



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

*Thirtieth Weekly  
Impact Monitoring Report -  
5<sup>th</sup> January to 11<sup>th</sup> January 2009*

16<sup>th</sup> January 2009

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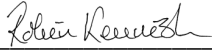
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CLP Power

Proposed 132kV Submarine Cable  
Route for Airport "A" to Castle  
Peak Power Station Cable Circuit:  
*Thirtieth Weekly Impact Monitoring  
Report – 5<sup>th</sup> January 2009 to 11<sup>th</sup>  
January 2009*

January 2009

Reference 0072833

For and on behalf of ERM-Hong Kong, Limited
Approved by: <u>Dr Robin Kennish</u>
Signed: <u></u>
Position: <u>Director</u>
Date: <u>16 January 2009</u>

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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 30<sup>th</sup> weekly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 5 January to 11 January 2009 in accordance with the *EM&A Manual*.

### Summary of Construction Works undertaken during the Reporting Period

During the reporting week, mobilisation of marine plants was undertaken between 5 January and 7 January 2009. Following this, concrete slabs installation was carried out at the Urmston Road from 8 January to 10 January 2009.

### Water Quality

Three monitoring events were scheduled between 5 January and 11 January 2009 at the Tuen Mun landing site. All monitoring events at all designated monitoring stations were performed on schedule, ie on 6 January, 8 January and 10 January 2009.

All measured dissolved oxygen levels complied with the Action and Limit (AL) Levels, while Turbidity and Suspended Solids (SS) levels were all below AL Levels during the reporting week.

### Environmental Non-conformance

No exceedance of Action and Limit Levels was recorded during the reporting week.

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 12 January to 18 January 2009), installation of concrete slabs will continue at the Urmston Road.

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 30<sup>th</sup> weekly EM&A report, which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 5 January to 11 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.

## 2.1 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 landing site (*Figure 2.1*). Results of the impact monitoring data will therefore be compared against the results of the *Baseline Environmental Monitoring Part B*.



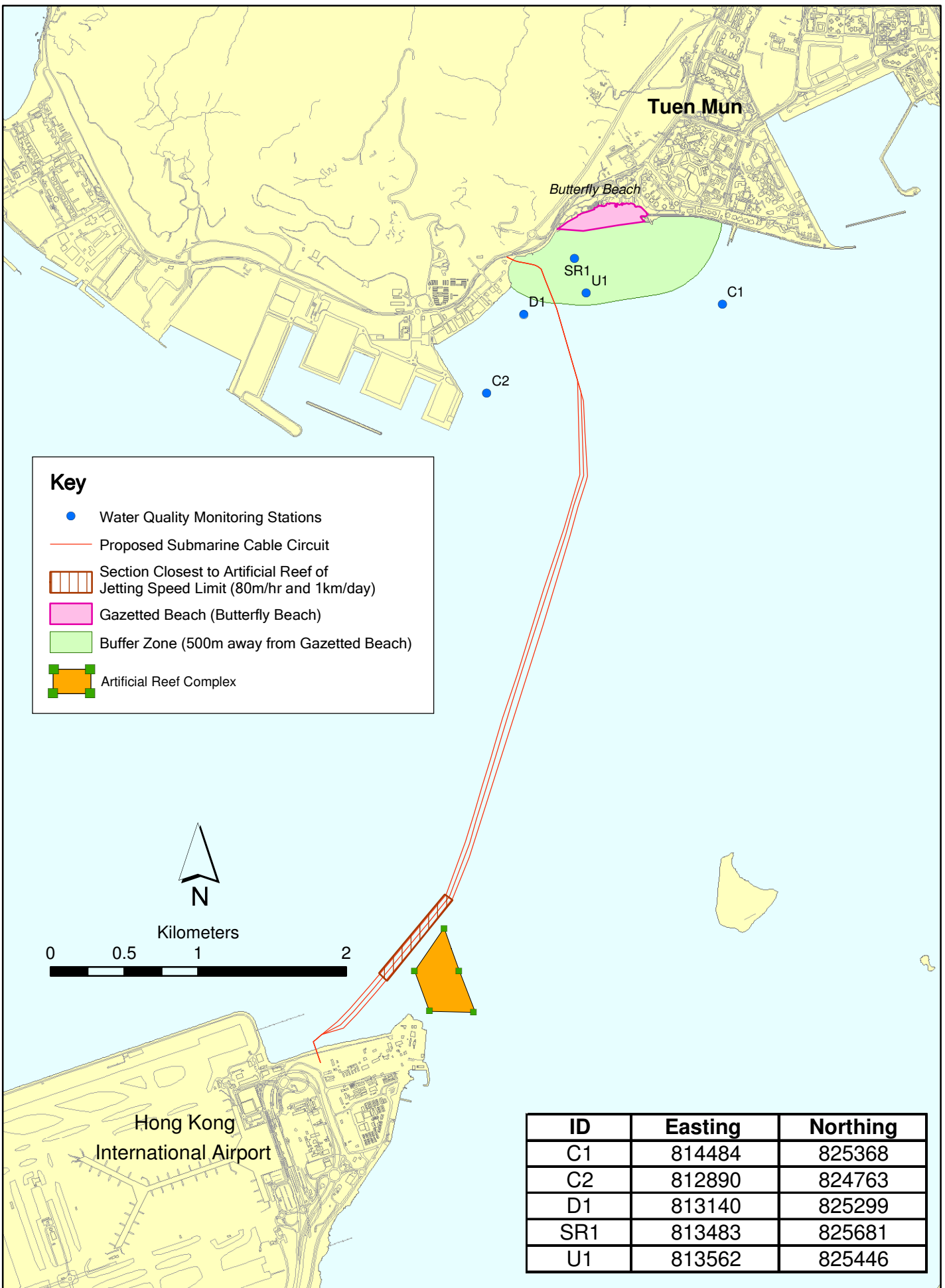


FIGURE 2.1

Location of Water Quality Monitoring around Tuen Mun Landing Site

The marine works of the Project were initially completed on 13<sup>th</sup> 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 16<sup>th</sup> June to 22<sup>nd</sup> June 2008 and then had been suspended since 23<sup>rd</sup> 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, mobilisation of marine plants was undertaken between 5 January and 7 January 2009. Following this, concrete slabs installation was carried out at Urmston Road from 8 January to 10 January 2009.

The works programme of the period between 5 January and 11 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*.

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

<b>Permit / Licence / Notification / Report</b>	<b>Reference</b>	<b>Validity Period</b>	<b>Remarks</b>
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

### 3.1 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 near the Tuen Mun landing site 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.

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
U1	Impact Station	813561	825446
D1	Impact Station	813140	825298
SR1	Impact Station	813483	825681

### 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<sup>-1</sup>);
- temperature (°C);
- turbidity (NTU); and
- salinity (‰).

The only parameter measured in the laboratory was:

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

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 5 locations (three impact monitoring stations D1, U1, and SR1, and two control monitoring stations C1 and C2), 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  $\text{mg L}^{-1}$ ; 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<sup>(1)</sup>. 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.

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

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*, 19<sup>th</sup> 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*).

### 3.3.3 *Action and Limit Levels*

The Action and Limit levels for the Tuen Mun landing site, which were established based on the results of *Baseline Environmental Monitoring Part A*, are presented in *Tables 3.2*.

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

<b>Parameter</b>	<b>Unit</b>	<b>Tide</b>	<b>Depth</b>	<b>Action Level</b>	<b>Limit Level</b>
Suspended Solids (SS)	mg L <sup>-1</sup>	Mid-Ebb	Depth-averaged	12.8	13.3
		Mid-Flood	Depth-averaged	23.6	28.3
Dissolved Oxygen (DO)	mg L <sup>-1</sup>	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

**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 3.3*.

**Table 3.3** *Event and Action Plan for Water Quality*

<b>Event</b>	<b>Action</b>
Action Level Exceedance	<p><b>Step 1</b> - repeat sampling event;</p> <p><b>Step 2</b> – identify source(s) of impact and confirm whether exceedance was due to the construction works;</p> <p><b>Step 3</b> – inform EPD and LCSD and confirm notification of the non-compliance in writing;</p> <p><b>Step 4</b> - 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).</p> <p><b>Step 5</b> - repeat measurements after implementation of mitigation for confirmation of compliance.</p> <p><b>Step 6</b> - 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.</p>
Limit Level Exceedance	<p>Undertake <b>Steps 1-5</b> immediately, if further non compliance continues at the Limit Level, suspend cable laying operations until an effective solution is identified.</p>



## 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<sup>3</sup> day<sup>-1</sup> for working 10 hours per day, i.e., 150 m<sup>3</sup> hr<sup>-1</sup>.
- 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<sup>3</sup> day<sup>-1</sup> and 1,600 m<sup>3</sup> day<sup>-1</sup> for working 16 hours per day, i.e., 41 m<sup>3</sup> hr<sup>-1</sup> and 100 m<sup>3</sup> hr<sup>-1</sup>.
- 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<sup>-1</sup> 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.

