.8	7.8	20.4	5.7	76.7	3.7	2.2					
					Bottom	3.2	1	24.5	7.8	21.2	5.3	71.3	4.7	2.7					
							2	24.5	7.8	21.2	5.3	71.3	4.7	2.5					
TCE-WQM4	Fine	Moderate	9:49	5.0	Surface	1.0	1	24.7	8.0	21.0	5.7	77.8	3.3	1.7	5.7	4.0	2.0		
							2	24.7	8.0	20.9	5.7	77.7	3.3	1.8					
					Bottom	4.0	1	24.5	8.0	21.4	5.4	72.7	4.7	2.1					
							2	24.5	8.0	21.4	5.4	72.7	4.8	2.3					



Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged										
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)								
2023-07-10	Mid-Ebb	TCE-C1	Sunny	Moderate	8:21	8.4	Surface	1.0	1	28.6	8.1	19.3	6.0	86.1	8.6	2.9	5.3	9.5	2.6								
									2	28.6	8.1	19.3	6.0	86.1	8.9	3.2											
							Middle	4.2	1	26.9	8.1	25.1	4.6	66.3	9.2	2.4											
							Bottom	7.4	1	26.5	8.1	27.4	4.2	60.4	10.4	2.4											
				2	26.5	8.1	27.4	4.2	60.6	10.3	2.2																
		TCE-C2	Sunny	Moderate	6:00	13.5	Surface	1.0	1	27.9	8.0	21.3	5.6	80.4	6.6	2.7	5.1	7.0	2.5								
									2	27.9	8.0	21.3	5.6	80.3	6.6	2.6											
							Middle	6.8	1	26.3	8.1	26.3	4.6	65.7	6.8	2.5											
							Bottom	12.5	1	26.2	8.1	26.3	4.6	65.5	6.9	2.4											
				2	26.0	8.0	28.4	4.5	64.8	7.6	2.2																
		TCE-WQM1	Sunny	Moderate	7:30	8.2	Surface	1.0	1	28.5	8.0	19.0	5.7	82.2	9.2	4.2	5.7	9.5	3.4								
									2	28.5	8.0	19.1	5.7	81.9	9.6	4.4											
	Middle						4.1	1	28.2	8.0	19.6	5.6	80.0	8.4	3.2												
	Bottom						7.2	1	28.2	8.0	19.7	5.6	79.9	8.6	3.5												
			2	28.1	8.0	20.0	5.6	79.5	10.8	2.4																	
	TCE-WQM2a	Sunny	Moderate	6:55	7.2	Surface	1.0	1	28.3	8.1	19.3	5.3	75.2	5.3	2.5	5.0	6.0	2.8									
								2	28.3	8.1	19.3	5.3	75.2	5.3	2.4												
						Middle	3.6	1	27.1	8.1	24.5	4.8	69.2	5.7	2.8												
						Bottom	6.2	1	27.1	8.1	24.5	4.8	69.2	5.7	2.6												
			2	26.9	8.1	25.2	4.5	64.9	6.8	3.0																	
	TCE-WQM2b	Sunny	Moderate	6:42	11.7	Surface	1.0	1	28.4	8.1	18.7	5.7	81.8	5.1	2.9	5.4	7.4	2.6									
								2	28.4	8.1	18.7	5.7	81.7	5.1	3.0												
						Middle	5.9	1	28.0	8.1	20.0	5.1	73.5	7.7	2.6												
						Bottom	10.7	1	26.3	8.2	27.7	4.5	64.7	9.5	2.4												
		2	26.3	8.2	27.7	4.5	64.8	9.3	2.2																		
TCE-WQM3A	Sunny	Moderate	7:07	4.3	Surface	1.0	1	28.6	8.0	17.6	5.8	82.0	5.9	2.8	5.8	6.2	2.5										
							2	28.6	8.0	17.7	5.7	81.8	6.0	2.5													
					Bottom	3.3	1	28.4	8.0	18.2	5.7	81.6	6.5	2.4													
		2	28.4	8.0	18.2	5.7	81.6	6.5	2.2																		
TCE-WQM4	Sunny	Moderate	7:18	3.3	Surface	1.0	1	28.7	8.1	17.8	6.2	88.5	5.2	2.8	6.2	5.3	2.7										
							2	28.7	8.1	17.8	6.1	87.5	5.3	3.2													
					Bottom	2.3	1	28.6	8.1	18.0	5.8	82.5	5.5	2.6													
		2	28.6	8.1	18.0	5.8	82.4	5.5	2.3																		
2023-07-10	Mid-Flood	TCE-C1	Sunny	Moderate	10:48	8.1	Surface	1.0	1	29.7	8.1	19.3	7.3	106.8	7.5	2.5	6.0	10.4	3.1								
									2	29.7	8.1	19.3	7.3	106.2	7.9	2.9											
							Middle	4.1	1	27.6	8.1	26.6	4.7	68.9	11.3	3.3											
							Bottom	7.1	1	27.6	8.1	26.8	4.7	68.9	11.3	3.1											
									2	27.5	8.1	27.4	4.5	66.1	12.3	3.6											
									2	27.5	8.1	27.4	4.5	66.2	11.9	3.2											
							TCE-C2	Sunny	Moderate	12:50	13.7	Surface	1.0	1	29.2	8.1				20.3	8.2	119.5	8.7	4.3	7.6	9.2	3.4
														2	29.2	8.1				20.3	8.2	119.6	8.6	4.0			
		Middle	6.9	1	28.9	8.1						20.6	7.1	103.7	9.3	3.5											
		Bottom	12.7	1	28.7	8.1						22.9	6.4	94.1	9.6	2.5											
				2	28.7	8.1	22.9	6.4	94.4	9.7	2.9																
		TCE-WQM1	Sunny	Moderate	11:37	7.9	Surface	1.0	1	29.6	8.1	19.1	6.8	99.7	9.2	2.5	6.5	10.7	2.7								
									2	29.6	8.1	19.1	6.8	99.5	9.3	2.3											
							Middle	4.0	1	29.3	8.1	19.8	6.3	91.7	10.9	2.7											
							Bottom	6.9	1	29.2	8.1	19.8	6.3	91.6	11.0	2.6											
				2	29.1	8.1	20.1	6.2	90.9	12.4	2.9																
		TCE-WQM2a	Sunny	Moderate	12:07	6.8	Surface	1.0	1	29.4	8.1	19.7	7.6	111.5	5.9	2.9	7.1	6.4	3.2								
									2	29.4	8.1	19.7	7.6	111.5	5.9	2.6											
							Middle	3.4	1	29.0	8.1	20.7	6.5	95.4	6.6	3.3											
							Bottom	5.8	1	29.0	8.1	20.7	6.5	95.4	6.5	3.0											
				2	28.8	8.1	21.1	5.9	86.3	6.7	3.4																
		TCE-WQM2b	Sunny	Moderate	12:17	11.2	Surface	1.0	1	29.3	8.1	18.7	7.7	111.3	7.4	3.0	6.8	9.2	3.4								
									2	29.3	8.1	18.8	7.7	111.2	7.9	3.3											
							Middle	5.6	1	28.5	8.1	22.1	5.9	86.2	9.1	3.6											
Bottom	10.2						1	28.5	8.1	22.1	5.9	86.1	9.5	3.3													
		2	28.2	8.1	23.8	5.8	85.3	10.8	3.4																		
TCE-WQM3A	Sunny	Moderate	11:57	4.6	Surface	1.0	1	29.1	8.0	18.9	7.3	106.4	8.7	3.2	7.3	9.1	3.5										
							2	29.1	8.0	18.9	7.3	106.2	8.8	2.8													
					Bottom	3.6	1	28.9	8.0	20.6	6.3	91.6	9.5	4.1													
		2	28.9	8.0	20.6	6.3	91.6	9.5	3.7																		
TCE-WQM4	Sunny	Moderate	11:48	3.3	Surface	1.0	1	30.2	8.0	17.8	7.8	114.2	5.4	3.6	7.8	5.5	3.3										
							2	30.2	8.0	17.8	7.8	114.2	5.5	3.4													
					Bottom	2.3	1	30.2	8.0	17.8	7.1	103.7	5.6	2.8													
		2	30.2	8.0	17.8	7.1	103.8	5.6	3.2																		

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-12	Mid-Ebb	TCE-C1	Fine	Moderate	10:54	8.8	Surface	1.0	1	30.0	8.3	21.2	9.1	135.3	6.2	2.8	6.4	7.1	2.6
									2	30.0	8.3	21.2	9.1	135.1	6.1	3.0			
							Middle	4.4	1	26.9	7.8	28.0	3.7	54.5	7.5	2.6			
							Bottom	7.8	2	26.9	7.8	28.0	3.7	54.4	7.5	2.4			
				1	26.4	7.8	29.5	3.6	52.8	7.7	2.1	3.6							
				2	26.4	7.8	29.6	3.6	52.7	7.7	2.4								
		Surface	1.0	1	29.6	8.3	19.4	10.0	145.4	1.2	3.3								
				2	29.5	8.3	19.4	9.9	145.1	1.2	3.3								
				1	28.7	8.1	22.1	7.9	114.7	1.9	3.7	8.8	2.0	3.7					
