IMPACT MONITORING REPORT

CLP 中電

Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit

Thirtieth - First Weekly Impact Monitoring Report - 12th January to 18th January 2009

23rd *January* 2009

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CLP Power

Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit: *Thirtieth-First Weekly Impact Monitoring Report – 12th January 2009 to 18th January 2009*

January 2009

Reference 0072833

For and on behalf of ERM-Hong Kong, Limited	
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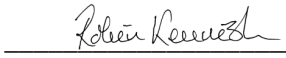
Signed:	
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Date:	23 January 2009

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EXECUTIVE SUMMARY

The construction works for the Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit (Application No. *DIR-143/2006*) commenced on 10 November 2007. This is the 31st weekly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 12 January to 18 January 2009 in accordance with the *EM&A Manual*.

Summary of Construction Works undertaken during the Reporting Period

During the reporting week (12 January and 18 January 2009), installation and transfer of concrete slabs were undertaken at the Urmston Road.

Water Quality

Six monitoring events were scheduled between 12 January and 18 January 2009 at the Airport and Tuen Mun landing sites. All monitoring events at all designated monitoring stations were performed on schedule, ie on 12 January, 14 January and 16 January 2009 at the Airport, and on 13 January, 15 January and 17 January 2009 at Tuen Mun.

All measured dissolved oxygen levels complied with the Action and Limit (AL) Levels with exception of 14 January and 16 January 2009. Besides, all measured Turbidity and Suspended Solids (SS) levels were below AL Levels with exception of 13 January, 15 January and 16 January 2009.

Environmental Non-conformance

Eighteen exceedances of Action and Limit Levels were recorded on four monitoring days, ie 13 January, 14 January, 15 January and 16 January 2009 in the reporting week. The exceedances were examined against the construction works. It was concluded that they were isolated cases and unlikely related to the Project.

No non-compliance event was recorded during the reporting week.

No complaint and summons/prosecution was received during the reporting week.

Future Key Issues

During the following week (ie 19 January to 25 January 2009), installation of concrete slabs will continue at the Urmston Road.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by CLP Power (CLP) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit (thereinafter called the ('Project')).

1.1 PURPOSE OF THE REPORT

This is the 31st weekly EM&A report, which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 12 January to 18 January 2009.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : ***Introduction***
Details the background, purpose and structure of the report.

Section 2 : ***Project Information***
Summarises background and scope of the project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3 : ***Environmental Monitoring Requirement***
Summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, Event / Action Plans, environmental mitigation measures as recommended in the EIA report and relevant environmental requirements.

Section 4 : ***Implementation Status on Environmental Mitigation Measures***
Summarises the implementation of environmental protection measures during the reporting period.

Section 5 : ***Monitoring Results***
Summarises the monitoring results obtained in the reporting period.

Section 6 : ***Environmental Non-conformance***
Summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 7 : ***Future Key Issues***
Summarises the monitoring schedule for the next week.

Section 8 : ***Review of EM&A Data and Impact Assessment Predictions***
Compares and contrasts the EM&A data in the reporting period with the impact assessment predictions and annotates with explanations of discrepancies.

Section 9 : ***Conclusions***
Presents the key findings of the impact monitoring results.

2 PROJECT INFORMATION

2.1 BACKGROUND

CLP will install a 132 kV submarine cable circuit to connect Castle Peak Power Station and Hong Kong International Airport in order to meet the electricity load growth at the Airport.

The proposed cable route will start from Tuen Mun and extend southward crossing the Urmston Road to the Airport. The cable landing sites will be located to the west of Butterfly Beach, Tuen Mun and at the northern part of the platform of the Airport (see *Figure 2.1*).

In September 2006, a Project Profile (PP) for the proposed 132kV Cable Route for Airport "A" to Castle Peak CCTS (thereinafter called the 'Project') was prepared and submitted to the Environmental Protection Department (EPD) under the *Environmental Impact Assessment Ordinance (EIAO)* for application for Permission to apply directly for Environmental Permit (EP) (Application No. *DIR-143/2006*).

An Environmental Permit (*EP-267/2007*) for the works was granted on 29 March 2007. Under the requirements of *Condition 2.12* of the EP, an EM&A programme as set out in the *Environmental Monitoring and Audit Manual (EM&A Manual)* is required to be implemented. In accordance with the *EM&A Manual*, impact monitoring of water quality is required for the Project.

Baseline Monitoring was conducted at Tuen Mun landing site between 18 October and 28 October 2007. Through communications with EPD, a silt curtain at the water intake of the Airport should already be in place during the baseline monitoring. EPD hence advised the baseline monitoring (thereinafter called *Baseline Environmental Monitoring Part B*) for the Airport East section of works should be postponed until a silt curtain is ready. The baseline monitoring for Tuen Mun section of the Project and sediment quality testing were hence undertaken first (thereinafter called *Baseline Environmental Monitoring Part A*) and the results were presented in *Part A* of the report which was submitted to EPD.

The silt curtains were installed at the Airport seawater intake on 20 December 2007 and *Baseline Environmental Monitoring Part B* was then carried out between 22 December 2007 and 2 January 2008.

Impact Monitoring has been carried out at Tuen Mun landing site since 10 November 2007 and at Airport landing site since 16 January 2008. This report presents results of the data from monitoring stations around the Tuen Mun and Airport landing sites (*Figure 2.1)*. Results of the impact monitoring data will therefore be compared against the results of the *Baseline Environmental Monitoring Part A* and *Part B*.

The marine works of the Project were initially completed on 13th June 2008 and fulfilled the burial requirement specified by the Marine Department (MD) that the cables have been buried to a depth of not less than 3 metres below the existing seabed. Water quality monitoring was conducted on three days for each landing site during the week of 16th June to 22nd June 2008 and then had been suspended since 23rd June 2008.

After the completion of the marine works of the Project, the Civil Engineering and Development Department (CEDD) requested the Contractor of the Project to install a protection layer such as concrete slabs on top of the buried cables at the shipping channel (ie Urmston Road).

Following the agreement between CLP and CEDD, the marine works of the Project have been resumed on 8 January 2009 for the installation of the concrete slabs at the Urmston Road. In view of the continuation of the marine works, the Impact Water Quality Monitoring has also been resumed on 6 January 2009.

2.2 *SITE DESCRIPTION*

The proposed 132kV cable is located in-between Tuen Mun and the Hong Kong International Airport. The alignment of the cable is illustrated in *Figure 2.1*.

2.3 *MARINE CONSTRUCTION WORKS UNDERTAKEN DURING REPORTING WEEK*

During the reporting week (12 January and 18 January 2009), installation and transfer of concrete slabs were undertaken at the Urmston Road.

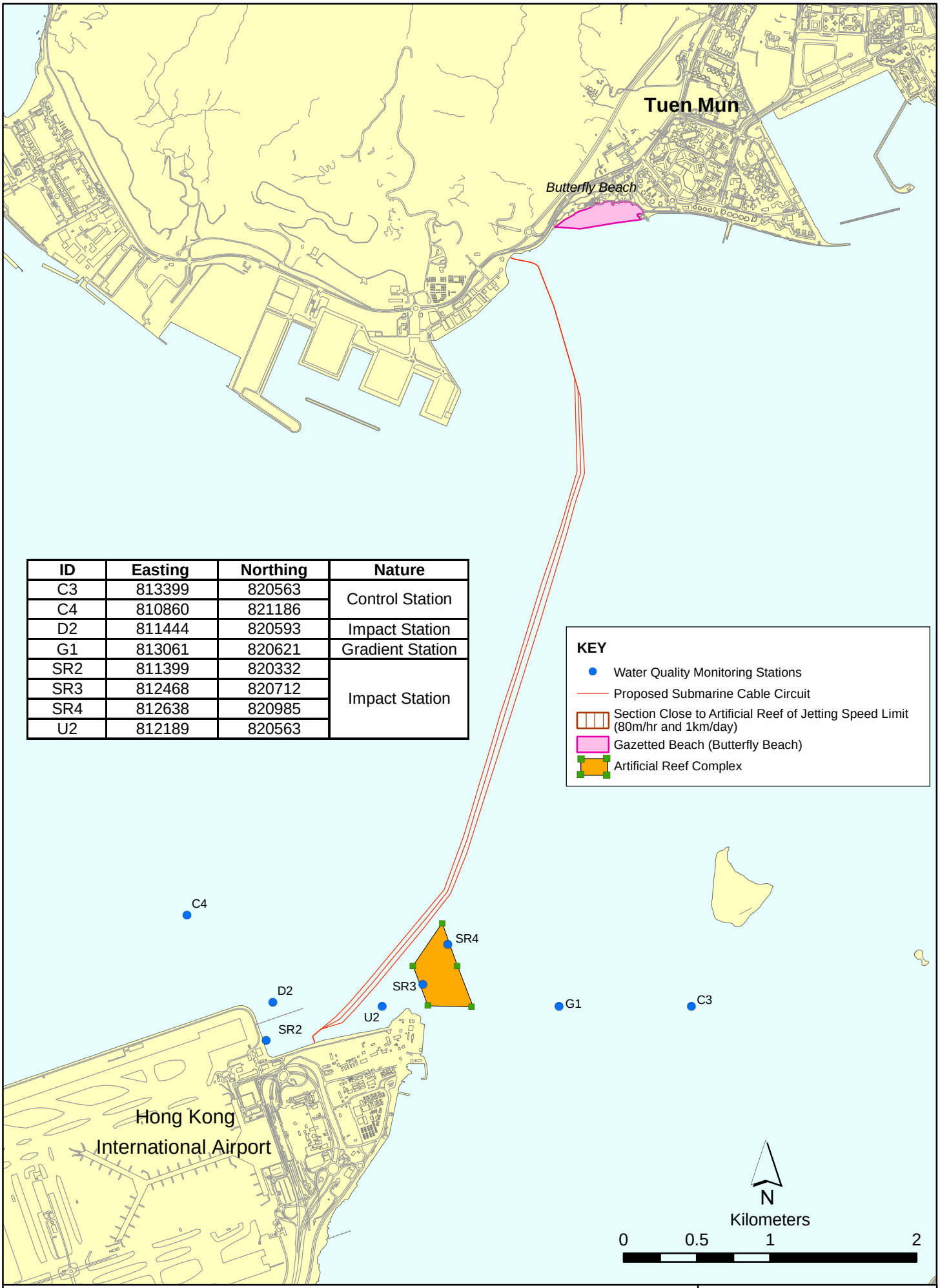
The works programme of the period between 12 January and 18 January 2009 is presented in *Annex A*.

2.4 *PROJECT ORGANISATION*

The Project Organisation chart and contact details are shown in *Annex B.*

2.5 *STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS*

A summary of the relevant permits, licences, notifications and/or reports on environmental protection for this Project is presented in *Table 2.1*.



ID	Easting	Northing	Nature
C3	813399	820563	Control Station
C4	810860	821186	
D2	811444	820593	Impact Station
G1	813061	820621	Gradient Station
SR2	811399	820332	Impact Station
SR3	812468	820712	
SR4	812638	820985	
U2	812189	820563	

FIGURE 1.2

Location of Water Quality Monitoring Stations

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Date: 09/1/2008

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Table 2.1 ***Summary of Environmental Licensing, Notification, Permit and Reporting Status***

Permit / Licence / Notification / Report	Reference	Validity Period	Remarks
EM&A Manual	-	Throughout the construction period	submitted on 25 January 2007
Environmental Permit	EP-267/2007	Throughout the construction period	granted on 29 March 2007
Baseline Environmental Monitoring Report (Part A)	-	Throughout the construction period for Tuen Mun Section	approved by EPD on 8 November 2007
Baseline Environmental Monitoring Report (Part B)	-	Throughout the construction period for Airport Section	approved by EPD on 16 January 2008

3 ENVIRONMENTAL MONITORING REQUIREMENT

3.1 MONITORING LOCATIONS

In accordance with the *EM&A Manual*, prior to the installation of the cable, water quality sampling was undertaken at stations situated around the cable laying works area at Tuen Mun and the Airport. The locations of the sampling stations are shown in *Figure 2.1*.

- C1 and C2 are Control Stations near the Tuen Mun landing site, which are not expected to be influenced by the construction works due to their remoteness from the construction works.
- U1 and D1 are Gradient Stations situated approximately 300 m either side of the cable alignment for monitoring the effect of dredging at the Tuen Mun landing point and for identifying the source of impact; and,
- SR1 is a Sensitive Receiver used to monitor the effect of the construction works on Butterfly Beach.
- C3 and C4 are Control Stations near the Airport, which are not expected to be influenced by the construction works due to their remoteness from the construction works.
- U2 and D2 are Impact Stations located approximately 300 m either from the cable alignment for monitoring the effect of dredging at the Airport landing point.
- SR2 is Impact Station (sensitive receiver) used to monitor the effect of the construction works to the Seawater Intake at the Airport.
- SR3 and SR4 are Impact Stations (sensitive receivers) used to verify the predictions concerning sediment plume dispersion during dredging at the areas close to the Artificial Reef (AR) and at the landing sites.
- G1 is Gradient Station which is situated in between C3 and the AR. It is used to determine the source of pollutants by comparing the monitoring results with those recorded at C3, SR3 and SR4. Since G1 is located between C3 and the construction work alignment, it serves the gradient function with C3 during flood tide, but has no relationship and function with C4 during ebb tide.

The co-ordinates of these monitoring stations are listed in *Table 3.1.*

Table 3.1 Co-ordinates of Water Quality Monitoring Stations (HK Grid)

Station	Nature	Easting	Northing
C1	Control Station	814483	825367
C2	Control Station	812890	824763
C3	Control Station	814300	820563
C4	Control Station	810860	821186
U1	Impact Station	813561	825446
U2	Impact Station	812189	820563
D1	Impact Station	813140	825298
D2	Impact Station	811444	820593
SR1	Impact Station	813483	825681
SR2	Impact Station	811399	820332
SR3	Impact Station	812468	820712
SR4	Impact Station	812638	820985
G1	Gradient Station	813399	820563

3.2 MONITORING PARAMETERS AND FREQUENCY

The impact water quality monitoring was conducted in accordance with the requirements stated in the *EM&A Manual*. These are presented below.

3.2.1 Monitoring Parameters

Parameters measured *in situ* were:

- dissolved oxygen (DO) (% saturation and mg L^{-1});
- temperature (°C);
- turbidity (NTU); and
- salinity (‰).

The only parameter measured in the laboratory was:

- suspended solids (SS) (mg L^{-1}).

In addition to the water quality parameters, other relevant data were measured and recorded in field logs, including the location of the sampling stations, water depth, time, weather conditions, sea conditions, tidal state, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

3.2.2 Monitoring Frequency

Impact water quality monitoring was carried out three times a week. The interval between two sets of monitoring was not less than 36 hours. The monitoring was undertaken at 13 locations (eight impact monitoring stations D1, D2, U1, U2, SR1, SR2, SR3 and SR4, one gradient station G1, and four control monitoring stations C1, C2, C3 and C4), as shown on *Figure 2.1.*

Samples were taken during mid-flood and mid-ebb tidal state on each sampling occasion.

3.3 MONITORING EQUIPMENT AND METHODOLOGY

3.3.1 Monitoring Equipment

Dissolved Oxygen, Temperature, Salinity, Turbidity Measuring Equipment

The instrument was a portable, weatherproof multi-parameter measuring instrument (YSI 6820) complete with cables, multi-probe sensor, comprehensive operation manuals, and was operable from a DC power source. It was capable of measuring:

- dissolved oxygen levels in the range of 0 – 50 mg L^{-1}; and 0-500% saturation;
- temperature of -5 to 50 °C;
- turbidity levels between 0-1000 NTU (response of the sensor was checked with certified standard turbidity solutions before the start of measurement); and,
- salinity in the range of 0-40 ppt (checked with 30 ppt Salinity solutions before the start of the measurement).

Water Depth Gauge

The water depth gauge affixed to the bottom of the water quality monitoring vessel was used.

Current Velocity and Direction

Current velocity and direction was estimated by conducting float tracking.

Positioning Device

A Global Positioning System (GPS) was used (C-Navigator World DGPS, GPS 72A) during monitoring to ensure the accurate recording of the position of the monitoring vessel before taking measurements. The use of DGPS was used for positioning device, which was well calibrated at appropriate checkpoint.

Water Sampling Equipment

Water samples for suspended solids measurement were collected by the use of a multi-bottle water sampling system (General Oceanics Inc., Rosette Sampler ROS02), consisting of PVC bottles of more than two litres, which could be effectively sealed with cups at both ends. The water sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth.

3.3.2 Monitoring Methodology

Timing & Frequency

The water quality sampling was undertaken within a 3 hour window of 1.5 hours before and 1.5 hours after mid-flood and mid-ebb tides. Tidal range for flood and ebb tides was not less than 0.5 m for capturing representative tides.

Reference was made to the predicted tides at Lok On Pai, which is the tidal station nearest to the Project site, published on the website of Hong Kong Observatory(1). Based on the predicted water levels at Lok On Pai, the impact water quality monitoring was conducted following the schedule presented in *Annex C*.

Duplicate samples were collected from each of the monitoring events for *in situ* measurements and laboratory analysis.

Depths

Each station was sampled and measurements were taken at three depths, 1 m below the sea surface, mid depth and 1m above the sea bed.

Protocols

The multi-parameter measuring instrument (YSI 6820) was checked and calibrated by an HOKLAS accredited laboratory before use. Onsite calibration was also carried out to check the responses of sensors and electrodes using certified standard solutions before each use. Sufficient stocks of spare parts were maintained for replacements when necessary, and backup monitoring equipment was made available.

Water samples for SS measurements were collected in high density polythene bottles, packed in ice (cooled to 4° C without being frozen), and delivered to an HOKLAS accredited laboratory as soon as possible after collection.

Laboratory Analysis

All laboratory work was carried out by an HOKLAS accredited laboratory. Water samples of about 1,000 mL were collected at the monitoring and control stations for carrying out the laboratory determinations. The determination work started within the next working day after collection of the water samples. The analyses followed the standard methods as described in *APHA Standard Methods for the Examination of Water and Wastewater*, 19th Edition, unless otherwise specified (APHA 2540D for SS).

The QA/QC details were in accordance with requirements of HOKLAS or another internationally accredited scheme (for details refer to *Annex D*).

(1) Hong Kong Observatory (2007) http://www.hko.gov.hk/tide/eLOPtide.htm [Accessed on 13 October 2007]

3.3.3 Action and Limit Levels

Two sets of the Action and Limit levels, which were established based on the results of *Baseline Environmental Monitoring Part A* and *Part B*, are presented in *Tables 3.2* and *3.3* respectively.

Table 3.2 Action and Limit Levels for Water Quality for the Tuen Mun Landing Site

Parameter	Unit	Tide	Depth	Action Level	Limit Level
Suspended Solids (SS)	mg L^{-1}	Mid-Ebb	Depth-averaged	12.8	13.3
		Mid-Flood	Depth-averaged	23.6	28.3
Dissolved Oxygen (DO)	mg L^{-1}	Mid-Ebb	Surface and Middle	5.2	4.0
			Bottom	5.3	2.0
		Mid-Flood	Surface and Middle	5.5	4.0
			Bottom	5.5	2.0
Turbidity	NTU	Mid-Ebb	Depth-averaged	7.0	8.3
		Mid-Flood	Depth-averaged	14.8	18.9

Table 3.3 Action and Limit Levels for Water Quality for the Airport Landing Site

Parameter	Unit	Tide	Depth	Action Level	Limit Level
Suspended Solids (SS)	mg L^{-1}	Mid-Ebb	Depth-averaged	21.6	29.8
		Mid-Flood	Depth-averaged	30.8	34.3
Dissolved Oxygen (DO)	mg L^{-1}	Mid-Ebb	Surface and Middle	6.6	4.0
			Bottom	6.9	2.0
		Mid-Flood	Surface and Middle	6.8	4.0
			Bottom	6.8	2.0
Turbidity	NTU	Mid-Ebb	Depth-averaged	17.4	25.9
		Mid-Flood	Depth-averaged	22.9	27.9

Notes:
(1) The results recorded at the gradient station during the mid-flood period will be used to decide whether any exceedance being recorded during mid-flood are arising from the marine works of this Project.
(2) Turbidity and SS levels will make reference to 120% and 130% of value recorded at the upstream control station during the same tidal conditions to assess the compliance of Action and Limit Levels respectively.

3.3.4 Event and Action Plan

The Event and Action Plan for water quality monitoring which was stipulated in the *EM&A Manual* is presented in *Table 3.4*.

Table 3.4 Event and Action Plan for Water Quality

Event	Action
Action Level Exceedance	**Step 1** - repeat sampling event; **Step 2** – identify source(s) of impact and confirm whether exceedance was due to the construction works; **Step 3** – inform EPD and LCSD and confirm notification of the non-compliance in writing; **Step 4** - discuss with cable installation contractor the most appropriate method of reducing suspended solids during cable installation (e.g. reduce cable laying speed/volume of water used during installation, increase effectiveness of silt curtain). **Step 5** - repeat measurements after implementation of mitigation for confirmation of compliance. **Step 6** - if non compliance continues - increase measures in Step 3 and repeat measurements in Step 3. If non compliance occurs a third time, suspend cable laying operations.
Limit Level Exceedance	Undertake **Steps 1-5** immediately, if further non compliance continues at the Limit Level, suspend cable laying operations until an effective solution is identified.

4 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

4.1 RECOMMENDED MITIGATION MEASURES

Mitigation measures for water quality control have been recommended in the Project Profile and the Environmental Permit. The Contractor is responsible for the design and implementation of the following measures.

During cable laying the following will be undertaken:

- Although the sediment loss during both grab dredging and suction dredging is expected to be quite small, the Contractor will be employing a silt curtain around the dredgers to reduce the dispersion of sediments from the landing points.
- Closed grab dredgers will be used to avoid dispersion of suspended solids into the sea.
- The maximum dredging rate at Tuen Mun shore approach will be limited to 1,500 m^3 day^{-1} for working 10 hours per day, i.e., 150 m^3 hr^{-1}.
- The maximum dredging rates of grab dredgers and suction method, whichever to be deployed by the contractor, at the Airport shore approach will be limited to 650 m^3 day^{-1} and 1,600 m^3 day^{-1} for working 16 hours per day, i.e., 41 m^3 hr^{-1} and 100 m^3 hr^{-1}.
- All barges used for the transport of dredged materials will be fitted with tight bottom seals in order to prevent leakage of material during loading and transport.
- All barges will be filled to a level, to ensure that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.
- The forward speed of the jetting machine will be limited to a maximum of 80 m hr^{-1} and 24 hours operation.