Three monitoring events were scheduled between 5 January and 11 January 2009 at the Tuen Mun landing site. All monitoring events at all designated monitoring stations were performed on schedule, ie on 6 January, 8 January and 10 January 2009.

No major activities influencing the water quality were identified between 5 January and 11 January 2009.

All measured dissolved oxygen levels complied with the Action and Limit (AL) Levels, while Turbidity and Suspended Solids (SS) levels were all below AL Levels during the reporting week (*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 ENVIRONMENTAL NON-CONFORMANCES**

### **6.1 SUMMARY OF ENVIRONMENTAL EXCEEDANCE**

No exceedance of the Action and Limit Levels was recorded during the reporting period.

### **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.

## 7 *FUTURE KEY ISSUES*

### 7.1 *KEY ISSUES FOR THE COMING WEEK*

During the following week (ie 12 January to 18 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 and the Airport landing site.

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.

## CONCLUSIONS

This Weekly Impact Monitoring Report presents the EM&A work undertaken during the period from 5 January to 11 January 2009 in accordance with the EM&A Manual and the requirements under *EP-267/2007*.

No exceedance of Action and Limit Levels was recorded during the reporting week.

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 5 January  
2009 and 25 January 2009



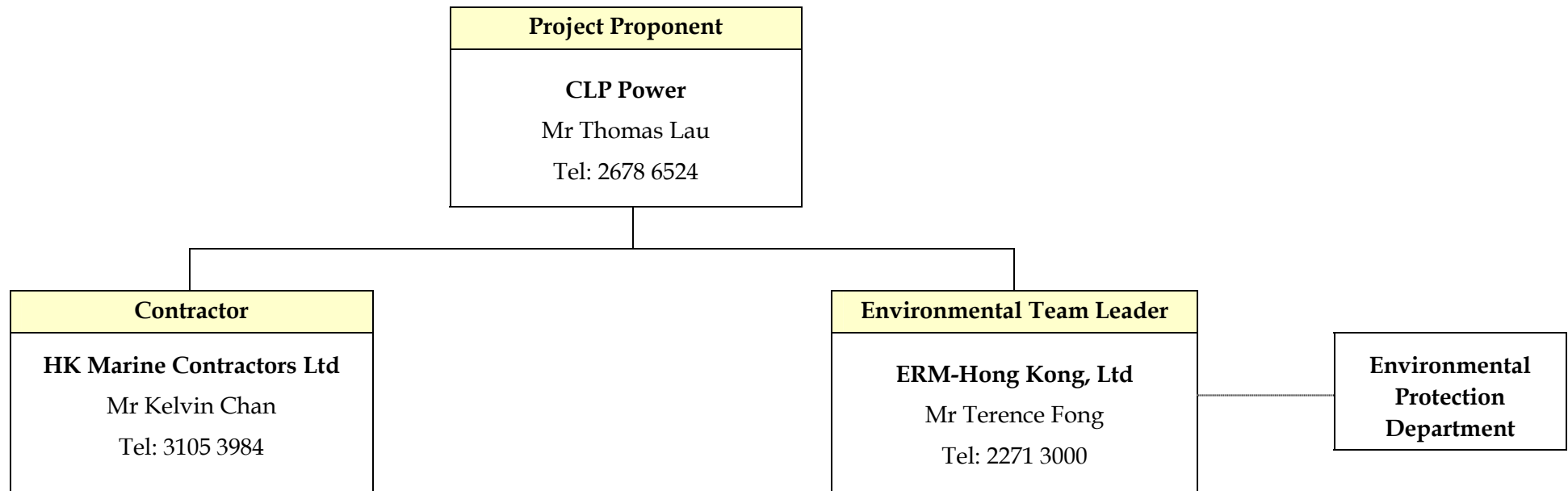
**Marine Work of 132kV Submarine Cable Installation between Airport to Tuen Mun  
(Concrete Slabs Installation at Urmston Road)**

Item	Date	Workdone for Last Week							Plan for This Week							Anticipate Plan for Next Week							
		5/1	6/1	7/1	8/1	9/1	10/1	11/1	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	
1	Mobilization of Plants	■																					
2	Installation of Concrete Slabs				■				■	■						■							
3	Transfer of Concrete Slabs								■														
4	Demobilization of Plants																						

Annex B

## Project Organisation Chart (with Contact Details)

**ANNEX B - PROJECT ORGANIZATION (WITH CONTACT DETAILS)**



————— Line of Project Management Responsibility  
 ..... Communication Channel

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 <i>Impact Monitoring (Tuen Mun)</i>		Mid-Ebb 10:14 Mid-Flood 15:14 <i>Impact Monitoring (Tuen Mun)</i>		Mid-Ebb 12:17 Mid-Flood 17:15 <i>Impact Monitoring (Tuen Mun)</i>
11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan
	Mid-Ebb 13:55 Mid-Flood 19:07 <i>Impact Monitoring (Airport)</i>	Mid-Ebb 14:39 Mid-Flood 19:58 <i>Impact Monitoring (Tuen Mun)</i>	Mid-Flood 10:00 Mid-Ebb 15:22 <i>Impact Monitoring (Airport)</i>	Mid-Flood 10:35 Mid-Ebb 16:06 <i>Impact Monitoring (Tuen Mun)</i>	Mid-Flood 11:07 Mid-Ebb 16:52 <i>Impact Monitoring (Airport)</i>	Mid-Flood 11:38 Mid-Ebb 17:49 <i>Impact Monitoring (Tuen Mun)</i>
18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan
	Mid-Flood 12:36 Mid-Ebb 20:40 <i>Impact Monitoring (Airport)</i>	Mid-Flood 9:06 Mid-Ebb 21:48 <i>Impact Monitoring (Tuen Mun)</i>	Mid-Flood 10:15 Mid-Ebb 22:34 <i>Impact Monitoring (Airport)</i>	Mid-Flood 10:58 Mid-Ebb 23:14 <i>Impact Monitoring (Tuen Mun)</i>	Mid-Flood 15:55 Mid-Ebb 23:52 <i>Impact Monitoring (Airport)</i>	Mid-Ebb 12:06 Mid-Flood 16:53 <i>Impact Monitoring (Tuen Mun)</i>
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 <i>Impact Monitoring (Airport)</i>		Mid-Flood 10:00 Mid-Ebb 16:01 <i>Impact Monitoring (Airport)</i>

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



## CERTIFICATE OF ANALYSIS

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*Telephone* : +852 2271 3000  
*Facsimile* : +852 2723 5660  
*Project* : EM&A FOR THE PROPOSED 132KV  
SUBMARINE CABLE ROUTE FOR AIRPORT "A"  
TO CASTLE PEAK CCTS  
*Order number* : ----  
*C-O-C number* : ----  
*Site* : ----

*Laboratory* : ALS Technichem HK Pty Ltd  
*Contact* : Wong Wai Man, Alice  
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*Quote number* : ----

*Page* : 1 of 6  
*Work Order* : **HK0900223**

*Date received* : 06-JAN-2009

*Date of issue* : 08-JAN-2009

*No. of samples* - *Received* : 60  
- *Analysed* : 60

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900223 supersedes any previous reports with this reference. The completion date of analysis is 07-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 HK0900223 : **Sample(s) were received in a chilled condition.**  
**Water sample(s) analysed and reported on an as received basis.**

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*Signatory*  
Fung Lim Chee, Richard

*Position*  
General Manager

*Authorised results for:-*  
Inorganics



### Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 857377)</b>								
HK0900223-001	2009/01/06/0600/C1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0900223-014	2009/01/06/0611/U1/M/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 857378)</b>								
HK0900223-021	2009/01/06/0628/D1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0900223-031	2009/01/06/1330/C1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 857379)</b>								
HK0900223-041	2009/01/06/1354/SR1/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0900223-051	2009/01/06/1402/D1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0

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

Matrix: WATER			Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 857377)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 857378)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 857379)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	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