		Middle	5.9	1	28.4	8.1	22.2	7.6	109.8	1.9	3.8								
		Bottom	10.8	1	27.7	8.0	26.1	6.0	88.2	2.9	4.2								
				2	27.7	8.0	26.2	6.0	87.7	3.0	4.0								
			1	30.5	8.5	20.8	11.5	172.4	2.0	3.8	10.3	3.5	3.0						
			2	30.4	8.5	20.8	11.5	172.0	2.0	3.4									
	Middle	4.5	1	29.8	8.3	21.2	9.1	136.0	4.0	3.1									
	Bottom	8.0	2	29.8	8.3	21.2	9.2	136.3	3.9	2.8									
			1	27.6	7.9	26.4	6.8	100.2	4.5	2.2	6.8								
			2	27.6	7.9	26.4	6.8	100.0	4.6	2.6									
	Surface	1.0	1	29.8	8.3	21.5	10.0	148.9	3.7	3.3									
			2	29.8	8.3	21.5	10.0	148.9	3.7	3.7									
			1	29.5	8.2	22.0	8.8	130.6	5.4	2.8	9.4	5.5	2.9						
	Middle	3.7	1	29.5	8.2	22.0	8.8	130.6	5.4	3.0									
	Bottom	6.4	1	28.2	8.0	25.0	6.1	90.4	7.3	2.3									
			2	28.2	8.0	25.0	6.2	90.8	7.5	2.5									
		1	30.1	8.4	18.0	10.6	154.8	2.5	2.4	9.5	3.7	2.9							
		2	30.1	8.4	18.0	10.6	154.4	2.4	2.6										
Middle	5.2	1	29.5	8.2	19.5	8.6	126.0	3.2	3.2										
Bottom	9.4	2	29.4	8.2	19.5	8.4	122.1	3.2	2.8										
		1	27.8	7.9	25.6	5.5	80.5	5.6	3.2	5.5									
		2	27.8	7.9	25.5	5.5	81.1	5.5	3.4										
Surface	1.0	1	30.1	8.4	21.0	10.9	161.6	2.1	2.5										
		2	30.1	8.4	21.0	10.8	161.3	2.1	2.9										
		1	29.0	8.0	22.7	6.0	88.0	3.3	2.3	6.0	2.7	2.5							
Bottom	3.0	1	29.0	8.0	22.7	6.0	88.0	3.3	2.3										
		2	29.1	8.0	22.7	6.0	88.1	3.3	2.1										
		1	30.2	8.2	21.0	8.9	133.0	9.0	3.1										
		2	30.2	8.2	21.0	9.0	134.3	9.0	2.8	9.0	9.1	2.7							
Bottom	2.4	1	29.9	8.2	21.5	8.8	130.5	9.1	2.6										
		2	29.9	8.2	21.5	8.8	130.1	9.1	2.3										
		1	29.9	8.3	21.3	9.0	133.5	3.2	3.2										
2023-07-12	Mid-Flood	TCE-C1	Fine	Moderate	13:54	10.0	Surface	1.0	1	29.9	8.3	21.3	9.0	133.7	3.2	2.9	6.4	4.9	3.4
									2	29.9	8.3	21.3	9.0	133.5	3.2	3.2			
							Middle	5.0	1	27.0	7.8	27.6	3.9	56.7	4.7	3.5			
							Bottom	9.0	2	27.0	7.8	27.6	3.9	56.6	4.7	3.4			
				1	26.7	7.8	28.7	3.8	56.3	6.9	3.9	3.8							
				2	26.8	7.8	28.7	3.9	56.5	7.0	3.7								
		Surface	1.0	1	29.0	8.2	22.2	9.0	132.4	1.0	2.4								
				2	29.1	8.2	22.2	9.0	132.6	1.0	2.1								
				1	28.7	8.1	22.9	7.6	112.2	1.3	2.4	8.3	1.4	2.7					
		Middle	6.1	1	28.7	8.1	22.9	7.6	111.8	1.3	2.6								
		Bottom	11.2	1	27.8	8.0	25.6	5.9	86.8	1.9	3.0								
				2	27.9	8.0	25.3	5.9	87.2	2.0	3.4								
			1	31.2	8.5	20.5	12.0	181.5	3.2	3.9	12.0	3.8	3.4						
			2	31.2	8.5	20.5	12.0	181.4	3.2	3.7									
	Middle	3.4	1	30.3	8.5	20.8	12.1	179.9	3.7	3.2									
	Bottom	5.8	2	30.3	8.5	20.8	12.0	179.8	3.7	3.6									
			1	28.1	7.9	25.3	5.1	74.5	4.6	2.8	5.1								
			2	28.1	7.9	25.3	5.1	75.6	4.5	3.0									
	Surface	1.0	1	30.4	8.5	20.4	12.9	191.9	1.1	3.7									
			2	30.4	8.5	20.4	12.9	191.9	1.1	4.1									
			1	29.7	8.4	20.8	11.6	170.5	2.1	3.4	12.2	2.1	3.5						
	Middle	3.6	1	29.7	8.4	20.8	11.5	169.3	2.2	3.6									
	Bottom	6.2	1	28.4	8.0	23.9	6.7	99.3	3.0	3.2									
			2	28.4	8.1	23.8	6.8	99.0	3.1	3.2									
		1	30.2	8.4	17.4	10.7	156.4	2.7	3.3	10.0	3.4	3.8							
		2	30.1	8.4	17.4	10.7	156.1	2.7	3.6										
Middle	5.6	1	29.5	8.3	20.1	9.3	135.7	3.3	3.9										
Bottom	10.2	2	29.5	8.3	20.1	9.3	135.5	3.4	3.6										
		1	28.6	8.1	24.2	7.1	104.6	4.3	4.1	6.7									
		2	28.7	8.1	24.2	7.0	104.3	4.3	4.3										
Surface	1.0	1	30.5	8.5	20.5	12.5	186.0	2.2	3.9										
		2	30.5	8.5	20.5	12.4	185.8	2.1	4.2										
		1	28.7	7.9	23.9	4.5	67.1	4.2	3.6	4.5	3.2	3.8							
Bottom	3.8	1	28.7	7.9	23.9	4.6	67.2	4.3	3.4										
		2	28.7	7.9	23.9	4.6	67.2	4.3	3.4										
		1	30.0	8.3	21.7	10.3	152.7	3.9	2.8										
		2	30.0	8.3	21.7	10.3	152.7	3.9	3.1	10.3	4.5	3.3							
Bottom	3.0	1	29.3	8.2	23.0	7.7	113.8	5.1	3.8										
		2	29.3	8.2	22.9	7.7	113.9	5.1	3.6										

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-14	Mid-Ebb	TCE-C1	Sunny	Moderate	12:17	9.0	Surface	1.0	1	30.3	8.4	22.1	8.8	132.6	3.6	3.2	7.2	4.4	3.5
									2	30.3	8.4	22.1	8.8	132.5	3.6	3.9			
							Middle	4.5	1	28.3	8.0	25.5	5.6	83.5	4.4	3.0			
							Bottom	8.0	1	27.1	7.9	27.9	4.1	59.5	5.1	4.0			
				2	27.1	7.9	27.8	4.1	59.8	5.1	3.3								
		TCE-C2	Sunny	Moderate	10:20	11.0	Surface	1.0	1	29.8	8.4	22.2	10.8	161.5	1.1	3.1	9.7	1.9	2.9
									2	29.8	8.4	22.2	10.8	161.4	1.1	3.1			
							Middle	5.5	1	28.5	8.3	24.4	8.5	125.9	2.1	2.2			
							Bottom	10.0	1	28.5	8.3	24.5	8.5	125.6	2.1	2.7			
				2	27.8	8.1	26.5	7.1	104.8	2.6	2.9								
				2	27.7	8.1	26.6	7.1	104.9	2.5	3.2								
		TCE-WQM1	Sunny	Moderate	11:35	8.8	Surface	1.0	1	30.3	8.4	22.1	8.9	134.1	1.7	3.6	7.6	2.3	3.7
								2	30.3	8.4	22.1	8.9	133.7	1.7	3.8				
	Middle						4.4	1	28.6	8.2	24.7	6.3	93.3	2.2	3.9				
	Bottom						7.8	1	28.6	8.1	24.7	6.2	91.1	2.2	4.1				
			2	26.4	7.8	29.5	3.4	49.2	3.1	3.2									
			2	26.4	7.9	29.5	3.4	49.5	3.1	3.5									
	TCE-WQM2a	Sunny	Moderate	11:03	7.4	Surface	1.0	1	30.1	8.4	22.8	9.5	143.2	1.1	3.0	9.4	1.3	3.6	
								2	30.1	8.4	22.8	9.5	143.2	1.1	3.5				
						Middle	3.7	1	30.0	8.3	23.0	9.3	139.3	1.3	3.9				
						Bottom	6.4	1	30.0	8.3	23.0	9.3	139.5	1.3	3.2				
			2	29.7	8.3	23.3	9.1	135.7	1.5	3.7									
			2	29.8	8.3	23.2	9.1	135.9	1.5	4.1									
	TCE-WQM2b	Sunny	Moderate	10:50	10.2	Surface	1.0	1	30.3	8.5	18.6	11.7	173.4	1.5	4.2	11.3	2.5	3.4	
							2	30.3	8.5	18.6	11.7	173.4	1.6	3.6					
Middle						5.1	1	29.6	8.5	21.3	10.9	162.3	2.4	3.2					
Bottom						9.2	1	29.5	8.5	21.3	11.0	161.7	2.4	3.7					
		2	28.4	8.1	24.3	7.0	103.3	3.4	2.4										
		2	28.3	8.1	24.5	7.0	103.0	3.5	3.2										
TCE-WQM3A	Sunny	Moderate	11:13	4.0	Surface	1.0	1	30.1	8.3	22.2	7.7	114.6	5.0	3.9	7.6	5.2	3.7		
							2	30.1	8.3	22.3	7.6	113.8	5.0	3.5					