4.2 IMPLEMENTATION STATUS OF MITIGATION MEASURES

In addition to the regulatory requirements as mentioned in *Section 4.1* above, the Contractor had implemented a precautionary measure for the works undertaken at the inshore area. As a precautionary measure, a silt curtain had been installed at the Airport seawater intake and five silt curtains had been installed at the five AR blocks along the direction facing the cable alignment during cable installation. The silt curtain at the Airport Intake was

removed on 16 June 2008, followed by removal of silt curtains at the artificial reefs from 17 June to 19 June 2008.

In addition, the cable laying works undertaken in the vicinity of the ARs were restricted to periods when the tidal current was moving away from the artificial reef towards the works area.

5 MONITORING RESULTS

5.1 IMPACT MONITORING RESULTS

The monitoring data and graphical presentations of the results are included in *Annex E*. These are summarised below.

Six monitoring events were scheduled between 12 January and 18 January 2009 at the Airport and Tuen Mun landing sites. All monitoring events at all designated monitoring stations were performed on schedule, ie on 12 January, 14 January and 16 January 2009 at the Airport, and on 13 January, 15 January and 17 January 2009 at Tuen Mun.

No major activities influencing the water quality were identified between 12 January and 18 January 2009.

All measured dissolved oxygen levels complied with the Action and Limit (AL) Levels with exception of 14 January and 16 January 2009. Besides, all measured Turbidity and Suspended Solids (SS) levels were below AL Levels with exception of 13 January, 15 January and 16 January 2009 (*Annex E*).

5.2 DOLPHIN MONITORING

The Contractor confirmed that all jetting operations were completed on 23 April 2008. Hence, dolphin monitoring was not required during the reporting week.

5.3 TIDAL FLOW DIRECTION MONITORING

The Contractor confirmed that all jetting operations were completed on 23 April 2008 and therefore, no current flow data were reported.

6.1 SUMMARY OF ENVIRONMENTAL EXCEEDANCE

6.1.1 Exceedance on 13 January 2009

Exceedances of the Action and Limit Levels of depth-averaged Turbidity (NTU) were recorded at Stations D1 and U1 during mid-ebb tide on 13 January 2009 (*Table 6.1*).

Table 6.1 Exceedances of the Action and Limit Levels of depth-averaged Turbidity (NTU) during Mid-ebb Tide on 13 January 2009

Exceedance Log No.	0072833_13 January 09_Turb_E_Station D1 0072833_13 January 09_Turb_E_Station U1			
Sampling date	13 January 2009			
Monitoring station	D1 and U1			
Parameter	Depth-averaged Turbidity (NTU)			
Action Levels	Mid-ebb	Turbidity, Depth-averaged =	7.0	
	Mid-flood	Turbidity, Depth-averaged =	14.8	
Limit Levels	Mid-ebb	Turbidity, Depth-averaged =	8.3	
	Mid-flood	Turbidity, Depth-averaged =	18.9	
Measured Levels at D1	Mid-ebb	Turbidity, Depth-averaged =	9.21	(exceeds Limit Level)
	Mid-flood	Turbidity, Depth-averaged =	9.17	
Measured Levels at U1	Mid-ebb	Turbidity, Depth-averaged =	7.98	(exceeds Action Level)
	Mid-flood	Turbidity, Depth-averaged =	8.85	

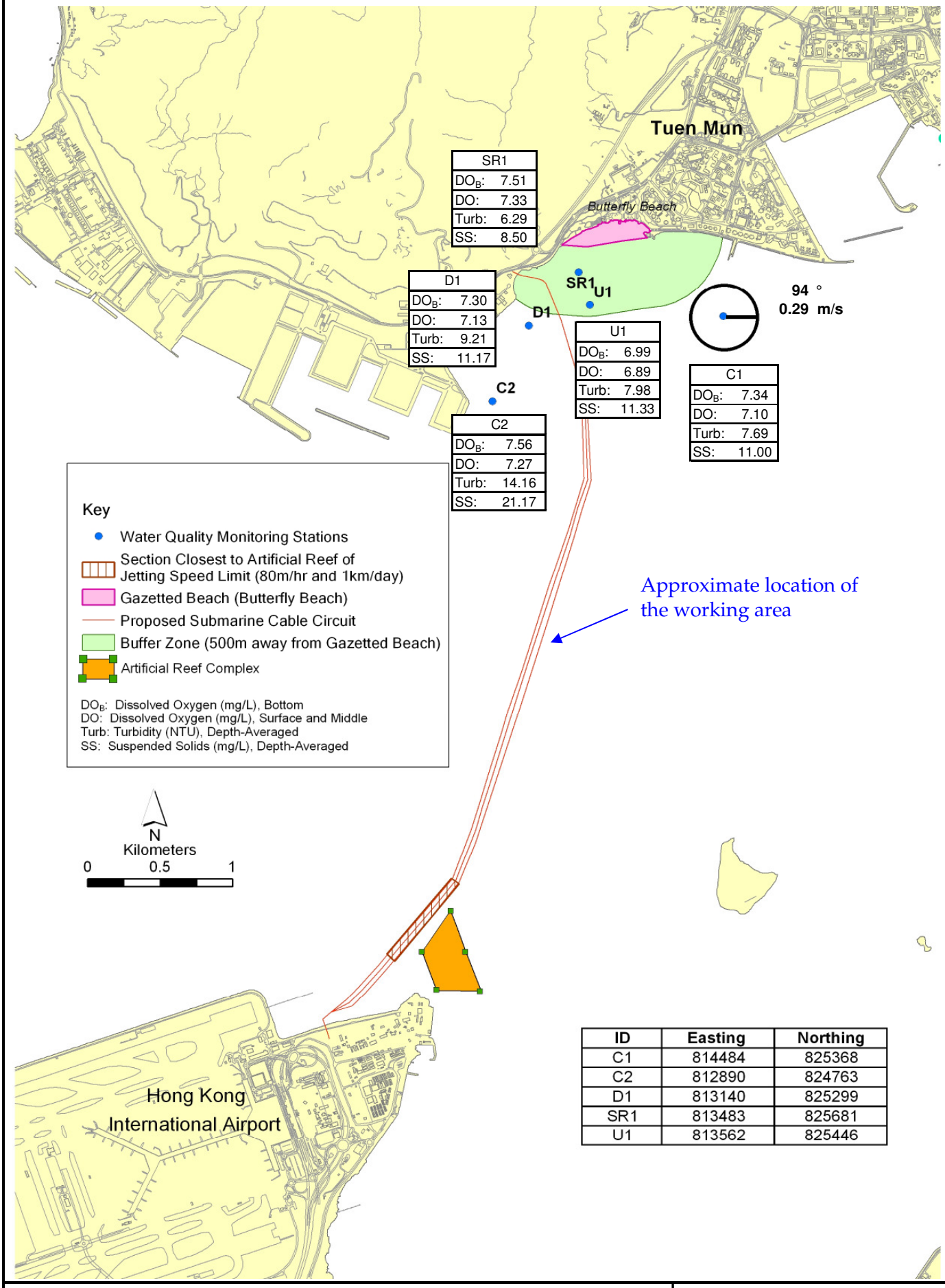
According to the work programme provided by the Contractor (*Annex A*), the Contractor confirmed that concrete slabs were installed at the Urmston Road and over 2 km away from the Butterfly beach (see *Figure 6.1*) on 13 January 2009. Installation of the concrete slabs did not require removal of any seabed sediments hence it was unlikely to cause increment of turbidity in the water column.

The levels of turbidity measured at the upstream stations C2 and D1 were generally greater than those observed at the downstream stations. This suggests that there could be influence from the upstream activities. In addition, persist occurrence of exceedance was not observed since turbidity of all Impact Stations did not show non-compliance during the following mid-flood tidal conditions. Hence, the exceedances were unlikely to be caused by the Project works and therefore considered to be an isolated case. No action was required.

The exceedance incident has been notified to EPD and LCSD.

6.1.2 Exceedance on 14 January 2009

Exceedances of the Action Levels of Dissolved Oxygen, Bottom (mg/L) and Dissolved Oxygen, Surface and Middle (mg/L) were recorded at Stations D2,



ID	Easting	Northing
C1	814484	825368
C2	812890	824763
D1	813140	825299
SR1	813483	825681
U1	813562	825446

Figure 6.1

Mid Ebb Water Quality Monitoring

(13 January 2009)

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U2, SR2, SR3 and SR4 during mid-ebb tide and mid-flood tide on 14 January 2009 (*Table 6.2*).

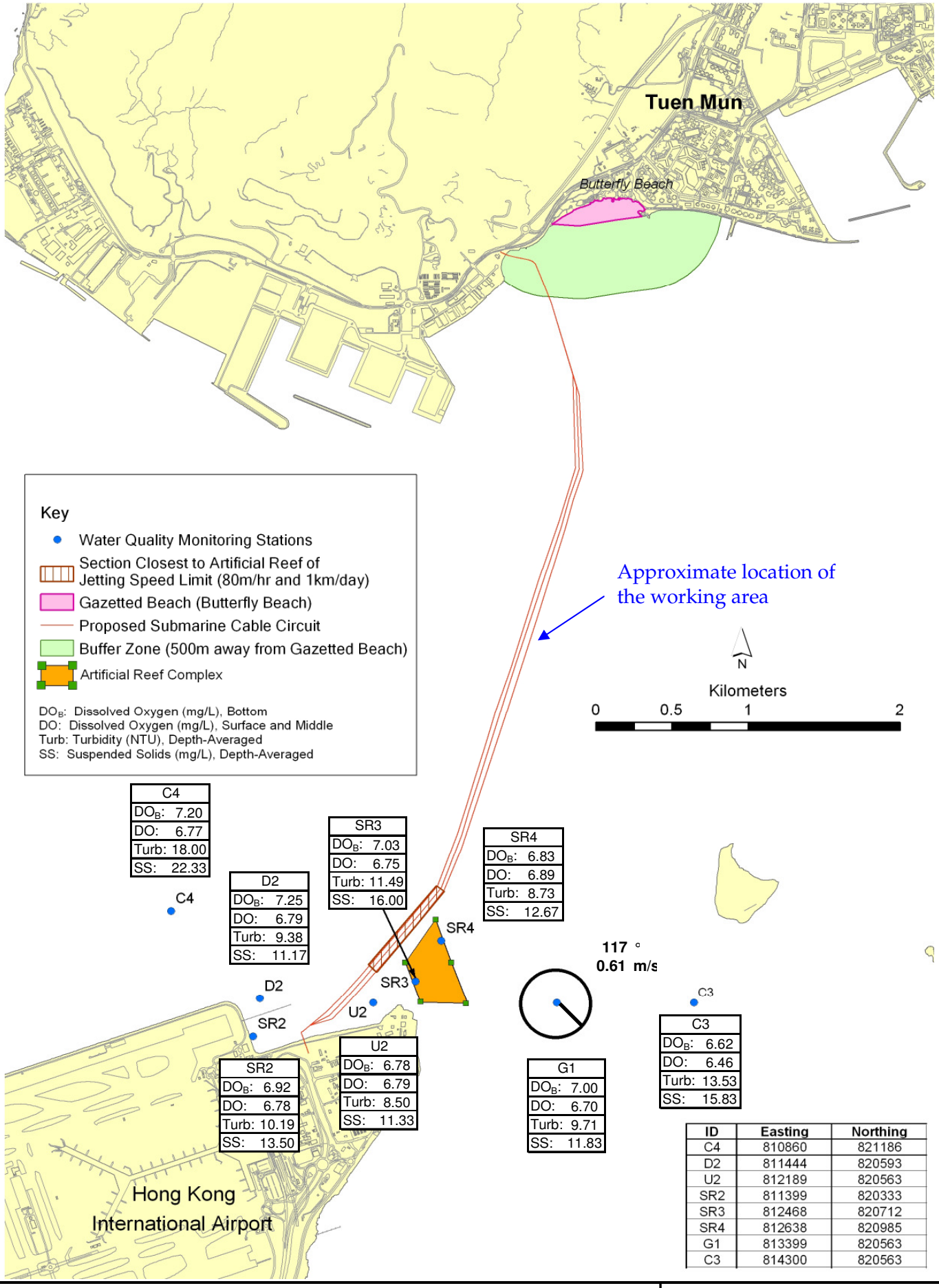
Table 6.2 ***Exceedances of Action Levels of Dissolved Oxygen, Bottom (mg/L) and Dissolved Oxygen, Surface and Middle (mg/L) on 14 January 2009***

Exceedance Log No.	0072833_14 January 09_DOB_E_Station U2 0072833_14 January 09_DOB_E_Station SR4 0072833_14 January 09_DO_F_Station D2 0072833_14 January 09_DO_F_Station U2 0072833_14 January 09_DO_F_Station SR2 0072833_14 January 09_DO_F_Station SR3			
Sampling date	14 January 2009			
Monitoring station	Stations D2, U2, SR2, SR3 and SR4			
Parameter	Dissolved Oxygen, Bottom (mg/L) Dissolved Oxygen, Surface and Middle (mg/L)			
Action Levels	Mid-ebb	DO, Bottom = 6.9 DO, Surface and Middle = 6.6		
	Mid-flood	DO, Bottom = 6.8 DO, Surface and Middle = 6.8		
Limit Levels	Mid-ebb	DO, Bottom = 2.0 DO, Surface and Middle = 4.0		
	Mid-flood	DO, Bottom = 2.0 DO, Surface and Middle = 4.0		
Measured Levels at D2	Mid-ebb	DO, Surface and Middle = 6.79 DO, Bottom = 7.25		
	Mid-flood	DO, Surface and Middle = 6.66 DO, Bottom = 6.81		(exceeds Action Level)
Measured Levels at U2	Mid-ebb	DO, Surface and Middle = 6.79 DO, Bottom = 6.78		(exceeds Action Level)
	Mid-flood	DO, Surface and Middle = 6.69 DO, Bottom = 7.00		(exceeds Action Level)
Measured Levels at SR2	Mid-ebb	DO, Surface and Middle = 6.78 DO, Bottom = 6.92		
	Mid-flood	DO, Surface and Middle = 6.65 DO, Bottom = 6.86		(exceeds Action Level)
Measured Levels at SR3	Mid-ebb	DO, Surface and Middle = 6.75 DO, Bottom = 7.03		
	Mid-flood	DO, Surface and Middle = 6.70 DO, Bottom = 6.90		(exceeds Action Level)
Measured Levels at SR4	Mid-ebb	DO, Surface and Middle = 6.89 DO, Bottom = 6.83		(exceeds Action Level)
	Mid-flood	DO, Surface and Middle = 6.83 DO, Bottom = 7.18		

The Contractor confirmed that concrete slabs were installed at the Urmston Road and over 2 km away from the airport side on 14 January 2009.

During mid-ebb tidal and mid-flood tidal conditions, DO levels at the concerned stations were similar to or higher than those recorded at the Control Stations C3, C4 or the Gradient Station G1 (see *Figures 6.2* and *6.3*). Exceedances were recorded at both upstream and downstream stations. This implies that the exceedances may be due to natural variation.

Dissolved Oxygen, Surface and Middle, levels of all Impact Stations did not show non-compliance during the following mid-ebb tidal conditions.



ID	Easting	Northing
C4	810860	821186
D2	811444	820593
U2	812189	820563
SR2	811399	820333
SR3	812468	820712
SR4	812638	820985
G1	813399	820563
C3	814300	820563

Figure 6.2

Mid Ebb Water Quality Monitoring

(14 January 2009)

Environmental Resources Management

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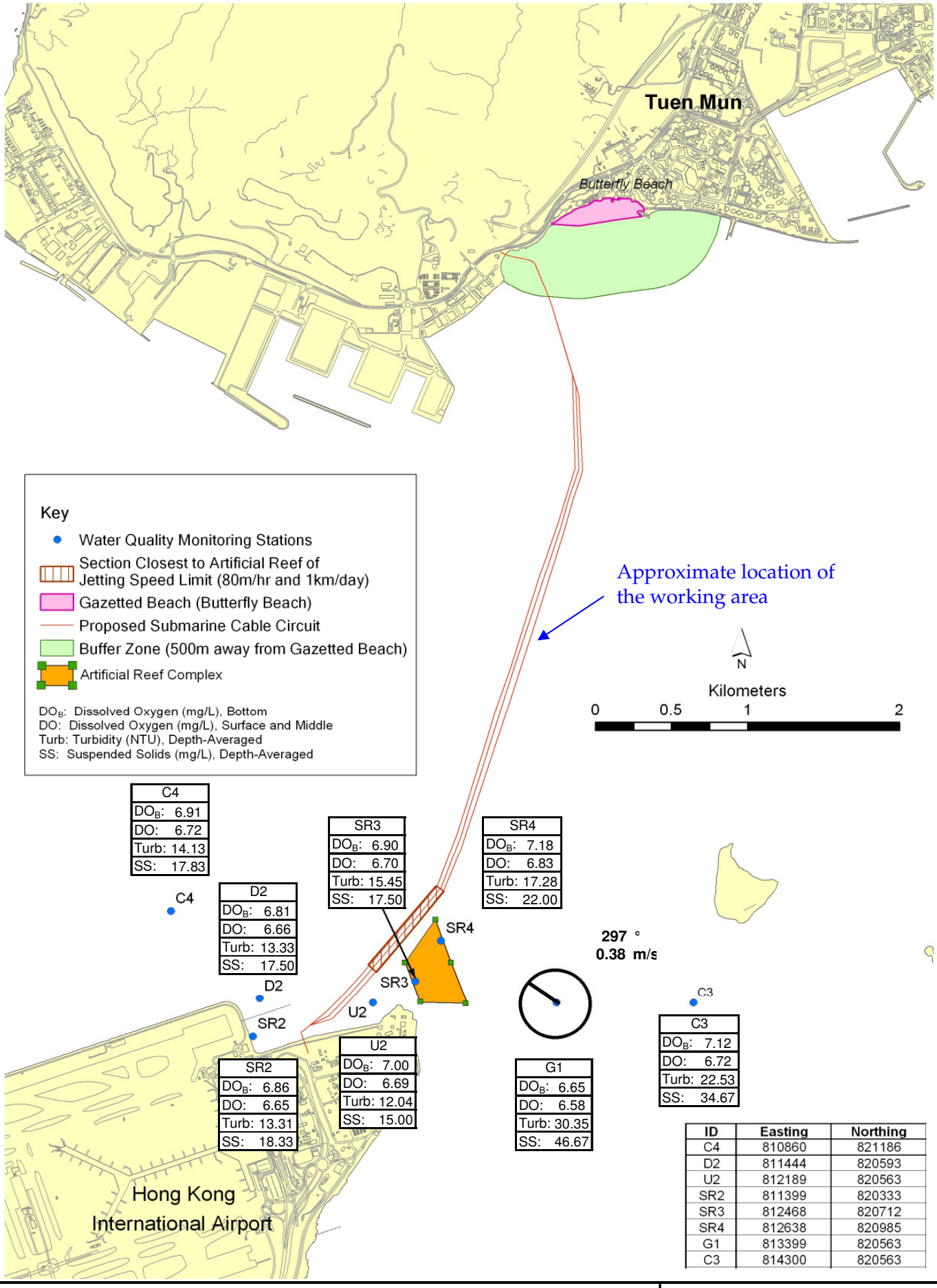

ID	Easting	Northing
C4	810860	821186
D2	811444	820593
U2	812189	820563
SR2	811399	820333
SR3	812468	820712
SR4	812638	820985
G1	813399	820563
C3	814300	820563

Figure 6.3

Mid Flood Water Quality Monitoring

(14 January 2009)

Environmental Resources Management

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Ref: 0072833_NOE_graphs_week 31.doc

Dissolved Oxygen, Bottom, levels of all Impact Stations did not show non-compliance during the preceding mid-flood tidal conditions.

Based on the above, the exceedances during mid-ebb and mid–flood were considered unlikely to be caused by the project and therefore, no action was necessary.

The exceedance incident has been notified to EPD and LCSD.

6.1.3 Exceedance on 15 January 2009

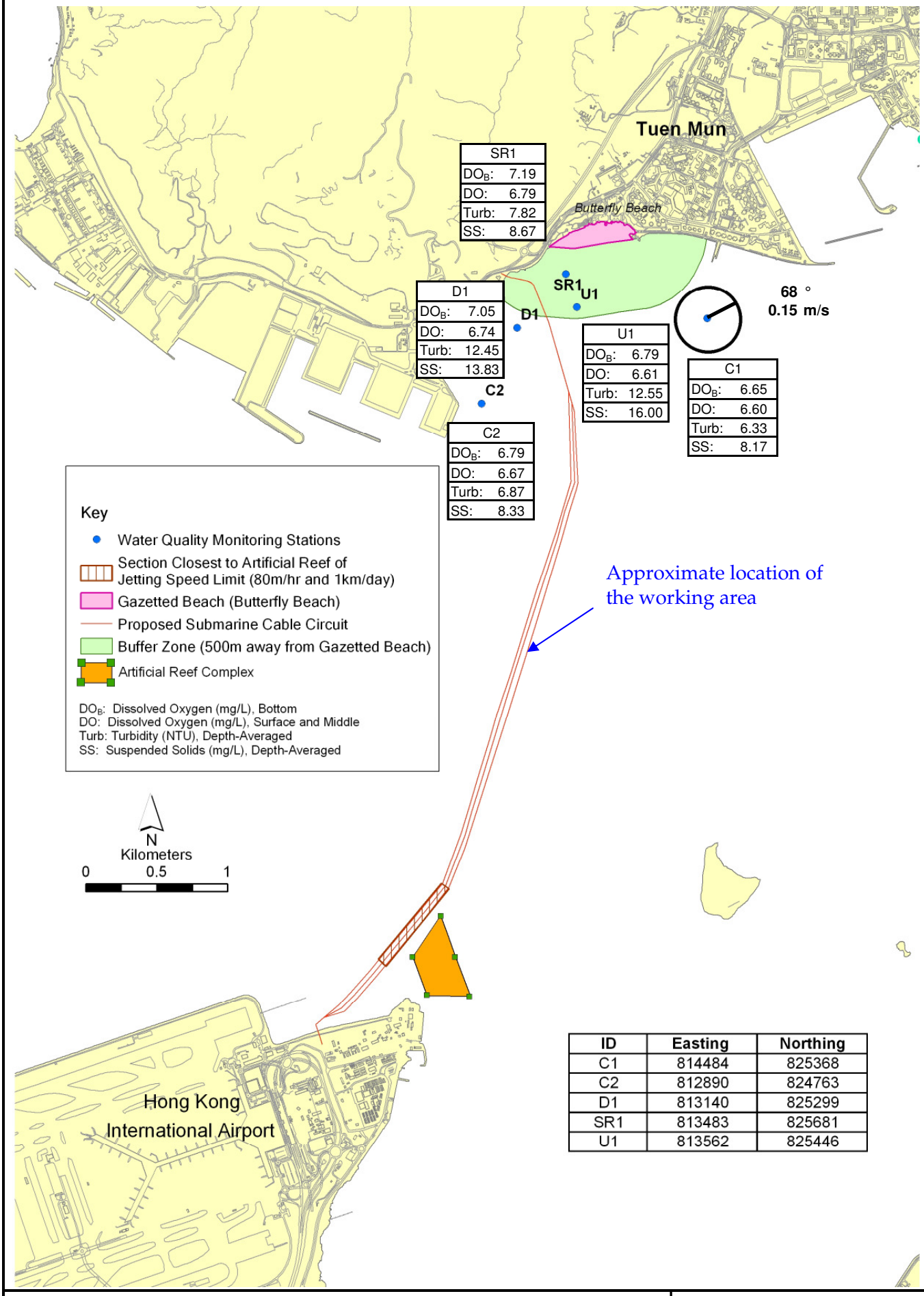
Exceedances of the Action and Limit Levels of depth-averaged Turbidity (NTU) and Suspended Solids (mg/L) were recorded at Stations D1, U1 and SR1 during mid-ebb tide on 15 January 2009 (*Table 6.3*).