<i>Client</i>	: ERM HONG KONG	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 6
<i>Contact</i>	: MS JOANNA KWAN	<i>Contact</i>	: Wong Wai Man, Alice	<i>Work Order</i>	: <b>HK0900399</b>
<i>Address</i>	: 21/F, LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Joanna.kwan@erm.com	<i>E-mail</i>	: Alice.Wong@alsenviro.com		
<i>Telephone</i>	: +852 2271 3000	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2723 5660	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: EM&A FOR THE PROPOSED 132KV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS	<i>Quote number</i>	: ---	<i>Date received</i>	: 08-JAN-2009
<i>Order number</i>	: ---			<i>Date of issue</i>	: 12-JAN-2009
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 60
<i>Site</i>	: ---				- Analysed : 60

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900399 supersedes any previous reports with this reference. The completion date of analysis is 10-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 HK0900399 : **Sample(s) were received in a chilled condition.**  
**Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



### Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 860005)</b>								
HK0900399-001	2009/01/08/0938/C1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0900399-011	2009/01/08/1023/SR1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 860006)</b>								
HK0900399-021	2009/01/08/1032/D1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	18.9
HK0900399-031	2009/01/08/1425/C1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 860007)</b>								
HK0900399-041	2009/01/08/1506/SR1/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
HK0900399-051	2009/01/08/1516/D1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0

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

Matrix: WATER			Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 860005)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 860006)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 860007)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.5	----	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

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*Facsimile* : +852 2723 5660  
*Project* : EM&A FOR THE PROPOSED 132KV  
SUBMARINE CABLE ROUTE FOR AIRPORT "A"  
TO CASTLE PEAK CCTS  
*Order number* : ----  
*C-O-C number* : ----  
*Site* : ----

*Laboratory* : ALS Technichem HK Pty Ltd  
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*Quote number* : ----

*Page* : 1 of 6  
*Work Order* : **HK0900537**

*Date received* : 12-JAN-2009

*Date of issue* : 13-JAN-2009

*No. of samples* - *Received* : 60  
- *Analysed* : 60

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900537 supersedes any previous reports with this reference. The completion date of analysis is 12-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 HK0900537 : **Sample(s) were received in a chilled condition.**  
**Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics

#### ALS Laboratory Group

Trading Name: **ALS Technichem (HK) Pty Ltd**

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A Campbell Brothers Limited Company



### Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 860785)</b>								
HK0900537-001	2009/01/10/1114/C1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0900537-011	2009/01/10/1146/SR1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 860786)</b>								
HK0900537-021	2009/01/10/1156/D1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0900537-031	2009/01/10/1620/C1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 860787)</b>								
HK0900537-040	2009/01/10/1646/SR1/B/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	0.0
HK0900537-051	2009/01/10/1656/D1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0

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

Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 860785)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	107	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 860786)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 860787)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	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

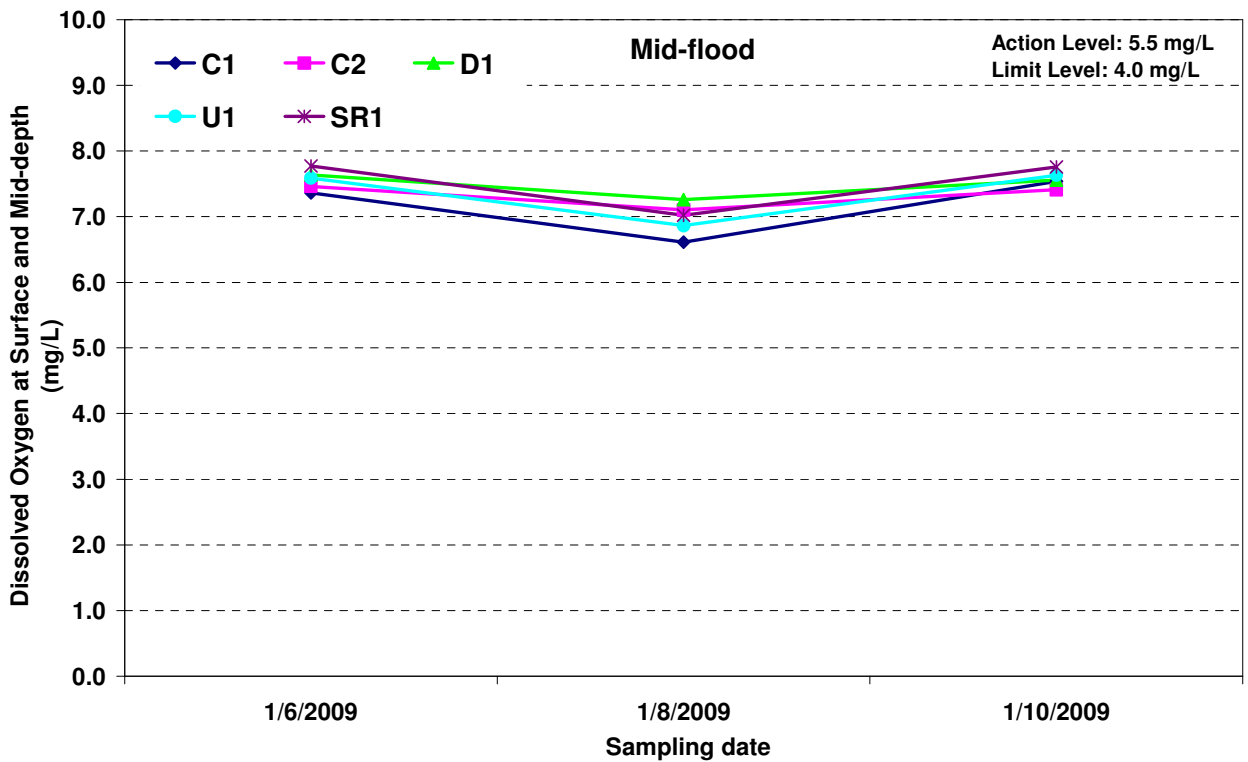
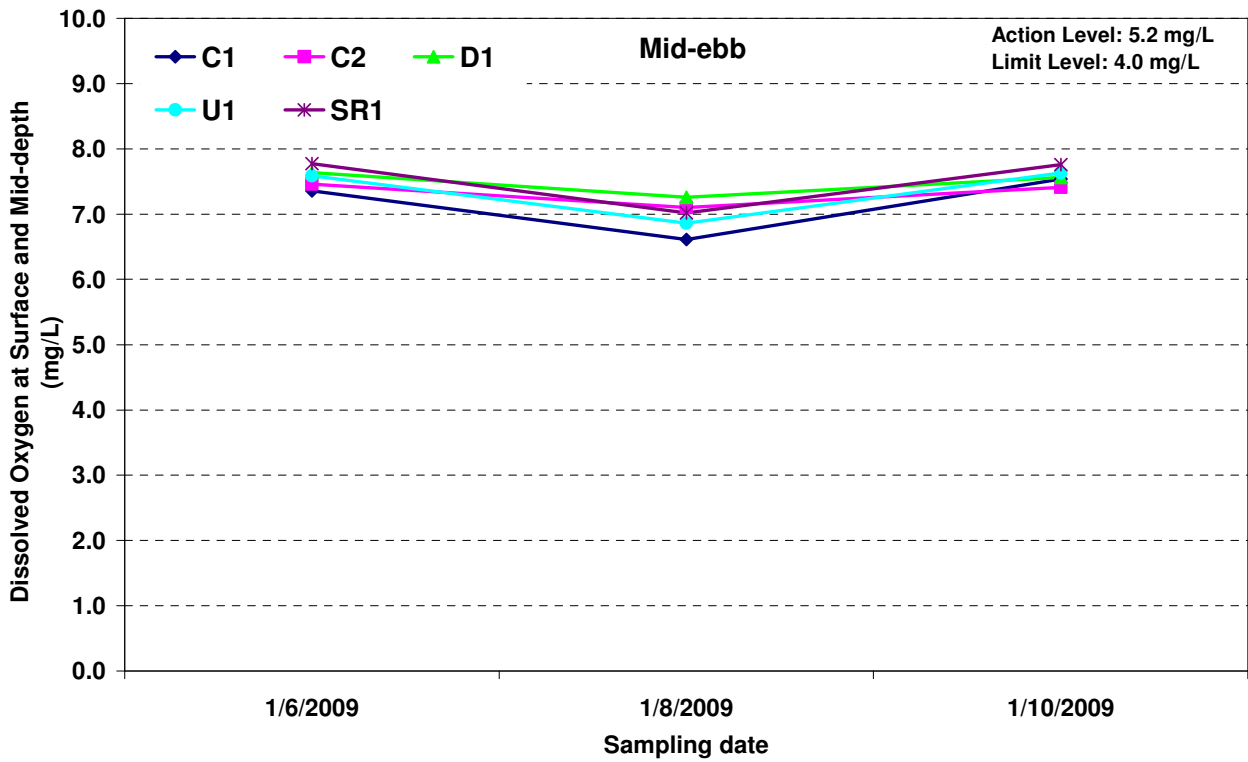


Figure E1 Dissolved oxygen concentration (mean of surface and mid-depth) (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 6 January and 10 January 2009.