					Bottom	3.0	1	27.8	7.8	26.8	3.5	51.4	5.3	3.6					
							2	27.8	7.8	26.7	3.5	51.7	5.3	3.7					
TCE-WQM4	Sunny	Moderate	11:23	4.2	Surface	1.0	1	30.1	8.4	22.2	9.7	145.7	3.1	4.0	9.7	4.2	3.9		
							2	30.1	8.4	22.2	9.7	145.3	3.1	3.5					
					Bottom	3.2	1	28.9	7.8	24.9	5.0	75.0	5.4	4.3					
							2	28.9	7.8	24.9	5.1	75.6	5.4	3.6					
		2	28.9	7.8	24.9	5.1	75.6	5.4	3.6										
2023-07-14	Mid-Flood	TCE-C1	Sunny	Moderate	16:26	10.0	Surface	1.0	1	29.9	8.4	22.4	8.6	127.8	4.5	3.4	7.2	5.4	3.4
									2	29.8	8.4	22.4	8.5	127.3	4.4	3.4			
							Middle	5.0	1	28.9	8.1	25.2	5.9	88.5	5.5	3.0			
							Bottom	9.0	1	28.9	8.1	25.5	5.9	88.0	5.4	3.2			
				2	27.4	7.9	27.2	4.8	70.4	6.4	3.5								
				2	27.4	7.9	27.2	4.9	72.0	6.4	3.7								
		TCE-C2	Sunny	Moderate	18:45	12.0	Surface	1.0	1	30.0	8.4	21.8	11.1	167.8	1.1	4.6	11.0	1.7	4.1
									2	29.9	8.4	21.9	11.1	167.1	1.1	4.2			
							Middle	6.0	1	29.8	8.4	22.2	10.9	164.0	1.4	4.0			
							Bottom	11.0	1	29.8	8.4	22.2	10.9	163.8	1.4	3.3			
				2	29.8	8.4	22.3	10.7	162.1	2.6	4.3								
				2	29.8	8.4	22.3	10.7	162.1	2.6	4.1								
	TCE-WQM1	Sunny	Moderate	17:24	7.0	Surface	1.0	1	30.7	8.4	21.8	9.6	144.3	1.4	2.7	7.4	3.2	2.8	
								2	30.7	8.4	21.8	9.5	143.3	1.4	2.4				
						Middle	3.5	1	27.8	8.0	26.2	5.2	76.1	3.2	2.9				
						Bottom	6.0	1	27.8	8.0	26.2	5.2	76.1	3.3	3.0				
			2	27.1	7.8	28.9	3.7	55.1	5.0	3.2									
			2	27.1	7.8	28.8	3.9	57.6	5.1	2.8									
	TCE-WQM2a	Sunny	Moderate	18:03	7.2	Surface	1.0	1	29.7	8.4	23.2	9.4	141.2	2.4	3.0	8.8	4.6	3.1	
								2	29.7	8.4	23.2	9.4	141.2	2.4	3.2				
						Middle	3.6	1	29.1	8.3	24.1	8.2	121.3	5.3	3.0				
						Bottom	6.2	1	29.1	8.3	24.1	8.2	121.5	5.3	2.7				
			2	27.9	8.1	26.5	5.7	84.3	6.2	3.6									
			2	27.9	8.1	26.6	5.5	81.2	6.2	3.1									
TCE-WQM2b	Sunny	Moderate	18:16	10.6	Surface	1.0	1	30.2	8.5	18.8	11.4	169.9	2.2	3.8	11.2	2.8	3.3		
							2	30.2	8.5	18.9	11.4	169.5	2.2	3.2					
					Middle	5.3	1	29.8	8.5	19.7	10.9	162.5	2.7	3.9					
					Bottom	9.6	1	29.8	8.5	19.7	10.9	162.2	2.7	2.8					
		2	29.3	8.3	22.0	9.2	135.6	3.5	3.1										
		2	29.3	8.3	22.7	9.2	136.0	3.6	3.0										
TCE-WQM3A	Sunny	Moderate	17:51	3.8	Surface	1.0	1	30.1	8.3	22.6	8.4	125.8	2.9	3.1	8.4	3.5	3.3		
							2	30.1	8.3	22.7	8.4	125.4	3.0	3.8					
					Bottom	2.8	1	29.5	8.2	24.0	6.3	93.8	4.1	3.3					
							2	29.3	8.2	24.2	6.1	93.0	4.1	3.0					
TCE-WQM4	Sunny	Moderate	17:39	4.4	Surface	1.0	1	31.1	8.4	21.6	9.8	148.4	1.5	3.6	9.7	2.4	3.7		
							2	31.1	8.4	21.6	9.7	148.0	1.5	3.8					
					Bottom	3.4	1	27.8	8.1	26.6	5.7	83.6	3.3	3.5					
							2	27.8	8.1	26.6	6.0	87.9	3.4	3.8					

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged			
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)	
2023-07-19	Mid-Ebb	TCE-C1	Fine	Moderate	12:31	10.8	Surface	1.0	1	26.7	7.9	23.8	5.6	79.8	1.1	1.4	5.4	1.6	2.2	
									2	26.6	7.9	23.9	5.6	79.8	1.1	1.8				
							Middle	5.4	1	26.0	7.9	26.8	5.3	75.6	1.7	2.3				
							Bottom	9.8	1	26.4	7.9	26.8	5.3	75.6	2.1	2.8				
				2	26.5	7.9	26.7	5.3	76.0	2.1	2.5									
		TCE-C2	Fine	Moderate	14:40	11.0	Surface	1.0	1	26.2	7.8	26.7	7.8	5.2	75.3	1.0	1.3	5.1	2.0	2.0
									2	26.2	7.8	26.8	5.2	74.7	1.1	1.1				
							Middle	5.5	1	26.0	7.8	27.4	5.1	73.1	2.3	1.9				
							Bottom	10.0	1	25.9	7.8	27.5	5.1	72.8	2.3	1.7				
				2	25.9	7.8	27.6	5.0	71.2	2.5	2.8									
		TCE-WQM1	Fine	Moderate	13:19	7.0	Surface	1.0	1	26.0	7.8	27.4	7.8	5.0	71.4	2.5	3.1	5.8	2.6	2.3
									2	26.8	7.9	24.0	5.8	82.7	2.0	2.2				
	Middle						3.5	1	26.7	7.9	24.2	5.9	83.7	2.7	2.2					
	Bottom						6.0	1	26.7	7.9	24.2	5.9	83.9	2.8	2.2					
			2	26.6	7.9	24.3	6.0	85.5	3.2	2.8										
	TCE-WQM2a	Fine	Moderate	13:58	8.4	Surface	1.0	1	26.4	7.8	25.6	7.8	5.7	82.0	1.3	1.2	5.5	2.5	1.9	
								2	26.4	7.8	25.6	5.7	82.0	1.3	1.5					
						Middle	4.2	1	26.0	7.8	26.9	5.3	76.6	3.0	1.7					
						Bottom	7.4	1	26.0	7.8	26.9	5.4	76.7	3.0	1.9					
			2	26.0	7.8	26.9	5.5	78.2	3.1	2.6										
	TCE-WQM2b	Fine	Moderate	14:11	9.6	Surface	1.0	1	26.2	7.8	26.6	7.8	5.3	76.5	2.4	1.6	5.3	2.9	2.1	
								2	26.2	7.8	26.7	5.3	76.2	2.4	1.8					
						Middle	4.8	1	25.7	7.8	28.0	5.2	74.8	2.9	2.1					
						Bottom	8.6	1	25.7	7.8	28.0	5.2	74.8	3.0	2.3					
		2	25.5	7.8	28.2	5.5	78.1	3.3	2.6											
TCE-WQM3A	Fine	Moderate	13:46	4.0	Surface	1.0	1	26.4	7.7	26.4	7.7	5.4	77.3	4.6	2.1	5.4	4.9	2.5		
							2	26.4	7.7	26.6	5.4	77.4	4.8	2.3						
					Bottom	3.0	1	26.4	7.8	26.7	5.5	78.9	5.1	3.0						
							2	26.4	7.8	26.7	5.5	79.2	5.1	2.7						
TCE-WQM4	Fine	Moderate	13:34	4.4	Surface	1.0	1	26.5	7.8	25.8	7.8	5.6	80.1	2.4	1.5	5.6	3.1	1.9		
							2	26.5	7.8	25.8	5.6	80.2	2.4	1.7						
					Bottom	3.4	1	26.5	7.8	26.0	5.7	82.0	3.7	2.1						
							2	26.5	7.8	26.0	5.7	82.4	3.7	2.4						
2023-07-19	Mid-Flood	TCE-C1	Fine	Moderate	8:40	9.0	Surface	1.0	1	26.5	7.9	24.1	5.5	78.5	1.4	2.1	5.5	1.7	2.7	
									2	26.5	7.9	24.1	5.5	78.3	1.4	2.3				
							Middle	4.5	1	26.2	7.9	26.3	5.4	77.9	1.7	2.8				
							Bottom	8.0	1	26.2	7.9	26.3	5.4	78.0	1.7	2.6				
				2	26.1	7.9	26.8	5.5	79.2	2.1	3.3									
		TCE-C2	Fine	Moderate	6:42	12.4	Surface	1.0	1	25.4	8.0	28.9	8.0	4.7	67.5	1.8	1.9	4.7	2.1	2.3
									2	25.4	8.0	29.0	4.7	67.4	1.8	1.6				
							Middle	6.2	1	25.3	8.0	29.2	4.6	66.6	1.9	2.1				
							Bottom	11.4	1	25.3	8.0	29.2	4.6	66.7	1.9	2.4				
				2	25.1	8.1	29.7	4.6	65.3	2.6	2.9									
		TCE-WQM1	Fine	Moderate	7:57	8.0	Surface	1.0	1	25.2	8.1	29.6	8.1	4.6	65.4	2.7	2.7	5.6	1.8	3.3
									2	26.5	7.9	25.5	5.6	80.2	1.1	3.7				
	Middle						4.0	1	26.5	7.9	25.6	5.6	80.0	1.1	3.9					
	Bottom						7.0	1	26.3	8.0	26.1	5.6	79.7	1.7	3.0					
