MOTT MACDONALD

Agreement No. CE 59/2020 (EP) Environmental Monitoring and Audit for Disposal Facility to the East of Sha Chau (2021-2026) - Investigation

Monthly EM&A Report for
Contaminated Mud Pits to the East of Sha Chau
– April 2021

May 2021

Mott MacDonald
3/F International Trade Tower
348 Kwun Tong Road
Kwun Tong
Kowloon
Hong Kong

T +852 2828 5757
mottmac.hk

Civil Engineering and Development Department
Fill Management Division
5/F, Civil Engineering and Development Building
101 Princess Margaret Road
Homantin, Kowloon

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Mott MacDonald Hong Kong Limited
registered in Hong Kong no. 236497

土木工程拓展署
Civil Engineering and Development Department

MOTT MACDONALD

Dredging, Management and Capping of Contaminated Sediment Disposal Facility at Sha Chau

Environmental Certification Sheet

Environmental Permit No. EP-312/2008/A

Reference Document /Plan

Document/~~Plan~~ to be ~~Certified~~/ Verified:	Monthly EM&A Report for Contaminated Mud Pits to the East of Sha Chau - April 2021
Date of Report:	13 May 2021
Date prepared by ET:	13 May 2021
Date received by IA:	13 May 2021

Reference EP Condition

Environmental Permit Condition:

Condition 3.4 of EP-312/2008/A:
4 hard copies and 1 electronic copy of monthly EM&A Report shall be submitted to the Director within 10 working days after the end of the reporting month. The EM&A Reports shall include a summary of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels). The submissions shall be verified by the Independent Auditor. Additional copies of the submission shall be provided to the Director upon request by the Director.

ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-312/2008/A.

Ir Thomas Chan,
Environmental Team Leader(ETL): Date: 13 May 2021

IA Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-312/2008/A.

Dr Wang Wen Xiong,
Independent Auditor (IA): Date: 13 May 2021

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
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1 Introduction

1.1 Background

The Civil Engineering and Development Department (CEDD) is managing a number of marine disposal facilities in Hong Kong waters, including the Contaminated Mud Pits (CMPs) to the South of The Brothers (SB) and to the East of Sha Chau (ESC) for the disposal of contaminated sediment, and open-sea disposal grounds located to the South of Cheung Chau (SCC), East of Tung Lung Chau (ETLC) and East of Ninepins (ENP) for the disposal of uncontaminated sediment. Two Environmental Permits (EPs), EP-312/2008/A and EP-427/2011/A, were issued by the Environmental Protection Department (EPD) to the CEDD, the Permit Holder, on 28 November 2008 and 23 December 2011 for the Dredging, Management and Capping of Contaminated Sediment Disposal Facilities at ESC CMP V and SB CMPs, respectively.

Under the requirements of the two EPs for ESC CMP V and SB CMPs, EM&A programmes which encompass water and sediment chemistry, fisheries assessment, tissue and whole body analysis, sediment toxicity and benthic recolonisation studies as set out in the EM&A Manuals are required to be implemented. EM&A programmes have been continuously carried out during the operation of the CMPs at ESC and SB. A review of the collection and analysis of such environmental data from the monitoring programme demonstrated that there had not been any adverse environmental impacts resulting from disposal activities.[1,2] The current programme will assess the impacts resulting from dredging, disposal and capping operations of CMP V as well as capping operations of SB CMPs.

A proposal on the change of number of sample replication of water quality & sediment monitoring and combination of routine water quality monitoring and water quality monitoring during capping operation was submitted to EPD and agreed by EPD on 3 December 2020. The proposed changes have been effective for the EM&A activities since December 2020. The latest sampling schedule is provided in **Appendix A**.

The present EM&A programme under Agreement No. CE 59/2020 (EP) covers the dredging, disposal and capping operations of the ESC CMP V (see **Appendix A** for the EM&A programme.) Detailed works schedule for ESC CMP V is shown in **Table 1.1**. In April 2021, the following works were undertaken:

- Disposal of contaminated mud at ESC CMP Vb; and
- Capping operations at ESC CMP Vd.

Table 1.1: Works Schedule for ESC CMP V

Pit	Operation	2017								2018												2019												2020												2021			
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
ESC CMP V	Dredging																																															
	Disposal																																																
	Capping																																																

[1] ERM (2013) Final Report. Submitted under Agreement No. CE 4/2009 (EP) Environmental Monitoring and Audit for Contaminated Mud Pit at East Sha Chau. For CEDD.

[2] ERM (2017) Final Report. Submitted under Agreement No. CE 23/2012 (EP) Environmental Monitoring and Audit for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau (2012 - 2017). For CEDD.

1.2 Reporting Period

This *Monthly EM&A Report for Contaminated Mud Pits to the East of Sha Chau – April 2021* covers the EM&A activities for the reporting period of April 2021 (from 1 to 30 April 2021).

1.3 Details of Sampling and Laboratory Testing Activities

The following monitoring activities were undertaken for ESC CMP V during the reporting period:

- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs; and
- Pit Specific Sediment Chemistry of ESC CMP Vb.

2 Brief Discussion of Monitoring Results for ESC CMP V

2.1 Introduction

This section presents a brief discussion of the results obtained from the following monitoring activities for ESC CMP V during the reporting period:

- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs; and
- Pit Specific Sediment Chemistry of ESC CMP Vb.

2.2 Water Column Profiling of ESC CMP Vb – in April 2021

Water Column Profiling was undertaken at a total of two sampling stations (Upstream and Downstream stations) on 13 April 2021. The monitoring results have been assessed for compliance with the Water Quality Objectives (WQOs) set by Environmental Protection Department (EPD). This consists of a review of the EPD routine water quality monitoring data for the wet season period (April to October) of 2010 – 2019 from stations in the North Western Water Control Zone (WCZ), where the ESC CMPs are located.[3] For Salinity, the averaged value obtained from the Reference (Upstream) station was used for the basis as the WQO. Levels of Dissolved Oxygen (DO) and Turbidity were also assessed for compliance with the Action and Limit Levels (see **Table B1** of **Appendix B** for details).

2.2.1 In-situ Measurements

Analyses of results for April 2021 indicated that levels of Salinity, pH and DO complied with the WQOs at both Downstream and Upstream stations (**Table B2** of **Appendix B**). Levels of DO and Turbidity at all stations complied with the Action and Limit Levels (**Tables B1 and B2** of **Appendix B**).

2.2.2 Laboratory Measurements for Suspended Solids (SS)

Analyses of results for April 2021 indicated that the SS levels at both Downstream and Upstream stations complied with the WQO and the Action and Limit Levels (**Tables B1 and B2** of **Appendix B**).

Overall, the monitoring results indicated that the mud disposal operation at ESC CMP Vb did not appear to cause any deterioration in water quality during this reporting period.

2.3 Routine Water Quality Monitoring of ESC CMPs – in April 2021

Routine Water Quality Monitoring of ESC CMPs was undertaken on 8 April 2021. The monitoring results have been assessed for compliance with the WQOs (see **Section 2.2** above for details). The monitoring results are shown in **Tables B3 and B4** of **Appendix B** and **Figures 1 to 10** of **Appendix C**. A total of sixteen (16) monitoring stations were sampled in April 2021 as shown in **Figure 2.1**.

[3] http://epic.epd.gov.hk/EPICRIVER/marine/?lang=en

2.3.1 In-situ Measurements

Graphical presentation of the monitoring results (Temperature, DO, pH, Salinity and Turbidity) is shown in **Figures 1 to 6** of **Appendix C**. Analyses of results indicated that the levels of pH, Salinity and DO complied with the WQOs at most stations during the reporting period, except for higher levels of Salinity were recorded at Ma Wan station. The higher Salinities recorded at Ma Wan station are likely to be caused by the larger separation distance to Pearl River Delta mouth, which releases a large amount of freshwater runoff in the area during wet season, when compared to the Reference stations.

The levels of DO and Turbidity complied with the Action and Limit Levels at all stations (**Table B3** of **Appendix B**; **Figures 3 and 6** of **Appendix C**).

Overall, in-situ measurement results of the Routine Water Quality Monitoring indicated that the disposal and capping operation at ESC CMPs did not appear to cause any unacceptable impacts in water quality in April 2021.

2.3.2 Laboratory Measurements

Laboratory analysis of samples obtained during the reporting period indicated that the concentrations of Arsenic, Chromium, Copper, Lead, Nickel and Zinc were detected in the samples at all stations and their concentrations were generally similar across stations, except the concentrations of Zinc were higher at Intermediate Station (**Table B4** of **Appendix B**; **Figure 7** of **Appendix C**).