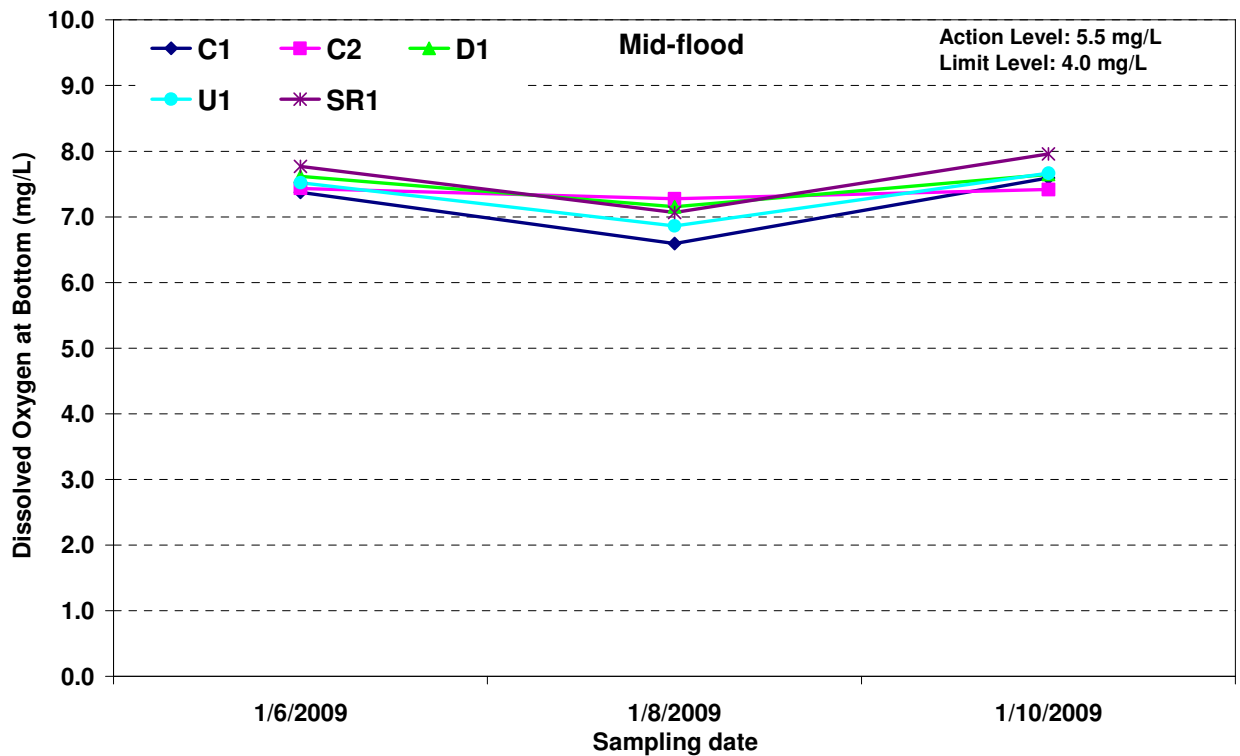
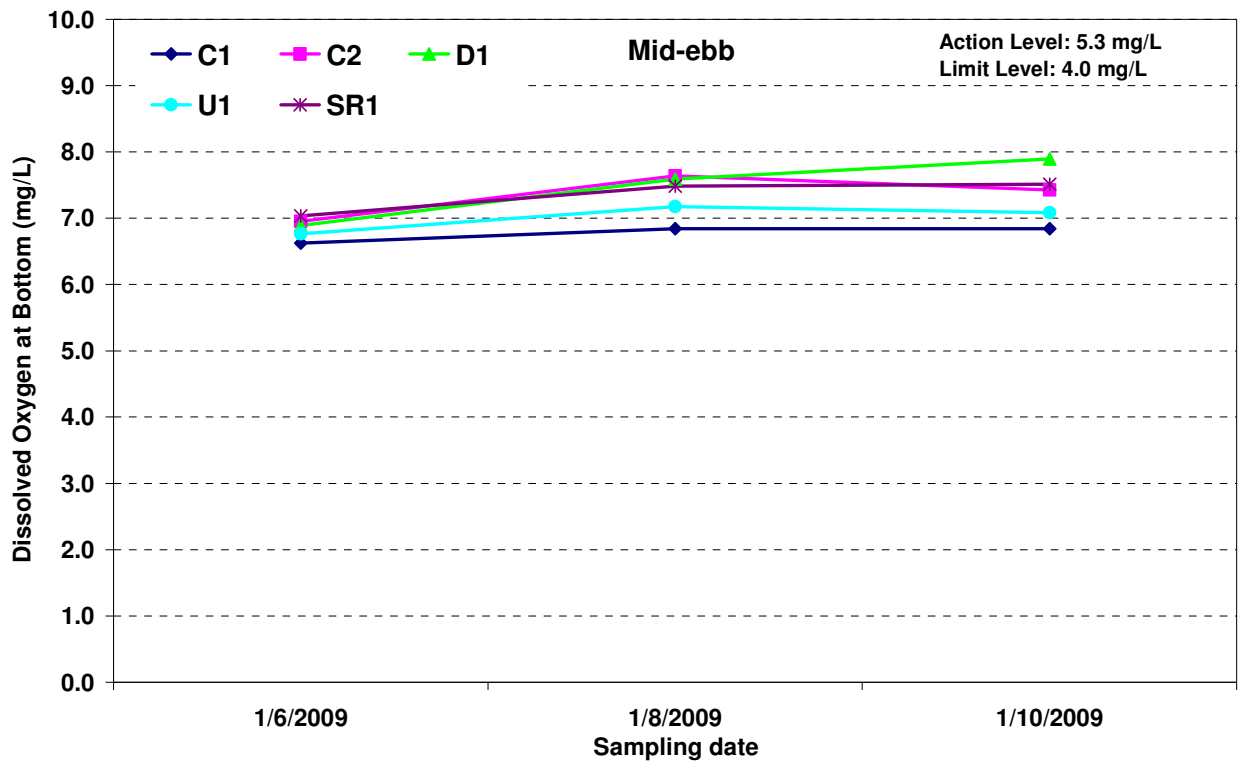


Figure E2 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 6 January and 10 January 2009.



