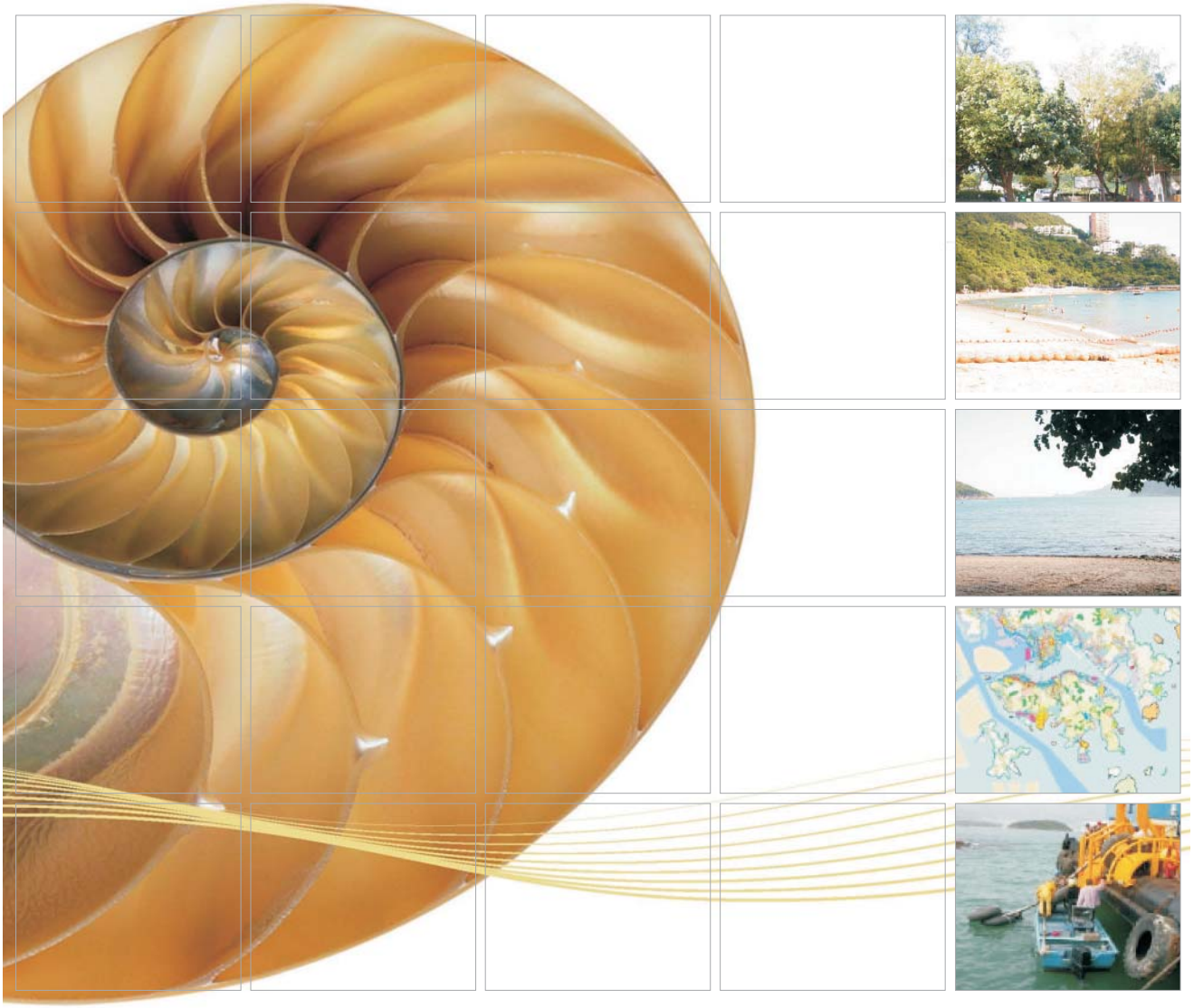

VSNL Intra Asia Submarine Cable System - Deep Water Bay

First Weekly Impact Monitoring Report
23rd March 2009 to 29th March 2009

April 2009

Environmental Resources Management
21/F Lincoln House
Taikoo Place 979 King's Road
Island East Hong Kong
Telephone 2271 3000
Facsimile 2723 5660

www.erm.com

VSNL Intra Asia Submarine Cable System – Deep Water Bay

First Weekly Impact Monitoring Report 23rd March 2009 to 29th March 2009

Environmental Resources Management

21/F Lincoln House
979 King's Road
Taikoo Place
Island East
Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
http://www.erm.com

Document Code: 0096120_Flyer Sheet_week 1.doc

Client:	Proposal No:
Tata Communications (Bermuda) Ltd	0096120
Summary: This report presents the monitoring requirements, methodologies and results of the impact water quality monitoring in accordance with the EM&A Manual.	Date: 6 April 2009 Approved by: *Dr Robin Kennish* *Project Director*

0	Impact Water Quality Monitoring Report	JK	TFONG	RK	6 Apr 09
Revision	Description	By	Checked	Approved	Date

Distribution

☒ Internal

☒ Public

☐ Confidential

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LIST OF ANNEXES

The construction works for the VSNL Intra Asia Submarine Cable System – Deep Water Bay commenced on 16 March 2009. This is the 1st Weekly Impact Monitoring Report presenting the impact water quality monitoring conducted during the period from 23 March to 29 March 2009 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during the Reporting Period

During the reporting week, installation of articulating pipes by divers and preparation works were undertaken on 23 March and 24 March 2009. Following this, diver hand jetting operations (ie simultaneous burial of cable) were carried out in Zone A from 25 March to 27 March 2009. All mini shore-end works were completed on 27 March 2009 and the barge was demobilised on the same day.