Table 6.3 Exceedances of Action and Limit Levels of depth-averaged Turbidity (NTU) and Suspended Solids (mg/L) during Mid-ebb Tide on 15 January 2009

Exceedance Log No.	0072833_15 January 09_Turb_E_Station D1 0072833_15 January 09_Turb_E_Station U1 0072833_15 January 09_Turb_E_Station SR1 0072833_15 January 09_SS_E_Station D1 0072833_15 January 09_SS_E_Station U1			
Sampling date	15 January 2009 (Measured)			
Monitoring station	D1, U1 and SR1			
Parameter	Turbidity (NTU) Suspended Solids (SS, mg/L)			
Action Levels	Mid-Ebb	Turbidity, Depth-averaged =	7.0	
		SS, Depth-averaged =	12.8	
	Mid-Flood	Turbidity, Depth-averaged =	14.8	
		SS, Depth-averaged =	23.6	
Limit Levels	Mid-Ebb	Turbidity, Depth-averaged =	8.3	
		SS, Depth-averaged =	13.3	
	Mid-Flood	Turbidity, Depth-averaged =	18.9	
		SS, Depth-averaged =	28.3	
Measured Levels at D1	Mid-Ebb	Turbidity, Depth-averaged =	12.45	(exceeds Limit Level)
		SS, Depth-averaged =	13.83	(exceeds Action Level)
	Mid-Flood	Turbidity, Depth-averaged =	9.18	
		SS, Depth-averaged =	12.20	
Measured Levels at U1	Mid-Ebb	Turbidity, Depth-averaged =	12.55	(exceeds Limit Level)
		SS, Depth-averaged =	14.50	(exceeds Action Level)
	Mid-Flood	Turbidity, Depth-averaged =	12.30	
		SS, Depth-averaged =	18.33	
Measured Levels at SR1	Mid-Ebb	Turbidity, Depth-averaged =	7.82	(exceeds Action Level)
		SS, Depth-averaged =	8.67	
	Mid-Flood	Turbidity, Depth-averaged =	8.90	
		SS, Depth-averaged =	12.33	

The Contractor confirmed that concrete slabs were installed at the Urmston Road and over 2 km away from the Butterfly beach on 15 January 2009. *Figure 6.4* shows the location of the working area.

Turbidity and SS exceedances were noted at both upstream and downstream impact stations. This indicates that there could be influence from some localised activities in the vicinity which were not related to the project works.



ID	Easting	Northing
C1	814484	825368
C2	812890	824763
D1	813140	825299
SR1	813483	825681
U1	813562	825446

Figure 6.4

Mid Ebb Water Quality Monitoring

(15 January 2009)

Environmental Resources Management

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Ref: 0072833_NOE_graphs_week 31.doc

No non-compliance of turbidity and SS was recorded at all the impact stations during the preceding mid-flood tidal conditions. No action was hence required.

The exceedance incident has been notified to EPD and LCSD.

6.1.4 Exceedance on 16 January 2009

Exceedances of the Action Levels of Dissolved Oxygen, Bottom (mg/L), Dissolved Oxygen, Surface and Middle (mg/L) and depth-averaged Turbidity (NTU) were recorded at Stations U2, SR3 and SR4 during mid-ebb tide and mid-flood tide on 16 January 2009 (*Table 6.4*).

Table 6.4 Exceedances of Action Levels of Dissolved Oxygen, Bottom (mg/L), Dissolved Oxygen, Surface and Middle (mg/L) and depth-averaged Turbidity (NTU) during Mid-ebb Tide and Mid-flood Tide on 16 January 2009

Exceedance Log No.	0072833_16 January 09_Turb_E_Station SR3 0072833_16 January 09_DOB_F_Station SR3 0072833_16 January 09_DOB_F_Station SR4 0072833_16 January 09_DO_F_Station SR4 0072833_16 January 09_DO_F_Station U2			
Sampling date	16 January 2009			
Monitoring station	Stations U2, SR3 and SR4			
Parameter	Dissolved Oxygen, Bottom (mg/L) Dissolved Oxygen, Surface and Middle (mg/L) Depth-averaged Turbidity (NTU)			
Action Levels	Mid-ebb	DO, Surface and Middle	= 6.6	
		DO, Bottom	= 6.9	
		Turbidity, Depth-averaged	= 17.4	
	Mid-flood	DO, Surface and Middle	= 6.8	
		DO, Bottom	= 6.8	
		Turbidity, Depth-averaged	= 22.9	
Limit Levels	Mid-ebb	DO, Surface and Middle	= 4.0	
		DO, Bottom	= 2.0	
		Turbidity, Depth-averaged	= 25.9	
	Mid-flood	DO, Surface and Middle	= 4.0	
		DO, Bottom	= 2.0	
		Turbidity, Depth-averaged	= 27.4	
Measured Levels at U2	Mid-ebb	DO, Surface and Middle	= 7.76	
		DO, Bottom	= 7.79	
	Mid-flood	DO, Surface and Middle	= 6.78	(exceeds Action Level)
		DO, Bottom	= 6.86	
Measured Levels at SR3	Mid-ebb	DO, Surface and Middle	= 7.73	
		DO, Bottom	= 7.74	
		Turbidity, Depth-averaged	= 18.58	(exceeds Action Level)
	Mid-flood	DO, Surface and Middle	= 6.80	
		DO, Bottom	= 6.73	(exceeds Action Level)
		Turbidity, Depth-averaged	= 14.05	
Measured Levels at SR4	Mid-ebb	DO, Surface and Middle	= 7.63	
		DO, Bottom	= 7.74	
	Mid-flood	DO, Surface and Middle	= 6.64	(exceeds Action Level)
		DO, Bottom	= 6.70	(exceeds Action Level)

The Contractor confirmed that concrete slabs were installed at the Urmston Road and over 2 km away from the airport side on 16 January 2009.

During mid-flood tidal conditions, DO levels at the impact stations were similar to or higher than those recorded at the Control Stations C3, C4 or the Gradient Station G1 (see *Figures 6.5* and *6.6*). In addition, exceedances were only recorded at the upstream impact monitoring stations U2, SR3 and SR4. This suggests that the exceedances may be due to natural variation. Dissolved Oxygen levels of all Impact Stations did not show non-compliance during the following mid-ebb tidal conditions

SR4 was situated closer to the Project works than SR3. The turbidity level at station SR4 was however lower than that measured at SR3 during mid-ebb tide. This implies the exceedances may be resulted from some temporary localised influence in the vicinity of SR4. Turbidity levels of all Impact Stations did not show non-compliance during the preceding mid-flood tidal conditions.

The exceedance incident has been notified to EPD and LCSD.

6.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

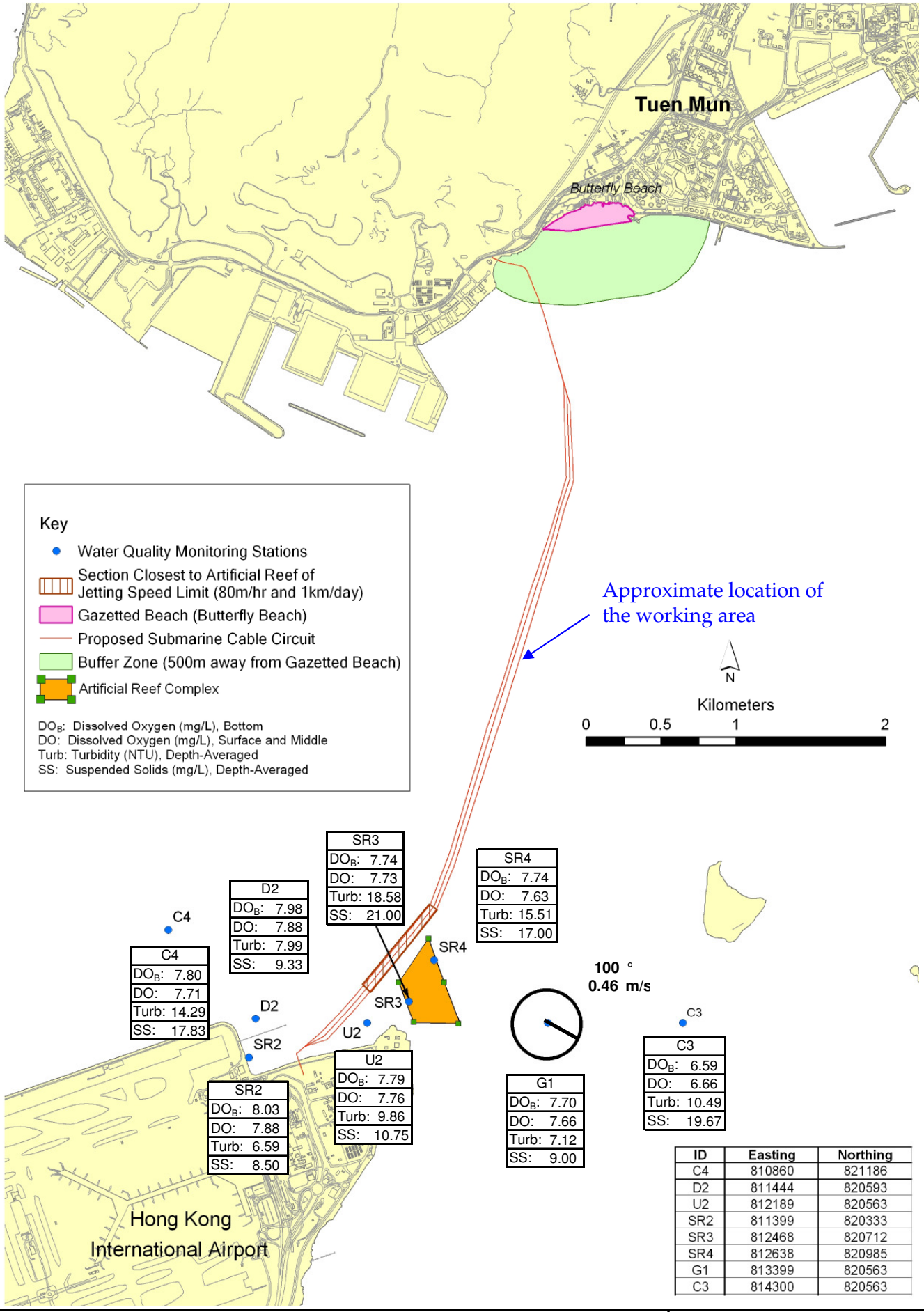
No non-compliance event was recorded during the reporting period.

6.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaint was received during the reporting period.

6.4 SUMMARY OF ENVIRONMENTAL SUMMONS AND PROSECUTION

No summons or prosecution on environmental matters was received during the reporting period.



ID	Easting	Northing
C4	810860	821186
D2	811444	820593
U2	812189	820563
SR2	811399	820333
SR3	812468	820712
SR4	812638	820985
G1	813399	820563
C3	814300	820563

Figure 6.5

Mid Ebb Water Quality Monitoring

(16 January 2009)

Environmental Resources Management

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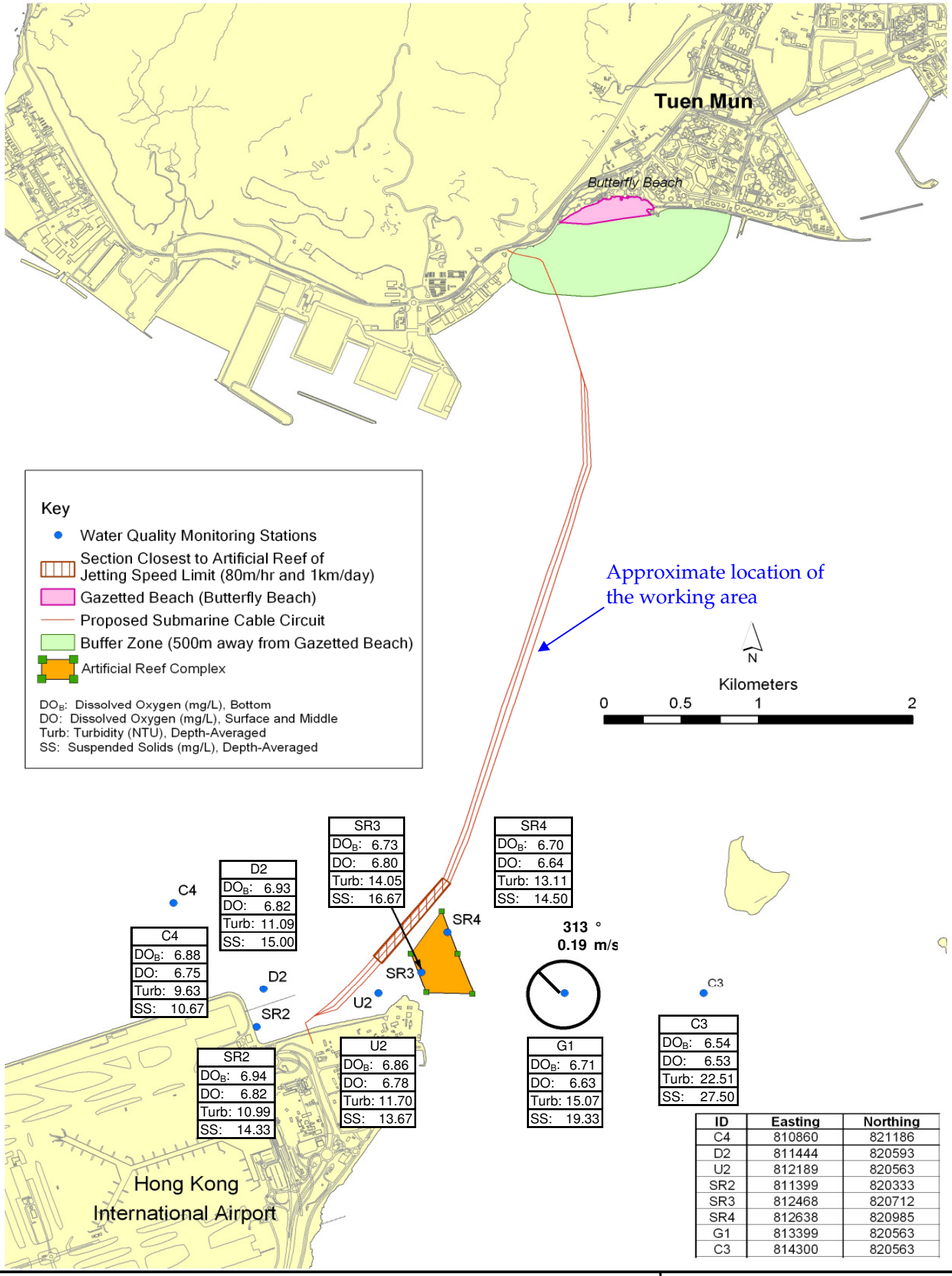


ID	Easting	Northing
C4	810860	821186
D2	811444	820593
U2	812189	820563
SR2	811399	820333
SR3	812468	820712
SR4	812638	820985
G1	813399	820563
C3	814300	820563

Figure 6.6

Mid Flood Water Quality Monitoring

(16 January 2009)

Environmental Resources Management

ERM

Ref: 0072833_NOE_graphs_week 31.doc

7 FUTURE KEY ISSUES

7.1 KEY ISSUES FOR THE COMING WEEK

During the following week (ie 19 January to 25 January 2009), installation of concrete slabs will continue at the Urmston Road.

The expected construction programme is enclosed in *Annex A*.

7.2 MONITORING SCHEDULE FOR THE COMING WEEK

The tentative schedule of impact water quality monitoring for the coming week is presented in *Annex C*. The environmental monitoring will be conducted at the same monitoring locations as those for this reporting week.

The Contractor confirmed that all jetting operations were completed on 23 April 2008. Since there were no jetting operations at the Project site during the reporting week, it was not necessary to compare the monitoring data with the impact assessment predictions in the Project Profile.

9 CONCLUSIONS

This Weekly Impact Monitoring Report presents the EM&A works undertaken during the period from 12 January to 18 January 2009 in accordance with the EM&A Manual and the requirements under *EP-267/2007*.

All measured dissolved oxygen levels complied with the Action and Limit (AL) Levels with exception of 14 January and 16 January 2009. Besides, all measured Turbidity and Suspended Solids (SS) levels were below AL Levels with exception of 13 January, 15 January and 16 January 2009. The exceedances were examined against the construction works. It was concluded that they were isolated cases and unlikely related to the Project.

No non-compliance event was recorded during the reporting week.

No complaint and summons/prosecution was received during the reporting week.

The ET will keep track of the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Annex A

Works Programme of the Period between 12 January 2009 and 1 February 2009

Marine Work of 132kV Submarine Cable Installation between Airport to Tuen Mun
(Concrete Slabs Installation at Urmston Road)

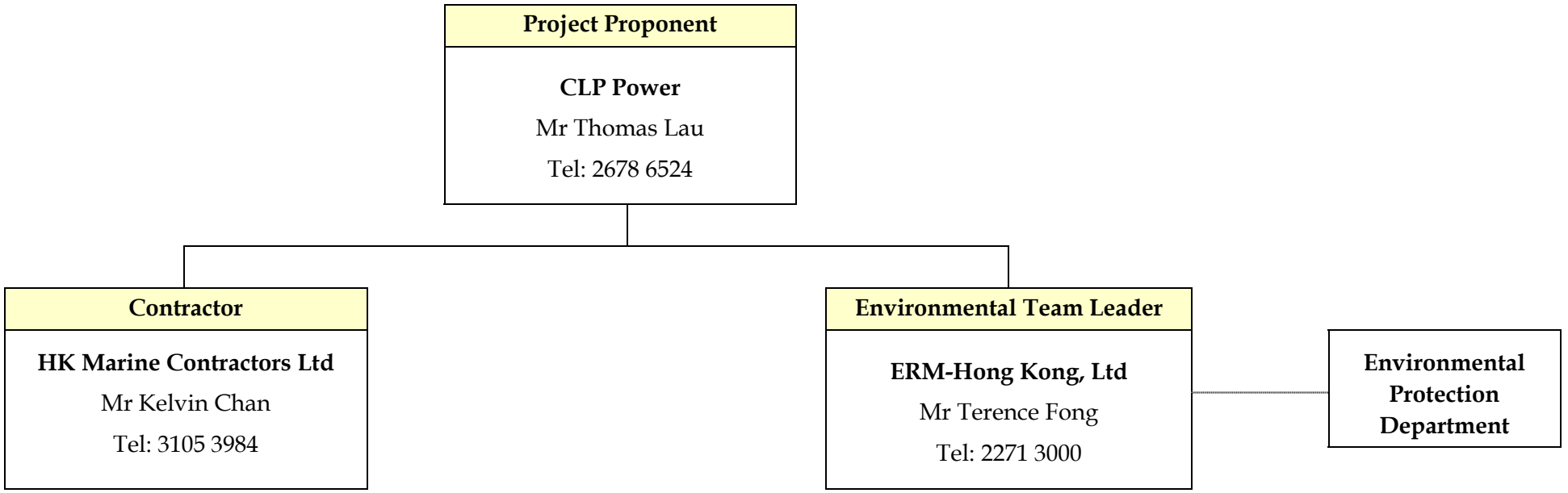
		Workdone for Last Week							Plan for This Week							Anticipate Plan for Next Week						
	Item Date	12/1	13/1	14/1	15/1	16/1	17/1	18/1	19/1	20/1	21/1	22/1	23/1	24/1	25/1	26/1	27/1	28/1	29/1	30/1	31/1	1/2
1	Mobilization of Plants																					
2	Installation of Concrete Slabs																					
3	Transfer of Concrete Slabs																					
4	Demobilization of Plants																					

Prepared by: Hong Kong Marine Contractors Ltd.
Ref. No. MCERM-132AIRPORTTM-000201-09
Date: 21/01/2009

Annex B

Project Organisation Chart (with Contact Details)

ANNEX B - PROJECT ORGANIZATION (WITH CONTACT DETAILS)



Annex C

Tentative Monitoring Schedule

Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit
Tentative Water Quality Monitoring Schedule at Tuen Mun and Airport landing site - January 2009
Concrete Slabs Installation at Urmston Road

Reference Tidal Station: Lok On Pai (source: HK Observatory Department) as of 24 December 2008

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Jan	2-Jan	3-Jan
4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan
		Mid-Ebb 7:18 Mid-Flood 13:33 *Impact Monitoring (Tuen Mun)*		Mid-Ebb 10:14 Mid-Flood 15:14 *Impact Monitoring (Tuen Mun)*		Mid-Ebb 12:17 Mid-Flood 17:15 *Impact Monitoring (Tuen Mun)*
11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan
	Mid-Ebb 13:55 Mid-Flood 19:07 *Impact Monitoring (Airport)*	Mid-Ebb 14:39 Mid-Flood 19:58 *Impact Monitoring (Tuen Mun)*	Mid-Flood 10:00 Mid-Ebb 15:22 *Impact Monitoring (Airport)*	Mid-Flood 10:35 Mid-Ebb 16:06 *Impact Monitoring (Tuen Mun)*	Mid-Flood 11:07 Mid-Ebb 16:52 *Impact Monitoring (Airport)*	Mid-Flood 11:38 Mid-Ebb 17:49 *Impact Monitoring (Tuen Mun)*
18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan
	Mid-Flood 12:36 Mid-Ebb 20:40 *Impact Monitoring (Airport)*	Mid-Flood 9:06 Mid-Ebb 21:48 *Impact Monitoring (Tuen Mun)*	Mid-Flood 10:15 Mid-Ebb 22:34 *Impact Monitoring (Airport)*	Mid-Flood 10:58 Mid-Ebb 23:14 *Impact Monitoring (Tuen Mun)*	Mid-Flood 15:55 Mid-Ebb 23:52 *Impact Monitoring (Airport)*	Mid-Ebb 12:06 Mid-Flood 16:53 *Impact Monitoring (Tuen Mun)*
25-Jan	26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan
	No marine works to be carried out at both the Tuen Mun and Airport sides and hence no impact water quality monitoring			Mid-Flood 9:16 Mid-Ebb 14:51 *Impact Monitoring (Airport)*		Mid-Flood 10:00 Mid-Ebb 16:01 *Impact Monitoring (Airport)*