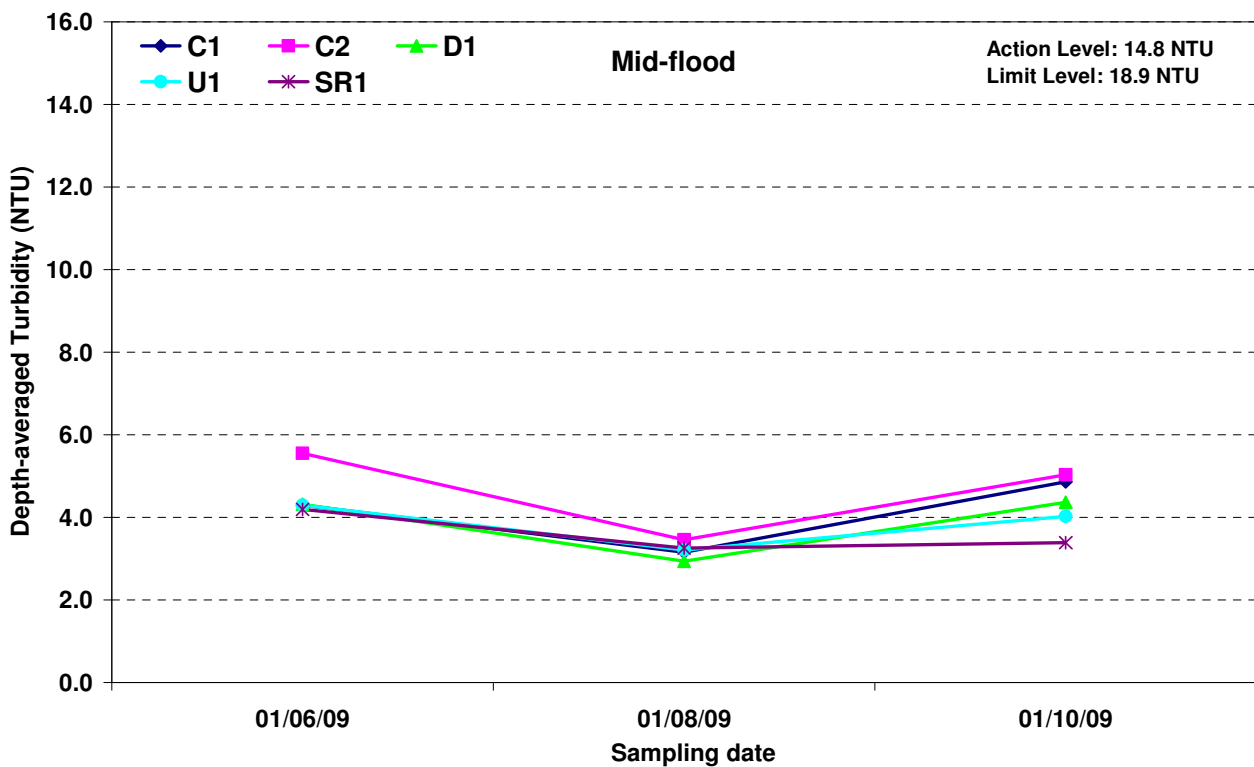
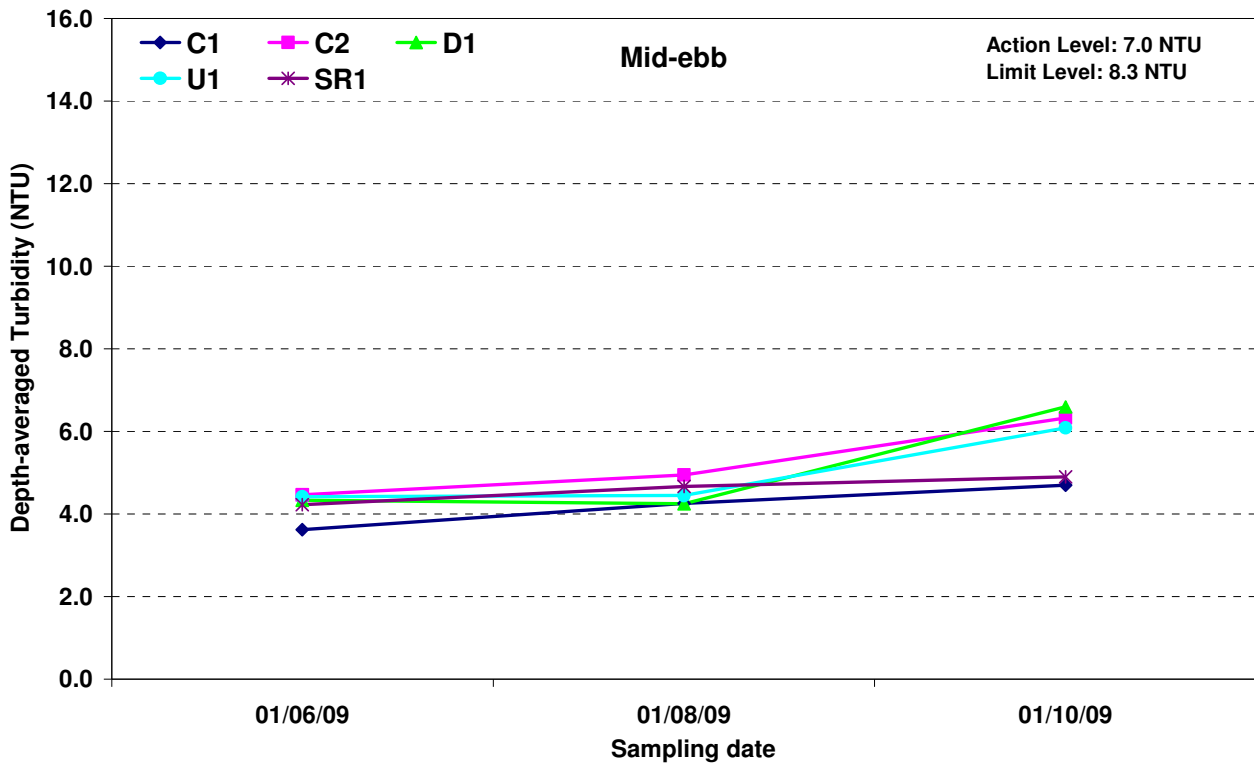


Figure E3 Depth-averaged turbidity (NTU) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 6 January and 10 January 2009.





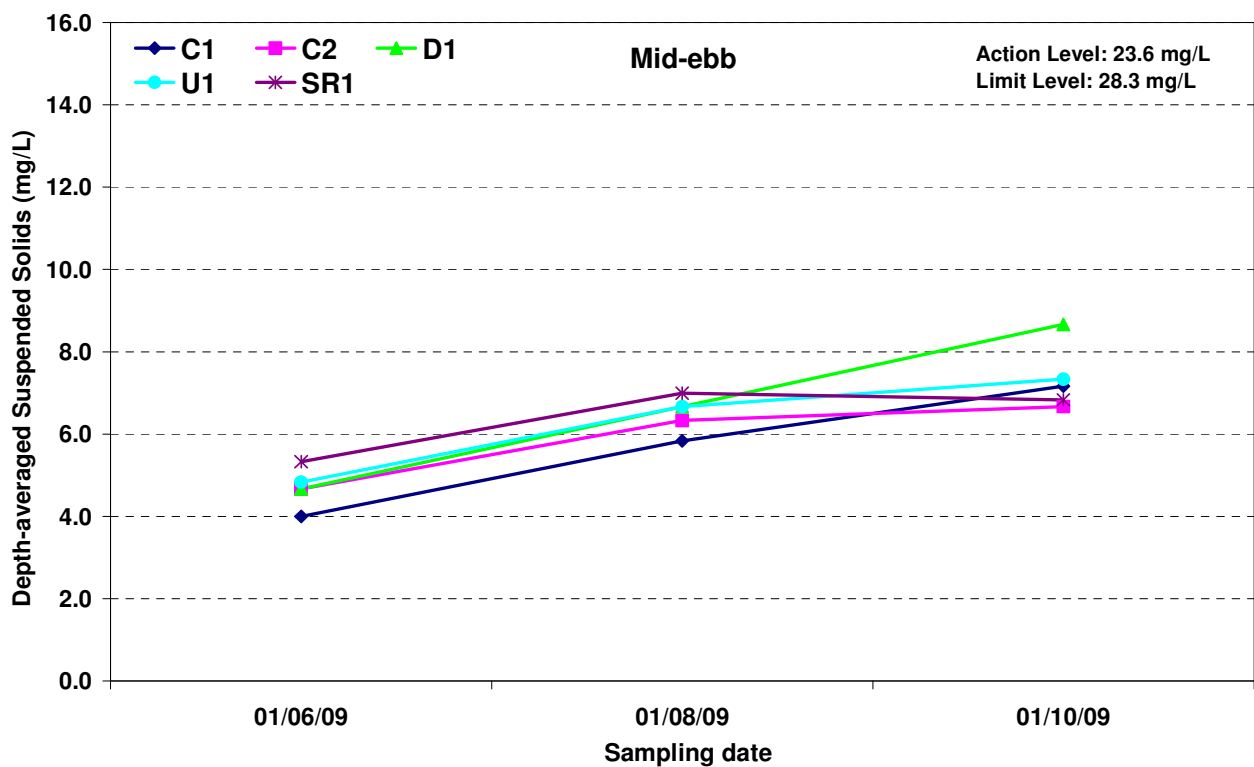
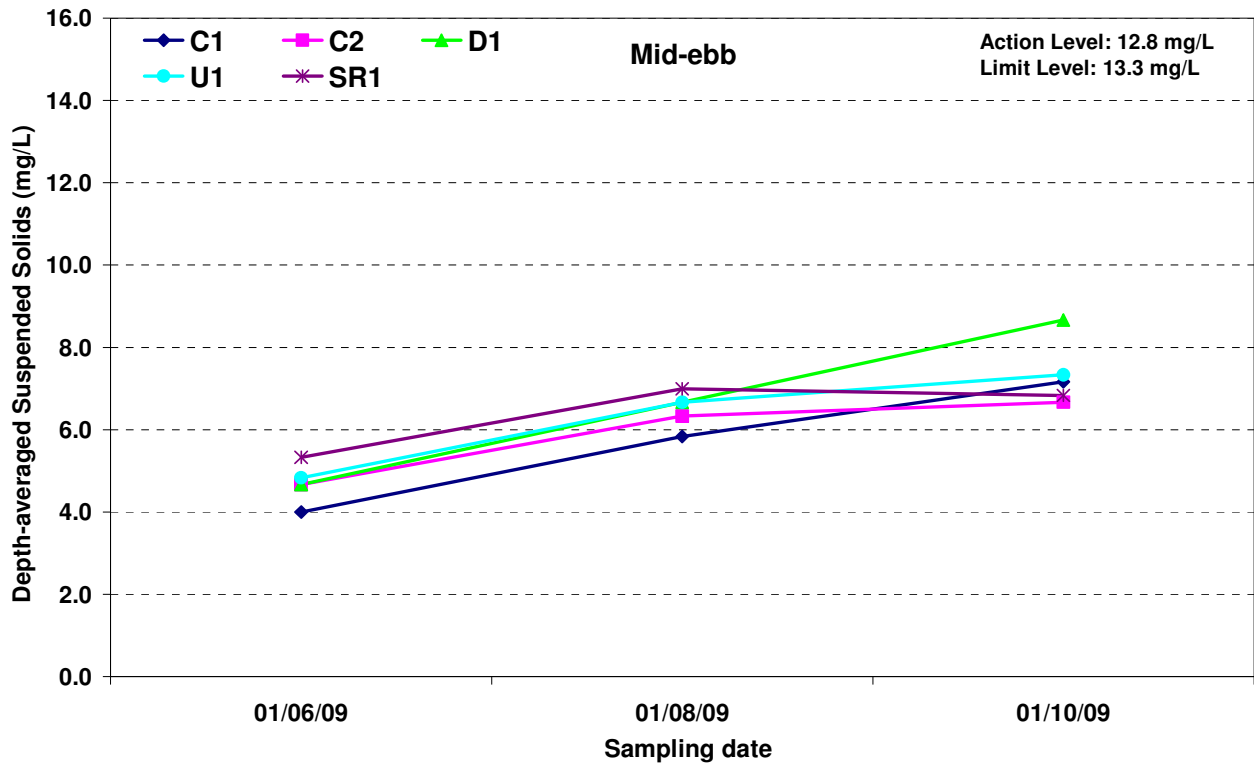