Water Quality

Three monitoring events were scheduled between 23 March and 29 March 2009 at Deep Water Bay (ie Zone A). All monitoring events at all designated monitoring stations were performed on schedule, ie on 25 March, 26 March and 27 March 2008.

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

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 weeks, only mobilisation and preparation works (off-site) will be undertaken. Since there will be no underwater works in the following weeks, the impact monitoring will be suspended until the cable installation works resume in mid April.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by Tata Communications (Bermuda) Ltd (formerly Videsh Sanchar Nigam Limited (VSNL)) as the Monitoring Team (MT) to implement the Environmental Monitoring and Audit (EM&A) programme for the VSNL Intra Asia Submarine Cable System – Deep Water Bay (thereinafter called the ('Project')).

1.1 PURPOSE OF THE REPORT

This is the 1st Weekly Impact Monitoring Report, which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 23 March to 29 March 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, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3 : ***Water Quality Monitoring Requirements***
Summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, and Event / Action Plans.

Section 4 : ***Monitoring Results***
Summarises the monitoring results obtained in the reporting period.

Section 5 : ***Environmental Non-conformance***
Summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 6 : ***Future Key Issues***
Summarises the monitoring schedule for the next week.

Section 7 : ***Conclusions***
Presents the key findings of the impact monitoring results.

2 PROJECT INFORMATION

2.1 BACKGROUND

Tata Communications (Bermuda) Ltd (formerly Videsh Sanchar Nigam Limited (VSNL)) proposes to install a submarine telecommunications cable, which will run from Deep Water Bay and through southeast Hong Kong offshore waters. The cable landing site will be at the western edge of Deep Water Bay beach at an existing cable landing manhole location. From Deep Water Bay, the cable will extend southwards towards the East Lamma Channel. Near to Round Island, the cable will turn approximately parallel to the East Lamma Channel passing to the south of Po Toi Island. The cable will then run eastward close to the boundary of HKSAR waters and then out beyond Hong Kong territorial waters into the South China Sea. At the southeast offshore waters, it will be necessary to install a grout mattress to protect the cable where it crosses Hong Kong Electric Co., Ltd's (HKE) gas pipeline. A map of the proposed cable route is presented in *Figure 2.1*.

In August 2007, a Project Profile (PP) included an assessment of the potential environmental impacts associated with the installation of the submarine cable circuit was prepared and submitted to the Environmental Protection Department (EPD) under *section 5.(1)(b) and 5.(11) of the Environmental Impact Assessment Ordinance (EIAO)* for application for Permission to apply directly for an Environmental Permit (EP). The Environmental Protection Department, subsequently issued an Environmental Permit (EP-294/2007) and Further Environmental Permit (FEP-01/294/2007). Amendments to the permitting requirements were incorporated into the Environmental Permit to address potential environmental impacts associated with cable crossings over the HKE's gas pipeline in southeast Hong Kong waters. Under the requirements of *Condition 3* 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 near Deep Water Bay (ie Zones A and E) between 27 February 2009 and 9 March 2009 and the results were presented in the *Baseline Water Quality Monitoring Report Part A*. Baseline monitoring for the Po Toi section of works was undertaken from 27 February 2009 to 13 March 2009 and the *Baseline Water Quality Monitoring Report Part B* presented the results of the monitoring data for Zones B to D near Po Toi Island.

Impact Monitoring has been carried out at Deep Water Bay (ie Zone A) since 25 March 2009. This report, therefore, presents results of the data from monitoring stations within Zone A. Results of the impact monitoring data will therefore be compared against the results of the *Baseline Environmental Monitoring Part A*.