For nutrients, concentrations of Total Inorganic Nitrogen (TIN) at all stations complied with the WQO (0.5 mg/L) (**Table B4** of **Appendix B**; **Figure 8** of **Appendix C**). The concentrations of Ammonia Nitrogen (NH_3-N) were higher at Ma Wan station that the other stations in the reporting month (**Table B4** of **Appendix B**; **Figure 8** of **Appendix C**). The concentrations of Biochemical Oxygen Demand (BOD5) were generally similar across stations (**Table B4** of **Appendix B**; **Figure 9** of **Appendix C**).

Analyses of results for the reporting period indicated that the SS levels at all stations complied with the wet season WQO (11.8 mg/L) and the Action and Limit Levels (**Tables B1 and B4** of **Appendix B**; **Figure 10** of **Appendix C**).

Overall, results of the Routine Water Quality Monitoring indicated that the disposal and capping operation at ESC CMPs did not appear to cause any unacceptable deterioration in water quality during the reporting period. Detailed statistical analysis will be presented in the Quarterly Report to investigate any spatial and temporal trends of potential concern.

2.4 Pit Specific Sediment Chemistry of ESC CMP Vb – in April 2021

Monitoring locations for Pit Specific Sediment Chemistry for ESC CMP Vb are shown in **Figure 2.2**. A total of six (6) monitoring stations were sampled on 12 April 2021.

The concentrations of most inorganic contaminants were lower than the Lower Chemical Exceedance Levels (LCELs), except for Arsenic (**Figures 11 and 12** of **Appendix C**). The concentrations of Arsenic were higher than the LCEL at Pit-Edge station ESC-NECA and Active-Pit station ESC-NPCA.

Whilst the average concentration of Arsenic in the Earth's crust is generally ~2mg/kg, significantly higher Arsenic concentrations (median = 14 mg/kg) have been recorded in Hong Kong's onshore sediments.[4] It is presumed that the natural concentrations of Arsenic are similar in onshore and

[4] Sewell RJ (1999) Geochemical Atlas of Hong Kong. Geotechnical Engineering Office, Government of the Hong Kong Special Administrative Region

offshore sediments,[5] and relatively high Arsenic levels may thus occur throughout Hong Kong. Therefore, the LECL exceedances of Arsenic are unlikely to be caused by the disposal operations at ESC CMP Vb but rather as a result of naturally occurring deposits.

For organic contaminants, the concentrations of Total Organic Carbon (TOC) were higher at Active-Pit stations ESC-NPCA and ESC-NPCB during the reporting period (**Figure 13** of **Appendix C**). The concentrations of Low Molecular Weight and High Molecular Weight Polycyclic Aromatic Hydrocarbons (PAHs) were lower than the LECLs at all stations (**Figure 14** of **Appendix C**). The concentrations of Tributyltin (TBT) were higher at Active-Pit station ESC-NPCB (**Figure 15** of **Appendix C**). The concentrations of Total Polychlorinated Biphenyls (PCBs), Total dichloro-diphenyl-trichloroethane (DDT) and 4,4'-dichlorodiphenyldichloroethylene (DDE) were below the limit of reporting at all stations during the reporting period.

Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality outside the pit area as a result of the contaminated mud disposal operations at ESC CMP Vb during the reporting period.

Statistical analysis will be undertaken and presented in the corresponding quarterly report to investigate whether there are any unacceptable impacts in the area caused by the contaminated mud disposal.

[5] Whiteside PGD (2000) Natural geochemistry and contamination of marine sediments in Hong Kong. In: The Urban Geology of Hong Kong (ed Page A & Reels SJ). Geological Society of Hong Kong Bulletin No. 6, p109-121

3 Future Key Issues

3.1 Activities Scheduled for the Next Reporting Period

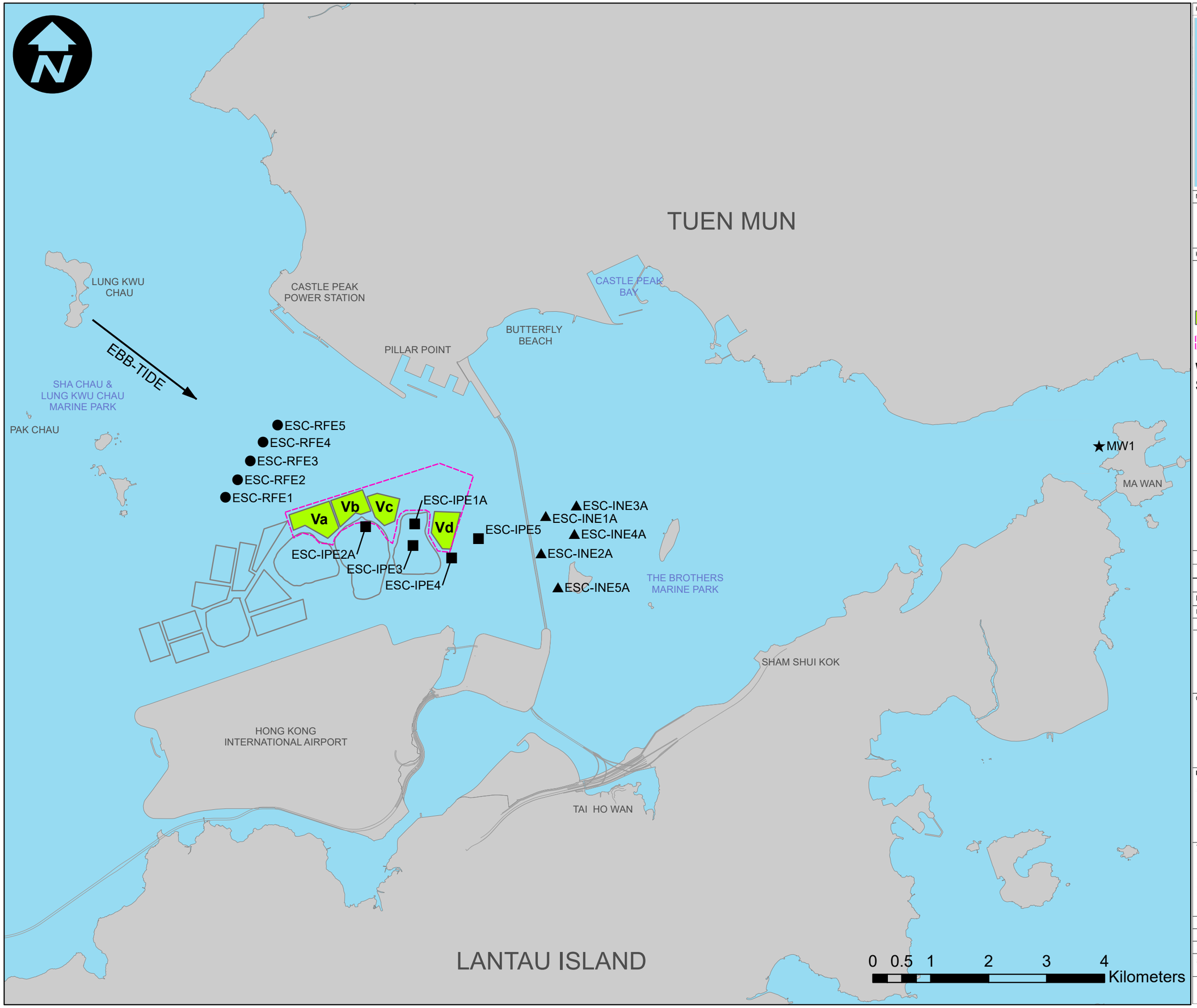
The following monitoring activities will be conducted in the next reporting period of May 2021 for ESC CMP V (see **Appendix A** for the sampling schedule):

- Water Column Profiling of ESC CMP Vb;
- Routine Water Quality Monitoring of ESC CMPs; and
- Pit Specific Sediment Chemistry of ESC CMP Vb.

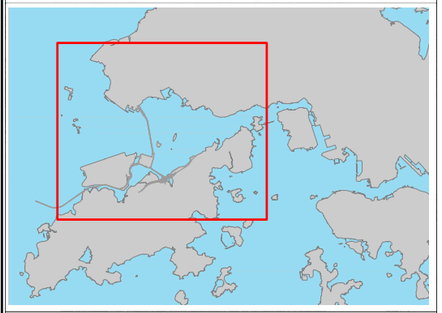
3.2 Study Programme

A summary of the Study Programme is presented in **Appendix D**.