			2	26.3	8.0	26.1	5.6	79.7	1.7	3.0										
	TCE-WQM2a	Fine	Moderate	7:25	7.0	Surface	1.0	1	26.4	8.0	25.9	8.0	5.6	80.7	2.5	2.8	5.6	3.3	2.6	
								2	26.4	8.0	25.9	5.6	81.0	2.6	3.1					
						Middle	3.5	1	25.8	8.0	27.4	5.0	71.2	2.1	2.1					
						Bottom	6.0	1	25.7	8.0	27.8	5.0	71.3	3.0	2.6					
			2	25.7	8.0	27.8	5.0	71.5	3.1	2.6										
	TCE-WQM2b	Fine	Moderate	7:12	10.0	Surface	1.0	1	25.7	8.0	27.9	8.0	5.1	73.1	4.8	3.0	5.1	3.3	2.6	
								2	25.7	8.0	27.9	5.1	73.5	4.8	2.7					
						Middle	5.0	1	25.8	8.1	27.7	5.3	75.5	1.1	2.3					
						Bottom	9.0	1	25.4	8.2	28.8	5.2	73.9	1.4	2.4					
		2	25.4	8.2	28.8	5.2	74.1	1.4	2.2											
TCE-WQM3A	Fine	Moderate	7:35	4.8	Surface	1.0	1	25.4	8.1	29.0	8.1	5.3	76.4	2.8	2.7	5.2	1.8	2.4		
							2	25.5	8.1	29.0	5.4	77.7	2.7	2.5						
					Bottom	3.8	1	26.1	8.0	26.3	5.4	77.9	2.1	2.9						
							2	25.8	8.0	27.6	5.4	76.9	3.2	2.4						
TCE-WQM4	Fine	Moderate	7:45	4.2	Surface	1.0	1	26.4	7.9	25.8	7.9	5.8	83.2	1.5	2.5	5.8	2.2	2.8		
							2	26.4	7.9	25.8	5.8	83.7	1.5	2.7						
					Bottom	3.2	1	26.4	7.9	25.9	6.0	86.7	3.0	3.2						
							2	26.4	7.9	25.9	6.1	87.2	3.0	2.8						

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-21	Mid-Ebb	TCE-C1	Sunny	Moderate	13:34	10.8	Surface	1.0	1	28.8	7.9	27.2	5.5	82.9	3.7	3.6	5.4	6.0	3.0
									2	28.7	7.9	27.3	5.5	82.4	3.6	3.9			
							Middle	5.4	1	28.4	7.9	27.8	5.4	80.6	6.5	3.1			
							Bottom	9.8	1	28.2	7.9	27.9	5.4	80.4	6.5	2.7			
				2	28.3	7.9	28.2	5.0	75.3	7.9	2.5	5.0							
				2	28.3	7.9	28.0	5.0	75.5	7.9	2.2								
		Surface	1.0	1	29.1	7.9	25.3	6.0	89.7	2.2	2.8								
				2	29.1	7.9	25.3	6.0	89.5	2.2	2.7								
				1	28.9	7.9	25.6	5.7	84.8	4.4	3.3	5.8	4.4	3.2					
		Middle	6.5	1	28.9	7.9	25.6	5.7	84.8	4.4	3.3								
				2	28.8	7.9	25.6	5.7	84.6	4.5	3.1								
		Bottom	12.0	1	27.4	7.9	28.9	4.8	71.7	6.6	3.7								
			2	27.4	7.9	29.0	4.8	71.8	6.6	3.3	4.8								
	Surface	1.0	1	28.9	7.9	27.1	5.6	84.0	2.6	2.6									
			2	28.9	7.9	27.1	5.6	84.0	2.6	2.3									
	Middle	4.0	1	28.5	7.9	27.5	5.3	78.7	3.3	3.0									
			2	28.5	7.9	27.5	5.2	78.6	3.3	3.5	5.0	3.5	3.2						
	Bottom	7.0	1	28.2	7.9	28.2	5.0	74.4	4.5	3.7									
			2	28.2	7.9	28.2	5.0	74.4	4.4	3.8									
	Surface	1.0	1	28.4	7.9	26.8	5.5	82.0	1.1	3.3									
			2	28.4	7.9	26.8	5.5	82.0	1.1	2.9	5.4	1.4	3.9						
	Middle	3.0	1	28.2	7.9	27.2	5.4	80.0	1.1	3.4									
			2	28.2	7.9	27.2	5.4	80.1	1.1	3.8									
	Bottom	5.0	1	28.0	7.9	27.4	5.4	79.8	2.1	4.8									
		2	28.0	7.9	27.4	5.4	79.9	2.1	5.1	5.4									
Surface	1.0	1	28.4	7.9	25.4	5.6	82.8	1.9	4.2										
		2	28.4	7.9	25.4	5.6	82.6	1.9	4.4										
Middle	3.8	1	28.1	7.9	25.9	5.4	80.5	2.2	3.7										
		2	28.1	7.9	25.9	5.4	80.5	2.3	3.9	5.5	2.4	3.7							
Bottom	6.6	1	28.2	7.9	25.8	5.5	81.0	3.1	2.8										
		2	28.2	7.9	25.8	5.5	81.0	3.1	3.2										
Surface	1.0	1	28.3	7.9	25.9	5.0	74.3	3.7	3.8										
		2	28.3	7.9	25.9	5.0	74.3	3.7	4.2	5.0	4.4	3.4							
Bottom	2.7	1	28.0	7.8	26.7	4.7	69.7	5.1	2.5										
		2	28.0	7.8	26.8	4.7	69.4	5.1	3.0										
Surface	1.0	1	28.6	7.9	25.7	6.1	91.1	1.8	1.7										
		2	28.6	7.9	25.7	6.1	91.4	1.9	1.9	6.1	2.0	2.0							
Bottom	3.0	1	28.4	8.0	26.8	6.9	103.0	2.1	2.3										
		2	28.4	8.0	26.8	6.9	103.0	2.1	2.2										
Surface	1.0	1	28.7	7.9	27.2	5.5	83.2	3.5	3.0										
		2	28.7	7.9	27.2	5.5	82.9	3.5	2.7	5.5	4.5	3.6							
Middle	4.6	1	28.4	7.9	27.7	5.4	81.1	4.2	3.6										
		2	28.3	7.9	27.9	5.4	81.0	4.2	3.4										
Bottom	8.2	1	28.1	7.9	28.4	5.1	76.8	5.9	4.1										
		2	28.2	7.9	28.2	5.1	77.1	5.9	4.6	5.1									
Surface	1.0	1	28.3	7.9	25.8	5.6	83.3	1.8	3.6										
		2	28.3	7.9	25.8	5.6	83.1	1.8	3.0										
Middle	7.0	1	26.7	7.8	31.7	4.3	64.5	2.3	3.8										
		2	26.7	7.8	31.7	4.3	64.6	2.3	4.2	5.0	2.7	4.1							
Bottom	13.0	1	26.9	7.8	31.9	4.6	68.8	4.0	4.8										
		2	26.9	7.8	31.9	4.6	69.5	4.0	5.1										
Surface	1.0	1	28.5	7.9	27.2	5.3	79.4	3.8	3.4										
		2	28.5	7.9	27.2	5.3	79.3	3.8	3.0	5.3	4.4	4.1							
Middle	4.0	1	28.4	7.9	27.4	5.2	78.1	4.5	4.0										
		2	28.4	7.9	27.4	5.2	77.9	4.4	3.7										
Bottom	7.0	1	28.2	7.9	27.6	5.2	77.3	5.0	5.3										
		2	28.3	7.9	27.6	5.2	77.4	4.9	4.9	5.2									
Surface	1.0	1	27.7	7.9	27.1	5.0	74.0	2.5	3.5										
		2	27.7	7.9	27.1	5.0	74.0	2.5	3.9										
Middle	3.4	1	27.0	7.9	29.4	4.7	69.0	3.0	3.3										
		2	27.0	7.9	29.5	4.7	69.0	3.0	3.1	4.8	2.8	3.2							
Bottom	5.8	1	27.0	7.9	29.7	4.8	70.3	3.1	2.9										
		2	27.0	7.9	29.6	4.8	70.6	3.0	2.7										
Surface	1.0	1	28.0	7.9	27.0	5.2	76.7	2.3	3.2										
		2	28.0	7.9	27.0	5.2	76.6	2.2	3.3	5.0	4.6	2.8							
Middle	4.6	1	27.4	7.9	28.2	4.9	72.2	5.4	2.8										
		2	27.4	7.9	28.3	4.9	72.1	5.4	3.1										
Bottom	8.2	1	27.3	7.9	28.8	4.9	73.2	6.1	2.4										
		2	27.3	7.9	28.8	5.0	73.4	6.1	2.2	4.9									
Surface	1.0	1	28.1	7.8	26.1	5.0	74.3	2.4	2.5										
		2	28.1	7.8	26.2	5.0	74.2	2.4	2.9										
Bottom	3.0	1	28.0	7.8	26.6	5.0	73.9	3.5	3.2										
		2	28.1	7.8	26.6	5.0	74.2	3.5	3.8	5.0	3.0	3.1							
Surface	1.0	1	28.4	7.9	25.9	5.9	87.5	1.7	3.9										
		2	28.4	7.9	26.0	5.9	87.4	1.6	3.6										
Bottom	3.2	1	28.3	7.9	26.3	5.9	88.0	3.1	3.3										
		2	28.4	7.9	26.3	5.9	88.1	3.1	3.0	5.9	2.4	3.5							



Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged											
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)									
2023-07-24	Mid-Ebb	TCE-C1	Fine	Moderate	6:35	9.0	Surface	1.0	1	29.1	8.4	22.8	10.1	148.9	5.4	5.2	8.5	6.2	5.7									
									2	29.0	8.4	22.9	10.0	147.8	5.4	5.2												