Figure E4 Depth-averaged suspended solids concentration (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 6 January and 10 January 2009.



**Annex E1 - Water Quality Results at Tuen Mun during mid-ebb tide for 6 January 2009**

Date	1/6/2009								
Station	C1								
Time (hh:mm)	06:00-06:04								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	7.90								
Monitoring Depth (m)	1.20		3.90			7.00			
Tide	Ebb								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.7	18.7	18.7	18.7	18.7	18.7	18.70	-	
Salinity (ppt)	33.3	33.3	33.3	33.3	33.2	33.3	33.27	-	
pH	7.9	8.0	7.9	8.0	7.9	7.9	7.93	-	
D.O. Saturation (%)	86.2	86.3	86.3	86.1	86.9	86.2	86.33	-	
D.O. (mg/L)	6.60	6.61	6.60	6.59	6.65	6.60	6.61	6.63	
Turbidity (NTU)	3.62	3.52	3.62	3.82	3.72	3.42	3.62	-	
SS (mg/L)	4.0	4.0	3.0	4.0	4.0	5.0	4.00	-	
Remarks									

Date	1/6/2009								
Station	C2								
Time (hh:mm)	06:35-06:39								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	14.30								
Monitoring Depth (m)	1.00		6.90			13.20			
Tide	Ebb								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.6	18.6	18.6	18.6	18.6	18.6	18.58	-	
Salinity (ppt)	33.3	33.3	33.3	33.3	33.3	33.3	33.27	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.94	-	
D.O. Saturation (%)	91.5	91.4	90.7	90.7	90.7	90.5	90.92	-	
D.O. (mg/L)	7.02	7.01	6.96	6.96	6.96	6.95	6.98	6.96	
Turbidity (NTU)	3.92	4.23	4.43	4.43	5.03	4.73	4.46	-	
SS (mg/L)	4.0	5.0	5.0	5.0	4.0	5.0	4.67	-	
Remarks									

Date	1/6/2009								
Station	D1								
Time (hh:mm)	06:27-06:30								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	9.30								
Monitoring Depth (m)	1.00		4.50			8.20			
Tide	Ebb								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.6	18.6	18.6	18.6	18.6	18.5	18.59	-	
Salinity (ppt)	33.2	33.2	33.2	33.2	33.2	33.2	33.23	-	
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.94	-	
D.O. Saturation (%)	90.8	90.7	90.3	89.6	90.2	89.1	90.13	-	
D.O. (mg/L)	6.96	6.95	6.93	6.87	6.93	6.85	6.92	6.89	
Turbidity (NTU)	4.23	4.23	4.12	4.23	4.63	4.53	4.33	-	
SS (mg/L)	5.0	5.0	5.0	4.0	4.0	5.0	4.67	-	
Remarks									

Date	1/6/2009								
Station	U1								
Time (hh:mm)	06:11-06:14								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	9.00								
Monitoring Depth (m)	1.20		4.50			8.10			
Tide	Ebb								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.7	18.7	18.7	18.7	18.7	18.7	18.68	-	
Salinity (ppt)	33.3	33.3	33.3	33.3	33.3	33.3	33.27	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.95	-	
D.O. Saturation (%)	88.5	88.5	88.4	88.0	88.7	88.1	88.38	-	
D.O. (mg/L)	6.78	6.78	6.77	6.74	6.79	6.74	6.77	6.77	
Turbidity (NTU)	4.53	4.43	4.23	4.33	4.53	4.43	4.41	-	
SS (mg/L)	5.0	5.0	4.0	4.0	6.0	5.0	4.83	-	
Remarks									

Date	1/6/2009								
Station	SR1								
Time (hh:mm)	06:19-06:22								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.40		2.50			4.00			
Tide	Ebb								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.6	18.7	18.7	18.7	18.6	18.7	18.65	-	
Salinity (ppt)	33.3	33.2	33.3	33.2	33.3	33.2	33.25	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.95	-	
D.O. Saturation (%)	90.2	89.9	90.9	89.8	93.7	89.9	90.73	-	
D.O. (mg/L)	6.91	6.89	6.96	6.88	7.18	6.89	6.95	7.04	
Turbidity (NTU)	4.12	4.10	4.33	4.12	4.43	4.23	4.22	-	
SS (mg/L)	6.0	5.0	5.0	4.0	6.0	6.0	5.33	-	
Remarks									

**Annex E2 - Water Quality Results at Tuen Mun during mid-flood tide for 6 January 2009**

Date	1/6/2009							
Station	C1							
Time (hh:mm)	13:30-13:36							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	8.30							
Monitoring Depth (m)	1.30	4.00				7.20		
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>
Water Temperature (°C)	18.9	18.9	18.8	18.8	18.8	18.8	18.82	-
Salinity (ppt)	32.9	32.9	32.9	32.9	32.9	32.9	32.91	-
pH	7.8	7.8	7.8	7.8	7.7	7.8	7.81	-
D.O. Saturation (%)	96.5	96.4	96.1	95.9	96.9	95.8	96.24	-
D.O. (mg/L)	7.38	7.37	7.35	7.34	7.42	7.33	7.37	7.38
Turbidity (NTU)	3.92	3.72	4.43	4.53	4.43	4.73	4.29	-
SS (mg/L)	5.0	4.0	5.0	4.0	5.0	4.0	4.50	-
Remarks	-							

Date	1/6/2009							
Station	C2							
Time (hh:mm)	14:11-14:16							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	13.80							
Monitoring Depth (m)	1.10	7.10				12.90		
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>
Water Temperature (°C)	18.8	18.8	18.8	18.8	18.8	18.8	18.81	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.9	32.8	32.83	-
	8.0	8.0	7.9	8.0	7.9	7.9	7.95	-
D.O. Saturation (%)	96.9	98.3	97.1	97.3	97.3	96.9	97.30	-
D.O. (mg/L)	7.42	7.52	7.44	7.46	7.45	7.42	7.45	7.44
Turbidity (NTU)	5.53	4.73	5.63	5.13	5.94	6.34	5.55	-
SS (mg/L)	7.0	6.0	8.0	6.0	6.0	7.0	6.67	-
Remarks	-							

Date	1/6/2009							
Station	D1							
Time (hh:mm)	14:00-14:05							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.10	4.50				8.10		
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>
Water Temperature (°C)	18.9	19.0	18.9	18.9	18.9	18.9	18.88	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.83	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.93	-
D.O. Saturation (%)	99.8	100.1	99.9	99.5	100.1	99.1	99.76	-
D.O. (mg/L)	7.63	7.65	7.64	7.62	7.66	7.58	7.63	7.62
Turbidity (NTU)	4.43	3.62	4.53	4.43	4.53	4.33	4.31	-
SS (mg/L)	5.0	9.0	4.0	5.0	6.0	7.0	6.00	-
Remarks	-							