Figures



Key Plan:



Notes:

Key to symbols:

LEGEND

- ESC CMP V
- ESC USABLE AREA 1

WATER QUALITY SAMPLING STATIONS

- ■ IMPACT STATION
- ▲ INTERMEDIATE STATION
- ● REFERENCE STATION
- ★ MA WAN STATION

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	APR 2021	KN			

MOTT MACDONALD
3/F International Trade Tower
348 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
T +852 2828 5757
F +852 2821823
W mottmac.com

Client

CEDD 土木工程拓展署 Civil Engineering and Development Department

Project

AGREEMENT NO. CE 59/2020 (EP)
ENVIRONMENTAL MONITORING AND AUDIT FOR DISPOSAL FACILITY TO THE EAST OF SHA CHAU (2021-2026) – INVESTIGATION

Title

ROUTINE & CAPPING WATER QUALITY SAMPLING STATIONS (EBB-TIDE) FOR ESC CMPS

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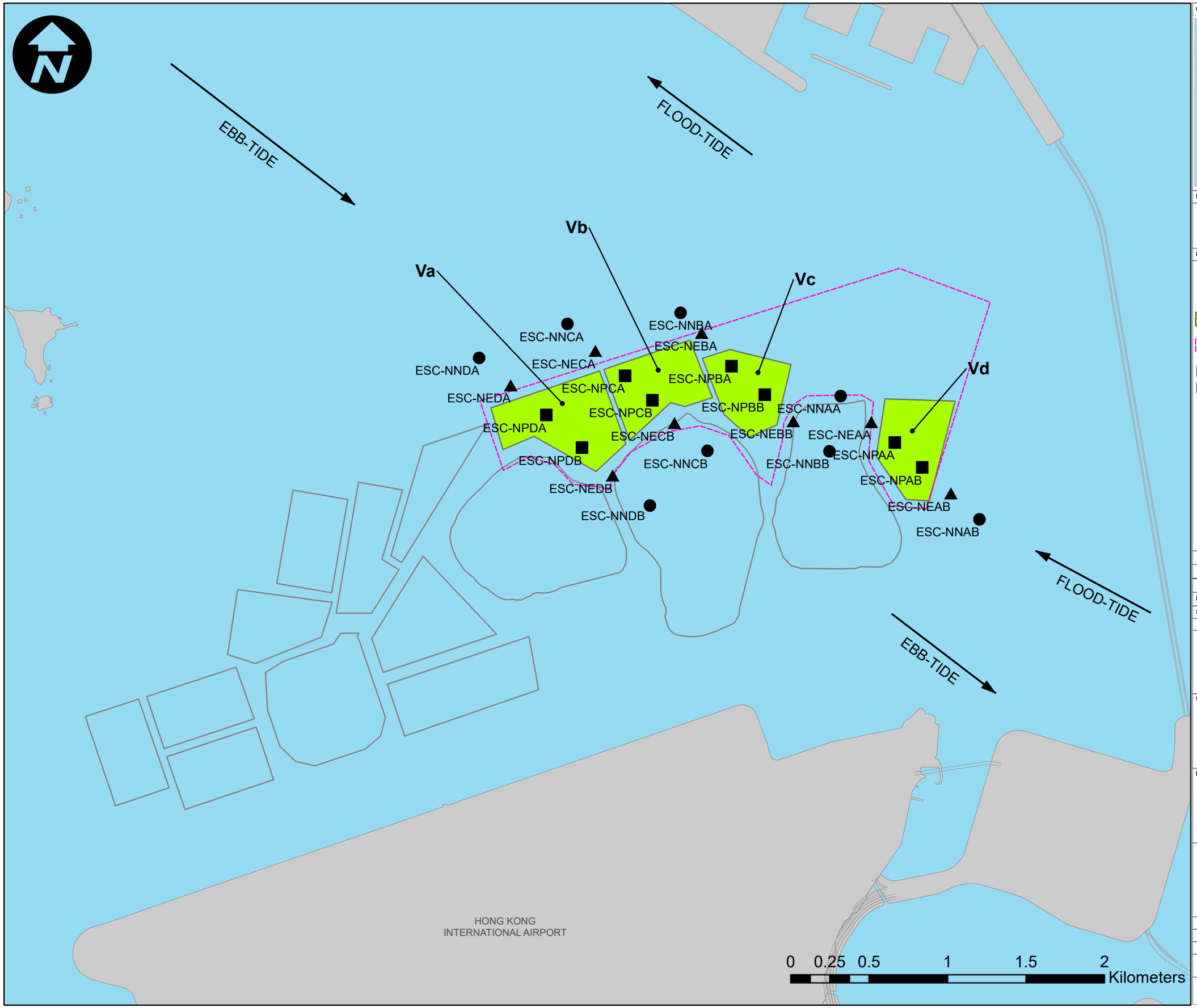
Drawn			Coordination		
Dwg check			Approved		
Scale at A3		Status		Rev	

Drawing Number

FIGURE 2.1



Key Plan:

Notes:

Key to symbols:

LEGEND

- ESC CMP V
- ESC USABLE AREA 1

PIT SPECIFIC SEDIMENT MONITORING STATIONS

- ACTIVE-PIT STATION
- PIT-EDGE STATION
- NEAR-PIT STATION

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	APR 2021	KN			

MOTT MACDONALD

3/F International Trade Tower
348 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
T +852 2828 5757
F +852 2821823
W mottmac.com

Client

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Title

PIT SPECIFIC SEDIMENT QUALITY MONITORING STATIONS FOR CMP V

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Dwg check			Approved		
Scale at A3		Status		Rev	

Drawing Number

FIGURE 2.2

Appendices

A. Sampling Schedule
B. Water Quality Monitoring Results
C. Graphical Presentations
D. Study Programme

A. Sampling Schedule

East of Sha Chau CMPs
Environmental Monitoring and Audit Sampling Schedule
(January 2021 - March 2026)

| Parameter / Station Type | Station ID | Frequency | 2021 | | | | | | | | | | | | 2022 | | | | | | | | | | | | 2023 | | | | | | | | | | | | 2024 | | | | | | | | | | | | 2025 | | | | | | | | | | | | 2026 | | |
|---|---|---

B. Water Quality Monitoring Results

Table B1: Action and Limit Levels of Water Quality for Dredging, Disposal and Capping Activities at ESC CMP V

Parameters	Action	Limit
Dissolved Oxygen (DO) in mg L^{-1} (Surface, Middle & Bottom)[1]	**Surface and Middle Depth**[2]	**Surface and Middle Depth**[2]
	5%-ile of baseline data for surface and middle layer = **3.76**	1%-ile of baseline data for surface and middle layer = **3.11** [3]
	and	and
	Significantly less than the reference station's mean DO (at the same tide of the same day)	Significantly less than the reference station's mean DO (at the same tide of the same day)
	Bottom	**Bottom**
	5%-ile of baseline data for surface and middle layer = **2.96**	The average of the impact station readings are **< 2**
	and	and
	Significantly less than the reference station's mean DO (at the same tide of the same day)	Significantly less than the reference station's mean DO (at the same tide of the same day)
Suspended Solids (SS) in mg L^{-1} (depth-averaged)[4][5]	95%-ile of baseline data for depth-averaged = **37.88**	99%-ile of baseline data for depth-averaged = **61.92**
	and	and
	120% of control station's SS at the same tide of the same day	130% of control station's SS at the same tide of the same day
Turbidity in NTU (depth-averaged)[4][5]	95%-ile of baseline data = **28.14**	99%-ile of baseline data = **38.32**
	and	and
	120% of control station's Turbidity at the same tide of the same day	130% of control station's Turbidity at the same tide of the same day

Notes:

1. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
2. Action and Limit Levels for DO for Surface and Middle layers were calculated from the combined pool of baseline surface layer data and baseline middle layer data.
3. Given the Action Level for DO for Surface and Middle layers has already been lower than 4 mg L^{-1}, it is proposed to set the Limit Level at 3.11 mg L^{-1} which is the first percentile of the baseline data.
4. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
5. For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

Table B2: Water Column Profiling Results for ESC CMP Vb in April 2021

Station	Temp. (°C)	Salinity (ppt)	Turbidity (NTU)	Dissolved Oxygen (%)	Dissolved Oxygen (mg L^{-1})	pH	Suspended Solids (mg L^{-1})
WCP 1 (Downstream)	24.74	29.69	7.16	100.43	7.04	8.13	7.7
WCP 2 (Upstream)	25.02	29.19	21.41	105.25	7.37	8.09	10.6
WQO (Wet Season)	N/A	26.27 – 32.1[#]	N/A	N/A	>4	6.5 – 8.5	11.8

Notes:
1. [#] Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.
2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
3. Cell shaded grey indicates value exceeding the WQO.

Table B3: In-situ Monitoring Results for Routine Water Quality Monitoring of ESC CMPs in April 2021

Station	Temp. (°C)	Salinity (ppt)	Turbidity (NTU)	Dissolved Oxygen (%)	Dissolved Oxygen (mg L^{-1})	pH
RFF (Reference)	24.73	28.95	5.02	95.52	6.73	7.99
IPF (Impact)	24.59	29.30	3.08	94.10	6.63	8.01
INF (Intermediate)	24.27	30.96	1.75	89.58	6.29	8.03
Ma Wan	23.92	32.20	0.92	87.70	6.15	8.09
WQO (Wet Season)	N/A	26.05 – 31.84[#]	N/A	N/A	>4	6.5 – 8.5

Notes:
1. [#] Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.
2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
3. Cell shaded grey indicates value exceeding the WQO.