							Middle	4.5	1	28.2	8.1	24.0	6.9	101.4	6.1	5.5												
							Bottom	8.0	1	28.1	8.1	26.2	6.2	91.9	7.2	6.2												
				2	28.2	8.1	26.2	6.2	92.3	7.2	6.4																	
		TCE-C2	Fine	Moderate	5:05	11.8	Surface	1.0	1	27.7	9.0	25.0	7.1	103.8	3.0	6.6	6.3	5.2	6.0									
									2	27.7	9.0	25.0	7.0	102.2	3.0	6.3												
							Middle	5.9	1	27.3	9.4	29.4	5.5	82.3	5.4	6.0												
							Bottom	10.8	1	27.2	9.4	29.5	5.5	81.7	5.5	6.1												
				2	27.1	9.5	30.2	5.2	77.1	7.1	5.2																	
				2	27.1	9.5	30.2	5.2	77.2	7.1	5.5																	
		TCE-WQM1	Fine	Moderate	6:14	8.0	Surface	1.0	1	29.3	8.4	22.9	9.5	140.2	3.3	6.1	8.3	4.5	5.3									
									2	29.2	8.4	22.9	9.5	140.0	3.3	5.8												
							Middle	4.0	1	28.5	8.2	24.2	7.2	106.4	5.0	5.5												
							Bottom	7.0	1	28.4	8.2	24.3	7.0	102.9	5.1	5.1												
				2	28.3	8.2	24.7	7.1	104.9	5.2	4.8																	
				2	28.3	8.2	24.7	7.3	108.3	5.3	4.6																	
		TCE-WQM2a	Fine	Moderate	5:43	6.4	Surface	1.0	1	28.6	8.7	23.4	9.7	142.2	1.1	4.3	8.4	1.6	4.8									
									2	28.6	8.7	23.4	9.7	142.2	1.1	4.6												
							Middle	3.2	1	28.3	8.5	24.2	7.2	105.7	1.4	4.9												
							Bottom	5.4	1	28.2	8.5	24.4	7.2	105.3	1.4	4.6												
				2	28.2	8.5	24.5	6.6	97.1	2.1	5.4																	
				2	28.2	8.5	24.4	6.7	98.4	2.2	5.2																	
		TCE-WQM2b	Fine	Moderate	5:31	8.6	Surface	1.0	1	28.3	8.2	24.3	8.3	122.5	2.7	4.6	7.4	5.1	5.0									
								2	28.3	8.2	24.4	8.3	121.5	2.7	4.2													
	Middle						4.3	1	27.9	8.1	25.7	6.5	94.9	5.6	5.2													
	Bottom						7.6	1	27.9	8.1	25.8	6.4	94.6	5.6	4.9													
			2	27.8	8.1	26.3	6.0	88.4	7.0	5.7																		
			2	27.8	8.1	26.2	6.0	88.6	7.0	5.4																		
	TCE-WQM3A	Fine	Moderate	5:52	3.8	Surface	1.0	1	29.2	8.7	22.6	9.8	144.8	3.4	4.8	9.8	5.1	5.1										
								2	29.1	8.7	22.6	9.8	144.6	3.7	4.4													
						Bottom	2.8	1	28.8	8.7	22.9	8.7	127.8	6.6	5.2													
			2	28.8	8.7	22.9	8.5	125.4	6.6	5.8																		
	TCE-WQM4	Fine	Moderate	6:02	4.2	Surface	1.0	1	28.9	8.5	23.2	9.9	145.4	2.3	4.8	9.8	2.4	4.9										
								2	28.8	8.5	23.3	9.8	144.0	2.3	4.5													
						Bottom	3.2	1	28.4	8.3	23.8	7.4	108.9	2.5	5.1													
								2	28.4	8.3	23.8	7.7	112.4	2.5	5.3													
			2	28.4	8.3	23.8	7.7	112.4	2.5	5.3																		
	2023-07-24	Mid-Flood	TCE-C1	Sunny	Moderate	8:39	10.0	Surface	1.0	1	29.0	8.3	22.9	10.4	152.8	3.0	4.7	9.0	4.2	5.2								
										2	29.0	8.3	22.9	10.3	152.0	3.0	4.9											
								Middle	5.0	1	28.4	8.1	23.6	7.6	111.9	4.2	5.3											
								Bottom	9.0	1	28.3	8.1	23.6	7.6	111.1	4.2	5.0											
										2	28.6	8.1	25.9	7.0	103.6	5.3	5.9											
										2	28.6	8.1	25.9	7.2	107.1	5.3	5.6											
								TCE-C2	Sunny	Moderate	10:22	13.8	Surface	1.0	1	28.1	8.3				27.1	8.3	123.2	1.1	5.0	7.2	1.4	5.9
															2	28.0	8.3				27.3	8.0	119.1	1.1	5.5			
			Middle	6.9	1	27.3	8.2						29.4	6.4	94.6	1.1	5.9											
			Bottom	12.8	1	27.3	8.2						29.5	6.3	94.4	1.1	6.3											
				2	27.7	8.3	29.4	6.9	102.6	2.1	6.7																	
				2	27.8	8.3	29.3	6.9	104.0	2.1	6.2																	
TCE-WQM1			Sunny	Moderate	9:13	7.2	Surface	1.0	1	28.7	8.1	23.7	8.0	118.4	4.6	5.8	7.4	5.5	5.4									
									2	28.7	8.1	23.7	7.9	116.8	4.8	6.0												
							Middle	3.6	1	28.5	8.1	24.3	6.8	99.7	5.6	5.6												
							Bottom	6.2	1	28.5	8.1	24.3	6.8	99.5	5.6	5.3												
				2	28.3	8.1	24.8	6.4	94.3	6.3	4.8																	
				2	28.3	8.1	24.8	6.4	94.6	6.3	5.1																	
TCE-WQM2a			Sunny	Moderate	9:47	7.2	Surface	1.0	1	28.3	8.4	24.4	8.0	118.2	1.1	5.7	7.1	1.7	5.3									
									2	28.3	8.4	24.4	8.0	118.2	1.1	5.9												
							Middle	3.6	1	27.9	8.3	25.4	6.1	90.2	1.6	5.0												
							Bottom	6.2	1	27.9	8.3	25.5	6.1	90.1	1.6	5.4												
				2	27.8	8.3	26.4	5.9	86.5	2.3	4.6																	
				2	27.8	8.3	26.3	5.9	86.9	2.3	4.9																	
TCE-WQM2b			Sunny	Moderate	10:01	8.8	Surface	1.0	1	27.5	8.2	27.5	5.7	83.8	4.4	6.1	5.6	5.2	5.4									
									2	27.5	8.2	27.6	5.7	83.7	4.4	5.8												
							Middle	4.4	1	27.4	8.2	28.7	5.6	83.3	5.1	5.2												
							Bottom	7.8	1	27.3	8.2	28.8	5.6	83.4	5.1	5.5												
				2	27.3	8.2	29.1	5.7	84.0	6.0	4.6																	
				2	27.4	8.2	29.1	5.7	84.2	6.0	5.0																	
TCE-WQM3A			Sunny	Moderate	9:39	4.0	Surface	1.0	1	29.5	8.8	22.5	11.5	170.4	2.6	6.3	11.5	3.3	5.1									
									2	29.4	8.8	22.6	11.5	170.4	2.6	5.9												
							Bottom	3.0	1	28.8	8.8	23.0	9.6	141.0	4.1	4.1												
				2	28.8	8.8	23.0	9.6	141.0	4.1	3.9																	
TCE-WQM4			Sunny	Moderate	9:27	4.0	Surface	1.0	1	29.6	8.3	22.9	11.2	166.8	3.1	6.0	11.2	4.4	5.1									
									2	29.5	8.3	22.9	11.2	166.2	3.1	5.7												
							Bottom	3.0	1	28.7	8.3	23.4	9.5	140.1	5.7	4.4												
				2	28.7	8.3	23.5	9.6	140.9	5.7	4.1																	

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-26	Mid-Ebb	TCE-C1	Misty	Moderate	8:24	9.0	Surface	1.0	1	30.5	8.5	19.2	9.9	148.8	1.7	2.2	8.5	3.3	2.9
									2	30.4	8.5	19.2	9.9	148.6	1.8	2.4			
							Middle	4.5	1	29.0	8.3	23.9	7.1	106.8	3.6	3.0			
									2	28.9	8.3	24.0	7.1	106.2	3.6	2.6			
				1	28.5	8.1	25.1	5.6	83.7	4.7	3.5								
				2	28.5	8.1	25.1	5.6	83.9	4.6	3.8								
		TCE-C2	Misty	Moderate	7:01	11.8	Surface	1.0	1	29.5	8.3	19.9	10.3	152.9	1.1	3.0	9.3	1.6	2.7
				2	29.5	8.3	20.0	10.2	152.3	1.1	3.2								
		Middle	5.9	1	28.8	8.2	24.4	8.3	124.4	1.1	2.8								
				2	28.8	8.2	24.4	8.2	123.1	1.1	2.5								
				1	27.7	8.2	28.2	6.3	93.1	2.6	2.1								