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

Annex D

QA/QC Results of Laboratory Testing for Suspended Solids

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 9**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0900694**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **13-JAN-2009**		
Order number	: **----**			*Date of issue*	: **15-JAN-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **96**		
Site	: **----**				- *Analysed* : **96**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900694 supersedes any previous reports with this reference. The completion date of analysis is 15-JAN-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0900694 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 863079)								
HK0900694-001	2009/01/12/1452/C4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	17	16	0.0
HK0900694-012	2009/01/12/1404/SR3/T/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 863080)								
HK0900694-021	2009/01/12/1441/D2/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	16	16	0.0
HK0900694-031	2009/01/12/1345/SR4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	16	15	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 863081)								
HK0900694-041	2009/01/12/1330/G1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	13	12	0.0
HK0900694-051	2009/01/12/1946/C4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 863082)								
HK0900694-061	2009/01/12/1909/U2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	21	20	0.0
HK0900694-071	2009/01/12/1936/D2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	21	22	8.6
EA/ED: Physical and Aggregate Properties (QC Lot: 863083)								
HK0900694-081	2009/01/12/1827/SR4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0900694-091	2009/01/12/1921/SR2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	17	17	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 863079)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 863080)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 863081)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 863082)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 863083)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 6**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0900758**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **14-JAN-2009**		
Order number	: **----**			*Date of issue*	: **16-JAN-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **60**		
Site	: **----**				- *Analysed* : **60**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900758 supersedes any previous reports with this reference. The completion date of analysis is 15-JAN-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0900758 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 863872)								
HK0900758-001	2009/01/13/1407/C1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	13	13	0.0
HK0900758-012	2009/01/13/1430/SR1/T/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 863873)								
HK0900758-021	2009/01/13/1436/D1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
HK0900758-031	2009/01/13/1903/C1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	21	21	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 863874)								
HK0900758-041	2009/01/13/1937/SR1/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0900758-051	2009/01/13/1946/D1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 863872)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 863873)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 863874)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 9**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0900785**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **15-JAN-2009**		
Order number	: **----**			*Date of issue*	: **16-JAN-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **96**		
Site	: **----**				- *Analysed* : **96**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900785 supersedes any previous reports with this reference. The completion date of analysis is 16-JAN-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0900785 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 864371)								
HK0900785-001	2009/01/14/1534/C4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	21	20	0.0
HK0900785-011	2009/01/14/1450/SR3/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	16	16	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 864372)								
HK0900785-021	2009/01/14/1519/D2/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	11	12	0.0
HK0900785-031	2009/01/14/1432/SR4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	14	15	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 864373)								
HK0900785-042	2009/01/14/1424/G1/T/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	10	9	0.0
HK0900785-051	2009/01/14/1137/C4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	14	15	7.6
EA/ED: Physical and Aggregate Properties (QC Lot: 864374)								
HK0900785-061	2009/01/14/1103/U2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	16	17	0.0
HK0900785-071	2009/01/14/1129/D2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	20	19	7.8
EA/ED: Physical and Aggregate Properties (QC Lot: 864375)								
HK0900785-081	2009/01/14/1043/SR4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	16	14	15.5
HK0900785-092	2009/01/14/1114/SR2/M/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	18	19	8.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 864371)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 864372)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	91.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 864373)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 864374)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 864375)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	91.5	----	85	115	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 6**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0900912**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **16-JAN-2009**		
Order number	: **----**			*Date of issue*	: **20-JAN-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **60**		
Site	: **----**				- *Analysed* : **60**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900912 supersedes any previous reports with this reference. The completion date of analysis is 19-JAN-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0900912 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

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Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 866064)								
HK0900912-002	2009/01/15/1607/C1/M/E/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0900912-011	2009/01/15/1633/SR1/M/E/ REPL. 2	EA025: Suspended Solids (SS)	----	1	mg/L	7	6	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 866065)								
HK0900912-021	2009/01/15/1642/D1/T/E/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
HK0900912-031	2009/01/15/1031/C1/B/F/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	30	28	6.9
EA/ED: Physical and Aggregate Properties (QC Lot: 866066)								
HK0900912-041	2009/01/15/1109/SR1/M/F/ REPL. 2	EA025: Suspended Solids (SS)	----	1	mg/L	13	14	0.0
HK0900912-051	2009/01/15/1123/D1/T/F/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	10	11	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 866064)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 866065)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 866066)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.5	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 9		
Contact	: MS JOANNA KWAN	Contact	: Wong Wai Man, Alice	Work Order	: HK0901022		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS	Quote number	: ----	Date received	: 17-JAN-2009		
Order number	: ----			Date of issue	: 20-JAN-2009		
C-O-C number	: ----			No. of samples	- Received	:	96
Site	: ----				- Analysed	:	96

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0901022 supersedes any previous reports with this reference. The completion date of analysis is 19-JAN-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0901022 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

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Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 867292)								
HK0901022-001	2009/01/16/1830/C4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	27	26	0.0
HK0901022-011	2009/01/16/1747/SR3/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	26	26	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 867293)								
HK0901022-021	2009/01/16/1820/D2/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	6	7	0.0
HK0901022-031	2009/01/16/1726/SR4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	21	21	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 867294)								
HK0901022-041	2009/01/16/1716/G1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	11	11	0.0
HK0901022-051	2009/01/16/1254/C4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 867295)								
HK0901022-061	2009/01/16/1210/U2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	16	14	9.7
HK0901022-072	2009/01/16/1241/D2/T/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	11	11	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 867296)								
HK0901022-081	2009/01/16/1130/SR4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	12	12	0.0
HK0901022-092	2009/01/16/1224/SR2/M/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	13	13	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 867292)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 867293)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 867294)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 867295)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 867296)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.5	----	85	115	----	----

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 6**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0901052**		
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E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **19-JAN-2009**		
Order number	: **----**			*Date of issue*	: **20-JAN-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **60**		
Site	: **----**				- *Analysed* : **60**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0901052 supersedes any previous reports with this reference. The completion date of analysis is 19-JAN-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0901052 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 867297)								
HK0901052-001	2009/01/17/1749/C1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
HK0901052-012	2009/01/17/1809/SR1/T/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	10	11	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 867298)								
HK0901052-021	2009/01/17/1815/D1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
HK0901052-031	2009/01/17/1135/C1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	18	18	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 867299)								
HK0901052-041	2009/01/17/1155/SR1/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0901052-051	2009/01/17/1202/D1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

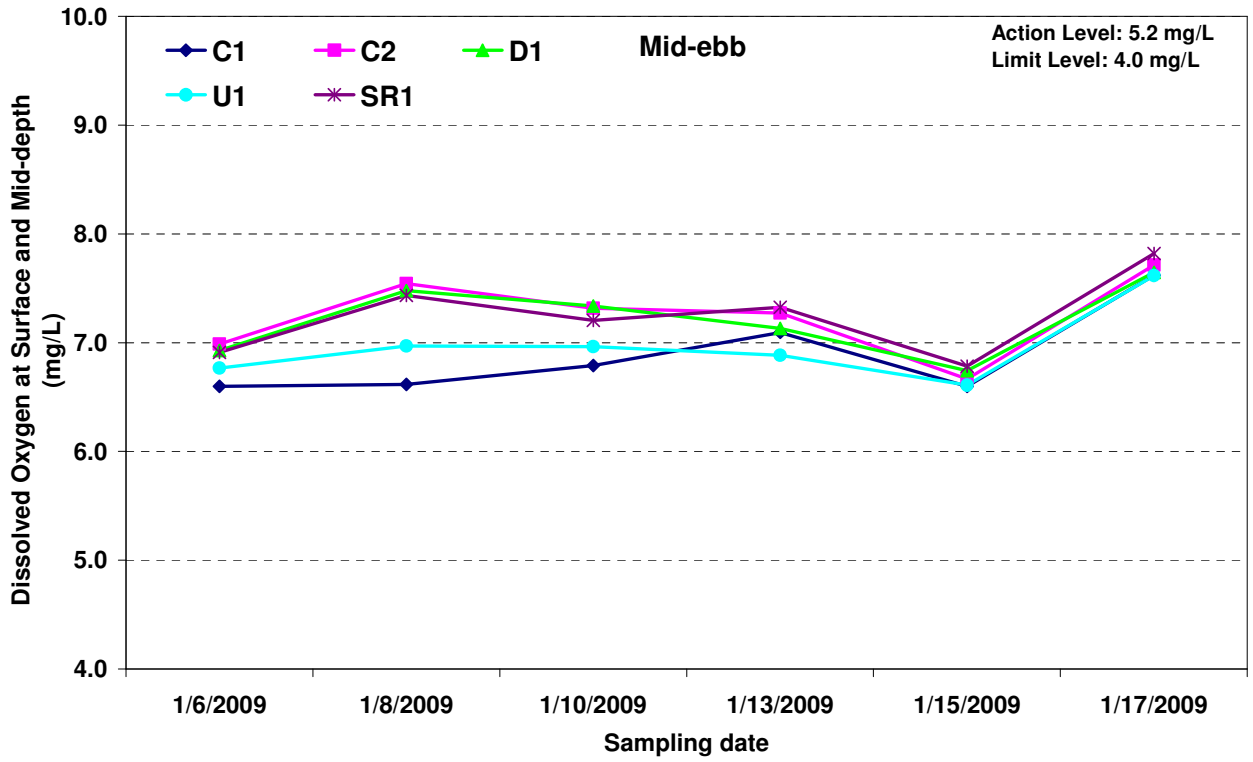
Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 867297)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	88.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 867298)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 867299)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

Annex E

Impact Water Quality Monitoring Results



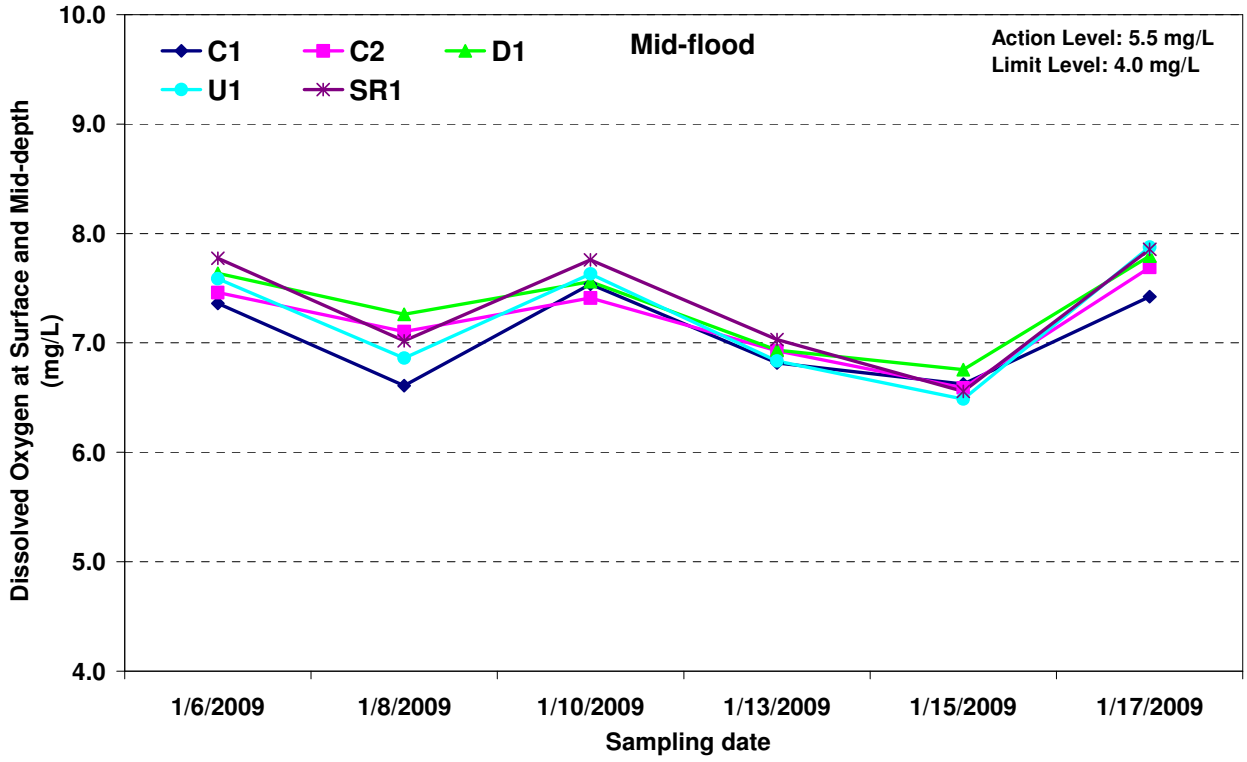
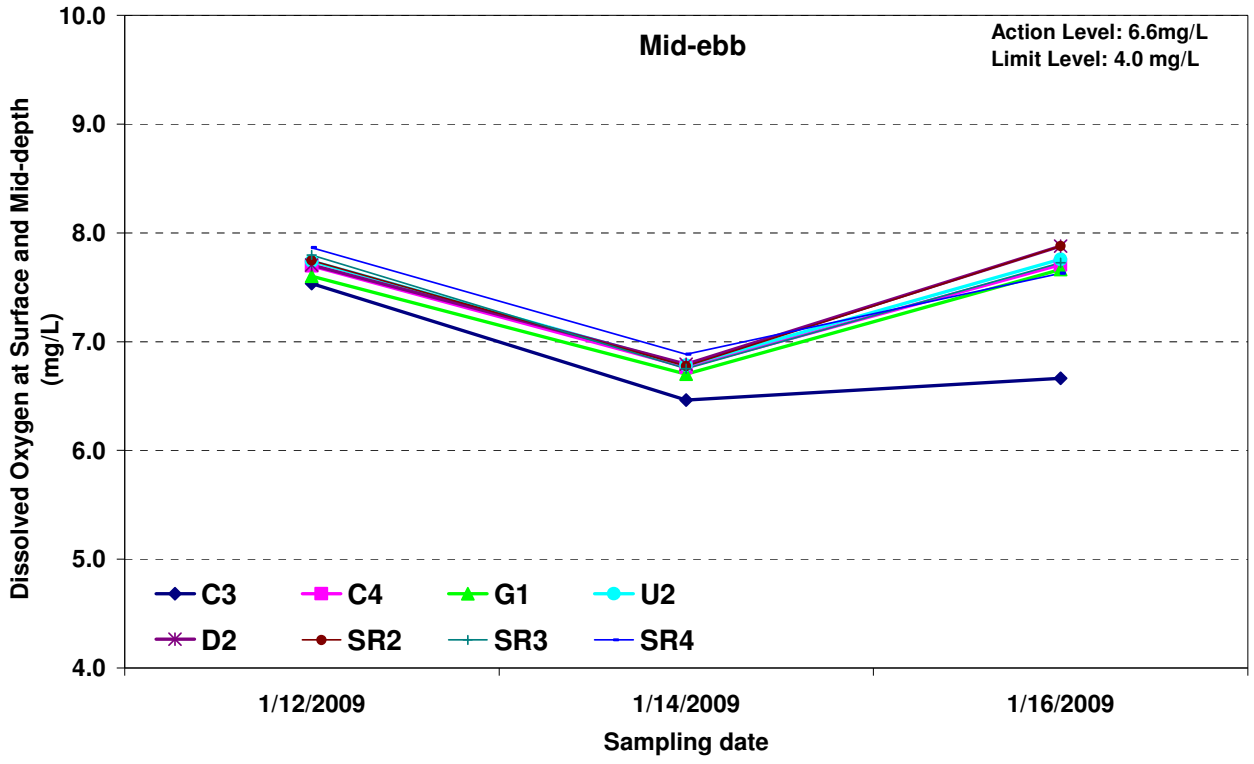


Figure E1 Dissolved oxygen concentration (mean of surface and mid-depth) (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 12 January and 18 January 2009.

ERM



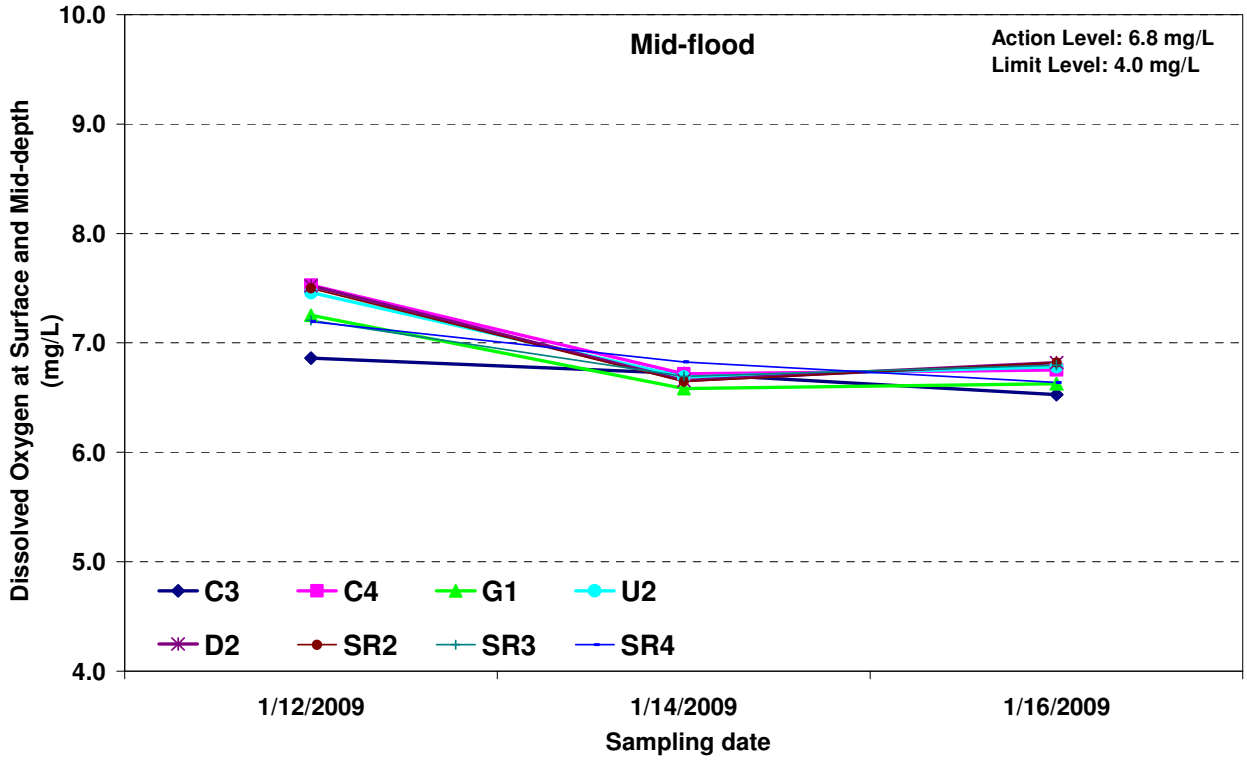
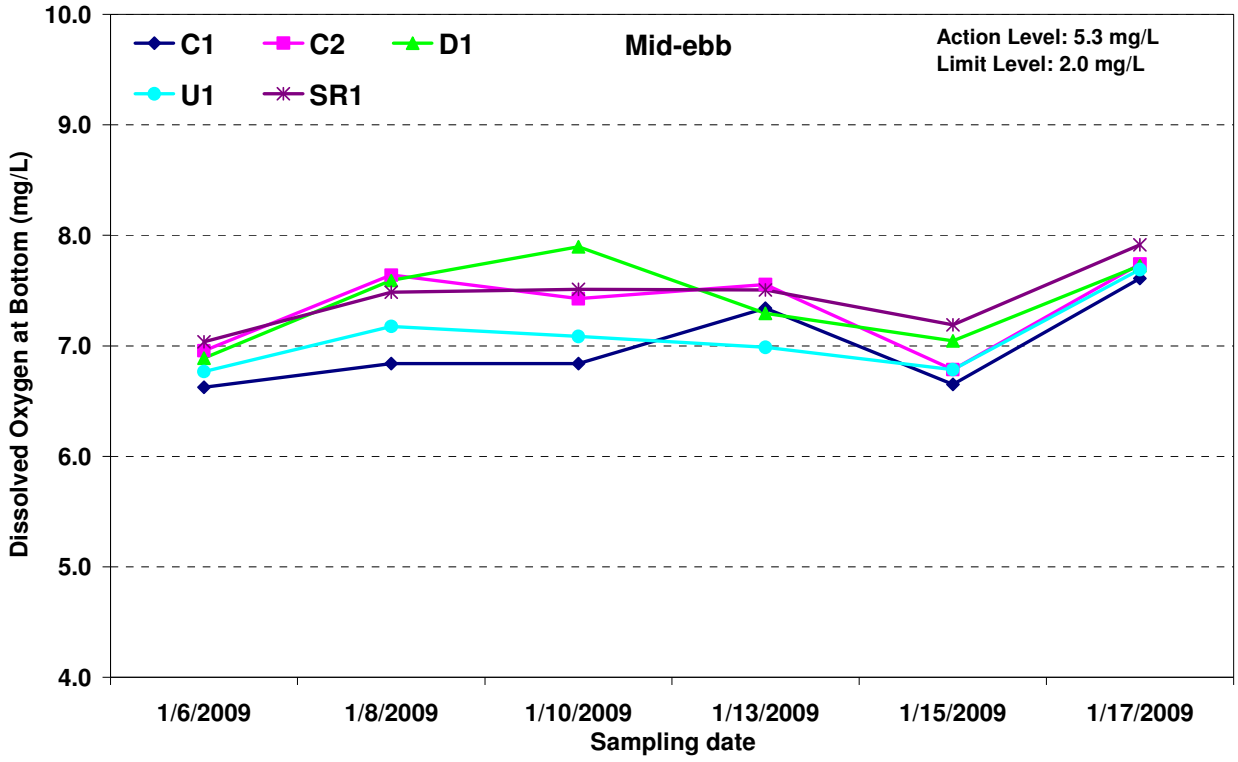


Figure E2 Dissolved oxygen concentration (mean of surface and mid-depth) (mg/L) of water samples from the eight sampling locations near the Airport at mid-ebb and mid-flood between 12January and 18 January 2009.