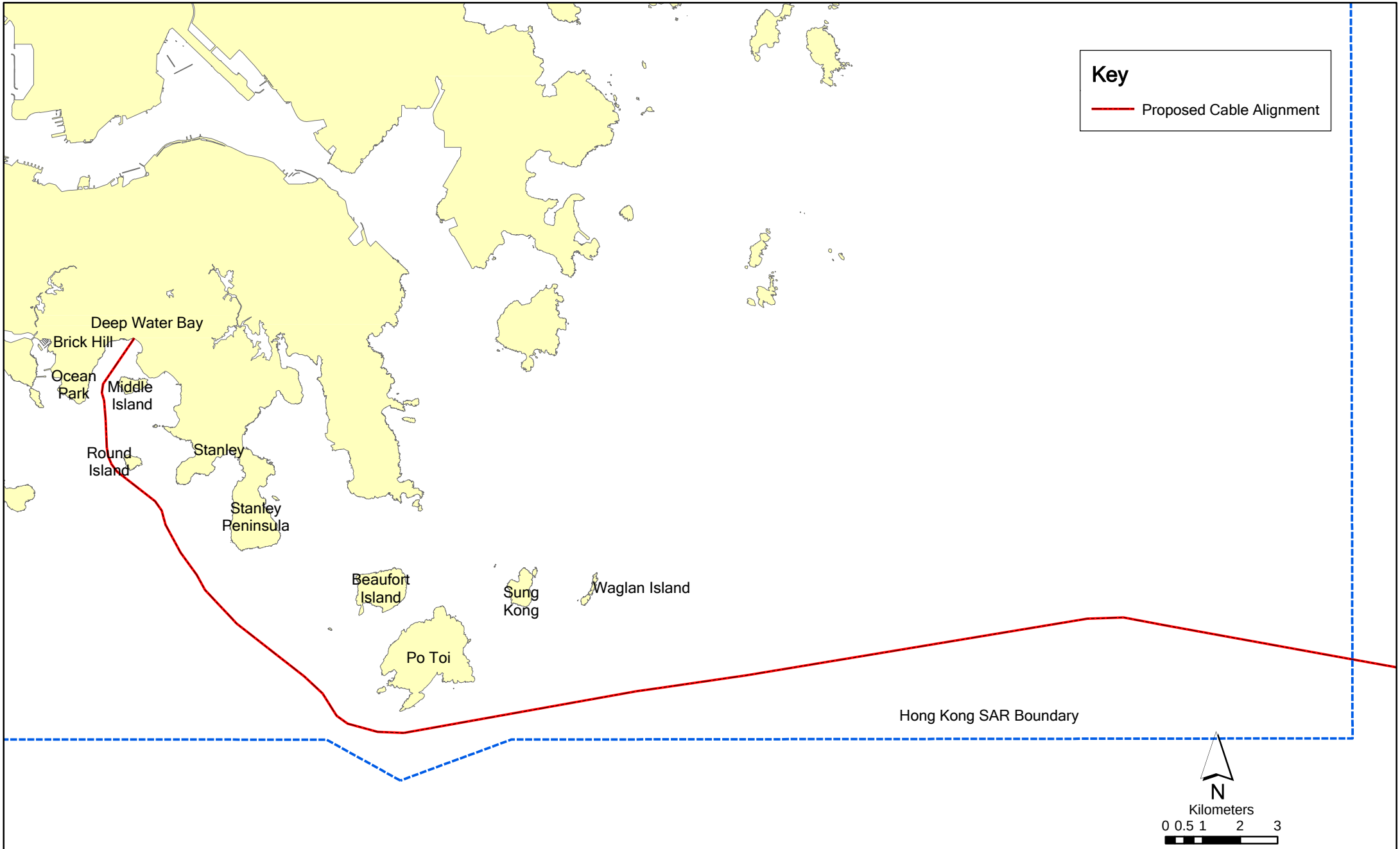

Figure 2.1

The Route of the Proposed Cable System

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Date: 21/01/2009

Environmental Resources Management

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2.2 *MARINE CONSTRUCTION WORKS UNDERTAKEN DURING REPORTING WEEK*

A summary of the major works undertaken during the reporting week is shown in *Table 2.1*.

Table 2.1 Summary of Marine Works Undertaken During the Reporting Week

Date	Works Area	Activity
23 March 2009	Near shore before entering Zone A	Installation of articulated pipes by divers and preparation works.
24 March 2009	Near shore before entering Zone A	Installation of articulated pipes by divers and preparation works.
25 March 2009	Zone A	Diver hand jetting and burial of cable simultaneously (with silt curtain).
26 March 2009	Zone A	Diver hand jetting and burial of cable simultaneously (with silt curtain).
27 March 2009	Zone A	Diver hand jetting and burial of cable simultaneously (with silt curtain). All mini shore-end works were completed on 27 March 2009 and the barge was demobilised on the same day.

2.3 *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 2.2*.

Table 2.2 Summary of Environmental Licensing, Notification, Permit and Reporting Status

Permit / Licence / Notification / Report	Reference	Validity Period	Remarks
Environmental Permit	(EP-294/2007)	Throughout the construction period	Granted on 23 November 2008
Further Environmental Permit	(FEP-01/294/2007)	Throughout the construction period	Granted on 9 July 2008
EM&A Manual	-	Throughout the construction period	Approved by EPD on 12 March 2009
Baseline Water Quality Monitoring Report (*Part A*)	-	Throughout the construction period for Zones A and E	Approved by EPD on 1 April 2009
Baseline Water Quality Monitoring Report (*Part B*)	-	Throughout the construction period for Zones B to D	Submitted on 6 April 2009

3.1 MONITORING LOCATIONS

In accordance with the *EM&A Manual*, during the installation of the cable in Zone A, water quality sampling was undertaken at stations situated around the cable laying works at Deep Water Bay (ie Zone A). The locations of the sampling stations within Zone A are shown in *Figure 3.1*.

- S1 and S2 are situated at the two Seawater Intake Points in Deep Water Bay. They are within 500 m west/northwest of the cable alignment at Deep Water Bay for monitoring the effect of cable laying works in the area. The monitoring works started when the cable installation works were carried out in Zone A;
- S3 is a Sensitive Receiver used to monitor the water quality condition of the Coastal Protection Areas at Middle Island. The monitoring works took place when the cable installation works were conducted in Zone A;
- B1 is an Impact Station used to monitor the effect of the construction activities on Deep Water Bay Beach when the cable installation works were undertaken in Zone A; and
- R1 is a Control Station for S1, S2, S3 and B1 at Deep Water Bay which is not supposed to be influenced by the cable laying works due to its remoteness from the construction works.

The co-ordinates of Zone A and the above monitoring stations are listed in *Table 3.1* and *Table 3.2*, respectively.