				2	27.7	8.2	28.2	6.3	92.9	2.7	2.3								
	TCE-WQM1	Misty	Moderate	8:09	8.6	Surface	1.0	1	30.2	8.4	20.4	10.7	160.1	3.4	2.1	9.1	5.0	2.6	
			2	30.2	8.4	20.4	10.7	159.9	3.4	2.3									
	Middle	4.3	1	29.2	8.3	23.1	7.6	114.6	5.5	2.8									
			2	29.2	8.3	23.1	7.6	114.4	5.4	2.5									
			1	28.3	8.1	26.0	5.7	86.2	6.1	3.0									
			2	28.3	8.1	26.0	5.8	86.5	6.0	2.6									
	TCE-WQM2a	Misty	Moderate	7:38	8.0	Surface	1.0	1	29.7	8.6	20.4	10.7	159.6	1.1	2.5	8.8	1.4	3.0	
			2	29.7	8.6	20.4	10.7	159.6	1.1	2.3									
	Middle	4.0	1	28.9	8.4	23.7	6.9	103.3	1.5	2.9									
			2	28.9	8.4	23.7	6.9	103.1	1.4	3.2									
			1	28.3	8.4	26.2	6.1	91.0	1.6	3.8									
			2	28.3	8.4	26.2	6.1	91.0	1.6	3.4									
TCE-WQM2b	Misty	Moderate	7:26	12.0	Surface	1.0	1	30.3	8.4	17.2	10.7	158.7	3.4	1.7	8.2	5.1	2.2		
		2	30.4	8.4	17.2	10.7	158.8	3.4	1.9										
Middle	6.0	1	27.8	8.1	26.7	5.6	83.7	5.2	2.1										
		2	27.8	8.1	26.8	5.6	83.5	5.7	2.3										
		1	27.2	8.1	29.4	5.0	74.9	6.3	2.6										
		2	27.2	8.1	29.4	5.0	74.9	6.3	2.3										
TCE-WQM3A	Misty	Moderate	7:48	4.4	Surface	1.0	1	30.0	8.5	19.1	10.7	159.6	1.3	2.3	10.8	2.3	2.0		
		2	29.9	8.5	19.1	10.8	159.6	1.3	2.1										
Bottom	3.4	1	29.1	8.1	23.4	5.6	84.5	3.3	1.9										
		2	29.0	8.1	23.5	5.6	84.5	3.3	1.7										
TCE-WQM4	Misty	Moderate	7:57	4.0	Surface	1.0	1	29.6	8.3	21.5	9.0	135.2	6.4	2.5	9.1	6.7	2.5		
		2	29.6	8.3	21.5	9.1	135.5	6.5	2.2										
Bottom	3.0	1	29.5	8.2	21.9	8.8	131.8	7.0	2.8										
		2	29.5	8.2	21.9	8.9	132.6	7.0	2.5										
2023-07-26	Mid-Flood	TCE-C1	Misty	Moderate	11:05	10.0	Surface	1.0	1	30.5	8.4	19.4	10.3	154.9	1.3	2.4	9.9	3.6	2.8
									2	30.5	8.4	19.4	10.3	154.8	1.4	2.2			
							Middle	5.0	1	29.9	8.4	21.2	9.5	142.5	3.6	2.9			
									2	29.9	8.4	21.2	9.4	141.7	3.6	2.7			
				1	28.6	8.1	25.0	6.0	89.1	6.1	3.6								
				2	28.6	8.1	25.0	6.0	89.6	6.0	3.2								
		TCE-C2	Misty	Moderate	12:31	12.8	Surface	1.0	1	29.2	8.1	22.5	9.1	135.6	1.1	3.1	7.4	1.8	2.5
				2	29.3	8.1	22.4	9.0	135.4	1.2	2.7								
		Middle	6.4	1	27.2	8.3	29.1	5.6	84.6	1.4	2.6								
				2	27.2	8.3	29.1	5.7	84.4	1.4	2.4								
				1	26.9	8.3	30.1	5.5	81.9	3.0	2.1								
				2	26.9	8.3	30.2	5.5	81.9	2.8	2.3								
	TCE-WQM1	Misty	Moderate	11:23	6.8	Surface	1.0	1	30.2	8.5	20.5	11.1	166.9	3.1	3.2	10.1	4.3	2.8	
			2	30.2	8.5	20.5	11.1	166.5	3.1	3.5									
	Middle	3.4	1	29.7	8.4	22.0	9.0	135.5	4.0	2.9									
			2	29.7	8.4	22.0	9.0	135.5	4.1	2.7									
			1	28.8	8.2	24.6	6.5	96.5	5.6	2.5									
			2	28.8	8.2	24.6	6.4	96.5	5.7	2.2									
	TCE-WQM2a	Misty	Moderate	11:53	7.0	Surface	1.0	1	30.1	8.4	20.0	10.8	161.7	1.1	3.0	8.9	3.5	2.5	
			2	30.1	8.4	20.0	10.8	161.7	1.1	2.6									
	Middle	3.5	1	28.7	8.2	24.4	6.9	102.2	4.0	2.4									
			2	28.7	8.2	24.5	6.9	102.0	4.0	2.6									
			1	28.4	8.1	25.6	6.1	92.1	5.4	2.1									
			2	28.4	8.1	25.6	6.1	92.1	5.4	2.4									
TCE-WQM2b	Misty	Moderate	12:06	10.6	Surface	1.0	1	30.8	8.5	16.9	12.1	179.6	1.2	1.6	8.9	3.4	2.3		
		2	30.8	8.5	16.9	12.1	179.5	1.2	1.8										
Middle	5.3	1	27.9	8.3	27.1	5.8	86.3	3.7	2.2										
		2	27.9	8.3	27.1	5.8	86.3	3.7	2.6										
		1	27.5	8.2	28.5	5.6	83.7	5.3	3.0										
		2	27.5	8.2	28.5	5.7	83.8	5.3	2.7										
TCE-WQM3A	Misty	Moderate	11:45	3.6	Surface	1.0	1	30.0	8.6	19.1	11.5	171.4	1.1	3.1	11.5	1.2	2.9		
		2	30.1	8.6	19.1	11.5	171.2	1.1	3.3										
Bottom	2.6	1	30.0	8.6	19.4	11.0	163.8	1.2	2.6										
		2	30.0	8.6	19.4	11.0	163.6	1.2	2.7										
TCE-WQM4	Misty	Moderate	11:35	5.8	Surface	1.0	1	29.8	8.5	20.5	9.5	141.0	1.8	2.1	9.5	2.0	2.5		
		2	29.8	8.5	20.5	9.5	141.8	1.8	2.4										
Bottom	4.8	1	28.9	8.3	24.2	6.0	89.1	2.2	2.5										
		2	28.9	8.3	24.2	5.9	89.1	2.2	2.8										

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-28	Mid-Ebb	TCE-C1	Misty	Moderate	10:42	9.2	Surface	1.0	1	30.4	8.1	22.2	6.4	97.8	2.4	5.4	5.3	3.5	6.0
									2	30.4	8.1	22.2	6.4	97.4	2.6	6.3			
							Middle	4.6	1	28.7	8.0	25.9	4.3	64.9	3.2	5.2			
							Bottom	8.2	1	27.2	7.9	29.5	3.0	45.3	4.7	6.2			
				2	27.2	7.9	29.5	3.0	45.5	4.7	6.6								
		TCE-C2	Misty	Moderate	9:08	14.0	Surface	1.0	1	29.5	8.0	23.6	7.2	109.1	0.2	4.8	6.2	1.1	4.6
									2	29.5	8.0	23.7	7.2	108.9	0.2	4.9			
							Middle	7.0	1	28.0	8.1	27.2	5.1	77.2	0.7	4.5			
							Bottom	13.0	1	26.9	8.1	29.9	4.3	63.7	2.4	4.4			
				2	26.9	8.1	29.7	4.3	63.9	2.5	4.9								
		TCE-WQM1	Misty	Moderate	10:26	9.0	Surface	1.0	1	30.2	8.1	22.5	6.5	99.4	3.2	2.8	5.9	4.1	4.2
									2	30.2	8.1	22.5	6.5	99.4	3.2	3.3			
	Middle						4.5	1	29.5	8.0	24.5	5.3	81.6	4.1	5.0				
	Bottom						8.0	1	27.1	8.0	29.8	3.0	44.8	5.1	4.8				
			2	27.1	8.0	29.8	3.0	45.0	5.1	4.6									
	TCE-WQM2a	Misty	Moderate	9:49	8.2	Surface	1.0	1	28.9	8.1	25.0	6.9	104.0	0.5	5.4	5.9	1.3	4.5	
								2	28.9	8.1	25.0	6.9	104.0	0.5	4.2				
						Middle	4.1	1	28.3	8.0	26.5	4.9	73.9	1.2	4.7				
						Bottom	7.2	1	27.6	7.9	28.1	3.8	57.5	2.0	3.5				
			2	27.6	7.9	28.1	3.8	57.4	2.0	3.6									
	TCE-WQM2b	Misty	Moderate	9:37	11.8	Surface	1.0	1	29.5	8.2	23.9	6.9	105.6	5.0	6.2	5.4	6.1	4.0	
								2	29.5	8.2	23.9	6.9	105.4	5.1	5.0				
						Middle	5.9	1	27.4	8.0	28.6	3.8	57.9	6.0	2.7				
						Bottom	10.8	1	27.1	8.0	29.4	3.9	59.1	7.1	3.1				
		2	27.1	8.0	29.3	4.0	60.5	7.1	3.6										
TCE-WQM3A	Misty	Moderate	10:00	4.6	Surface	1.0	1	29.7	8.1	22.7	6.8	103.3	2.3	2.4	6.8	3.1	2.8		
							2	29.8	8.1	22.7	6.8	103.5	2.3	2.5					
					Bottom	3.6	1	30.0	8.1	22.7	6.7	102.1	3.9	3.3					
							2	30.0	8.1	22.8	6.7	101.9	4.0	2.8					
TCE-WQM4	Misty	Moderate	10:10	4.2	Surface	1.0	1	30.3	8.2	22.1	6.8	103.9	3.2	4.9	6.8	4.3	5.1		