Table B4: Laboratory Results for Routine Water Quality Monitoring of ESC CMPs in April 2021

Station	As (µg/L)	Cd (µg/L)	Cr (µg/L)	Cu (µg/L)	Pb (µg/L)	Hg (µg/L)	Ni (µg/L)	Ag (µg/L)	Zn (µg/L)	NH_3 (mg/L)	TIN (mg/L)	BODs (mg/L)	SS (mg/L)
RFF	1.93	<LOR	1.66	1.52	0.53	<LOR	0.81	<LOR	20.06	0.14	0.49	0.81	6.0
IPF	1.93	<LOR	1.62	1.22	0.54	<LOR	0.81	<LOR	20.07	0.13	0.45	0.79	6.1
INF	1.87	<LOR	1.53	1.08	<LOR	<LOR	<LOR	<LOR	26.58	0.14	0.34	0.77	6.2
Ma Wan	1.85	<LOR	1.65	0.98	<LOR	<LOR	<LOR	<LOR	16.63	0.25	0.41	0.64	11.7

WQO of TIN: 0.5 mg/L
Wet Season WQO of SS: 11.8 mg/L

Notes:
1. "<LOR" indicates the concentrations of metals and metalloids are below the limit of reporting.
2. Cell shaded yellow / red indicates value exceeding the Action/Limit levels.
3. Cell shaded grey indicates value exceeding the WQO.

C. Graphical Presentations

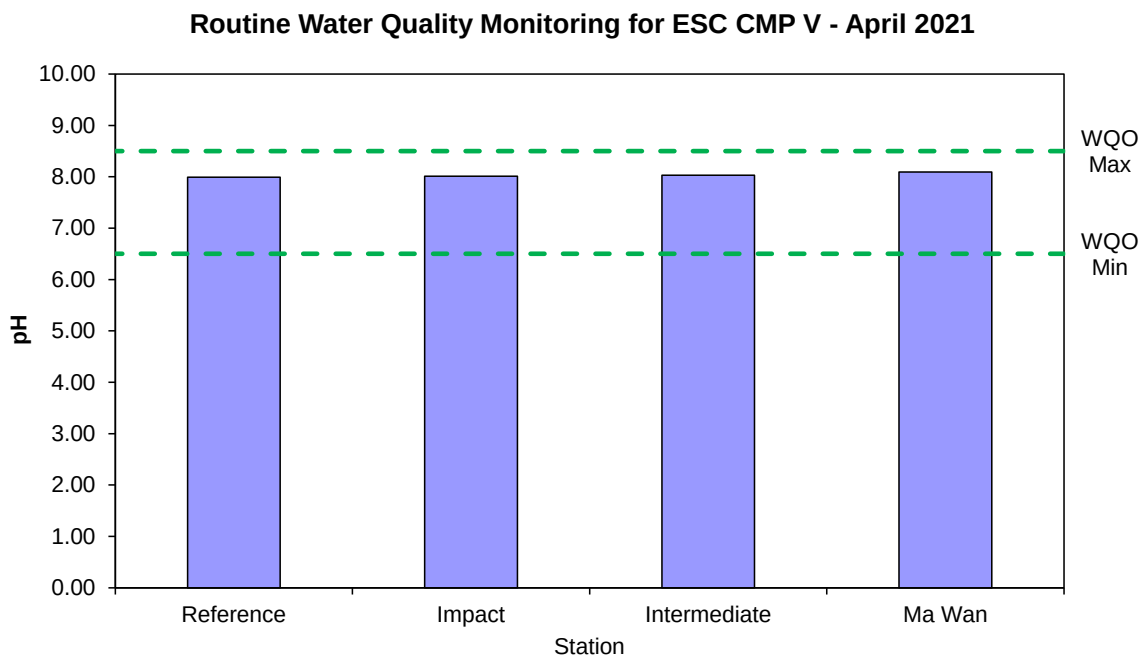


Figure 1: Level of pH recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

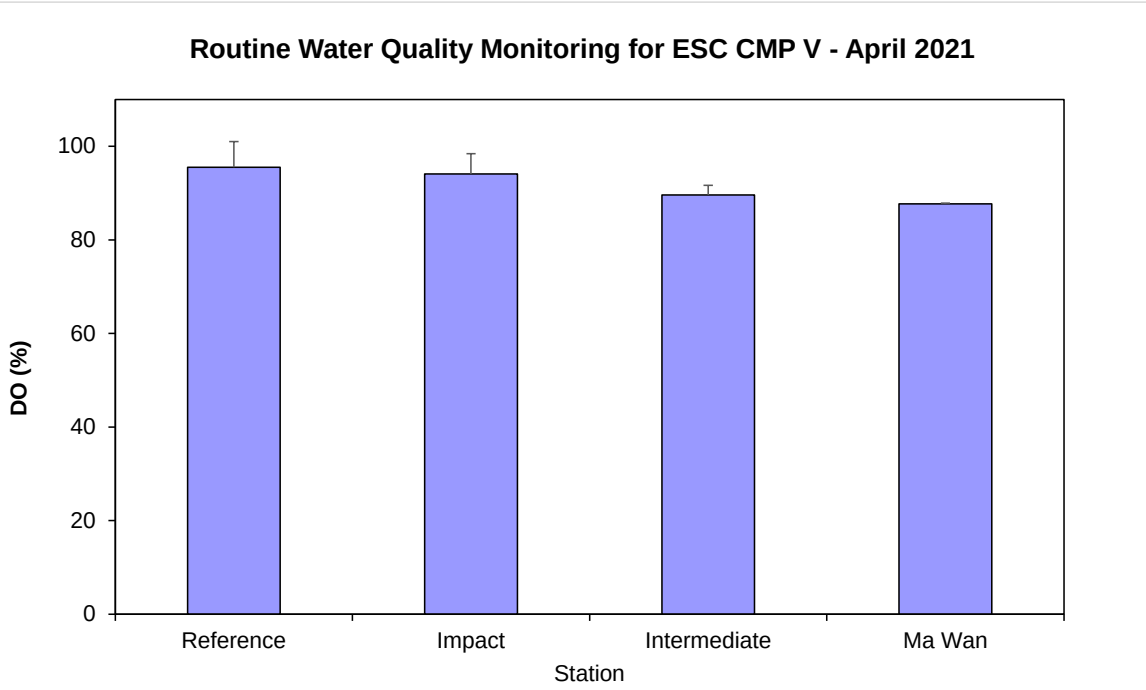


Figure 2: Level of Dissolved Oxygen (DO) (% saturation; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

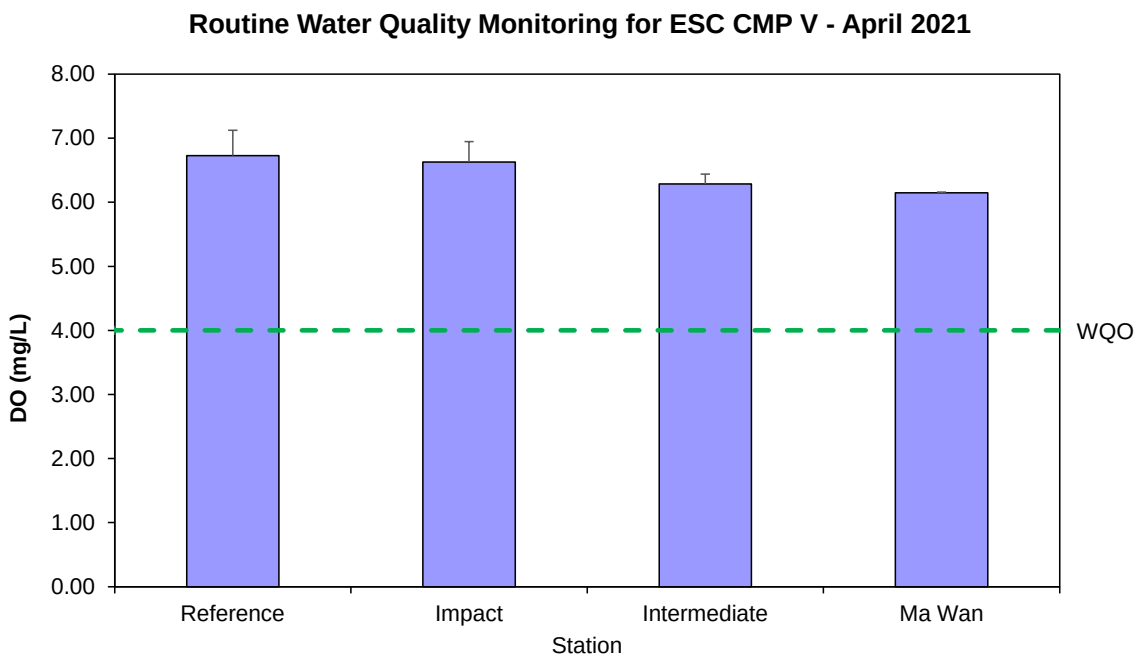


Figure 3: Concentration of Dissolved Oxygen (DO) (mg/L; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