ERM



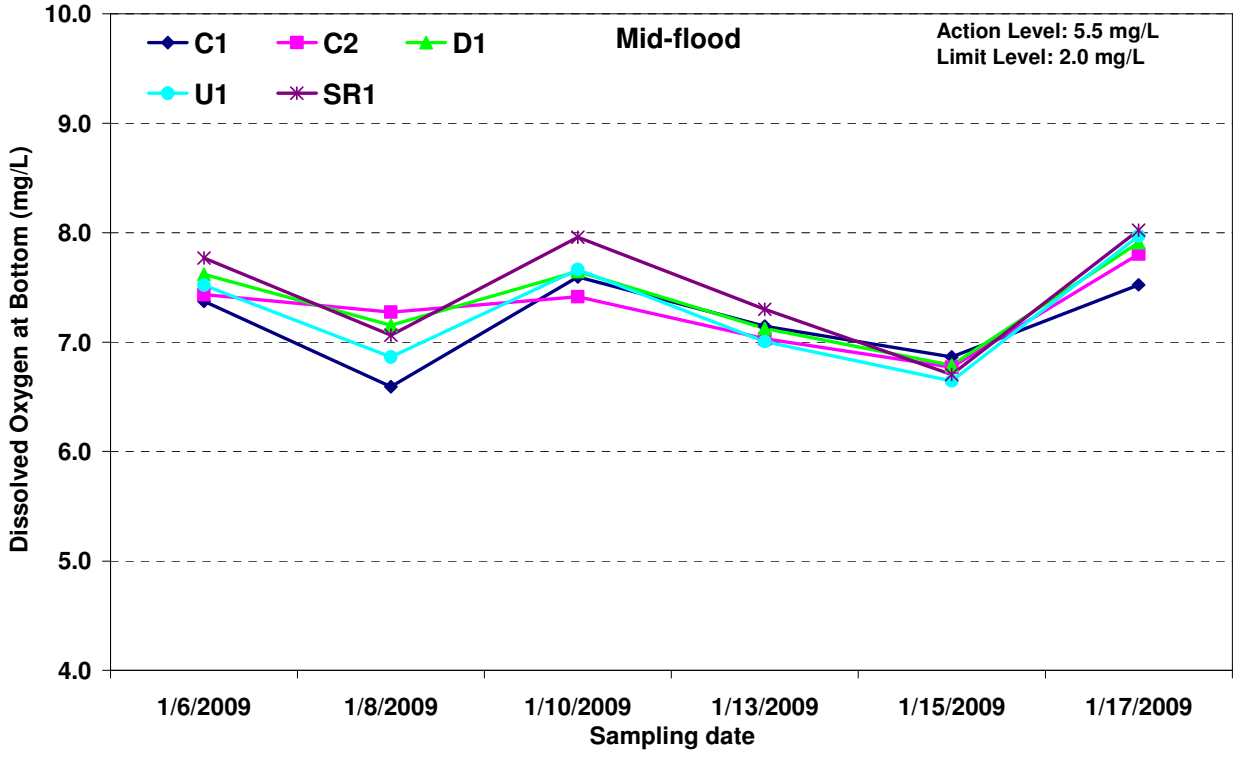
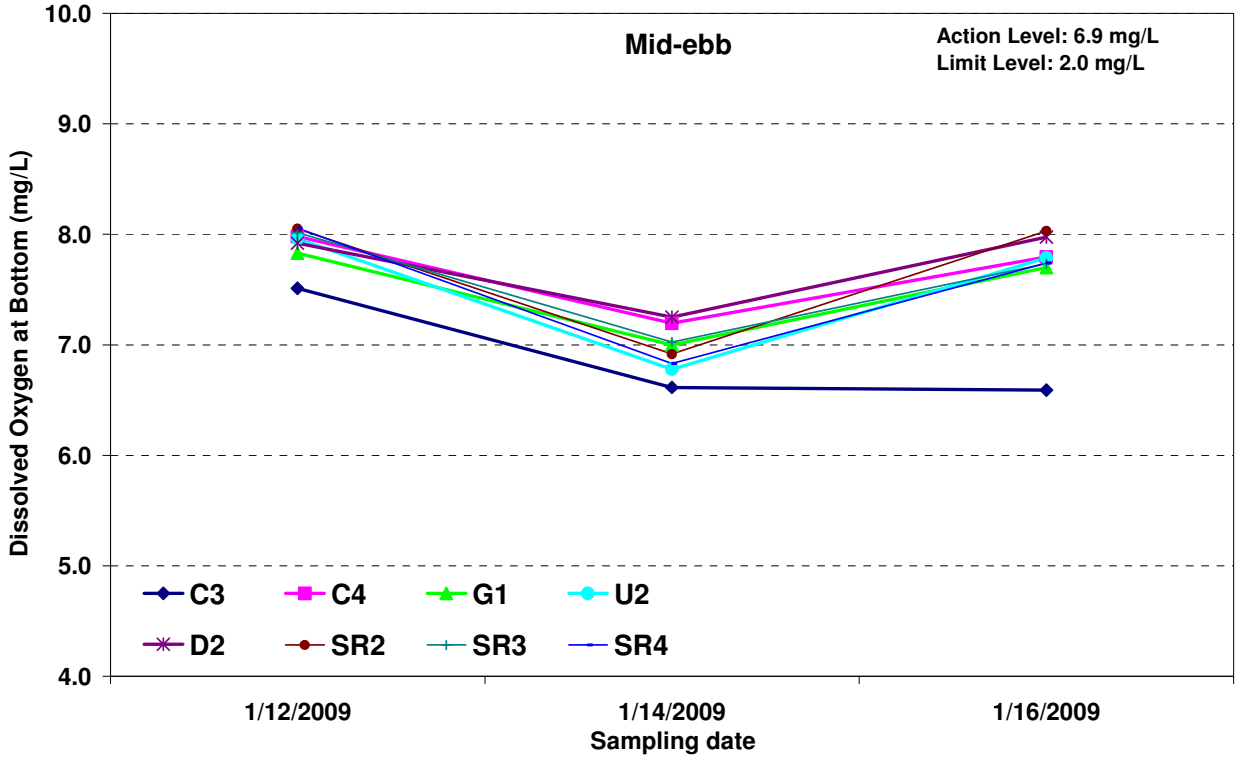


Figure E3 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 12 January and 18 January 2009.

ERM



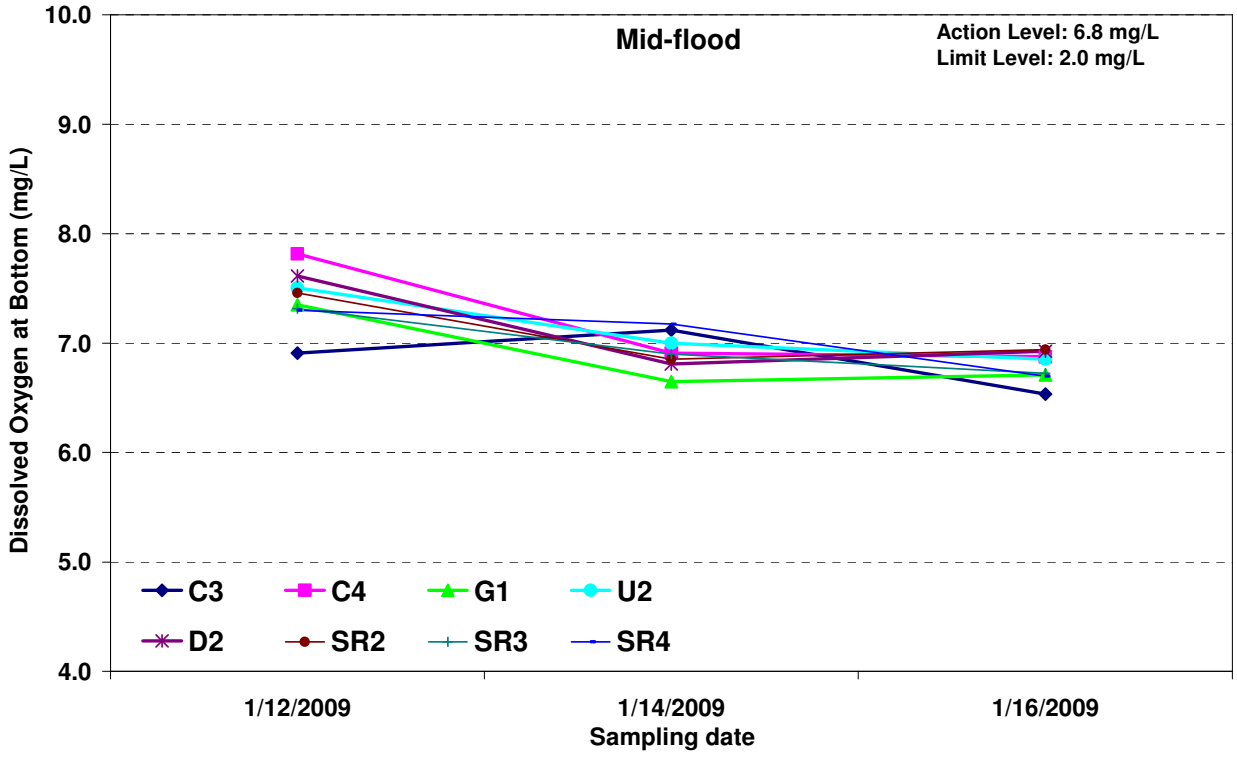
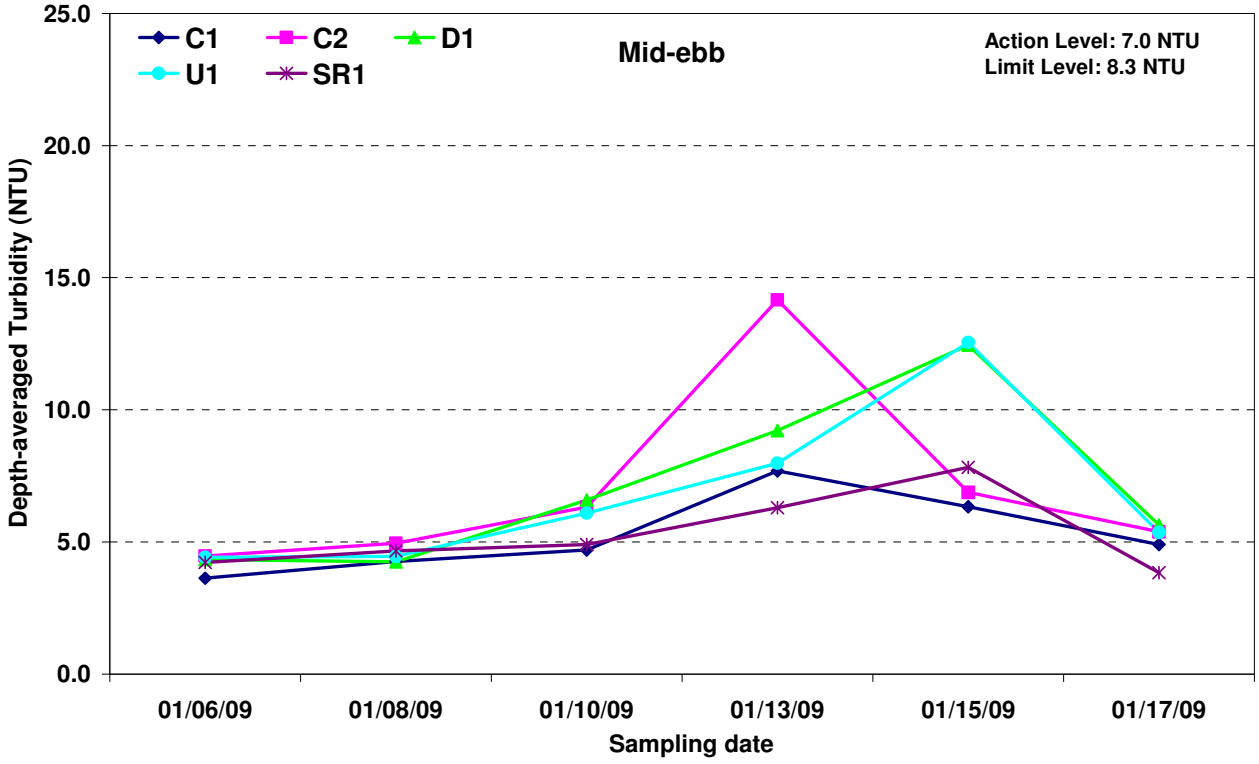


Figure E4 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the eight sampling locations near the Airport at mid-ebb and mid-flood between 12 January and 18 January 2009.



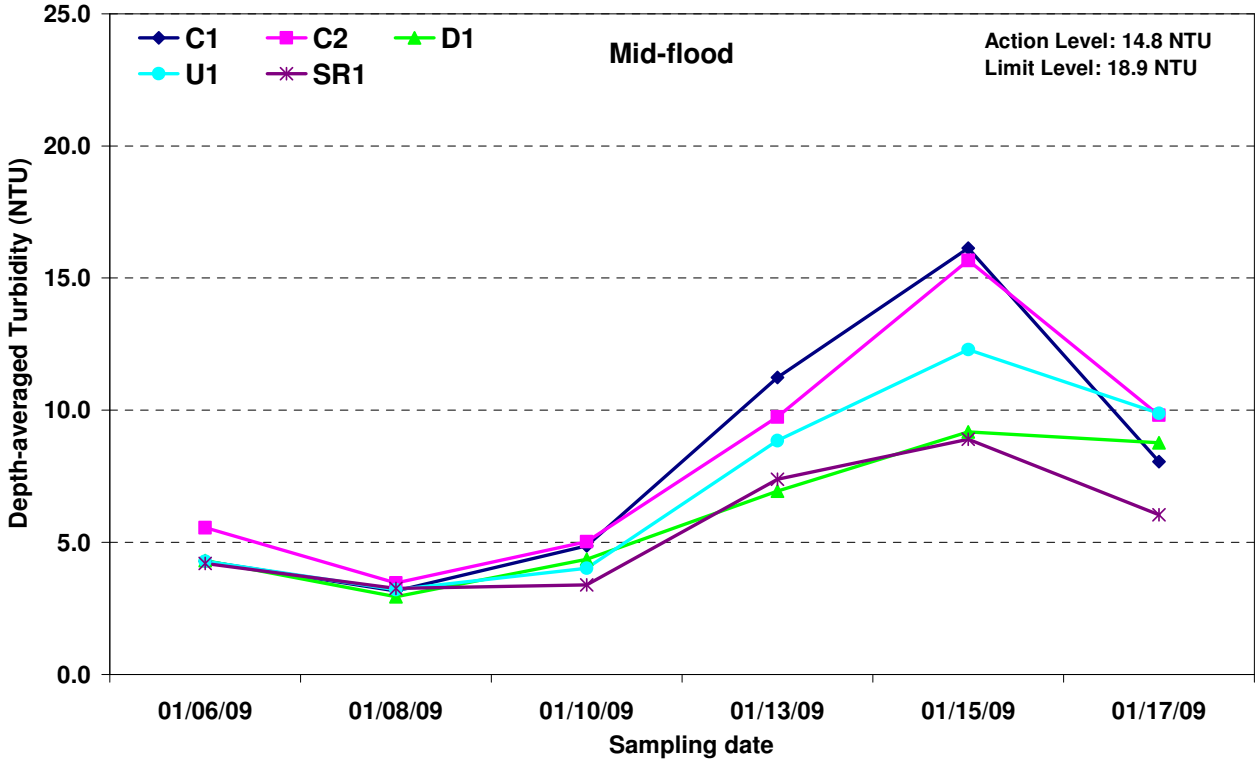
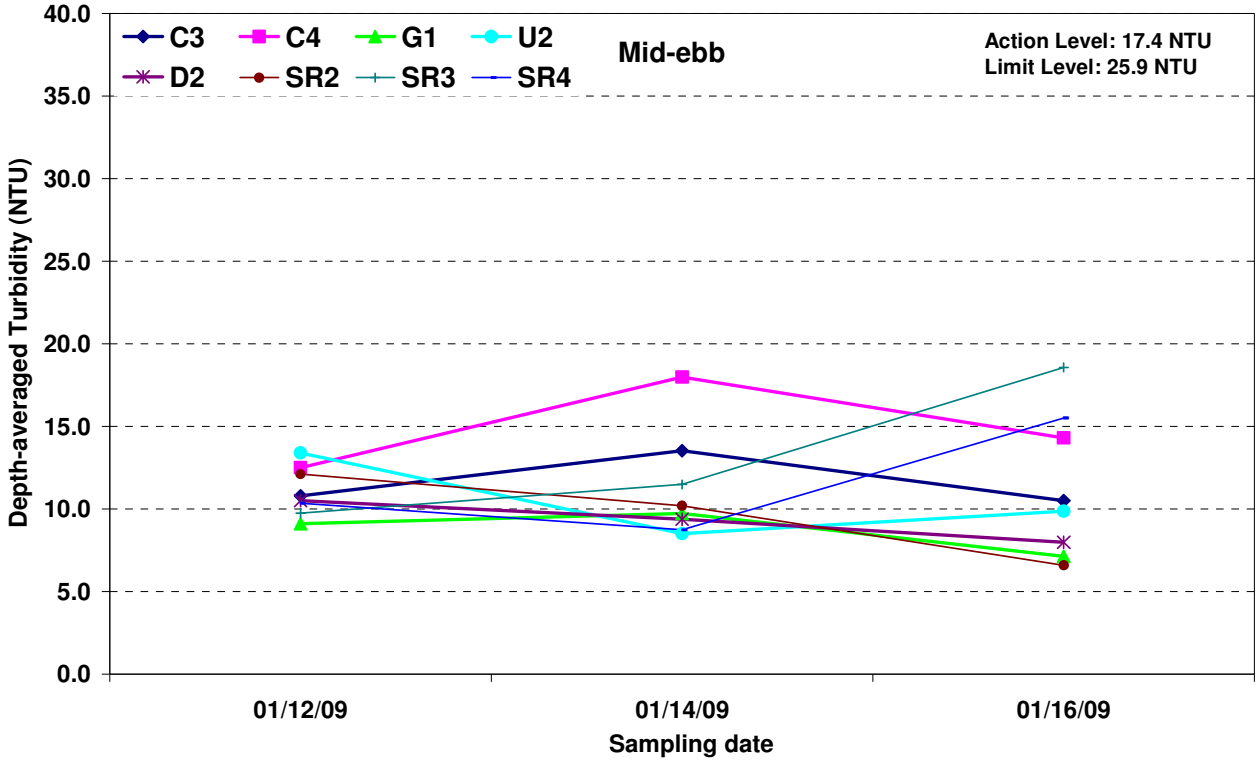


Figure E5 Depth-averaged turbidity (NTU) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 12 January and 18 January 2009.

ERM



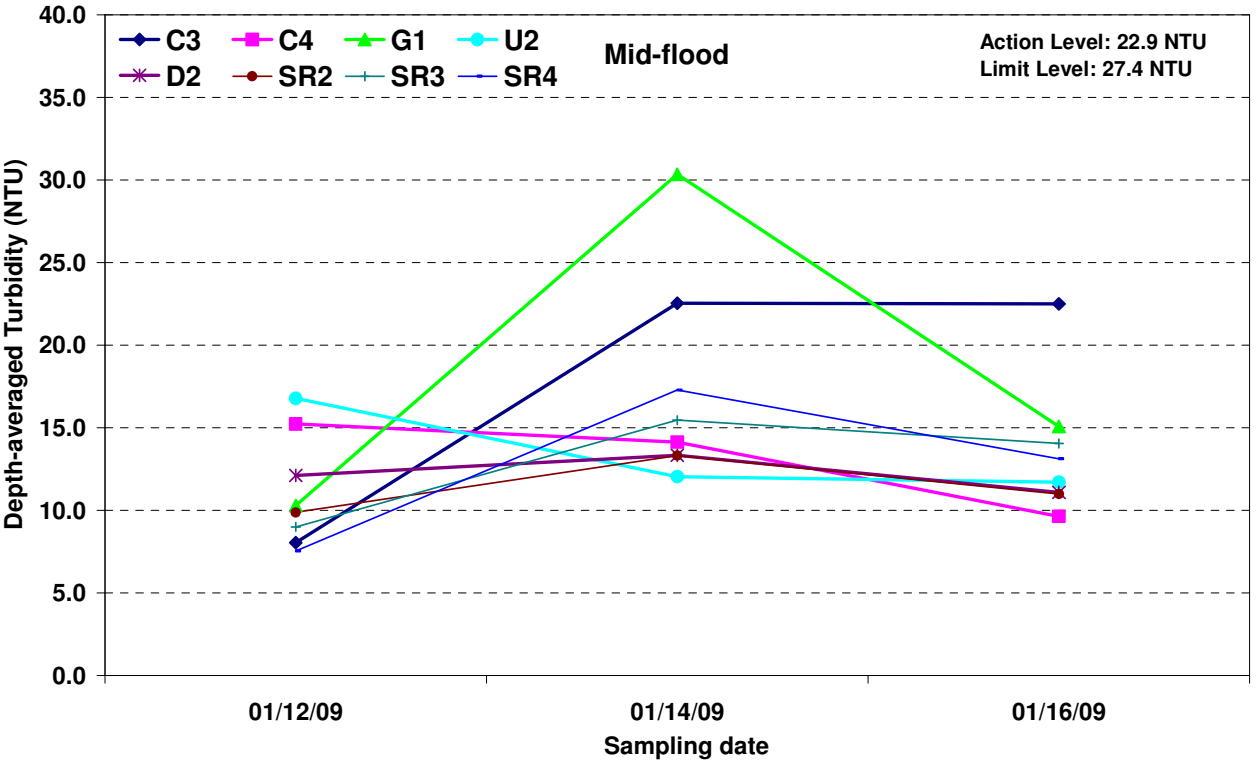
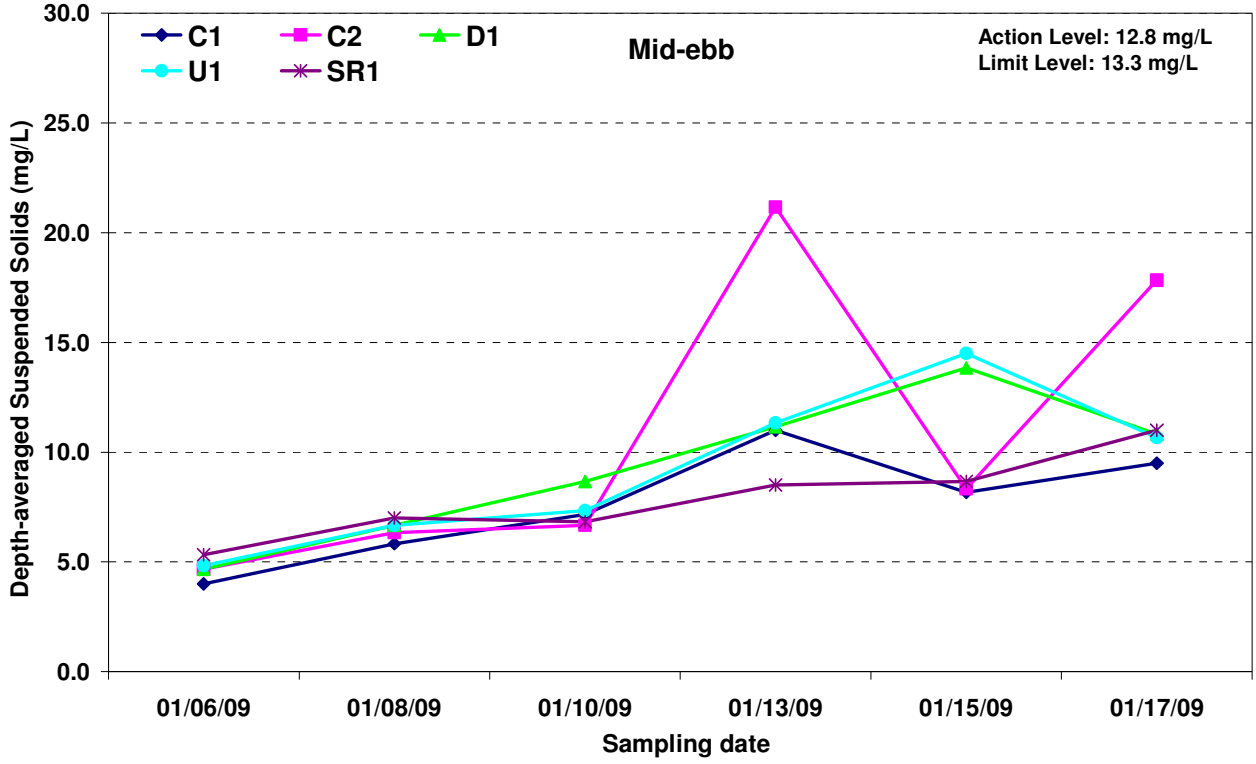


Figure E6 Depth-averaged turbidity (NTU) of water samples from the eight sampling locations near the Airport at mid-ebb and mid-flood between 12 January and 18 January 2009.