Date	1/6/2009							
Station	U1							
Time (hh:mm)	13:42-13:46							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.00							
Monitoring Depth (m)	1.10	4.30				8.00		
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>
Water Temperature (°C)	18.9	18.9	18.9	18.9	18.8	18.9	18.86	-
Salinity (ppt)	32.9	32.9	32.9	32.8	32.9	32.9	32.86	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88	-
D.O. Saturation (%)	99.9	99.3	98.5	99.0	97.7	98.8	98.87	-
D.O. (mg/L)	7.64	7.60	7.53	7.58	7.48	7.56	7.57	7.52
Turbidity (NTU)	4.12	4.02	4.33	4.12	4.53	4.63	4.29	-
SS (mg/L)	7.0	6.0	6.0	6.0	6.0	6.0	6.17	-
Remarks	-							

Date	1/6/2009							
Station	SR1							
Time (hh:mm)	13:50-13:55							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	5.20							
Monitoring Depth (m)	1.00	2.50				4.20		
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>
Water Temperature (°C)	18.9	18.9	18.9	18.9	18.9	18.9	18.89	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.81	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.91	-
D.O. Saturation (%)	101.6	101.4	101.8	101.5	102.0	101.2	101.59	-
D.O. (mg/L)	7.77	7.76	7.79	7.77	7.80	7.74	7.77	7.77
Turbidity (NTU)	4.02	4.23	4.23	4.23	4.33	4.12	4.19	-
SS (mg/L)	6.0	7.0	6.0	4.0	6.0	5.0	5.67	-
Remarks	-							

**Annex E3 - Water Quality Results at Tuen Mun during mid-ebb tide for 8 January 2009**

Date	1/8/2009							
Station	C1							
Time (hh:mm)	09:38-09:43							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	8.10							
Monitoring Depth (m)	1.00		3.90		7.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.7	18.7	18.7	18.7	18.7	18.7	18.72	-
Salinity (ppt)	32.8	32.7	32.8	32.8	32.7	32.8	32.75	-
pH	8.0	8.0	7.9	8.0	7.9	8.0	7.95	-
D.O. Saturation (%)	86.3	85.8	87.2	85.7	92.5	85.7	87.18	-
D.O. (mg/L)	6.62	6.58	6.69	6.57	7.10	6.58	6.69	6.84
Turbidity (NTU)	4.23	4.02	4.33	4.43	4.12	4.43	4.26	-
SS (mg/L)	8.0	5.0	5.0	7.0	5.0	5.0	5.83	-
Remarks	-							

Date	1/8/2009							
Station	C2							
Time (hh:mm)	10:42-10:47							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	13.10							
Monitoring Depth (m)	1.00		6.50		12.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.6	18.7	18.6	18.6	18.6	18.6	18.62	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.7	32.7	32.64	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	-
D.O. Saturation (%)	98.1	98.6	97.6	97.9	100.7	97.7	98.44	-
D.O. (mg/L)	7.55	7.58	7.51	7.53	7.76	7.52	7.58	7.64
Turbidity (NTU)	4.83	4.63	5.33	4.93	4.83	5.13	4.95	-
SS (mg/L)	6.0	8.0	7.0	6.0	5.0	6.0	6.33	-
Remarks	-							

Date	1/8/2009							
Station	D1							
Time (hh:mm)	10:30-10:36							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.10							
Monitoring Depth (m)	1.10		4.50		8.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.5	18.5	18.4	18.5	18.4	18.3	18.44	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.6	32.6	32.62	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	-
D.O. Saturation (%)	96.8	97.3	96.6	97.1	97.5	98.8	97.33	-
D.O. (mg/L)	7.47	7.50	7.46	7.49	7.53	7.65	7.52	7.59
Turbidity (NTU)	3.92	4.53	4.33	4.12	4.43	4.12	4.24	-
SS (mg/L)	8.0	7.0	7.0	5.0	5.0	8.0	6.67	-
Remarks	-							

Date	1/8/2009							
Station	U1							
Time (hh:mm)	09:53-10:00							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.10							
Monitoring Depth (m)	1.00		4.50		8.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.6	18.6	18.6	18.6	18.6	18.6	18.60	-
Salinity (ppt)	32.8	32.7	32.8	32.7	32.8	32.7	32.75	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	-
D.O. Saturation (%)	90.0	91.0	90.3	91.1	93.3	93.2	91.49	-
D.O. (mg/L)	6.92	7.00	6.95	7.01	7.17	7.18	7.04	7.18
Turbidity (NTU)	4.23	5.13	4.23	4.23	4.73	4.12	4.45	-
SS (mg/L)	6.0	6.0	7.0	5.0	8.0	8.0	6.67	-
Remarks	-							

Date	1/8/2009							
Station	SR1							
Time (hh:mm)	10:19-10:24							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	5.10							
Monitoring Depth (m)	1.10		2.60		4.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.4	18.4	18.4	18.4	18.3	18.4	18.40	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.7	32.6	32.63	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	-
D.O. Saturation (%)	95.6	96.1	97.5	96.0	97.7	95.8	96.46	-
D.O. (mg/L)	7.38	7.42	7.53	7.41	7.56	7.41	7.45	7.49
Turbidity (NTU)	4.53	4.73	5.13	4.33	4.83	4.43	4.66	-
SS (mg/L)	8.0	7.0	7.0	8.0	6.0	6.0	7.00	-
Remarks	-							

**Annex E4 - Water Quality Results at Tuen Mun during mid-flood tide for 8 January 2009**

Date	1/8/2009							
Station	C1							
Time (hh:mm)	14:25-14:37							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	8.00							
Monitoring Depth (m)	1.10		4.10		7.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	19.0	18.9	18.8	18.8	18.7	18.86	-
Salinity (ppt)	32.7	32.7	32.7	32.7	32.6	32.7	32.67	-
pH	8.0	8.0	8.0	8.0	7.9	8.0	7.95	-
D.O. Saturation (%)	87.0	86.5	86.8	85.3	86.7	85.1	86.24	-
D.O. (mg/L)	6.65	6.61	6.64	6.54	6.66	6.53	6.61	6.60
Turbidity (NTU)	2.52	2.21	2.82	3.22	3.72	4.43	3.15	-
SS (mg/L)	5.0	4.0	4.0	6.0	5.0	5.0	4.83	-
Remarks	-							

Date	1/8/2009							
Station	C2							
Time (hh:mm)	15:28-15:36							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	13.90							
Monitoring Depth (m)	1.10		7.00		13.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	19.0	18.9	18.8	18.8	18.8	18.86	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.6	32.6	32.62	-
pH	8.0	8.0	8.0	7.9	8.0	7.9	7.95	-
D.O. Saturation (%)	93.3	93.9	91.7	92.1	96.6	93.0	93.45	-
D.O. (mg/L)	7.14	7.19	7.02	7.06	7.41	7.14	7.16	7.28
Turbidity (NTU)	2.72	2.62	3.42	3.82	3.42	4.73	3.46	-
SS (mg/L)	5.0	4.0	7.0	5.0	6.0	7.0	5.67	-
Remarks	-							

Date	1/8/2009							
Station	D1							
Time (hh:mm)	15:14-15:18							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.10							
Monitoring Depth (m)	1.10		4.50		8.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.1	19.0	19.0	18.9	18.8	18.8	18.91	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.6	32.6	32.62	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	-
D.O. Saturation (%)	96.6	96.0	94.2	93.0	94.1	92.3	94.39	-
D.O. (mg/L)	7.37	7.33	7.21	7.13	7.23	7.08	7.23	7.16
Turbidity (NTU)	2.41	2.52	2.82	3.02	3.62	3.22	2.94	-
SS (mg/L)	5.0	7.0	5.0	5.0	6.0	6.0	5.67	-
Remarks	-							

Date	1/8/2009							
Station	U1							
Time (hh:mm)	14:44-14:53							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.00							
Monitoring Depth (m)	1.10		4.20		7.60			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.1	19.0	18.8	19.0	18.7	18.7	18.88	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.7	32.6	32.64	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	-
D.O. Saturation (%)	90.5	90.7	88.4	89.3	89.7	89.0	89.60	-
D.O. (mg/L)	6.91	6.93	6.78	6.83	6.89	6.84	6.86	6.87
Turbidity (NTU)	2.52	2.31	3.02	2.82	4.23	4.33	3.21	-
SS (mg/L)	6.0	5.0	5.0	5.0	7.0	5.0	5.50	-
Remarks	-							