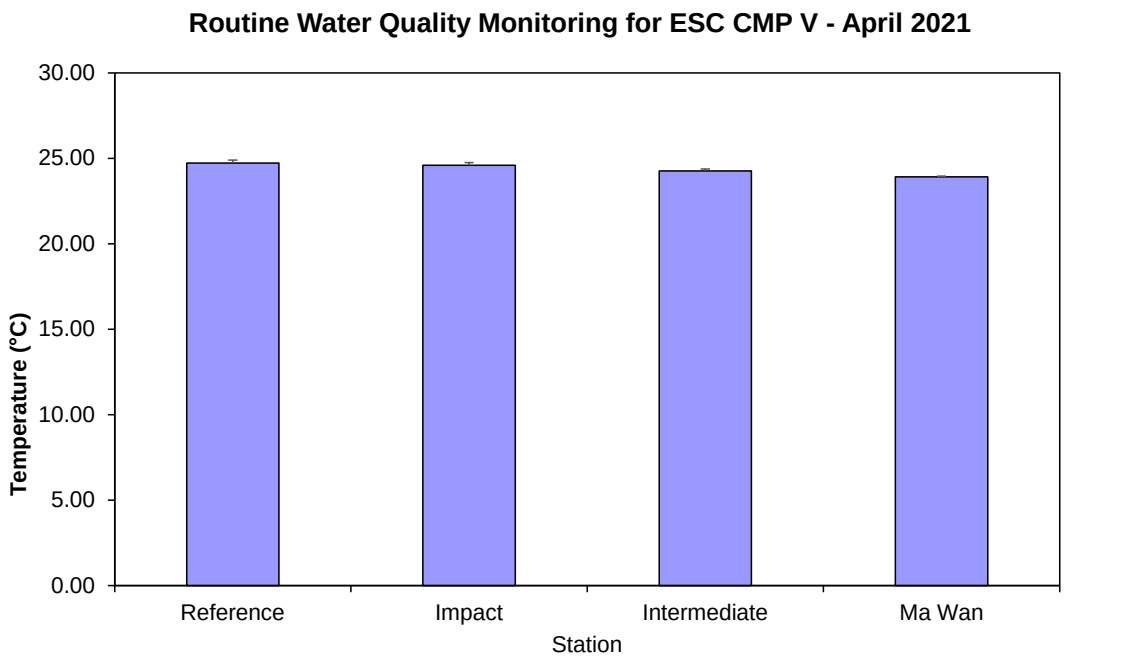


Figure 4: Level of Temperature (°C; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

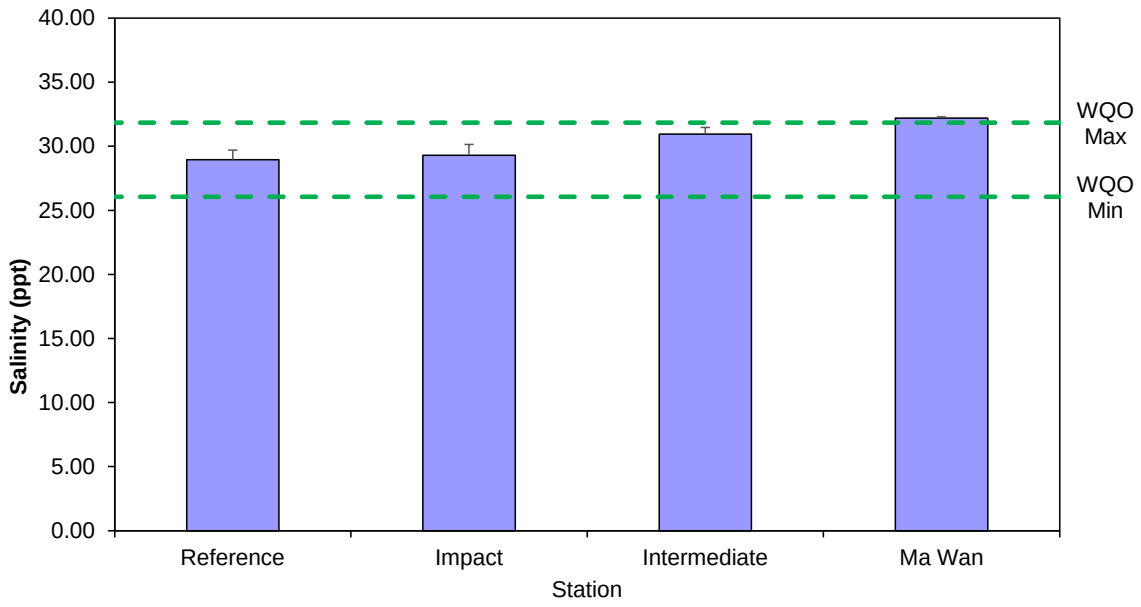


Figure 5: Level of Salinity (ppt; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

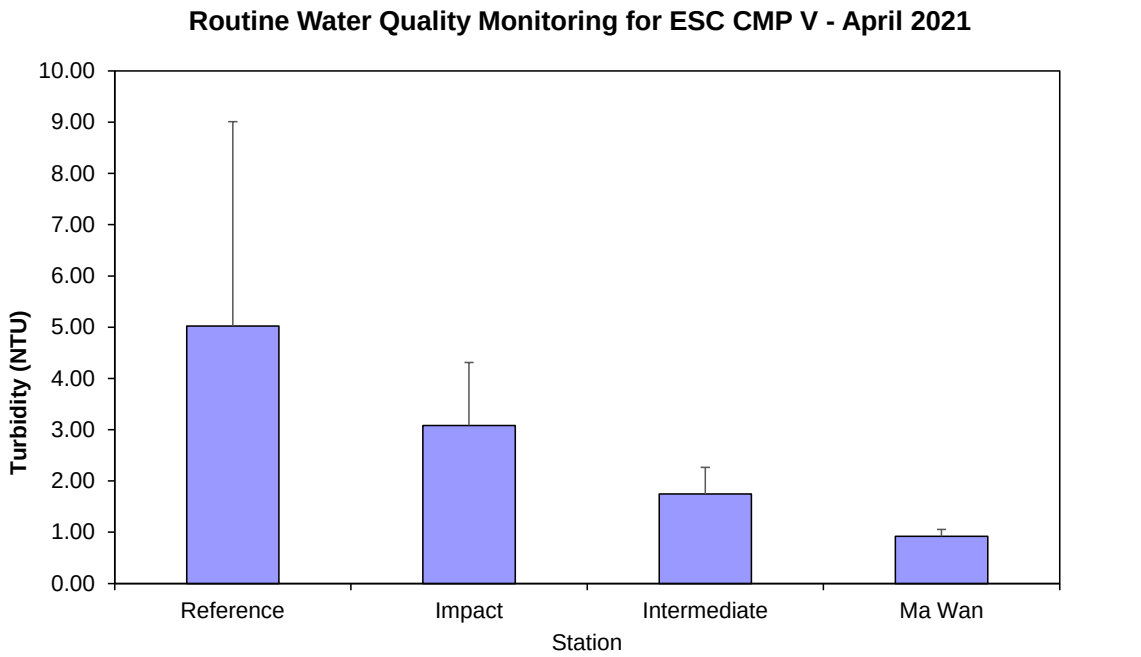


Figure 6: Level of Turbidity (NTU; mean + SD) recorded during Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