Table 3.1 Co-ordinates of Starting Points and Ending Points for Zones A and E (HK Grid)

Zone	Starting Point		Ending Point	
	Easting	Northing	Easting	Northing
A	837029.763	811601.699	836367.572	810545.975

Table 3.2 Co-ordinates of Baseline Monitoring Stations (HK Grid)

Station	Nature	Corresponding Control Station	Easting	Northing
S1	Seawater Intakes	R1	836538.669	811528.535
S2	Seawater Intakes	R1	836195.047	810956.409
S3	Coastal Protection Areas	R1	836677.103	810666.744
B1	Gazetted Beach	R1	837241.114	811498.400
R1	Control Station	-	835951.109	809052.535

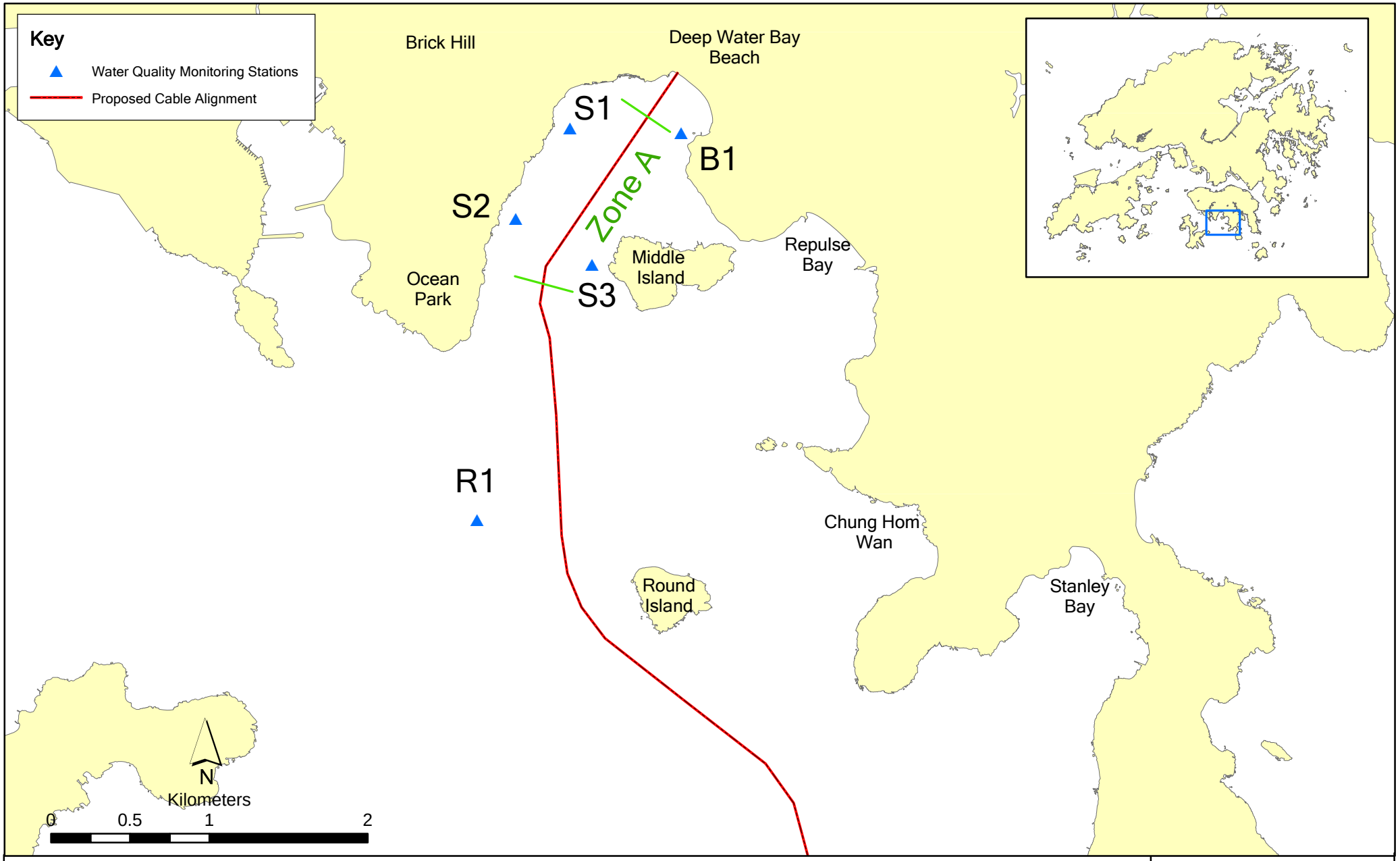

Figure 3.1

Location of Water Quality Monitoring Stations (Zone A)

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Date: 11/03/2009

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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) (mgL^{-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 Monitoring at S1, S2, S3, B1 and R1 took place when the cable installation works were undertaken within 500 m (Zone A) of monitoring stations S1, S2, S3 and B1. The sampling works ceased when no cable installation works were conducted inside Zone A.

Given that all nearshore construction works were undertaken during normal working hours (07:00 - 19:00), impact monitoring was carried out during the daytime covering both mid-flood and mid-ebb tidal conditions. *In-situ* and SS data of the control and impact stations within Zone A were collected daily during mid-flood and mid-ebb tidal states (*Table 3.3*). In addition, continuous *in-situ* measurements were taken at the impact monitoring stations, ie B1, S1, S2 and S3, at 30- to 60- minute intervals (subject to the weather conditions and travelling time between stations) within Zone A. The monitoring frequency and parameters for Impact Monitoring are summarised in *Table 3.3*.