ERM



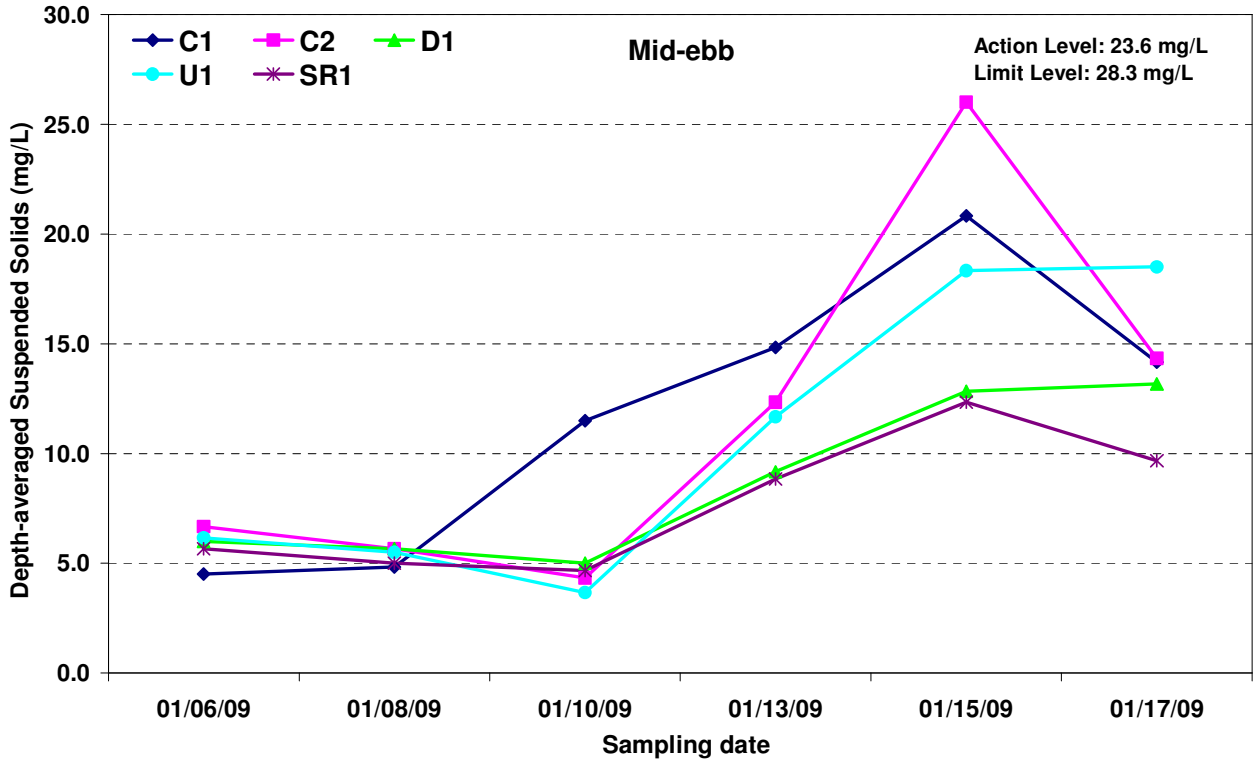
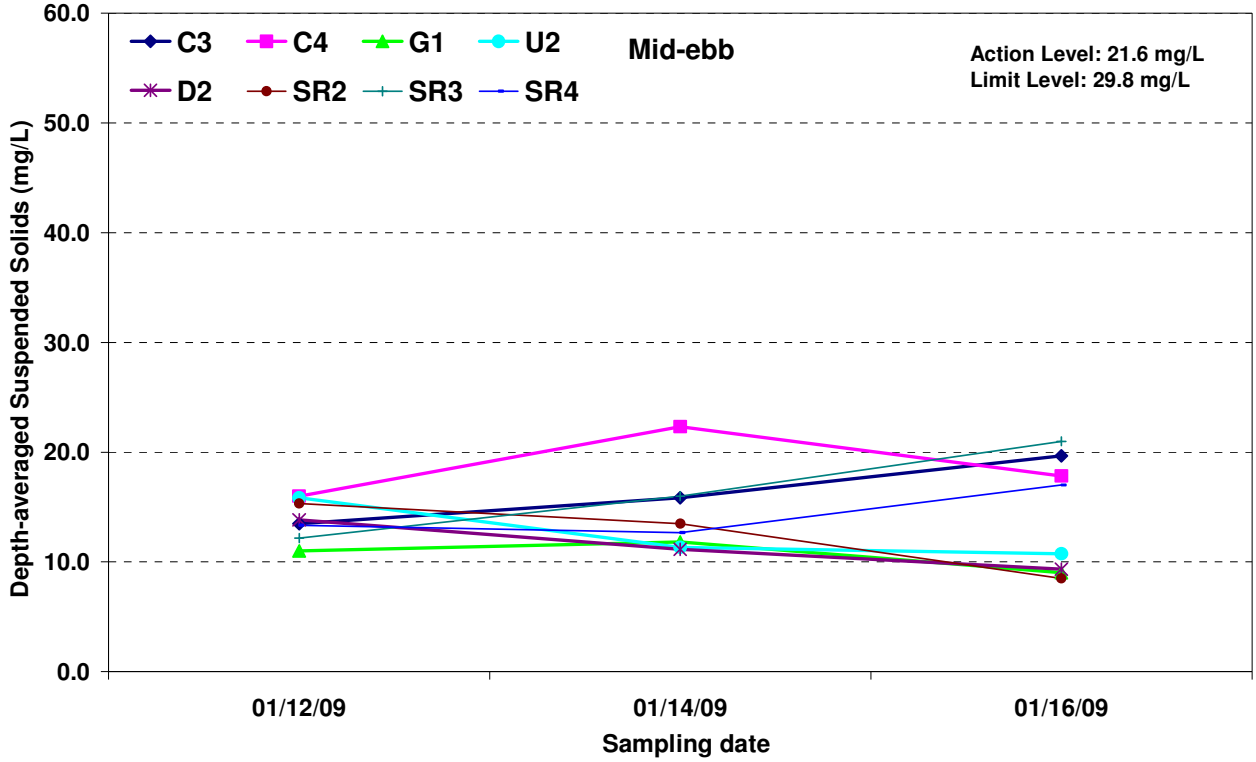


Figure E7 Depth-averaged suspended solids concentration (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 12 January and 18 January 2009.

ERM



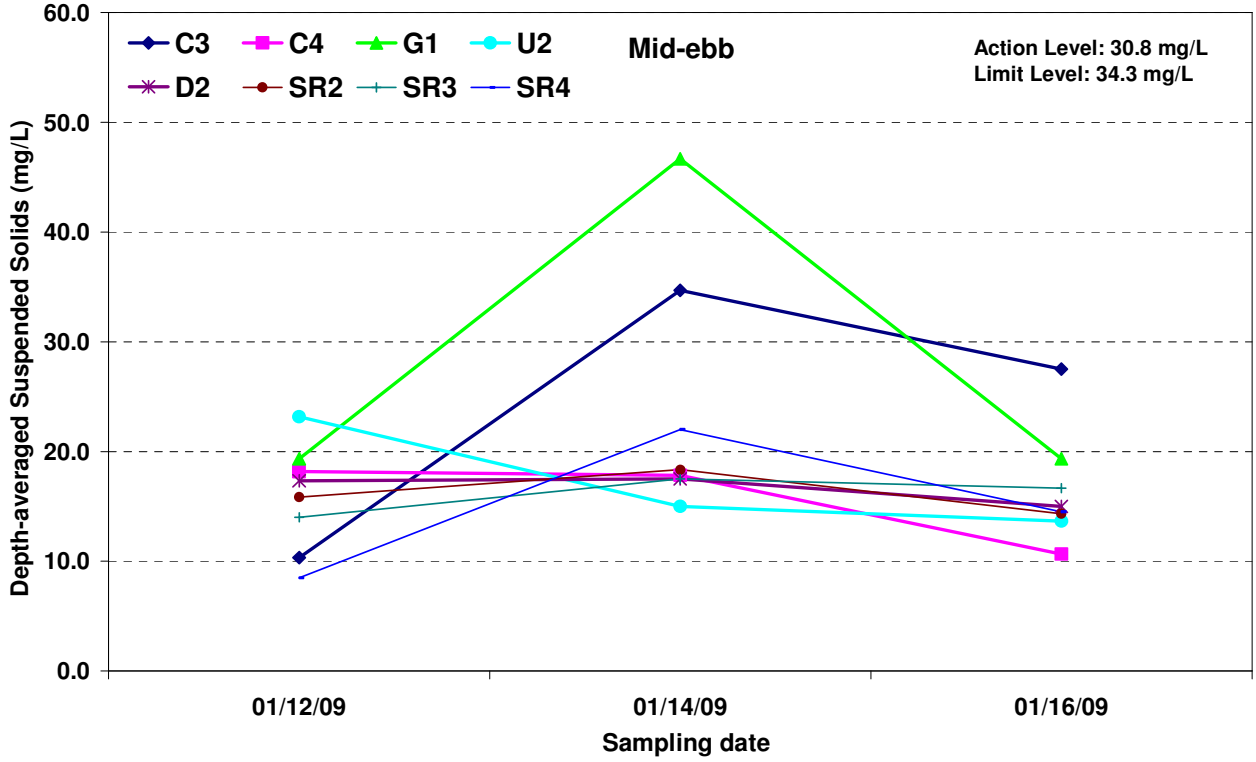


Figure E8 Depth-averaged suspended solids concentration (mg/L) of water samples from the eight sampling locations near the Airport at mid-ebb and mid-flood between 12 January and 18 January 2009.

Annex E1 - Water Quality Results at Airport during mid-ebb tide for 12 January 2009

Sampling Date	1/12/2009
Weather & Ambient Temperature	Sunny

Mid-Ebb

Station	C3								
Time (hh:mm)	13:06-13:15								
Water Depth (m)	11.70								
Monitoring Depth (m)	6.20		10.90		5.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	17.0	17.0	17.0	17.0	17.0	17.1	17.00	-	
Salinity (ppt)	33.6	33.6	33.6	33.6	33.6	33.6	33.57	-	
pH	8.0	8.0	8.0	8.0	7.9	8.0	7.96		
D.O. Saturation (%)	93.4	94.1	93.4	101.2	96.0	94.4	95.38	-	
D.O. (mg/L)	7.36	7.42	7.37	7.99	7.58	7.44	7.53	7.51	7.54
Turbidity (NTU)	10.00	11.00	13.30	9.10	12.50	9.10	10.79	-	
SS (mg/L)	12.0	10.0	12.0	16.0	15.0	16.0	13.50	-	
Remarks									

Station	U2								
Time (hh:mm)	14:10-14:15								
Water Depth (m)	8.20								
Monitoring Depth (m)	1.00		4.20		7.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.8	16.9	16.7	16.7	16.7	16.7	16.74	-	
Salinity (ppt)	33.5	33.5	33.6	33.5	33.6	33.5	33.54	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00		
D.O. Saturation (%)	97.9	97.3	98.4	96.7	101.3	99.0	98.47	-	
D.O. (mg/L)	7.76	7.71	7.81	7.68	8.05	7.87	7.81	7.96	7.74
Turbidity (NTU)	12.40	11.30	14.60	14.80	13.10	14.20	13.40	-	
SS (mg/L)	14.0	13.0	16.0	18.0	18.0	16.0	15.83	-	
Remarks									

Station	C4								
Time (hh:mm)	14:52-14:56								
Water Depth (m)	9.10								
Monitoring Depth (m)	1.20		4.60		8.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	17.0	17.0	16.9	16.9	16.9	16.9	16.94	-	
Salinity (ppt)	33.5	33.5	33.5	33.5	33.6	33.5	33.52	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99		
D.O. Saturation (%)	97.5	97.4	97.4	97.5	101.3	100.5	98.59	-	
D.O. (mg/L)	7.69	7.69	7.70	7.71	8.01	7.95	7.79	7.98	7.70
Turbidity (NTU)	10.80	10.40	14.20	12.80	13.80	13.10	12.50	-	
SS (mg/L)	12.0	17.0	16.0	15.0	17.0	19.0	16.00	-	
Remarks									

Station	SR2								
Time (hh:mm)	14:28-14:34								
Water Depth (m)	5.40								
Monitoring Depth (m)	1.10		1.90		4.30				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	17.0	16.8	17.0	16.9	16.8	16.8	16.86	-	
Salinity (ppt)	33.5	33.5	33.5	33.5	33.5	33.5	33.52	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00		
D.O. Saturation (%)	98.0	97.3	98.6	98.2	101.3	101.8	99.16	-	
D.O. (mg/L)	7.74	7.70	7.78	7.77	8.03	8.07	7.85	8.05	7.75
Turbidity (NTU)	11.30	13.20	11.20	12.70	13.30	11.20	12.10	-	
SS (mg/L)	11.0	13.0	16.0	12.0	17.0	23.0	15.33	-	
Remarks									

Station	D2								
Time (hh:mm)	14:39-14:45								
Water Depth (m)	7.30								
Monitoring Depth (m)	1.00		3.80		6.30				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.9	16.9	16.8	16.8	16.7	16.8	16.81	-	
Salinity (ppt)	33.5	33.5	33.6	33.5	33.5	33.5	33.53	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00		
D.O. Saturation (%)	97.6	96.7	97.3	97.8	98.8	100.8	98.14	-	
D.O. (mg/L)	7.71	7.65	7.71	7.75	7.85	7.99	7.78	7.92	7.71
Turbidity (NTU)	9.90	11.10	10.10	11.30	10.30	10.50	10.49	-	
SS (mg/L)	16.0	12.0	12.0	15.0	16.0	12.0	13.83	-	
Remarks									

Station	SR3								
Time (hh:mm)	13:59-14:04								
Water Depth (m)	12.90								
Monitoring Depth (m)	0.90		6.60		11.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.7	16.8	16.6	16.7	16.6	16.6	16.67	-	
Salinity (ppt)	33.6	33.5	33.6	33.6	33.6	33.6	33.58	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	98.7	98.2	98.2	97.9	100.7	100.8	99.11	-	
D.O. (mg/L)	7.83	7.78	7.81	7.77	8.01	8.02	7.87	8.02	7.80
Turbidity (NTU)	8.60	8.70	8.60	8.30	13.20	11.30	9.75	-	
SS (mg/L)	9.0	9.0	11.0	8.0	16.0	20.0	12.17	-	
Remarks									

Station	G1								
Time (hh:mm)	13:24-13:31								
Water Depth (m)	0.00								
Monitoring Depth (m)	1.10		6.30		10.80				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	17.1	17.1	16.9	16.9	16.7	16.8	16.92	-	
Salinity (ppt)	33.6	33.6	33.6	33.6	33.7	33.6	33.63	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01		
D.O. Saturation (%)	96.5	96.3	96.3	96.2	98.7	99.1	97.17	-	
D.O. (mg/L)	7.60	7.59	7.61	7.60	7.82	7.84	7.68	7.83	7.60
Turbidity (NTU)	9.50	8.80	8.60	8.80	10.10	9.00	9.10	-	
SS (mg/L)	9.0	12.0	10.0	13.0	11.0	11.0	11.00	-	
Remarks									

Station	SR4								
Time (hh:mm)	13:45-13:51								
Water Depth (m)	8.30								
Monitoring Depth (m)	1.10		4.50		7.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.5	16.5	16.4	16.5	16.4	16.4	16.46	-	
Salinity (ppt)	33.6	33.5	33.6	33.6	33.6	33.6	33.56	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	99.1	98.8	98.3	98.6	100.4	101.5	99.46	-	
D.O. (mg/L)	7.89	7.87	7.84	7.86	8.01	8.10	7.93	8.06	7.87
Turbidity (NTU)	10.40	9.80	10.00	10.00	11.70	10.40	10.34	-	
SS (mg/L)	9.0	11.0	14.0	11.0	16.0	19.0	13.33	-	
Remarks									

Annex E2 - Water Quality Results at Airport during mid-flood tide for 12 January 2009

Sampling Date	1/12/2009
Weather & Ambient Temperature	Sunny

Mid-Flood

Station	C3								
Time (hh:mm)	17:31-17:36								
Water Depth (m)	11.90								
Monitoring Depth (m)	1.20		6.40		10.80				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.5	16.6	16.63	-	
Salinity (ppt)	33.7	33.8	33.7	33.8	33.7	33.8	33.74	-	
pH	8.0	8.0	7.9	8.0	7.6	8.0	7.94		
D.O. Saturation (%)	86.8	86.7	86.3	86.3	86.6	87.0	86.62	-	
D.O. (mg/L)	6.88	6.87	6.85	6.84	6.90	6.92	6.88	6.91	6.86
Turbidity (NTU)	6.90	6.50	7.50	7.70	10.40	9.40	8.03	-	
SS (mg/L)	10.0	6.0	10.0	11.0	15.0	10.0	10.33	-	
Remarks									

Station	U2								
Time (hh:mm)	19:09-19:14								
Water Depth (m)	10.00								
Monitoring Depth (m)	1.30		5.00		9.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.6	16.7	16.68	-	
Salinity (ppt)	33.9	33.8	33.9	33.9	33.9	33.9	33.86	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	93.9	94.1	94.0	94.5	94.5	94.9	94.32	-	
D.O. (mg/L)	7.44	7.46	7.45	7.49	7.49	7.52	7.48	7.51	7.46
Turbidity (NTU)	15.20	15.60	16.20	19.10	16.10	18.20	16.77	-	
SS (mg/L)	17.0	21.0	26.0	31.0	21.0	23.0	23.17	-	
Remarks									

Station	C4								
Time (hh:mm)	19:44-19:50								
Water Depth (m)	17.50								
Monitoring Depth (m)	1.00		5.70		10.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.5	16.5	16.5	16.5	16.5	16.5	16.52	-	
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.87	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	94.4	94.7	94.8	94.9	97.8	98.7	95.88	-	
D.O. (mg/L)	7.50	7.53	7.54	7.54	7.78	7.85	7.62	7.82	7.53
Turbidity (NTU)	10.30	11.50	16.80	12.50	20.80	19.50	15.22	-	
SS (mg/L)	14.0	16.0	17.0	19.0	19.0	24.0	18.17	-	
Remarks									

Station	SR2								
Time (hh:mm)	19:20-19:24								
Water Depth (m)	5.40								
Monitoring Depth (m)	1.10		2.50		4.80				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.67	-	
Salinity (ppt)	33.8	33.8	33.9	33.9	33.9	33.9	33.85	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	94.3	94.3	95.3	94.6	97.1	91.0	94.41	-	
D.O. (mg/L)	7.48	7.47	7.55	7.50	7.70	7.22	7.49	7.46	7.50
Turbidity (NTU)	11.60	9.20	12.20	12.60	12.10	1.80	9.88	-	
SS (mg/L)	17.0	12.0	16.0	15.0	17.0	18.0	15.83	-	
Remarks									

Station	D2								
Time (hh:mm)	19:30-19:36								
Water Depth (m)	9.00								
Monitoring Depth (m)	1.10		4.40		8.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.72	-	
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.88	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	95.3	94.6	95.3	94.8	96.3	96.2	95.39	-	
D.O. (mg/L)	7.55	7.49	7.55	7.50	7.62	7.61	7.55	7.62	7.52
Turbidity (NTU)	12.10	11.30	12.10	11.80	12.40	13.30	12.12	-	
SS (mg/L)	12.0	15.0	22.0	21.0	15.0	19.0	17.33	-	
Remarks									

Station	SR3								
Time (hh:mm)	18:39-18:49								
Water Depth (m)	13.50								
Monitoring Depth (m)	1.30		6.60		12.40				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.8	16.8	16.8	16.8	16.8	16.8	16.80	-	
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.87	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	91.0	91.4	90.8	91.5	91.6	93.3	91.61	-	
D.O. (mg/L)	7.19	7.23	7.18	7.23	7.25	7.38	7.24	7.32	7.21
Turbidity (NTU)	9.00	7.80	9.20	8.20	10.10	9.90	9.00	-	
SS (mg/L)	8.0	9.0	13.0	12.0	19.0	23.0	14.00	-	
Remarks									

Station	G1								
Time (hh:mm)	18:11-18:18								
Water Depth (m)	12.60								
Monitoring Depth (m)	1.20		6.40		11.40				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.5	16.4	16.6	16.4	16.5	16.4	16.48	-	
Salinity (ppt)	33.8	33.8	33.8	33.8	33.9	33.9	33.84	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	90.7	91.4	90.9	91.5	92.0	92.8	91.53	-	
D.O. (mg/L)	7.21	7.29	7.22	7.29	7.31	7.39	7.29	7.35	7.25
Turbidity (NTU)	9.90	6.60	9.90	9.40	12.30	13.80	10.29	-	
SS (mg/L)	7.0	7.0	11.0	13.0	36.0	42.0	19.33	-	
Remarks									