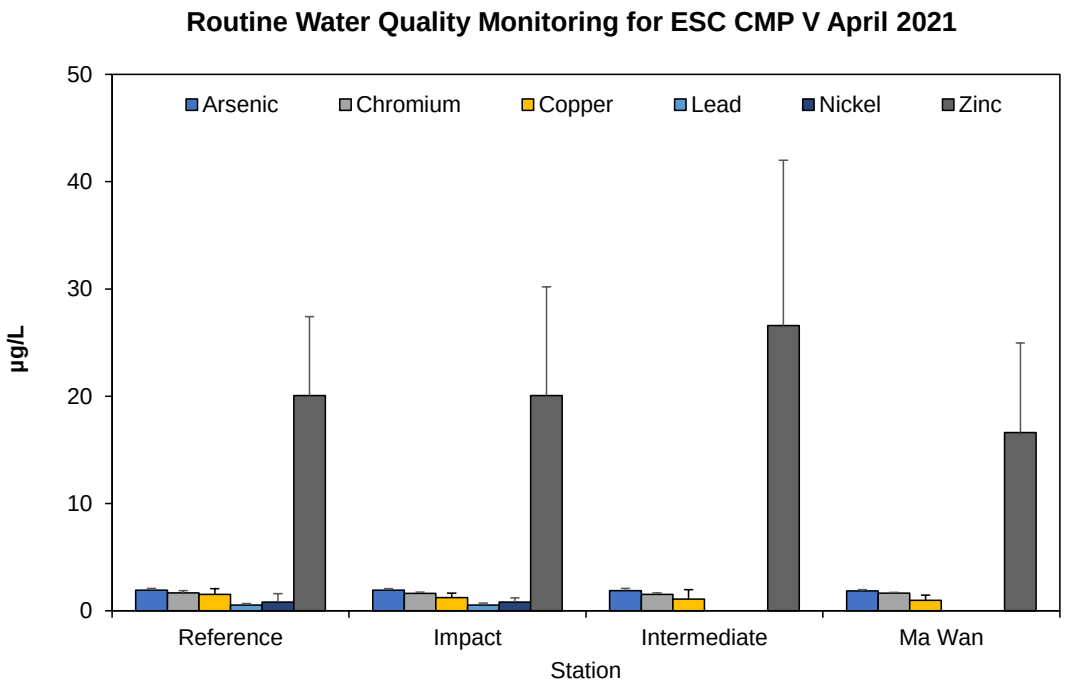


Figure 7: Concentration of Arsenic, Chromium, Copper, Lead, Nickel, and Zinc (µg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

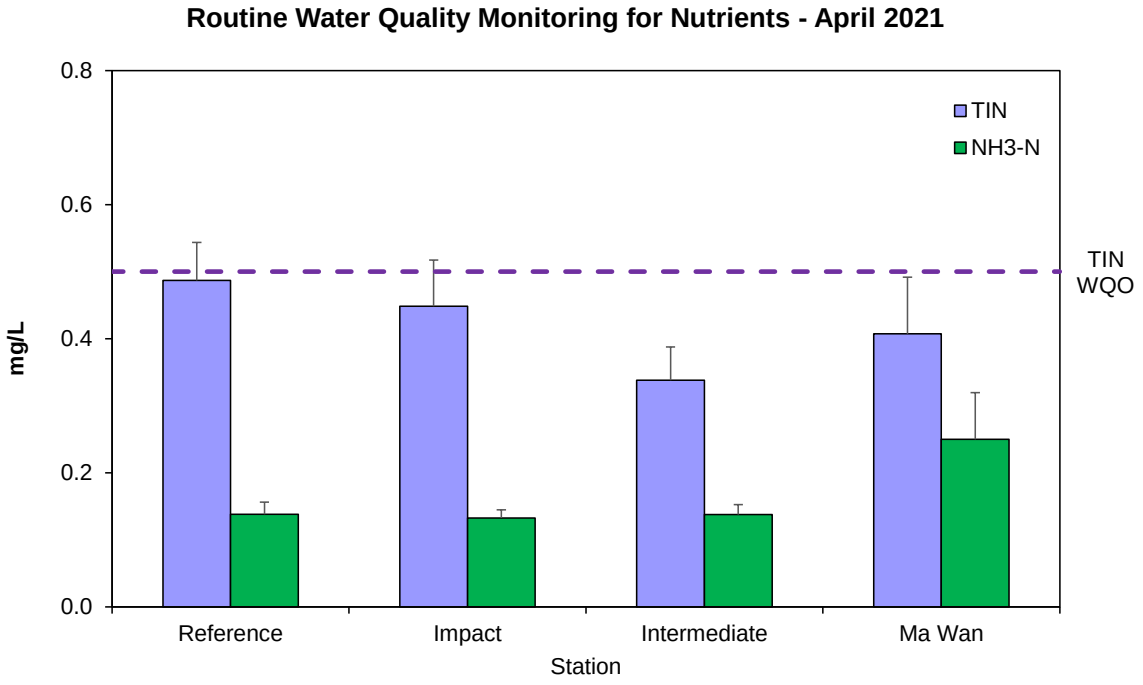


Figure 8: Concentration of Total Inorganic Nitrogen (TIN) and Ammonia Nitrogen (NH3-N) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

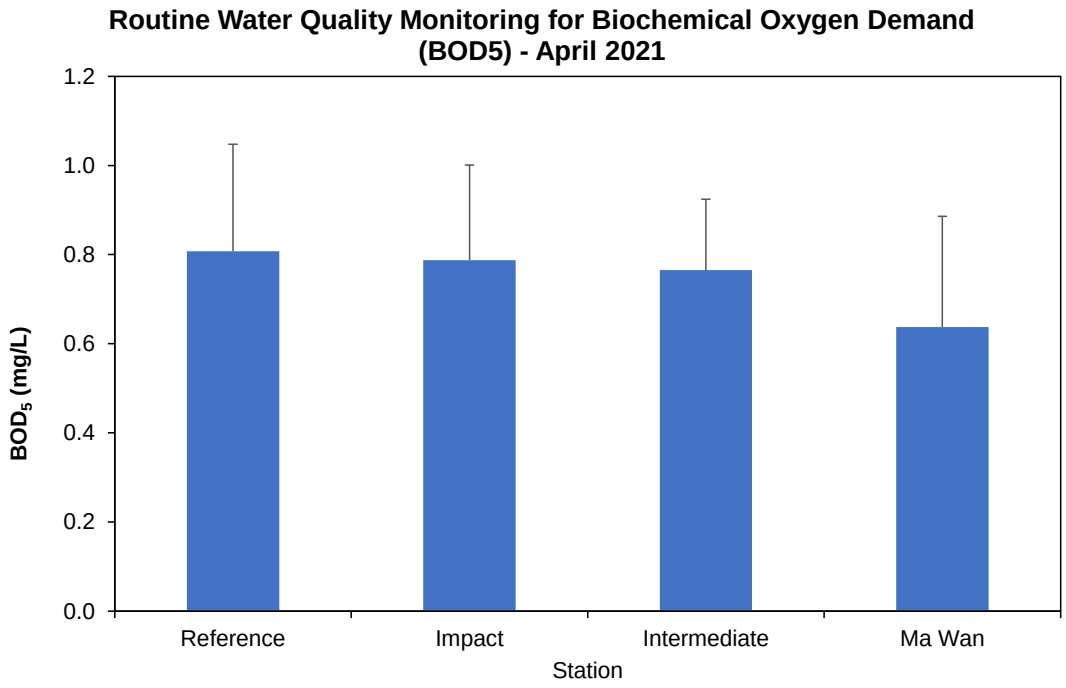


Figure 9: Level of Biochemical Oxygen Demand (BOD5) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

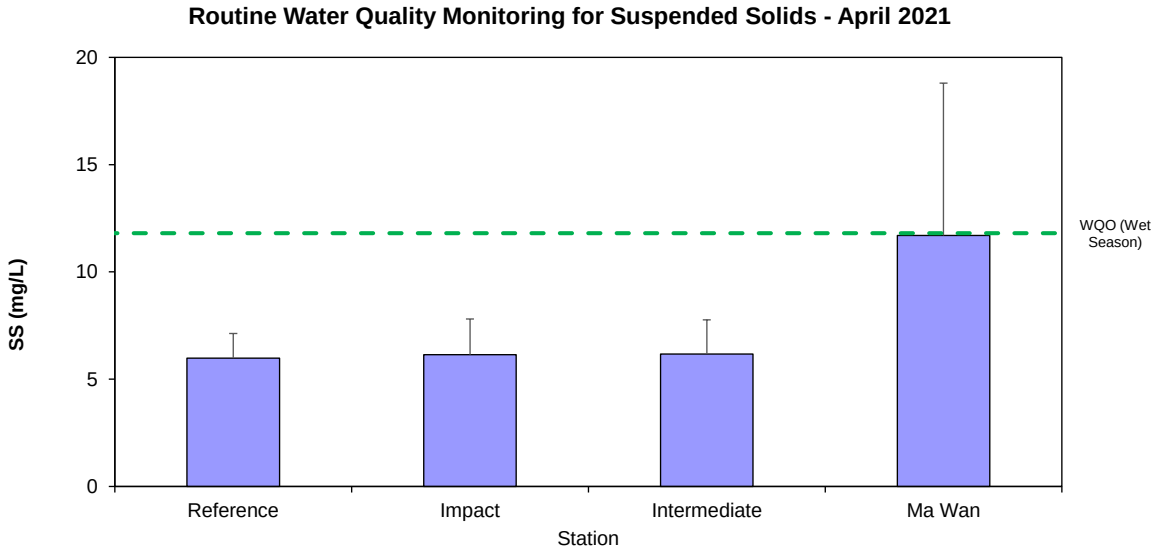


Figure 10: Concentration of Suspended Solids (SS) (mg/L; mean + SD) in water samples collected from Routine Water Quality Monitoring for disposal operations at ESC CMP V in April 2021