Table 3.3 Monitoring Frequency and Parameters for Impact Monitoring at Zone A

Zone	Station Type	Monitoring Station	Monitoring Frequency	Monitoring Parameter	
				Mid-ebb Tide / Mid-flood Tide	30- to 60- Minute Interval
A	Control	R1	Daily when cable installation works undertaken in Zone A	Temperature, Turbidity, Salinity, DO, SS	-
	Impact	S1, S2, S3 and B1			Temperature, Turbidity, Salinity, DO

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 an 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

In-situ and SS data were collected daily at both control and impact stations during mid-flood tide and mid-ebb tide within Zone A. 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 0.5m for capturing representative tides. Continuous *In-situ* measurements were taken at 30- to 60- minute intervals (subject to the weather conditions and travelling time between stations) for each impact station within Zone A.

Reference was made to the predicted tides at Waglan Island, 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 Waglan Island, the impact water quality monitoring was conducted following the schedule presented in *Annex A*.

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.

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

Laboratory Analysis

All laboratory work was carried out by a 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 B*).

3.3.3 Action and Limit Levels

The Action and Limit levels for Zones A and E, which were established based on the results of *Baseline Environmental Monitoring Part A*, are presented in *Tables 3.4*.

Table 3.4 Proposed Action and Limit Levels of Water Quality for Zones A and E

Parameter	Action Level	Limit Level
Dissolved Oxygen (DO) (1)	Surface and Mid-depth (2) 5%-ile of baseline data for surface and middle layer = 6.59 mg L^{-1}	Surface and Mid-depth (2) 1%-ile of baseline data for bottom layer = 6.42 mg L^{-1}
	Bottom 5%-ile of baseline data for bottom layers = 6.58 mg L^{-1}	Bottom 1%-ile of baseline for bottom layer = 6.42 mg L^{-1}
Depth-averaged Suspended Solids (SS) (3) (4)	95%-ile of baseline data = 7.91 mg L^{-1}	99%-ile of baseline data = 8.96 mg L^{-1}
	or 120% of control station's SS at the same tide of the same day	or 130% of control station's SS at the same tide of the same day
Depth-averaged Turbidity (Tby) (3) (4)	95%-ile of baseline data = 5.17 NTU	99%-ile of baseline data = 5.72 NTU
	or 120% of control station's Tby at the same tide of the same day	or 130% of control station's Tby at the same tide of the same day

Notes:

(1) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.

(2) The Action and Limit Levels for DO for Surface & Middle layer were calculated from the combined pool of baseline surface layer data and baseline middle layer data.

(3) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.

(4) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

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 3.5*.

Table 3.5 Event Action Plan for Water Quality

Event	Contractor
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, AFCD 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). **Step 5** - repeat measurements after implementation of mitigation for confirmation of compliance. **Step 6** - if non compliance continues - increase measures in Step 4 and repeat measurements in Step 5. 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 IMPACT MONITORING RESULTS

A total of three monitoring events were scheduled between 23 March and 29 March 2009 at Deep Water Bay (ie Zone A). All monitoring events at all designated monitoring stations within Zone A were performed on schedule, ie on 25 March, 26 March and 27 March 2009.

No major activities influencing the water quality were identified between 23 March and 29 March 2009.

4.1 DATA COLLECTED DURING MID-EBB AND MID-FLOOD TIDAL CONDITIONS

The monitoring data taken during the mid-ebb and mid-flood tidal conditions for Zone A are presented in *Annex C* and compared against the baseline monitoring results in *Figures C1 - C4*. The impact monitoring results obtained during this week were mostly comparable to the results recorded during the baseline monitoring.

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

4.2 CONTINUOUS IN-SITU MEASUREMENT DATA

Continuous *in-situ* measurements were taken at the impact monitoring stations, ie B1, S1, S2 and S3, at 30- to 60- minute intervals (subject to the weather conditions and travelling time between stations) for Zone A and the results and the graphical presentations were included in *Annex D*.

In general, the water quality of Zone A was stable throughout each sampling day (ie 25 March, 26 March or 27March 2009). Neither sudden drop in dissolved oxygen concentrations nor sharp increase in turbidity levels was observed on each monitoring day.

5 ENVIRONMENTAL NON-CONFORMANCES

5.1 SUMMARY OF ENVIRONMENTAL EXCEEDANCE

No exceedances of the Action and Limit Levels were recorded during the reporting period.

5.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance events were recorded during the reporting period.

5.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaints were received during the reporting period.

5.4 SUMMARY OF ENVIRONMENTAL SUMMONS AND PROSECUTION

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

6 FUTURE KEY ISSUES

6.1 KEY ISSUES FOR THE COMING MONTH

The cable installation barge "CB Networker" will install the cable in three phases and the tentative dates are also listed as follows:

- Phase I (16 April to 28 April 2009) – Locate in-service cables by divers;
- Phase II (28 April to 11 May 2009) – Conduct route clearance and pre-lay trial run of burial tool "Injector"; and
- Phase III (11 May 2009 to 21 May 2009) – Install cable along the proposed route using the burial tool "Injector".

6.2 MONITORING SCHEDULE FOR THE COMING MONTHS

Since there will be no underwater works in the following weeks, the impact monitoring will be suspended until the cable installation works resume around mid April.

7 CONCLUSIONS

This Weekly Impact Monitoring Report presents the EM&A work undertaken during the period from 23 March to 29 March 2008 in accordance with the EM&A Manual and the requirements under *FEP-01/294/2007*.