Station	SR4								
Time (hh:mm)	18:25-18:34								
Water Depth (m)	8.90								
Monitoring Depth (m)	1.00		4.20		6.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.8	16.7	16.8	16.7	16.8	16.8	16.77	-	
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.91	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	91.0	90.9	91.0	90.9	93.3	91.4	91.41	-	
D.O. (mg/L)	7.19	7.19	7.19	7.20	7.37	7.23	7.23	7.30	7.19
Turbidity (NTU)	6.50	7.90	8.00	8.30	7.10	7.60	7.54	-	
SS (mg/L)	7.0	6.0	8.0	10.0	10.0	10.0	8.50	-	
Remarks									

Annex E3 - Water Quality Results at Tuen Mun during mid-ebb tide for 13 January 2009

Date	1/13/2009							
Station	C1							
Time (hh:mm)	14:07-14:11							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.20							
Monitoring Depth (m)	1.30		4.40		7.20			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.9	16.9	16.7	16.7	16.7	16.7	16.77	-
Salinity (ppt)	34.2	34.2	34.1	34.2	34.0	34.2	34.13	-
pH	8.0	8.1	8.0	8.1	7.7	8.1	7.98	
D.O. Saturation (%)	90.6	89.6	90.1	89.3	94.8	90.8	90.86	-
D.O. (mg/L)	7.14	7.06	7.12	7.06	7.50	7.18	7.18	7.34
Turbidity (NTU)	6.27	6.57	7.67	7.77	7.67	10.16	7.69	-
SS (mg/L)	6.0	9.0	13.0	10.0	13.0	15.0	11.00	-
Remarks	-							

Date	1/13/2009							
Station	C2							
Time (hh:mm)	14:47-14:52							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	13.20							
Monitoring Depth (m)	1.30		6.60		12.20			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.8	16.8	16.7	16.7	16.7	16.7	16.74	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.1	34.2	34.19	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09	
D.O. Saturation (%)	91.3	91.7	93.4	92.2	94.7	96.3	93.24	-
D.O. (mg/L)	7.20	7.23	7.38	7.28	7.49	7.62	7.37	7.56
Turbidity (NTU)	10.56	10.46	17.93	14.54	18.82	12.65	14.16	-
SS (mg/L)	17.0	13.0	18.0	21.0	31.0	27.0	21.17	-
Remarks	-							

Date	1/13/2009							
Station	D1							
Time (hh:mm)	14:34-14:39							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.30		4.70		8.30			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.8	16.8	16.8	16.8	16.8	16.7	16.75	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.0	34.2	34.17	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.11	
D.O. Saturation (%)	89.9	90.8	89.6	90.8	92.1	92.3	90.93	-
D.O. (mg/L)	7.10	7.17	7.08	7.17	7.29	7.30	7.19	7.30
Turbidity (NTU)	8.67	8.17	8.96	9.56	10.06	9.86	9.21	-
SS (mg/L)	10.0	8.0	10.0	15.0	12.0	12.0	11.17	-
Remarks	-							

Date	1/13/2009							
Station	U1							
Time (hh:mm)	14:18-14:22							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.90							
Monitoring Depth (m)	1.30		4.60		8.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.8	16.8	16.8	16.8	16.8	16.7	16.79	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.1	34.2	34.17	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09	
D.O. Saturation (%)	86.7	88.0	86.2	88.0	87.0	89.9	87.62	-
D.O. (mg/L)	6.84	6.94	6.81	6.95	6.87	7.10	6.92	6.99
Turbidity (NTU)	6.67	7.67	8.47	7.57	8.76	8.76	7.98	-
SS (mg/L)	10.0	8.0	12.0	12.0	16.0	10.0	11.33	-
Remarks	-							

Date	1/13/2009							
Station	SR1							
Time (hh:mm)	14:26-14:30							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	5.40							
Monitoring Depth (m)	1.30		2.70		4.30			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.9	16.9	16.7	16.8	16.6	16.6	16.75	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.19	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10	
D.O. Saturation (%)	93.4	92.0	93.6	92.3	96.3	93.4	93.48	-
D.O. (mg/L)	7.36	7.25	7.40	7.29	7.62	7.39	7.39	7.51
Turbidity (NTU)	6.27	5.68	6.27	6.18	6.18	7.17	6.29	-
SS (mg/L)	6.0	8.0	9.0	8.0	9.0	11.0	8.50	-
Remarks	-							

Annex E4 - Water Quality Results at Tuen Mun during mid-flood tide for 13 January 2009

Date	1/13/2009							
Station	C1							
Time (hh:mm)	19:03-19:08							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.00							
Monitoring Depth (m)	1.20		4.10		7.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.72	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.22	-
pH	8.0	8.0	8.0	8.0	7.9	8.0	7.98	
D.O. Saturation (%)	85.5	86.0	86.1	87.5	90.3	90.4	87.64	-
D.O. (mg/L)	6.75	6.80	6.80	6.92	7.14	7.15	6.93	7.15
Turbidity (NTU)	11.55	8.67	11.75	10.76	11.45	13.25	11.24	-
SS (mg/L)	12.0	10.0	13.0	12.0	21.0	21.0	14.83	-
Remarks	-							

Date	1/13/2009							
Station	C2							
Time (hh:mm)	20:02-20:06							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	12.90							
Monitoring Depth (m)	1.30		6.70		11.90			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.66	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.22	-
	8.1	8.1	8.1	8.1	8.1	8.1	8.07	
D.O. Saturation (%)	87.4	87.4	88.3	87.3	89.5	88.3	88.02	-
D.O. (mg/L)	6.91	6.91	6.99	6.90	7.08	6.98	6.96	7.03
Turbidity (NTU)	9.26	8.86	9.86	9.76	9.66	11.06	9.74	-
SS (mg/L)	12.0	8.0	11.0	13.0	16.0	14.0	12.33	-
Remarks	-							

Date	1/13/2009							
Station	D1							
Time (hh:mm)	19:44-19:49							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.20		4.90		8.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.66	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.20	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06	
D.O. Saturation (%)	87.1	87.9	87.3	88.2	89.7	90.3	88.42	-
D.O. (mg/L)	6.89	6.96	6.91	6.98	7.10	7.15	7.00	7.13
Turbidity (NTU)	6.37	6.77	6.57	7.27	7.47	7.17	6.94	-
SS (mg/L)	8.0	7.0	11.0	10.0	9.0	10.0	9.17	-
Remarks	-							

Date	1/13/2009							
Station	U1							
Time (hh:mm)	19:17-19:22							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	9.10							
Monitoring Depth (m)	1.20		4.40		8.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.67	-
Salinity (ppt)	34.1	34.2	34.2	34.2	34.2	34.2	34.18	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02	
D.O. Saturation (%)	86.2	86.4	86.6	86.4	89.6	87.5	87.12	-
D.O. (mg/L)	6.82	6.84	6.85	6.83	7.09	6.92	6.89	7.01
Turbidity (NTU)	8.47	7.57	10.76	7.97	9.56	8.76	8.85	-
SS (mg/L)	8.0	11.0	13.0	10.0	13.0	15.0	11.67	-
Remarks	-							

Date	1/13/2009							
Station	SR1							
Time (hh:mm)	19:31-19:37							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	5.00							
Monitoring Depth (m)	1.20		2.60		4.20			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.7	16.7	16.7	16.7	16.7	16.7	16.67	-
Salinity (ppt)	34.1	34.2	34.0	34.2	34.0	34.2	34.10	-
pH	8.0	8.1	8.0	8.1	8.0	8.1	8.05	
D.O. Saturation (%)	87.5	88.1	88.8	90.7	91.2	93.2	89.92	-
D.O. (mg/L)	6.93	6.97	7.04	7.18	7.22	7.38	7.12	7.30
Turbidity (NTU)	6.57	7.87	7.47	8.07	6.97	7.37	7.39	-
SS (mg/L)	8.0	9.0	9.0	9.0	8.0	10.0	8.83	-
Remarks	-							

Annex E5 - Water Quality Results at Airport during mid-ebb tide for 14 January 2009

Sampling Date	1/14/2009
Weather & Ambient Temperature	Sunny

Mid-Ebb

Station	C3								
Time (hh:mm)	14:06-14:11								
Water Depth (m)	12.30								
Monitoring Depth (m)	1.30		6.30		11.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.6	16.7	16.5	16.4	16.4	16.4	16.51	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.23	-	
pH	8.0	8.0	8.0	8.0	7.9	8.0	7.98		
D.O. Saturation (%)	81.6	81.9	81.3	81.4	83.3	83.3	82.10	-	
D.O. (mg/L)	6.46	6.47	6.45	6.47	6.61	6.62	6.51	6.62	6.46
Turbidity (NTU)	9.60	8.90	14.20	13.10	19.10	16.30	13.53	-	
SS (mg/L)	14.0	12.0	12.0	15.0	23.0	19.0	15.83	-	
Remarks									

Station	U2								
Time (hh:mm)	14:56-15:01								
Water Depth (m)	9.30								
Monitoring Depth (m)	1.10		4.70		8.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.4	16.3	16.3	16.2	16.2	16.27	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.23	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	84.8	85.6	84.4	85.8	87.8	82.0	85.09	-	
D.O. (mg/L)	6.75	6.82	6.73	6.84	7.01	6.55	6.78	6.78	6.79
Turbidity (NTU)	7.40	7.30	9.00	8.80	11.00	7.70	8.50	-	
SS (mg/L)	11.0	8.0	10.0	13.0	13.0	13.0	11.33	-	
Remarks									

Station	C4								
Time (hh:mm)	15:34-15:38								
Water Depth (m)	9.30								
Monitoring Depth (m)	1.10		4.60		8.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.1	16.1	16.1	16.1	16.1	16.1	16.10	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.19	-	
pH	8.1	8.1	8.0	8.1	8.1	8.1	8.05		
D.O. Saturation (%)	84.3	83.9	85.9	84.2	93.1	86.7	86.35	-	
D.O. (mg/L)	6.74	6.71	6.87	6.74	7.45	6.94	6.91	7.20	6.77
Turbidity (NTU)	16.00	16.90	16.90	20.10	16.90	21.00	18.00	-	
SS (mg/L)	21.0	19.0	26.0	27.0	21.0	20.0	22.33	-	
Remarks									

Station	SR2								
Time (hh:mm)	15:08-15:12								
Water Depth (m)	5.40								
Monitoring Depth (m)	1.20		2.70		4.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.2	16.3	16.2	16.2	16.2	16.24	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.21	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	85.1	84.6	85.3	84.9	86.5	86.8	85.51	-	
D.O. (mg/L)	6.78	6.75	6.80	6.77	6.90	6.93	6.82	6.92	6.78
Turbidity (NTU)	9.20	11.20	9.50	10.40	10.60	10.50	10.19	-	
SS (mg/L)	10.0	14.0	16.0	13.0	12.0	16.0	13.50	-	
Remarks									

Station	D2								
Time (hh:mm)	15:18-15:27								
Water Depth (m)	8.20								
Monitoring Depth (m)	1.10		4.20		7.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.2	16.2	16.2	16.2	16.2	16.24	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.19	-	
pH	8.0	8.1	8.0	8.1	8.1	8.1	8.05		
D.O. Saturation (%)	84.2	84.7	85.7	86.0	91.0	90.7	87.03	-	
D.O. (mg/L)	6.72	6.75	6.84	6.86	7.26	7.24	6.95	7.25	6.79
Turbidity (NTU)	9.70	9.90	9.40	9.20	9.40	8.90	9.38	-	
SS (mg/L)	11.0	11.0	11.0	11.0	13.0	10.0	11.17	-	
Remarks									

Station	SR3								
Time (hh:mm)	14:40-14:51								
Water Depth (m)	13.10								
Monitoring Depth (m)	1.20		6.20		12.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.3	16.1	16.1	16.1	16.1	16.19	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.26	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	84.6	85.6	83.6	84.7	85.7	90.1	85.73	-	
D.O. (mg/L)	6.74	6.82	6.68	6.77	6.85	7.20	6.84	7.03	6.75
Turbidity (NTU)	8.90	7.90	13.10	9.60	16.40	13.20	11.49	-	
SS (mg/L)	11.0	14.0	17.0	16.0	18.0	20.0	16.00	-	
Remarks									

Station	G1								
Time (hh:mm)	14:20-14:24								
Water Depth (m)	12.20								
Monitoring Depth (m)	1.20		6.00		11.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.8	16.8	16.5	16.4	16.3	16.1	16.48	-	
Salinity (ppt)	34.2	34.2	34.3	34.3	34.3	34.3	34.25	-	
pH	8.0	8.1	8.0	8.1	8.0	8.1	8.04		
D.O. Saturation (%)	84.6	84.3	85.1	84.5	89.9	85.5	85.67	-	
D.O. (mg/L)	6.68	6.65	6.76	6.72	7.16	6.84	6.80	7.00	6.70
Turbidity (NTU)	6.50	11.00	8.30	9.20	10.70	12.80	9.71	-	
SS (mg/L)	8.0	10.0	14.0	11.0	12.0	16.0	11.83	-	
Remarks									

Station	SR4								
Time (hh:mm)	14:32-14:36								
Water Depth (m)	9.30								
Monitoring Depth (m)	1.00		4.50		8.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.3	16.0	16.0	16.0	16.0	16.06	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.26	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	86.5	86.7	86.0	85.3	90.0	80.3	85.80	-	
D.O. (mg/L)	6.90	6.91	6.89	6.84	7.22	6.44	6.87	6.83	6.89
Turbidity (NTU)	7.80	9.40	10.60	9.50	10.90	4.40	8.73	-	
SS (mg/L)	9.0	10.0	14.0	11.0	14.0	18.0	12.67	-	
Remarks									

Annex E6 - Water Quality Results at Airport during mid-flood tide for 14 January 2009

Sampling Date	1/14/2009
Weather & Ambient Temperature	Sunny

Mid-Flood

Station	C3								
Time (hh:mm)	10:06-10:12								
Water Depth (m)	12.00								
Monitoring Depth (m)	1.30		6.80		10.80				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	16.0	16.0	16.0	16.0	16.02	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.32	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10		
D.O. Saturation (%)	83.9	83.6	83.9	84.4	89.0	88.9	85.59	-	
D.O. (mg/L)	6.71	6.69	6.72	6.76	7.12	7.12	6.85	7.12	6.72
Turbidity (NTU)	16.10	20.20	22.50	24.10	27.60	24.60	22.53	-	
SS (mg/L)	10.0	15.0	36.0	31.0	60.0	56.0	34.67	-	
Remarks									

Station	U2								
Time (hh:mm)	11:03-11:07								
Water Depth (m)	9.40								
Monitoring Depth (m)	1.40		4.70		8.30				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.1	16.0	16.0	15.9	16.0	15.97	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.22	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09		
D.O. Saturation (%)	83.2	83.2	84.3	83.1	89.0	85.6	84.73	-	
D.O. (mg/L)	6.67	6.66	6.76	6.66	7.14	6.86	6.79	7.00	6.69
Turbidity (NTU)	13.30	9.60	12.70	11.10	12.60	13.20	12.04	-	
SS (mg/L)	17.0	11.0	15.0	13.0	16.0	18.0	15.00	-	
Remarks									

Station	C4								
Time (hh:mm)	11:36-11:40								
Water Depth (m)	10.20								
Monitoring Depth (m)	1.30		5.20		9.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	15.9	16.0	15.9	15.9	15.95	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.1	34.2	34.22	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	83.7	82.4	86.5	82.6	87.5	84.6	84.53	-	
D.O. (mg/L)	6.71	6.60	6.94	6.62	7.03	6.79	6.78	6.91	6.72
Turbidity (NTU)	10.80	13.10	15.10	14.20	14.80	16.70	14.13	-	
SS (mg/L)	14.0	11.0	19.0	24.0	20.0	19.0	17.83	-	
Remarks									

Station	SR2								
Time (hh:mm)	11:13-11:17								
Water Depth (m)	6.40								
Monitoring Depth (m)	1.20		3.30		5.40				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	16.0	16.0	16.0	16.0	15.99	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.3	34.24	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09		
D.O. Saturation (%)	82.7	82.4	84.2	82.4	88.9	82.2	83.78	-	
D.O. (mg/L)	6.63	6.60	6.75	6.61	7.12	6.59	6.72	6.86	6.65
Turbidity (NTU)	15.40	13.30	14.70	13.70	14.00	8.70	13.31	-	
SS (mg/L)	20.0	15.0	18.0	19.0	20.0	18.0	18.33	-	
Remarks									

Station	D2								
Time (hh:mm)	11:25-11:30								
Water Depth (m)	8.30								
Monitoring Depth (m)	1.40		4.10		7.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	16.0	16.0	16.0	16.0	15.98	-	
Salinity (ppt)	34.2	34.3	34.3	34.3	34.2	34.3	34.25	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	82.7	82.9	83.4	83.3	84.5	85.4	83.69	-	
D.O. (mg/L)	6.63	6.64	6.68	6.68	6.78	6.84	6.71	6.81	6.66
Turbidity (NTU)	12.30	11.40	16.10	12.70	15.10	12.50	13.33	-	
SS (mg/L)	18.0	14.0	20.0	20.0	14.0	19.0	17.50	-	
Remarks									

Station	SR3								
Time (hh:mm)	10:53-10:57								
Water Depth (m)	12.20								
Monitoring Depth (m)	1.40		6.10		11.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	15.9	15.9	15.9	15.9	15.9	16.0	15.92	-	
Salinity (ppt)	34.2	34.2	34.3	34.2	34.3	34.3	34.25	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	83.5	83.1	83.4	83.6	85.2	87.0	84.29	-	
D.O. (mg/L)	6.71	6.67	6.69	6.71	6.83	6.97	6.76	6.90	6.70
Turbidity (NTU)	12.50	14.10	17.80	15.70	16.30	16.20	15.45	-	
SS (mg/L)	15.0	12.0	18.0	21.0	20.0	19.0	17.50	-	
Remarks									

Station	G1								
Time (hh:mm)	10:30-10:35								
Water Depth (m)	12.30								
Monitoring Depth (m)	1.30		6.40		11.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.2	16.1	16.2	16.1	16.1	16.16	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.30	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10		
D.O. Saturation (%)	82.9	82.2	82.7	82.2	84.2	82.2	82.72	-	
D.O. (mg/L)	6.60	6.56	6.61	6.56	6.73	6.57	6.61	6.65	6.58
Turbidity (NTU)	10.00	12.50	27.20	20.10	60.00	52.40	30.35	-	
SS (mg/L)	9.0	12.0	51.0	69.0	67.0	72.0	46.67	-	
Remarks									

Station	SR4								
Time (hh:mm)	10:42-10:47								
Water Depth (m)	9.20								
Monitoring Depth (m)	1.30		4.70		8.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	16.0	16.0	16.0	16.0	16.02	-	
Salinity (ppt)	34.2	34.3	34.2	34.3	34.1	34.3	34.22	-	
pH	8.1	8.1	8.1	8.1	8.0	8.1	8.08		
D.O. Saturation (%)	83.7	83.3	85.3	88.6	90.5	88.6	86.66	-	
D.O. (mg/L)	6.70	6.67	6.83	7.10	7.25	7.10	6.94	7.18	6.83
Turbidity (NTU)	12.90	17.30	15.60	18.70	20.40	18.70	17.28	-	
SS (mg/L)	16.0	15.0	25.0	22.0	26.0	28.0	22.00	-	
Remarks									

Annex E7 - Water Quality Results at Tuen Mun during mid-ebb tide for 15 January 2009

Date	1/15/2009							
Station	C1							
Time (hh:mm)	16:05-16:10							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	7.90							
Monitoring Depth (m)	1.30		4.20		6.80			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.6	16.5	16.5	16.5	16.4	16.4	16.46	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.21	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02	
D.O. Saturation (%)	83.5	83.3	82.6	83.1	83.1	84.1	83.29	-
D.O. (mg/L)	6.62	6.61	6.56	6.60	6.61	6.69	6.62	6.65
Turbidity (NTU)	4.88	5.78	5.48	5.88	7.27	8.67	6.33	-
SS (mg/L)	6.0	8.0	7.0	7.0	11.0	10.0	8.17	-
Remarks	-							

Date	1/15/2009							
Station	C2							
Time (hh:mm)	16:52-16:58							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	13.20							
Monitoring Depth (m)	1.20		6.70		12.20			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.5	16.5	16.5	16.5	16.5	16.5	16.47	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.19	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	83.7	85.0	82.8	84.2	84.4	86.4	84.41	-
D.O. (mg/L)	6.65	6.75	6.57	6.69	6.70	6.87	6.71	6.79
Turbidity (NTU)	5.68	6.08	6.37	6.47	7.87	8.76	6.87	-
SS (mg/L)	8.0	8.0	8.0	8.0	10.0	8.0	8.33	-
Remarks	-							

Date	1/15/2009							
Station	D1							
Time (hh:mm)	16:40-16:46							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.20		4.60		8.10			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.4	16.4	16.39	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.21	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.03	
D.O. Saturation (%)	84.8	84.4	85.3	84.5	90.8	86.4	86.01	-
D.O. (mg/L)	6.75	6.71	6.79	6.72	7.22	6.87	6.84	7.05
Turbidity (NTU)	11.25	11.55	11.25	13.94	13.35	13.35	12.45	-
SS (mg/L)	14.0	10.0	16.0	12.0	16.0	15.0	13.83	-
Remarks	-							

Date	1/15/2009							
Station	U1							
Time (hh:mm)	16:19-16:25							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.20		4.60		8.30			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.4	16.4	16.40	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.21	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02	
D.O. Saturation (%)	82.8	83.4	83.1	83.4	85.7	85.0	83.86	-
D.O. (mg/L)	6.58	6.63	6.60	6.63	6.81	6.76	6.67	6.79
Turbidity (NTU)	12.15	12.55	12.05	12.55	12.75	13.25	12.55	-
SS (mg/L)	11.0	12.0	17.0	14.0	17.0	16.0	14.50	-
Remarks	-							

Date	1/15/2009							
Station	SR1							
Time (hh:mm)	16:29-16:34							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	5.10							
Monitoring Depth (m)	1.30		2.20		4.10			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.5	16.5	16.5	16.5	16.5	16.4	16.45	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.18	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	84.8	85.1	86.4	85.3	91.0	89.9	87.09	-
D.O. (mg/L)	6.74	6.76	6.86	6.78	7.23	7.15	6.92	7.19
Turbidity (NTU)	7.37	7.27	7.37	7.77	8.47	8.67	7.82	-
SS (mg/L)	8.0	8.0	9.0	7.0	11.0	9.0	8.67	-
Remarks	-							