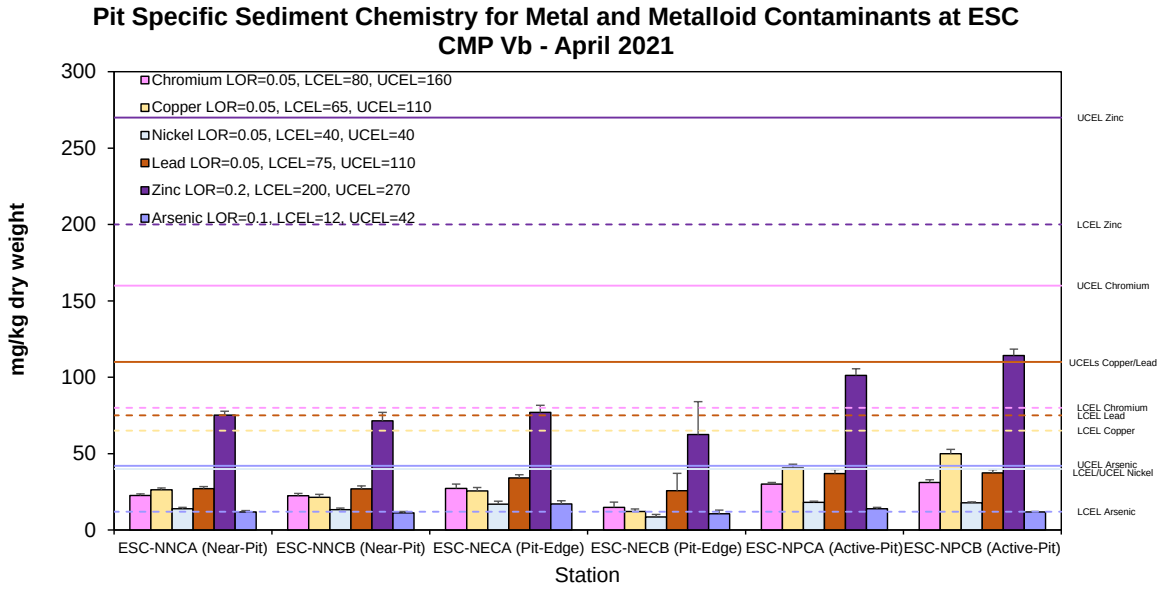


Figure 11: Concentration of Metals and Metalloid (Cr, Cu, Ni, Pb, Zn, As; mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in April 2021

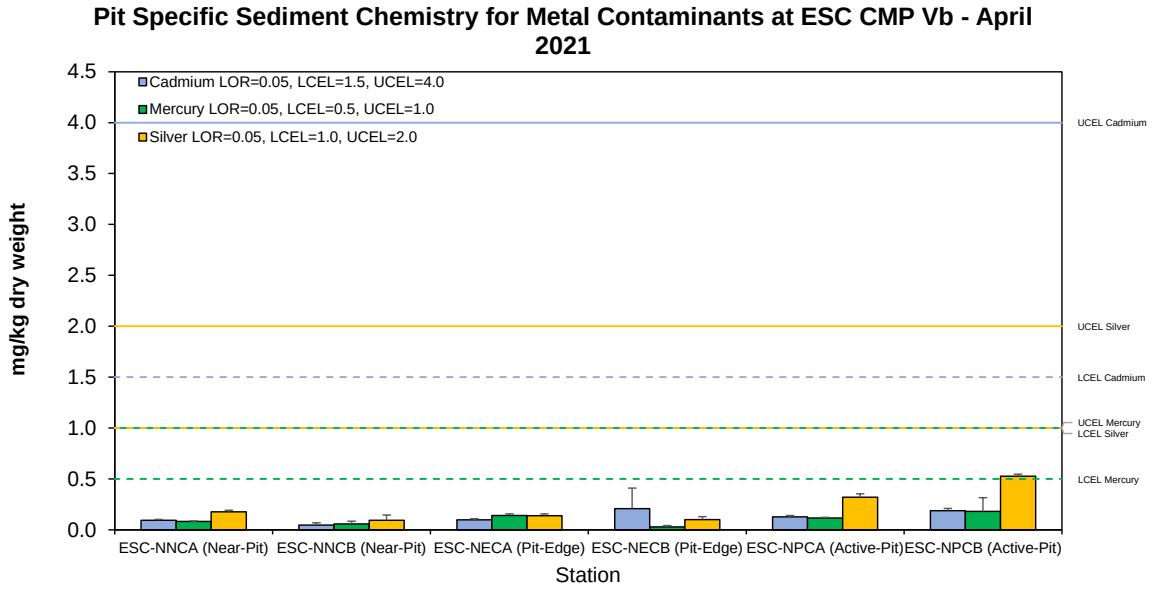


Figure 12: Concentration of Metals (Cd, Hg, Ag; mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in April 2021

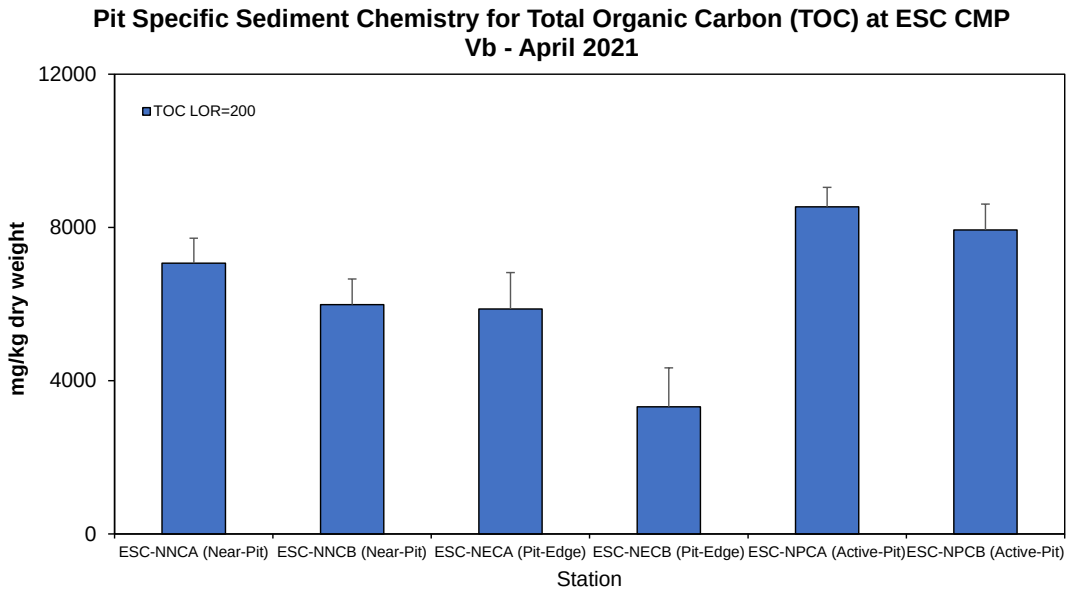


Figure 13: Concentration of Total Organic Carbon (TOC) (mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in April 2021

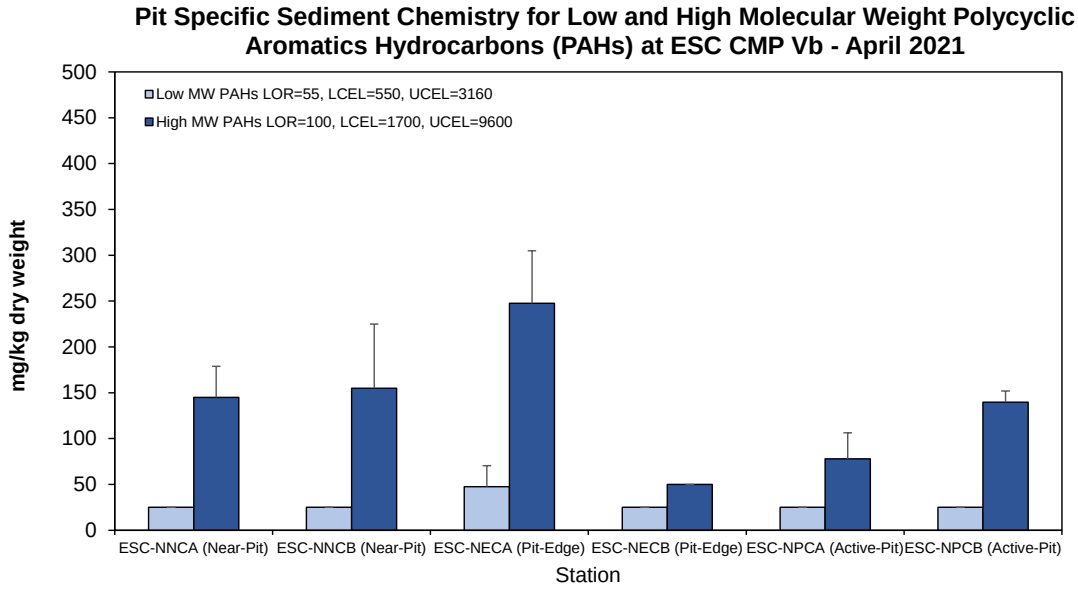


Figure 14: Concentration of Low and High Molecular Weight Polycyclic Aromatic Hydrocarbons (mg/kg dry weight; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in April 2021