No exceedances of Action and Limit Levels were recorded during the reporting week.

No non-compliance events were recorded during the reporting week.

No complaints and summons/prosecution were received during the reporting week.

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

Annex A

Impact Monitoring Schedule

VSNL Intra Asia Submarine Cable System - Deep Water Bay
Impact Water Quality Monitoring Schedule - March 2009

Reference Tidal Station: Waglan Island (source: HK Observatory Department)

as of 27 March 2009

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Mar	2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	7-Mar
	8-Mar	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar
1	15-Mar	16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar
2	22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar
				Mid-Flood 6:02 Mid-Ebb 11:49 *Impact Monitoring Zone A*	Mid-Flood 6:19 Mid-Ebb 12:17 *Impact Monitoring Zone A*	Mid-Flood 6:40 Mid-Ebb 12:48 *Impact Monitoring Zone A*	
3	29-Mar	30-Mar	31-Mar				

The schedule is subject to agreement from the EPD and AFCD 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 B

QA/QC Results for Suspended Solids Testing

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	: HK0905589		
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	: WATER QUALITY MONITORING PROGRAMME DEEP WATER BAY AND PO TOI	Quote number	: ----	Date received	: 26-MAR-2009		
Order number	: ----			Date of issue	: 27-MAR-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 HK0905589 supersedes any previous reports with this reference. The completion date of analysis is 26-MAR-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 HK0905589 : **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: 931438)								
HK0905589-001	2009/03/25/1125/S1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	0.0
HK0905589-011	2009/03/25/1118/S2/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	25.8
EA/ED: Physical and Aggregate Properties (QC Lot: 931439)								
HK0905589-021	2009/03/25/1139/B1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	6	0.0
HK0905589-031	2009/03/25/0555/S1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 931440)								
HK0905589-041	2009/03/25/0529/S2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	34.0
HK0905589-051	2009/03/25/0614/B1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	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: 931438)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 931439)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 931440)											
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.**

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*	: **HK0905699**		
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	: **WATER QUALITY MONITORING PROGRAMME DEEP WATER BAY AND PO TOI**	*Quote number*	: **----**	*Date received*	: **27-MAR-2009**		
Order number	: **----**			*Date of issue*	: **30-MAR-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 HK0905699 supersedes any previous reports with this reference. The completion date of analysis is 28-MAR-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 HK0905699 : **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: 933067)								
HK0905699-001	2009/03/26/1210/S1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	16.5
HK0905699-011	2009/03/26/1202/S2/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 933068)								
HK0905699-021	2009/03/26/1227/B1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	6	0.0
HK0905699-031	2009/03/26/0614/S1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	136	146	7.2
EA/ED: Physical and Aggregate Properties (QC Lot: 933069)								
HK0905699-041	2009/03/26/0602/S2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0905699-051	2009/03/26/0631/B1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	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: 933067)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 933068)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 933069)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	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.**

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*	: **HK0905789**		
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	: **WATER QUALITY MONITORING PROGRAMME DEEP WATER BAY AND PO TOI**	*Quote number*	: **----**	*Date received*	: **28-MAR-2009**		
Order number	: **----**			*Date of issue*	: **31-MAR-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 HK0905789 supersedes any previous reports with this reference. The completion date of analysis is 30-MAR-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 HK0905789 : **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: 933635)								
HK0905789-001	2009/03/27/1219/S1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
HK0905789-011	2009/03/27/1213/S2/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 933636)								
HK0905789-021	2009/03/27/1231/B1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	6	5	0.0
HK0905789-031	2009/03/27/0629/S1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 933637)								
HK0905789-041	2009/03/27/0622/S2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0905789-051	2009/03/27/0642/B1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0

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

Matrix: **WATER**

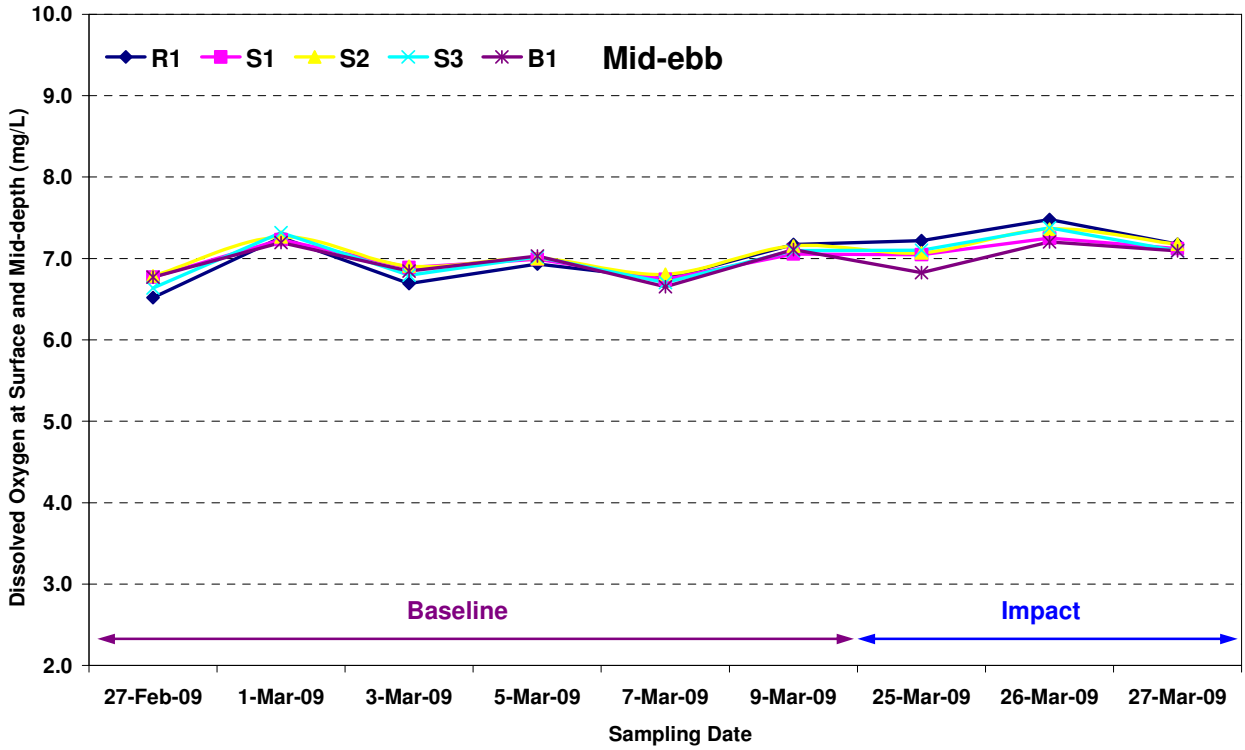
Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 933635)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 933636)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 933637)											
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 C