Annex E8 - Water Quality Results at Tuen Mun during mid-flood tide for 15 January 2009

Date	1/15/2009							
Station	C1							
Time (hh:mm)	10:31-10:36							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.30							
Monitoring Depth (m)	1.40		4.20		7.10			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.3	16.3	16.36	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.23	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06	
D.O. Saturation (%)	82.9	82.7	84.2	83.4	86.7	85.8	84.25	-
D.O. (mg/L)	6.59	6.58	6.70	6.63	6.90	6.83	6.71	6.87
Turbidity (NTU)	13.74	13.94	15.34	15.44	19.72	18.63	16.14	-
SS (mg/L)	14.0	13.0	19.0	18.0	30.0	31.0	20.83	-
Remarks	-							

Date	1/15/2009							
Station	U1							
Time (hh:mm)	10:49-10:54							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.20		4.80		8.00			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.4	16.4	16.39	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.22	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07	
D.O. Saturation (%)	82.7	79.4	82.5	81.8	84.9	82.2	82.21	-
D.O. (mg/L)	6.57	6.31	6.56	6.51	6.75	6.54	6.54	6.65
Turbidity (NTU)	8.57	7.37	11.16	14.84	16.83	15.04	12.30	-
SS (mg/L)	11.0	16.0	19.0	18.0	22.0	24.0	18.33	-
Remarks	-							

Date	1/15/2009							
Station	C2							
Time (hh:mm)	11:37-11:46							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	12.00							
Monitoring Depth (m)	1.20		6.30		10.90			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.4	16.4	16.39	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.22	-
	8.1	8.1	8.1	8.1	8.1	8.1	8.07	
D.O. Saturation (%)	83.0	82.5	83.6	82.2	87.5	82.7	83.62	-
D.O. (mg/L)	6.60	6.56	6.65	6.54	6.96	6.58	6.65	6.77
Turbidity (NTU)	15.64	13.94	15.54	15.84	16.23	16.83	15.67	-
SS (mg/L)	16.0	17.0	10.0	21.0	22.0	26.0	26.00	-
Remarks	-							

Date	1/15/2009							
Station	SR1							
Time (hh:mm)	11:01-11:07							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	4.30							
Monitoring Depth (m)	1.10		2.60		3.70			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.3	16.3	16.35	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.20	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07	
D.O. Saturation (%)	81.9	83.1	81.4	83.2	84.0	84.4	82.96	-
D.O. (mg/L)	6.51	6.61	6.48	6.62	6.69	6.72	6.61	6.71
Turbidity (NTU)	7.67	7.87	9.66	7.97	9.26	10.96	8.90	-
SS (mg/L)	12.0	10.0	12.0	13.0	14.0	13.0	12.33	-
Remarks	-							

Date	1/15/2009							
Station	D1							
Time (hh:mm)	11:20-11:28							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.50							
Monitoring Depth (m)	1.20		4.30		7.40			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.4	16.4	16.39	-
Salinity (ppt)	34.2	34.2	34.2	34.2	34.2	34.2	34.21	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08	
D.O. Saturation (%)	87.8	82.4	87.1	82.5	85.7	85.0	85.11	-
D.O. (mg/L)	6.99	6.55	6.93	6.56	6.81	6.77	6.77	6.79
Turbidity (NTU)	8.67	8.67	7.57	8.96	10.66	10.56	9.18	-
SS (mg/L)	10.0	10.0	12.0	14.0	15.0	16.0	12.83	-
Remarks	-							

Annex E9 - Water Quality Results at Airport during mid-ebb tide for 16 January 2009

Sampling Date	1/16/2009
Weather & Ambient Temperature	Fine

Mid-Ebb

Station	C3								
Time (hh:mm)	16:44-16:51								
Water Depth (m)	11.70								
Monitoring Depth (m)	1.20		6.20		10.60				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.1	16.4	16.0	16.1	15.9	15.9	16.06	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.27	-	
pH	7.8	7.9	7.8	7.8	7.8	7.8	7.84		
D.O. Saturation (%)	83.2	85.0	82.0	83.2	81.5	82.7	82.92	-	
D.O. (mg/L)	6.66	6.76	6.57	6.66	6.55	6.63	6.64	6.59	6.66
Turbidity (NTU)	6.20	5.50	8.60	8.10	16.90	17.70	10.49	-	
SS (mg/L)	9.0	10.0	15.0	19.0	40.0	25.0	19.67	-	
Remarks									

Station	U2								
Time (hh:mm)	17:56-18:00								
Water Depth (m)	8.90								
Monitoring Depth (m)	1.20		4.50		8.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.2	16.3	16.3	16.2	16.3	16.25	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.26	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	97.4	97.4	97.2	97.2	98.2	97.1	97.40	-	
D.O. (mg/L)	7.77	7.76	7.75	7.75	7.83	7.74	7.77	7.79	7.76
Turbidity (NTU)	9.10	8.30	10.40	10.10	10.80	10.70	9.86	-	
SS (mg/L)	10.0	9.0	12.0	12.0	-	-	10.75	-	
Remarks									

Station	C4								
Time (hh:mm)	18:34-18:40								
Water Depth (m)	10.10								
Monitoring Depth (m)	1.20		4.70		7.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.3	16.3	16.3	16.3	16.3	16.31	-	
Salinity (ppt)	34.1	34.1	34.1	34.2	34.2	34.2	34.15	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	96.6	96.4	96.8	97.0	98.4	97.1	97.07	-	
D.O. (mg/L)	7.70	7.69	7.71	7.73	7.85	7.74	7.74	7.80	7.71
Turbidity (NTU)	10.90	9.20	13.60	15.90	17.50	18.70	14.29	-	
SS (mg/L)	7.0	12.0	24.0	16.0	27.0	21.0	17.83	-	
Remarks									

Station	SR2								
Time (hh:mm)	18:09-18:12								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.20		2.50		4.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.3	16.3	16.3	16.3	16.3	16.29	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.2	34.3	34.25	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	98.9	98.4	100.1	98.5	103.0	98.6	99.55	-	
D.O. (mg/L)	7.87	7.84	7.97	7.84	8.21	7.85	7.93	8.03	7.88
Turbidity (NTU)	6.50	6.70	6.60	6.70	6.60	6.60	6.59	-	
SS (mg/L)	8.0	7.0	9.0	9.0	9.0	9.0	8.50	-	
Remarks									

Station	D2								
Time (hh:mm)	18:18-18:23								
Water Depth (m)	7.80								
Monitoring Depth (m)	1.10		4.10		6.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.5	16.5	16.3	16.3	16.3	16.3	16.36	-	
Salinity (ppt)	34.2	34.3	34.3	34.3	34.3	34.3	34.26	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.03		
D.O. Saturation (%)	99.2	99.6	98.5	99.0	100.7	99.4	99.40	-	
D.O. (mg/L)	7.87	7.91	7.84	7.89	8.03	7.92	7.91	7.98	7.88
Turbidity (NTU)	7.20	5.90	8.90	7.50	10.10	8.50	7.99	-	
SS (mg/L)	6.0	6.0	9.0	12.0	10.0	13.0	9.33	-	
Remarks									

Station	SR3								
Time (hh:mm)	17:42-17:48								
Water Depth (m)	13.00								
Monitoring Depth (m)	1.30		6.50		11.60				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.3	16.3	16.3	16.3	16.3	16.3	16.28	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.28	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	97.2	97.3	96.5	96.7	96.8	97.3	96.97	-	
D.O. (mg/L)	7.75	7.76	7.69	7.70	7.72	7.75	7.73	7.74	7.73
Turbidity (NTU)	10.50	9.70	18.60	20.30	27.80	24.60	18.58	-	
SS (mg/L)	8.0	10.0	26.0	26.0	29.0	27.0	21.00	-	
Remarks									

Station	G1								
Time (hh:mm)	17:12-17:17								
Water Depth (m)	12.20								
Monitoring Depth (m)	1.20		6.30		11.30				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.1	16.3	16.2	16.3	16.2	16.22	-	
Salinity (ppt)	34.2	34.2	34.3	34.2	34.3	34.3	34.26	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99		
D.O. Saturation (%)	95.8	95.9	95.9	96.1	96.0	97.1	96.16	-	
D.O. (mg/L)	7.65	7.67	7.65	7.68	7.65	7.75	7.68	7.70	7.66
Turbidity (NTU)	6.20	7.00	6.20	7.50	8.20	7.80	7.12	-	
SS (mg/L)	6.0	5.0	8.0	11.0	12.0	12.0	9.00	-	
Remarks									

Station	SR4								
Time (hh:mm)	17:26-17:31								
Water Depth (m)	9.10								
Monitoring Depth (m)	1.10		4.60		8.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.2	16.2	16.2	16.2	16.2	16.18	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.27	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01		
D.O. Saturation (%)	95.6	95.5	95.7	95.7	95.7	98.1	96.03	-	
D.O. (mg/L)	7.63	7.62	7.64	7.63	7.65	7.83	7.67	7.74	7.63
Turbidity (NTU)	13.20	14.50	14.30	15.90	17.60	17.40	15.51	-	
SS (mg/L)	11.0	12.0	18.0	25.0	21.0	15.0	17.00	-	
Remarks									

Annex E10 - Water Quality Results at Airport during mid-flood tide for 16 January 2009

Sampling Date	1/16/2009
Weather & Ambient Temperature	Fine

Mid-Flood

Station	C3								
Time (hh:mm)	10:54-10:59								
Water Depth (m)	12.40								
Monitoring Depth (m)	1.10		6.70		10.60				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.2	16.0	16.0	16.0	16.0	16.07	-	
Salinity (ppt)	34.2	34.2	34.2	34.2	34.3	34.3	34.23	-	
pH	8.1	8.1	8.1	8.1	8.0	8.1	8.05		
D.O. Saturation (%)	81.6	82.5	80.9	81.6	81.4	81.6	81.59	-	
D.O. (mg/L)	6.51	6.59	6.48	6.53	6.53	6.54	6.53	6.54	6.53
Turbidity (NTU)	9.80	9.50	24.20	18.10	39.30	34.20	22.51	-	
SS (mg/L)	14.0	12.0	17.0	19.0	47.0	56.0	27.50	-	
Remarks									

Station	U2								
Time (hh:mm)	12:10-12:17								
Water Depth (m)	8.90								
Monitoring Depth (m)	1.20		4.60		8.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	15.9	15.9	15.9	15.9	15.92	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.26	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	84.4	84.8	84.0	84.9	84.5	86.2	84.79	-	
D.O. (mg/L)	6.77	6.80	6.75	6.81	6.79	6.92	6.81	6.86	6.78
Turbidity (NTU)	10.40	10.90	11.50	12.70	11.30	13.70	11.70	-	
SS (mg/L)	11.0	10.0	14.0	14.0	16.0	17.0	13.67	-	
Remarks									

Station	C4								
Time (hh:mm)	12:52-12:56								
Water Depth (m)	10.40								
Monitoring Depth (m)	1.10		5.20		9.30				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.2	16.2	16.1	16.1	16.1	16.1	16.10	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.29	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	84.9	84.6	84.7	83.8	87.1	84.7	84.98	-	
D.O. (mg/L)	6.78	6.74	6.78	6.71	6.97	6.78	6.79	6.88	6.75
Turbidity (NTU)	8.80	8.40	9.90	10.20	10.40	10.30	9.63	-	
SS (mg/L)	7.0	8.0	13.0	11.0	13.0	12.0	10.67	-	
Remarks									

Station	SR2								
Time (hh:mm)	12:23-12:28								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.10		2.60		4.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	16.0	16.0	16.0	16.0	15.99	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.26	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	85.0	84.9	85.8	84.7	88.0	85.2	85.61	-	
D.O. (mg/L)	6.81	6.80	6.88	6.79	7.05	6.83	6.86	6.94	6.82
Turbidity (NTU)	10.30	10.40	10.30	11.70	11.90	11.60	10.99	-	
SS (mg/L)	11.0	14.0	13.0	15.0	18.0	15.0	14.33	-	
Remarks									

Station	D2								
Time (hh:mm)	12:35-12:44								
Water Depth (m)	8.10								
Monitoring Depth (m)	1.20		4.10		7.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.1	16.1	15.9	16.0	15.9	15.9	15.98	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.28	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06		
D.O. Saturation (%)	85.4	85.2	85.2	84.9	86.7	85.9	85.54	-	
D.O. (mg/L)	6.83	6.81	6.83	6.81	6.96	6.89	6.86	6.93	6.82
Turbidity (NTU)	9.40	9.10	10.60	11.20	13.70	12.80	11.09	-	
SS (mg/L)	12.0	11.0	14.0	13.0	20.0	20.0	15.00	-	
Remarks									

Station	SR3								
Time (hh:mm)	11:41-12:02								
Water Depth (m)	13.10								
Monitoring Depth (m)	1.20		6.40		11.40				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.0	16.0	15.9	15.9	16.0	15.9	15.96	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.29	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09		
D.O. Saturation (%)	85.0	84.2	86.0	84.1	83.7	84.0	84.50	-	
D.O. (mg/L)	6.81	6.74	6.90	6.74	6.71	6.74	6.77	6.73	6.80
Turbidity (NTU)	11.20	12.90	13.70	12.90	20.20	13.60	14.05	-	
SS (mg/L)	12.0	12.0	16.0	22.0	21.0	17.0	16.67	-	
Remarks									

Station	G1								
Time (hh:mm)	11:08-11:20								
Water Depth (m)	11.90								
Monitoring Depth (m)	1.30		6.20		11.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.1	16.2	16.0	16.0	16.0	16.0	16.06	-	
Salinity (ppt)	34.3	34.2	34.3	34.3	34.3	34.3	34.27	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	82.7	82.9	82.6	83.3	83.0	84.6	83.18	-	
D.O. (mg/L)	6.61	6.62	6.61	6.67	6.64	6.78	6.66	6.71	6.63
Turbidity (NTU)	9.60	11.10	15.20	16.20	20.40	17.90	15.07	-	
SS (mg/L)	12.0	8.0	19.0	23.0	24.0	30.0	19.33	-	
Remarks									

Station	SR4								
Time (hh:mm)	11:32-11:36								
Water Depth (m)	17.04								
Monitoring Depth (m)	1.30		4.70		8.20				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	16.1	16.1	16.1	16.1	16.1	16.1	16.08	-	
Salinity (ppt)	34.3	34.3	34.3	34.3	34.3	34.3	34.29	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	83.0	83.0	83.0	83.0	83.4	84.2	83.26	-	
D.O. (mg/L)	6.64	6.63	6.64	6.64	6.67	6.73	6.66	6.70	6.64
Turbidity (NTU)	12.00	11.10	11.90	13.70	14.80	15.20	13.11	-	
SS (mg/L)	12.0	7.0	14.0	12.0	19.0	23.0	14.50	-	
Remarks									

Annex E11 - Water Quality Results at Tuen Mun during mid-ebb tide for 17 January 2009

Date	1/17/2009							
Station	C1							
Time (hh:mm)	17:49-17:52							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	8.20							
Monitoring Depth (m)	1.20		4.10		7.20			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.5	16.5	16.5	16.45	-
Salinity (ppt)	33.2	33.2	33.2	33.2	33.2	33.2	33.16	-
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.81	
D.O. Saturation (%)	95.4	95.4	95.2	95.2	95.4	95.1	95.26	-
D.O. (mg/L)	7.63	7.63	7.61	7.61	7.62	7.60	7.62	7.61
Turbidity (NTU)	4.68	4.38	5.18	4.88	5.08	5.18	4.90	-
SS (mg/L)	10.0	8.0	10.0	8.0	10.0	11.0	9.50	-
Remarks	-							

Date	1/17/2009							
Station	U1							
Time (hh:mm)	18:00-18:03							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	9.10							
Monitoring Depth (m)	1.10		4.40		8.10			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.5	16.5	16.5	16.5	16.5	16.5	16.48	-
Salinity (ppt)	33.2	33.2	33.2	33.2	33.2	33.2	33.17	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.87	
D.O. Saturation (%)	95.4	95.3	95.6	95.2	97.4	95.1	95.65	-
D.O. (mg/L)	7.62	7.61	7.64	7.60	7.78	7.60	7.64	7.69
Turbidity (NTU)	5.28	5.48	5.88	5.18	4.88	5.48	5.36	-
SS (mg/L)	6.0	10.0	11.0	10.0	13.0	14.0	10.67	-
Remarks	-							

Date	1/17/2009							
Station	C2							
Time (hh:mm)	18:21-18:25							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	13.00							
Monitoring Depth (m)	0.90		6.60		12.00			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.5	16.5	16.5	16.5	16.5	16.5	16.53	-
Salinity (ppt)	33.2	33.2	33.2	33.2	33.2	33.2	33.23	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	96.9	96.6	97.0	96.3	97.9	96.1	96.80	-
D.O. (mg/L)	7.73	7.71	7.74	7.68	7.81	7.67	7.72	7.74
Turbidity (NTU)	5.18	5.38	5.28	5.78	5.38	5.28	5.38	-
SS (mg/L)	7.0	7.0	12.0	15.0	27.0	39.0	17.83	-
Remarks	-							

Date	1/17/2009							
Station	SR1							
Time (hh:mm)	18:06-18:09							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	5.10							
Monitoring Depth (m)	1.10		2.50		4.00			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.7	16.7	16.5	16.6	16.5	16.5	16.59	-
Salinity (ppt)	33.2	33.2	33.2	33.2	33.2	33.2	33.18	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	99.0	99.1	97.6	97.1	98.9	99.3	98.48	-
D.O. (mg/L)	7.87	7.88	7.79	7.74	7.90	7.93	7.85	7.92
Turbidity (NTU)	3.59	3.59	3.49	3.78	4.98	3.59	3.84	-
SS (mg/L)	8.0	10.0	6.0	6.0	20.0	16.0	11.00	-
Remarks	-							

Date	1/17/2009							
Station	D1							
Time (hh:mm)	18:13-18:16							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	9.10							
Monitoring Depth (m)	1.10		4.50		8.00			
Tide	mid to Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.5	16.5	16.5	16.5	16.5	16.5	16.49	-
Salinity (ppt)	33.2	33.2	33.2	33.2	33.1	33.2	33.16	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.89	
D.O. Saturation (%)	95.8	95.5	96.2	95.4	98.1	95.3	96.07	-
D.O. (mg/L)	7.65	7.63	7.69	7.62	7.84	7.61	7.67	7.73
Turbidity (NTU)	5.48	5.38	5.88	5.28	5.78	6.08	5.65	-
SS (mg/L)	10.0	11.0	12.0	8.0	10.0	14.0	10.83	-
Remarks	-							

Annex E12 - Water Quality Results at Tuen Mun during mid-flood tide for 17 January 2009

Date	1/17/2009							
Station	C1							
Time (hh:mm)	11:35-11:39							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	7.80							
Monitoring Depth (m)	1.20		4.10		7.00			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.3	16.4	16.3	16.3	16.35	-
Salinity (ppt)	33.1	33.1	33.1	33.1	33.1	33.1	33.14	-
pH	7.9	7.9	7.9	7.9	7.8	7.9	7.86	
D.O. Saturation (%)	91.9	93.4	91.9	93.5	92.4	95.3	93.06	-
D.O. (mg/L)	7.36	7.47	7.37	7.49	7.41	7.64	7.46	7.53
Turbidity (NTU)	7.87	6.57	8.86	8.27	7.87	8.86	8.05	-
SS (mg/L)	7.0	12.0	15.0	15.0	18.0	18.0	14.17	-
Remarks	-							

Date	1/17/2009							
Station	U1							
Time (hh:mm)	11:45-11:49							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.30		4.70		8.20			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.4	16.4	16.3	16.3	16.36	-
Salinity (ppt)	33.1	33.1	33.1	33.1	33.1	33.1	33.12	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	98.2	98.3	98.4	98.3	99.1	99.8	98.69	-
D.O. (mg/L)	7.86	7.87	7.89	7.88	7.94	8.00	7.91	7.97
Turbidity (NTU)	7.47	7.37	10.96	8.67	12.65	12.15	9.88	-
SS (mg/L)	13.0	17.0	16.0	12.0	28.0	25.0	18.50	-
Remarks	-							

Date	1/17/2009							
Station	C2							
Time (hh:mm)	12:10-12:15							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	12.90							
Monitoring Depth (m)	1.20		6.80		11.70			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.3	16.3	16.3	16.3	16.35	-
Salinity (ppt)	33.1	33.1	33.1	33.1	33.0	33.1	33.10	-
	7.9	7.9	7.9	7.9	7.9	7.9	7.94	
D.O. Saturation (%)	96.2	95.7	96.5	95.4	97.4	97.1	96.40	-
D.O. (mg/L)	7.71	7.66	7.74	7.65	7.82	7.79	7.73	7.81
Turbidity (NTU)	8.37	7.97	10.56	9.56	12.25	10.16	9.81	-
SS (mg/L)	9.0	12.0	14.0	15.0	18.0	18.0	14.33	-
Remarks	-							

Date	1/17/2009							
Station	SR1							
Time (hh:mm)	11:53-11:56							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	5.20							
Monitoring Depth (m)	1.10		2.70		4.10			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.5	16.4	16.4	16.4	16.4	16.4	16.40	-
Salinity (ppt)	33.1	33.1	33.1	33.1	33.1	33.1	33.10	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	98.3	97.4	99.3	97.5	102.6	97.8	98.82	-
D.O. (mg/L)	7.86	7.79	7.96	7.81	8.22	7.83	7.91	8.03
Turbidity (NTU)	5.48	6.27	6.67	6.37	5.08	6.37	6.04	-
SS (mg/L)	9.0	11.0	9.0	8.0	12.0	9.0	9.67	-
Remarks	-							

Date	1/17/2009							
Station	D1							
Time (hh:mm)	12:00-12:05							
Ambient Temperature (℃)								
Weather	Fine							
Water Depth (m)	9.00							
Monitoring Depth (m)	1.10		4.60		8.00			
Tide	mid to Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	16.4	16.4	16.3	16.3	16.3	16.3	16.35	-
Salinity (ppt)	33.1	33.1	33.1	33.1	33.1	33.1	33.09	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.94	
D.O. Saturation (%)	97.4	97.2	97.0	97.4	98.5	98.8	97.72	-
D.O. (mg/L)	7.80	7.79	7.78	7.81	7.90	7.92	7.83	7.91
Turbidity (NTU)	6.97	7.27	10.16	8.67	9.46	10.06	8.77	-
SS (mg/L)	9.0	12.0	16.0	15.0	13.0	14.0	13.17	-
Remarks	-							