							2	30.3	8.2	22.1	6.8	103.8	3.2	4.5					
					Bottom	3.2	1	27.7	7.9	28.3	3.3	49.2	5.4	4.9					
							2	27.7	7.9	28.3	3.3	49.4	5.5	6.0					
2023-07-28	Mid-Flood	TCE-C1	Misty	Moderate	14:48	9.8	Surface	1.0	1	30.4	8.1	22.1	6.6	100.8	1.9	4.8	6.0	2.7	4.6
									2	30.4	8.1	22.1	6.6	100.4	1.9	4.1			
							Middle	4.9	1	29.7	8.1	23.7	5.5	82.0	2.3	5.2			
							Bottom	8.8	1	27.2	7.9	29.7	3.5	52.6	3.8	5.5			
				2	27.2	7.9	29.7	3.7	54.2	3.9	4.2								
		TCE-C2	Misty	Moderate	16:11	11.8	Surface	1.0	1	29.0	8.1	24.9	6.4	96.9	0.5	6.0	5.8	1.3	4.6
									2	28.9	8.1	25.0	6.4	96.7	0.6	4.6			
							Middle	5.9	1	28.2	8.0	26.5	5.2	78.6	1.3	4.4			
							Bottom	10.8	1	27.5	8.0	28.3	4.5	67.2	2.0	3.7			
				2	27.5	8.0	28.3	4.5	67.3	2.0	4.2								
		TCE-WQM1	Misty	Moderate	15:06	7.0	Surface	1.0	1	29.7	8.0	23.3	5.7	84.6	1.6	4.7	4.8	3.2	4.9
									2	29.7	8.0	23.3	5.6	84.5	1.6	4.2			
	Middle						3.5	1	28.2	8.0	26.7	4.1	60.3	3.6	5.2				
	Bottom						6.0	1	27.2	8.0	29.5	2.9	42.9	4.6	4.9				
			2	27.2	8.0	29.5	2.9	43.0	4.5	5.0									
	TCE-WQM2a	Misty	Moderate	15:35	7.2	Surface	1.0	1	29.4	8.1	24.2	6.8	103.1	0.8	5.1	6.4	1.7	5.2	
								2	29.4	8.1	24.2	6.8	103.1	0.8	4.4				
						Middle	3.6	1	28.7	8.1	25.6	6.0	91.1	1.3	4.6				
						Bottom	6.2	1	28.7	8.1	25.6	6.0	90.9	1.3	5.8				
			2	28.1	7.9	27.1	4.1	62.4	3.1	4.8									
	TCE-WQM2b	Misty	Moderate	15:50	10.2	Surface	1.0	1	29.5	8.2	23.7	7.3	110.7	2.1	5.2	5.7	3.4	5.3	
								2	29.5	8.2	23.7	7.3	110.5	2.1	5.4				
						Middle	5.1	1	27.6	8.0	28.2	4.1	62.3	3.7	5.2				
						Bottom	9.2	1	26.8	8.0	29.9	3.6	53.6	4.6	5.0				
		2	26.8	8.0	29.9	3.6	53.8	4.5	4.9										
TCE-WQM3A	Misty	Moderate	15:27	4.0	Surface	1.0	1	30.3	8.2	22.4	6.8	104.4	1.9	3.8	6.8	2.2	4.4		
							2	30.3	8.2	22.4	6.8	104.3	1.9	4.6					
					Bottom	3.0	1	29.9	8.2	23.0	6.7	101.9	2.6	5.0					
							2	29.9	8.1	23.0	6.7	102.1	2.6	4.0					
TCE-WQM4	Misty	Moderate	15:18	4.8	Surface	1.0	1	30.0	8.2	22.7	6.7	101.7	0.6	3.6	6.7	1.4	4.1		
							2	30.0	8.2	22.8	6.6	101.4	0.6	3.7					
					Bottom	3.8	1	27.5	7.9	28.9	3.0	44.2	2.2	4.0					
							2	27.4	7.9	29.0	2.9	43.5	2.2	5.0					

Date	Tide	Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Water Level	Sampling depth (m)	Replicate	Water Temperature (°C)	pH	Salinity (ppt)	Dissolved Oxygen (DO) (mg/L)	DO Saturation (%)	Turbidity (NTU)	Suspended Solids (SS) (mg/L)	Depth-averaged		
																	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
2023-07-31	Mid-Ebb	TCE-C1	Fine	Moderate	10:11	8.5	Surface	1.0	1	29.3	8.1	26.9	5.9	89.4	5.1	7.2	5.0	8.0	7.6
									2	29.3	8.1	26.9	5.9	88.8	5.6	7.4			
							Middle	4.3	1	27.2	8.1	28.1	4.1	60.2	8.9	7.6			
							Bottom	7.5	1	27.2	8.1	28.1	4.1	60.2	9.0	7.7			
				2	27.1	8.1	30.8	3.8	57.4	10.0	7.9								
				2	27.1	8.1	30.8	3.8	57.5	9.6	7.6								
		TCE-C2	Fine	Moderate	12:15	14.2	Surface	1.0	1	28.8	8.1	27.2	5.6	84.7	6.3	9.0	5.4	6.9	8.5
									2	28.8	8.1	27.2	5.6	84.8	6.3	9.3			
							Middle	7.1	1	28.5	8.1	29.6	5.1	77.6	7.0	8.7			
							Bottom	13.2	1	28.4	8.1	29.6	5.1	77.5	7.0	8.3			
				2	28.3	8.0	30.2	5.1	76.7	7.3	7.8								
				2	28.3	8.0	30.2	5.1	77.0	7.3	8.1								
	TCE-WQM1	Fine	Moderate	11:02	8.3	Surface	1.0	1	29.2	8.0	25.2	5.5	82.3	6.9	6.0	5.2	8.4	6.4	
								2	29.2	8.0	25.2	5.5	82.1	7.0	5.3				
						Middle	4.2	1	28.9	8.0	25.9	5.0	74.3	8.5	6.6				
						Bottom	7.3	1	28.8	8.0	25.9	5.0	74.2	8.6	6.3				
			2	28.7	8.0	26.2	4.9	73.5	10.1	7.0									
			2	28.7	8.0	26.2	4.9	73.6	9.4	7.4									
	TCE-WQM2a	Fine	Moderate	11:32	7.5	Surface	1.0	1	29.0	8.0	26.8	5.7	85.4	3.7	6.2	5.4	4.2	7.2	
								2	29.0	8.0	26.8	5.7	85.4	3.7	6.7				
						Middle	3.8	1	28.6	8.0	29.7	5.1	78.0	4.5	6.9				
						Bottom	6.5	1	28.6	8.0	29.8	5.1	78.0	4.4	7.2				
			2	28.4	8.0	30.1	4.5	68.9	4.5	8.4									
			2	28.4	8.0	30.1	4.5	68.8	4.6	8.0									
TCE-WQM2b	Fine	Moderate	11:41	10.8	Surface	1.0	1	28.9	8.0	27.7	5.5	83.8	5.0	6.9	5.1	6.9	7.8		
							2	28.9	8.0	27.8	5.5	83.8	5.6	6.5					
					Middle	5.4	1	28.1	8.1	28.1	4.6	68.8	6.8	7.7					
					Bottom	9.8	1	28.1	8.1	28.2	4.6	68.7	7.2	8.0					
		2	27.8	8.1	30.2	4.5	67.9	8.4	8.6										
		2	27.8	8.1	30.8	4.5	67.9	8.3	9.0										
TCE-WQM3A	Fine	Moderate	11:21	4.4	Surface	1.0	1	28.7	8.0	25.0	6.0	89.0	6.6	6.6	6.0	7.0	7.2		
							2	28.7	8.0	25.0	6.0	88.8	6.7	6.1					
					Bottom	3.4	1	28.5	8.0	26.7	5.0	74.2	7.4	8.3					
		2	28.5	8.0	26.7	5.0	74.2	7.4	7.9										
TCE-WQM4	Fine	Moderate	11:13	3.5	Surface	1.0	1	29.8	7.9	23.9	5.9	88.1	3.3	7.0	5.9	3.4	7.4		
							2	29.8	7.9	23.9	5.9	88.1	3.4	7.2					
					Bottom	2.5	1	29.8	7.9	23.9	5.7	86.3	3.5	7.9					
		2	29.8	7.9	23.9	5.7	86.4	3.5	7.5										
2023-07-31	Mid-Flood	TCE-C1	Cloudy	Moderate	5:36	8.4	Surface	1.0	1	28.3	8.1	27.0	5.2	77.4	6.0	6.6	4.5	7.0	7.1
									2	28.3	8.1	27.0	5.2	77.4	6.3	6.2			
							Middle	4.2	1	26.6	8.1	29.5	3.9	57.6	6.6	7.0			
							Bottom	7.4	1	26.5	8.1	29.5	3.9	57.5	7.3	7.2			
				2	26.2	8.1	30.3	3.5	51.7	7.8	8.0								
				2	26.2	8.1	30.2	3.5	51.9	7.8	7.6								
		TCE-C2	Rainy	Moderate	3:17	13.8	Surface	1.0	1	27.6	8.0	25.2	4.9	71.7	4.0	5.5	4.4	4.5	4.7
									2	27.6	8.0	25.2	4.9	71.6	4.1	5.2			
							Middle	6.9	1	26.0	8.0	27.5	4.0	57.0	4.3	5.1			
							Bottom	12.8	1	25.9	8.0	27.6	4.0	56.8	4.4	4.7			
				2	25.7	8.0	29.7	3.9	56.1	5.0	4.0								
				2	25.7	8.0	29.6	3.9	56.2	5.0	3.8								
	TCE-WQM1	Cloudy	Moderate	4:44	8.1	Surface	1.0	1	28.2	8.0	26.7	4.9	73.5	6.7	4.5	4.9	7.0	5.3	
								2	28.2	8.0	26.7	4.9	73.2	7.0	4.5				
						Middle	4.1	1	27.9	8.0	27.3	4.8	71.3	5.8	5.5				
						Bottom	7.1	1	27.9	8.0	27.3	4.8	71.2	6.0	5.1				