Imapct Water Quality Monitoring Results



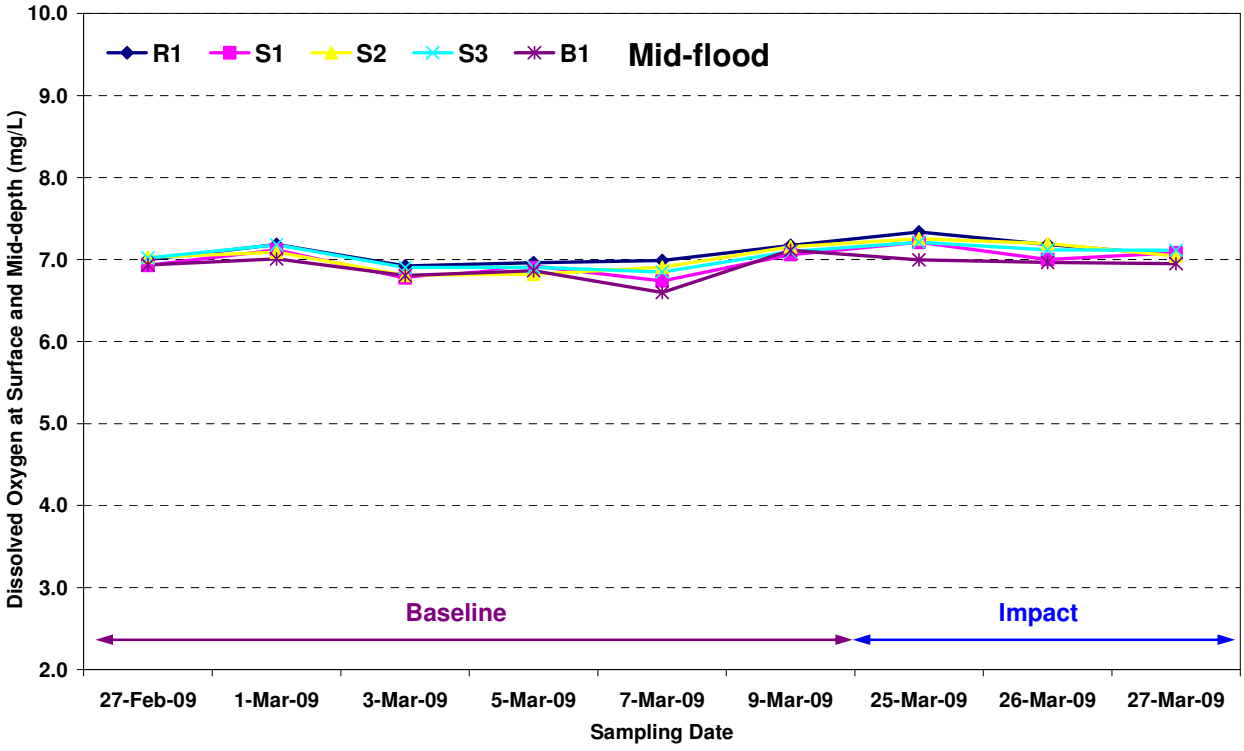
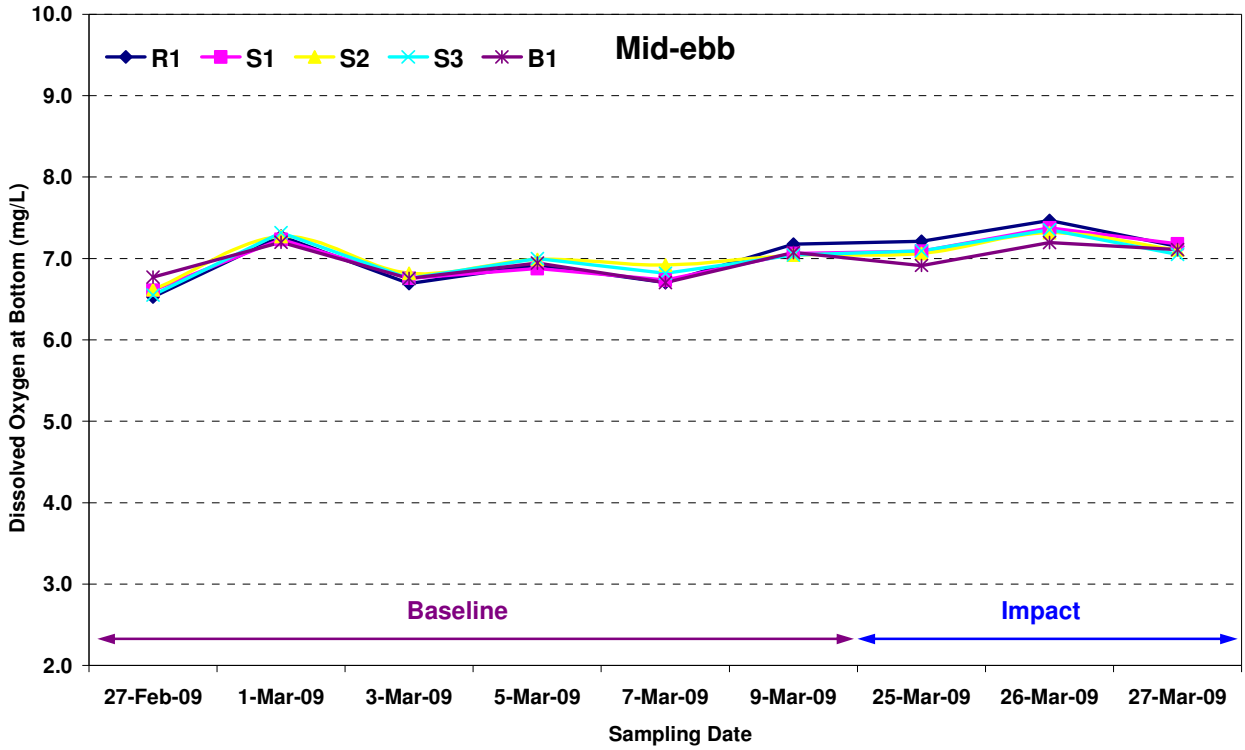