Date	1/8/2009							
Station	SR1							
Time (hh:mm)	15:02-15:07							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	4.70							
Monitoring Depth (m)	1.00		2.60		3.90			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	18.9	18.8	18.8	18.8	18.8	18.84	-
Salinity (ppt)	32.6	32.6	32.6	32.6	32.6	32.6	32.62	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	-
D.O. Saturation (%)	92.9	91.5	91.1	91.3	91.7	92.3	91.79	-
D.O. (mg/L)	7.09	7.01	6.98	7.00	7.04	7.09	7.04	7.07
Turbidity (NTU)	2.41	3.02	3.02	3.62	3.62	3.82	3.25	-
SS (mg/L)	4.0	4.0	5.0	4.0	8.0	5.0	5.00	-
Remarks	-							

**Annex E5 - Water Quality Results at Tuen Mun during mid-ebb tide for 10 January 2009**

Date	1/10/2009							
Station	C1							
Time (hh:mm)	11:14-11:20							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	8.10							
Monitoring Depth (m)	1.10		4.10		7.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.1	18.0	18.0	18.0	18.0	17.9	18.01	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.83	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	-
D.O. Saturation (%)	87.3	87.9	86.8	87.5	87.0	88.8	87.53	-
D.O. (mg/L)	6.78	6.83	6.75	6.80	6.77	6.91	6.81	6.84
Turbidity (NTU)	3.92	4.12	4.83	4.53	5.73	5.03	4.69	-
SS (mg/L)	9.0	7.0	6.0	6.0	8.0	7.0	7.17	-
Remarks	-							

Date	1/10/2009							
Station	C2							
Time (hh:mm)	12:07-12:14							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	13.20							
Monitoring Depth (m)	1.00		6.10		12.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.0	18.0	18.0	18.0	18.0	18.0	18.02	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.76	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	-
D.O. Saturation (%)	94.1	94.2	94.1	93.9	95.6	95.2	94.53	-
D.O. (mg/L)	7.32	7.33	7.32	7.30	7.44	7.41	7.35	7.43
Turbidity (NTU)	5.63	6.24	6.14	6.14	7.14	6.64	6.32	-
SS (mg/L)	7.0	6.0	6.0	6.0	9.0	6.0	6.67	-
Remarks	-							

Date	1/10/2009							
Station	D1							
Time (hh:mm)	11:54-12:01							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.00							
Monitoring Depth (m)	1.00		4.50		8.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.9	17.9	17.8	17.9	17.8	17.8	17.85	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.75	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	-
D.O. Saturation (%)	93.9	93.9	94.2	94.3	99.1	103.2	96.42	-
D.O. (mg/L)	7.32	7.32	7.36	7.35	7.74	8.05	7.52	7.90
Turbidity (NTU)	6.44	6.54	6.64	7.04	6.74	6.14	6.59	-
SS (mg/L)	9.0	8.0	7.0	8.0	12.0	8.0	8.67	-
Remarks	-							

Date	1/10/2009							
Station	U1							
Time (hh:mm)	11:27-11:34							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	9.20							
Monitoring Depth (m)	1.20		4.60		8.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.0	18.0	18.0	17.9	18.0	17.9	17.94	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.79	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	-
D.O. Saturation (%)	89.5	89.1	90.7	88.5	93.4	88.4	89.94	-
D.O. (mg/L)	6.96	6.94	7.06	6.89	7.27	6.90	7.00	7.09
Turbidity (NTU)	5.53	6.04	5.73	5.94	6.04	7.24	6.09	-
SS (mg/L)	9.0	7.0	8.0	6.0	8.0	6.0	7.33	-
Remarks	-							

Date	1/10/2009							
Station	SR1							
Time (hh:mm)	11:42-11:47							
Ambient Temperature (°C)								
Weather	Sunny							
Water Depth (m)	5.00							
Monitoring Depth (m)	1.10		2.50		4.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.0	18.0	18.0	18.0	17.9	18.0	17.97	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.7	32.8	32.75	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	-
D.O. Saturation (%)	92.5	92.1	93.5	92.2	100.7	92.1	93.85	-
D.O. (mg/L)	7.20	7.17	7.28	7.17	7.85	7.17	7.31	7.51
Turbidity (NTU)	4.63	4.53	4.63	4.43	6.44	4.73	4.90	-
SS (mg/L)	6.0	6.0	7.0	6.0	8.0	8.0	6.83	-
Remarks	-							

**Annex E6 - Water Quality Results at Tuen Mun during mid-flood tide for 10 January 2009**

Date	1/10/2009								
Station	C1								
Time (hh:mm)	16:20-16:25								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	9.00								
Monitoring Depth (m)	1.10		4.60		7.80				
Tide	Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>	
Water Temperature (°C)	18.1	18.1	18.1	18.1	18.1	18.1	18.09	-	
Salinity (ppt)	32.9	32.9	32.9	32.9	32.9	32.9	32.87	-	
pH	8.0	8.0	7.9	8.0	7.9	8.0	7.95	-	
D.O. Saturation (%)	97.4	97.0	97.3	96.8	98.9	96.7	97.36	-	
D.O. (mg/L)	7.56	7.53	7.55	7.51	7.68	7.51	7.56	7.60	
Turbidity (NTU)	3.52	4.02	4.23	4.33	5.43	7.65	4.86	-	
SS (mg/L)	5.0	42.0	6.0	4.0	7.0	5.0	11.50	-	
Remarks									

Date	1/10/2009								
Station	C2								
Time (hh:mm)	17:04-17:12								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	14.20								
Monitoring Depth (m)	1.10		7.10		13.00				
Tide	Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>	
Water Temperature (°C)	18.0	18.0	18.0	18.0	18.0	17.9	17.99	-	
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.78	-	
	8.0	8.0	8.0	8.0	8.0	8.0	7.96	-	
D.O. Saturation (%)	96.4	94.9	95.5	94.3	95.2	95.3	95.27	-	
D.O. (mg/L)	7.49	7.38	7.43	7.34	7.41	7.42	7.41	7.42	
Turbidity (NTU)	3.52	4.43	4.02	5.43	5.63	7.14	5.03	-	
SS (mg/L)	4.0	3.0	4.0	4.0	5.0	6.0	4.33	-	
Remarks									

Date	1/10/2009								
Station	D1								
Time (hh:mm)	16:54-16:59								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	8.90								
Monitoring Depth (m)	1.10		4.50		8.00				
Tide	Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>	
Water Temperature (°C)	18.2	18.1	17.9	17.9	17.9	17.9	17.99	-	
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.79	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	-	
D.O. Saturation (%)	98.6	97.6	97.3	95.6	101.1	95.1	97.55	-	
D.O. (mg/L)	7.65	7.57	7.58	7.44	7.88	7.41	7.59	7.65	
Turbidity (NTU)	3.12	3.22	4.43	4.63	5.43	5.33	4.36	-	
SS (mg/L)	6.0	4.0	5.0	4.0	6.0	5.0	5.00	-	
Remarks									

Date	1/10/2009								
Station	U1								
Time (hh:mm)	16:33-16:38								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	9.00								
Monitoring Depth (m)	1.10		4.50		8.00				
Tide	Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>	
Water Temperature (°C)	18.1	18.1	18.1	18.1	17.9	17.9	18.04	-	
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.81	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	-	
D.O. Saturation (%)	98.9	98.2	98.9	97.2	101.2	95.7	98.35	-	
D.O. (mg/L)	7.68	7.62	7.68	7.55	7.88	7.45	7.64	7.67	
Turbidity (NTU)	3.32	3.22	3.62	3.52	5.33	5.13	4.02	-	
SS (mg/L)	2.0	4.0	3.0	4.0	4.0	5.0	3.67	-	
Remarks									

Date	1/10/2009								
Station	SR1								
Time (hh:mm)	16:44-16:48								
Ambient Temperature (°C)									
Weather	Sunny								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.00		2.60		4.10				
Tide	Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	<i>Depth-averaged</i>	<i>Bottom</i>	
Water Temperature (°C)	18.2	18.2	18.1	18.2	18.1	18.1	18.13	-	
Salinity (ppt)	32.8	32.8	32.8	32.8	32.8	32.8	32.81	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	-	
D.O. Saturation (%)	100.2	99.5	101.2	99.2	106.2	98.9	100.86	-	
D.O. (mg/L)	7.77	7.71	7.85	7.70	8.24	7.68	7.83	7.96	
Turbidity (NTU)	2.82	2.72	3.42	3.52	3.82	4.02	3.39	-	
SS (mg/L)	4.0	5.0	3.0	4.0	7.0	5.0	4.67	-	
Remarks									