			2	27.8	8.0	27.6	4.8	70.8	8.2	6.1									
			2	27.8	8.0	27.6	4.8	70.9	8.2	5.8									
	TCE-WQM2a	Cloudy	Moderate	4:11	7.5	Surface	1.0	1	28.0	8.1	26.2	4.5	66.5	2.8	6.3	4.3	3.4	5.8	
								2	28.0	8.1	26.2	4.5	66.5	2.8	6.5				
						Middle	3.8	1	26.8	8.1	28.9	4.1	60.5	3.2	5.9				
						Bottom	6.5	1	26.8	8.1	28.9	4.1	60.5	3.2	5.6				
			2	26.6	8.1	29.7	3.8	56.2	4.3	5.1									
			2	26.6	8.1	29.7	3.8	56.2	4.3	5.4									
TCE-WQM2b	Cloudy	Moderate	3:57	10.8	Surface	1.0	1	28.1	8.0	26.4	4.9	73.1	2.5	6.0	4.6	4.9	5.4		
							2	28.1	8.0	26.4	4.9	73.0	2.6	5.8					
					Middle	5.4	1	27.7	8.1	27.6	4.4	64.8	5.1	5.5					
					Bottom	9.8	1	27.7	8.1	27.6	4.4	64.7	5.3	5.2					
		2	26.0	8.2	28.9	3.9	56.0	7.0	5.0										
		2	26.0	8.2	28.9	3.9	56.1	6.8	4.6										
TCE-WQM3A	Cloudy	Moderate	4:22	4.6	Surface	1.0	1	28.3	8.0	24.5	5.0	73.3	3.3	5.0	5.0	3.7	6.1		
							2	28.3	8.0	24.5	5.0	73.1	3.4	5.4					
					Bottom	3.6	1	28.1	8.0	25.1	5.0	72.9	4.0	7.2					
		2	28.1	8.0	25.1	5.0	72.9	4.0	6.9										
TCE-WQM4	Cloudy	Moderate	4:32	3.6	Surface	1.0	1	28.4	8.1	24.6	5.4	79.8	2.6	5.3	5.4	2.8	5.3		
							2	28.4	8.1	24.7	5.3	78.8	2.7	5.4					
					Bottom	2.6	1	28.3	8.1	24.9	5.0	73.8	2.9	5.3					
		2	28.3	8.1	24.9	5.0	73.7	2.9	5.2										

Annex G4

## Event and Action Plan for Water Quality



*Annex G4 Event and Action Plan for Water Quality*

<b>Event</b>	<b>ET</b>	<b>IEC</b>	<b>Action ER</b>	<b>Contractor</b>
Action level exceedance for one sampling day	<ol style="list-style-type: none"> <li>1. Inform IEC, Contractor and ER;</li> <li>2. Check monitoring data, all plant, equipment and Contractor's working methods; and</li> <li>3. Discuss remedial measures with IEC and Contractor and ER.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, ER and Contractor on the implemented mitigation measures;</li> <li>2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC, ET and Contractor on the implemented mitigation measures;</li> <li>2. Make agreement on the remedial measures to be implemented;</li> <li>3. Supervise the implementation of agreed remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Check all plant and equipment;</li> <li>5. Consider changes of working methods;</li> <li>6. Discuss with ER, ET and IEC and purpose remedial measures to IEC and ER; and</li> <li>7. Implement the agreed mitigation measures.</li> </ol>
Action level exceedance for more than one consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement on next day of exceedance to confirm findings;</li> <li>2. Inform IEC, contractor and ER;</li> <li>3. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>4. Discuss remedial measures with IEC, contractor and ER</li> <li>5. Ensure remedial measures are implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</li> <li>2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, IEC and Contractor on the proposed mitigation measures;</li> <li>2. Make agreement on the remedial measures to be implemented ; and</li> <li>3. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Check all plant and equipment and consider changes of working methods;</li> <li>5. Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and</li> <li>6. Implement the agreed mitigation measures.</li> </ol>

Event	Action			
	ET	IEC	ER	Contractor
Limit level exceedance for one sampling day	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Inform IEC, contractor and ER;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Consider changes of working methods;</li> <li>6. Discuss mitigation measures with IEC, ER and Contractor; and</li> <li>7. Ensure the agreed remedial measures are implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</li> <li>2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, IEC and Contractor on the implemented remedial measures;</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the remedial measures to be implemented; and</li> <li>4. Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Check all plant and equipment and consider changes of working methods;</li> <li>5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and</li> <li>6. Implement the agreed remedial measures.</li> </ol>
Limit level exceedance for more than one consecutive sampling days	<ol style="list-style-type: none"> <li>1. Inform IEC, contractor and ER;</li> <li>2. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>3. Discuss mitigation measures with IEC, ER and Contractor; and</li> <li>4. Ensure mitigation measures are implemented; and</li> <li>5. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, Contractor and ER on the implemented mitigation measures;</li> <li>2. Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and</li> <li>3. Review and advise the ET and ER on the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with ET, IEC and Contractor on the implemented remedial measures;</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the remedial measures to be implemented;</li> <li>4. Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and</li> <li>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Inform the ER and confirm notification of the non-compliance in writing;</li> <li>3. Rectify unacceptable practice;</li> <li>4. Check all plant and equipment and consider changes of working methods;</li> <li>5. Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; and</li> <li>6. Implement the agreed remedial measures.</li> <li>7. As directed by the ER, to slow down or stop all or part of the dredging activities until no exceedance of Limit level.</li> </ol>