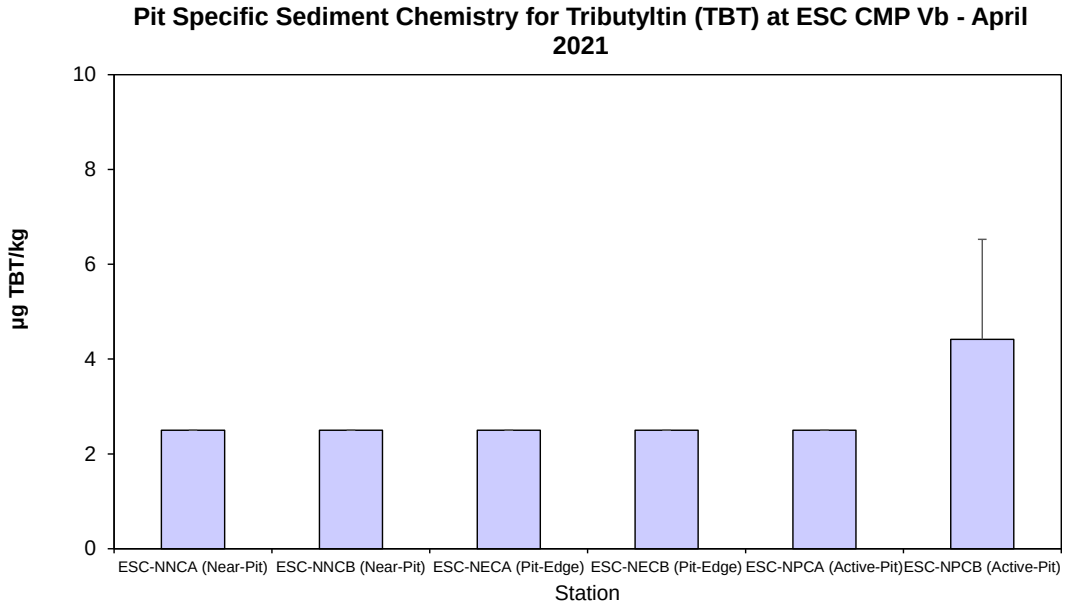


Figure 15: Concentration of Tributyltin (TBT) (µg TBT/kg; mean + SD) in sediment samples collected from Pit Specific Sediment Chemistry Monitoring for ESC CMP Vb in April 2021

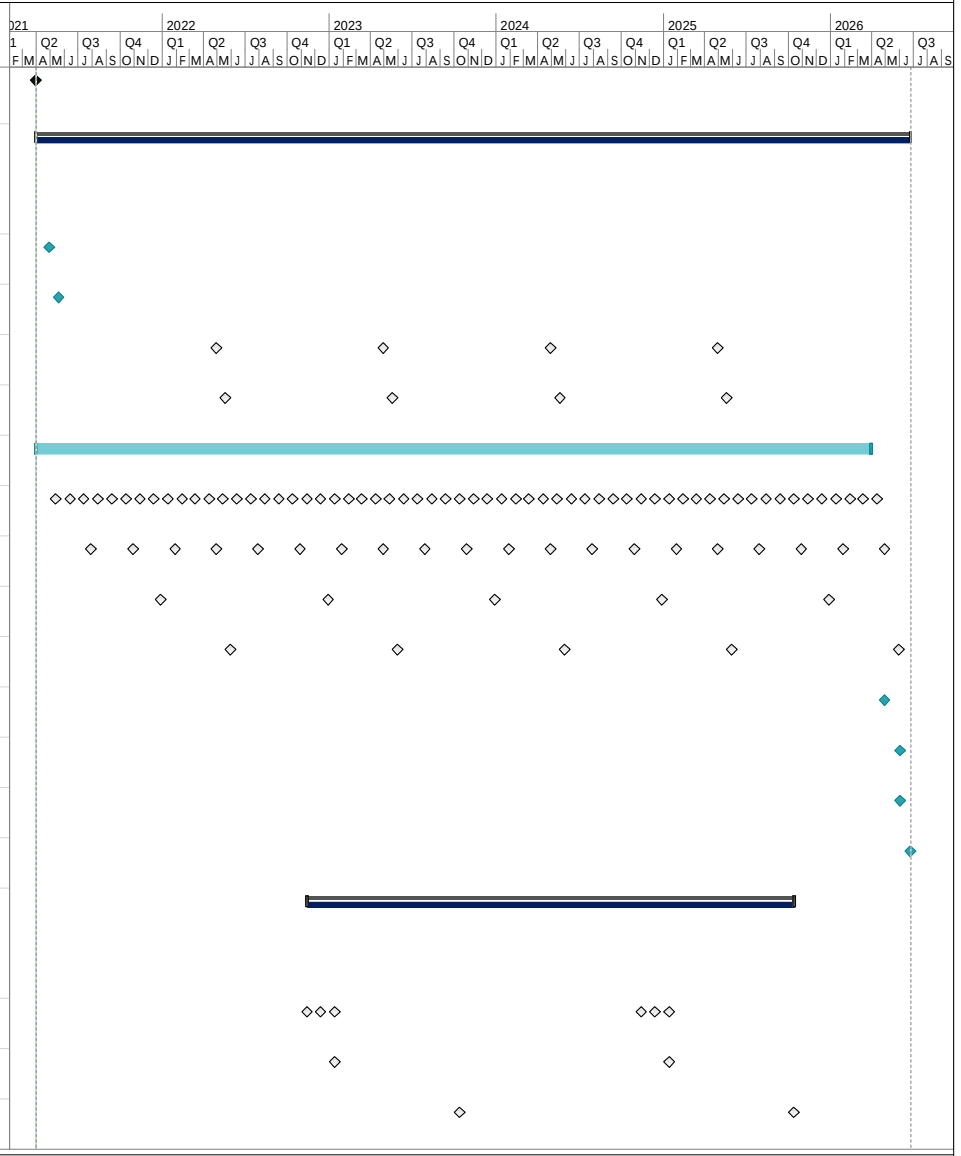
D. Study Programme

Appendix D Study Programme

Agreement No. CE 59/2020 (EP)
Environmental Monitoring and Audit for Disposal Facility
to the East of Sha Chau (2021-2026) - Investigation

Mott MacDonald Hong Kong Limited

Task Name	Start	Finish
COMMENCEMENT OF AGREEMENT NO. CE 59/2020 (EP)	Thu 01/04/21	
EAST OF SHA CHAU CONTAMINATED MUD PITS (ESC CMPs) BETWEEN 2021 & 2026	Thu 01/04/21	Thu 25/06/26
Draft Report of First Review of EM&A Manual (for ESC CMPs)		Fri 30/04/21
Final Report of First Review of EM&A Manual (for ESC CMPs)		Thu 20/05/21
Draft Report of Subsequent Review of EM&A Manual (for ESC CMPs) - annual basis assumed	Sat 30/04/22	Wed 30/04/25
Final Report of Subsequent Review of EM&A Manual (for ESC CMPs) - annual basis assumed	Fri 20/05/22	Tue 20/05/25
Regular Site Inspections of CMP Contractors	Thu 01/04/21	Tue 31/03/26
Monthly EM&A Report	Fri 14/05/21	Tue 14/04/26
Quarterly EM&A Report	Fri 30/07/21	Thu 30/04/26
Annual EM&A Report	Thu 30/12/21	Tue 30/12/25
Annual Risk Assessment Report	Tue 31/05/22	Sun 31/05/26
Draft Final Report		Thu 30/04/26
Final Report		Thu 04/06/26
Draft Executive Summary		Thu 04/06/26
Final Executive Summary		Thu 25/06/26
EAST TUNG LUNG CHAU DISPOSAL FACILITY (OCTOBER TO MID-MARCH) (subject to actual disposal programme to be confirmed by CEDD)	Mon 14/11/22	Tue 14/10/25
Monthly EM&A Report (if any new disposals during reporting period)	Mon 14/11/22	Tue 14/01/25
Quarterly EM&A Report (if any new disposals during reporting period)	Sat 14/01/23	Tue 14/01/25
Annual EM&A Report (if any new disposals during reporting period)	Sat 14/10/23	Tue 14/10/25



Revision: A
Date: Sun 09/05/21

Location
Regular Task
Start of Agreement
Submission
Multiple-Occasion Submission