Figure C1 Dissolved Oxygen (mg/L) at the surface and mid-depth of the water column measured during the monitoring period from 27 February to 27 March 2009 for Zone A.



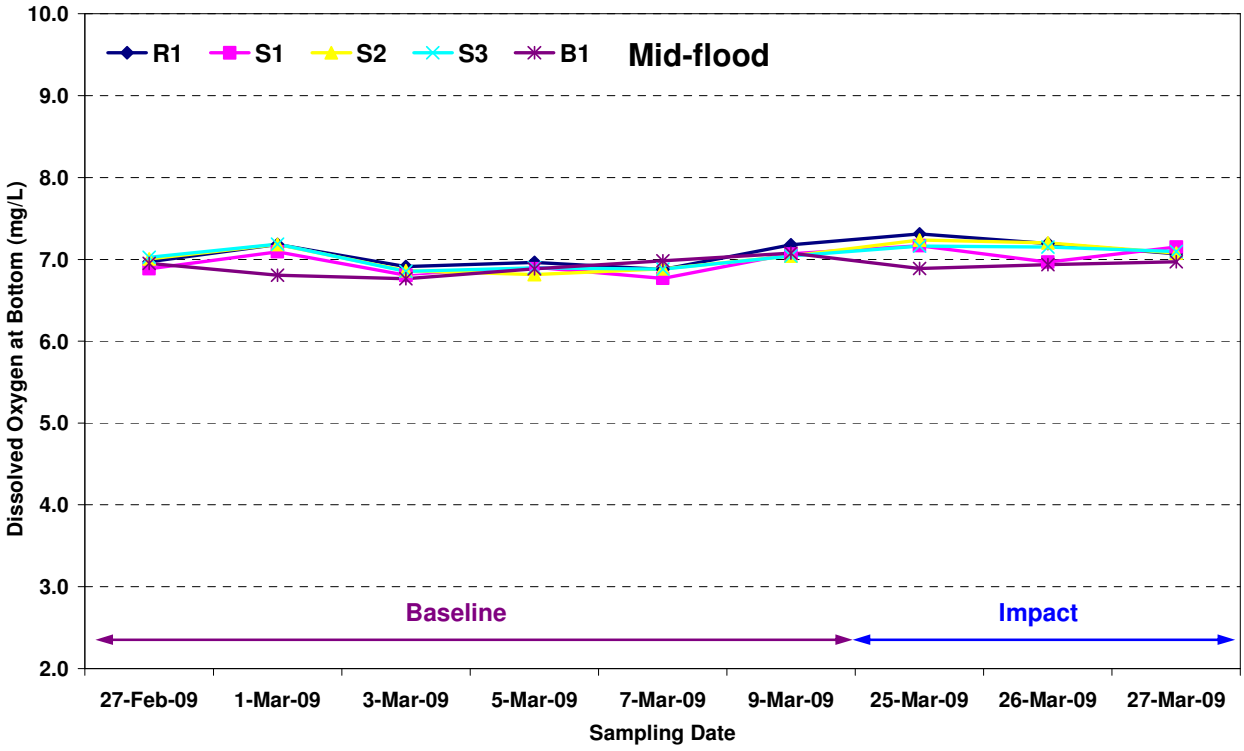
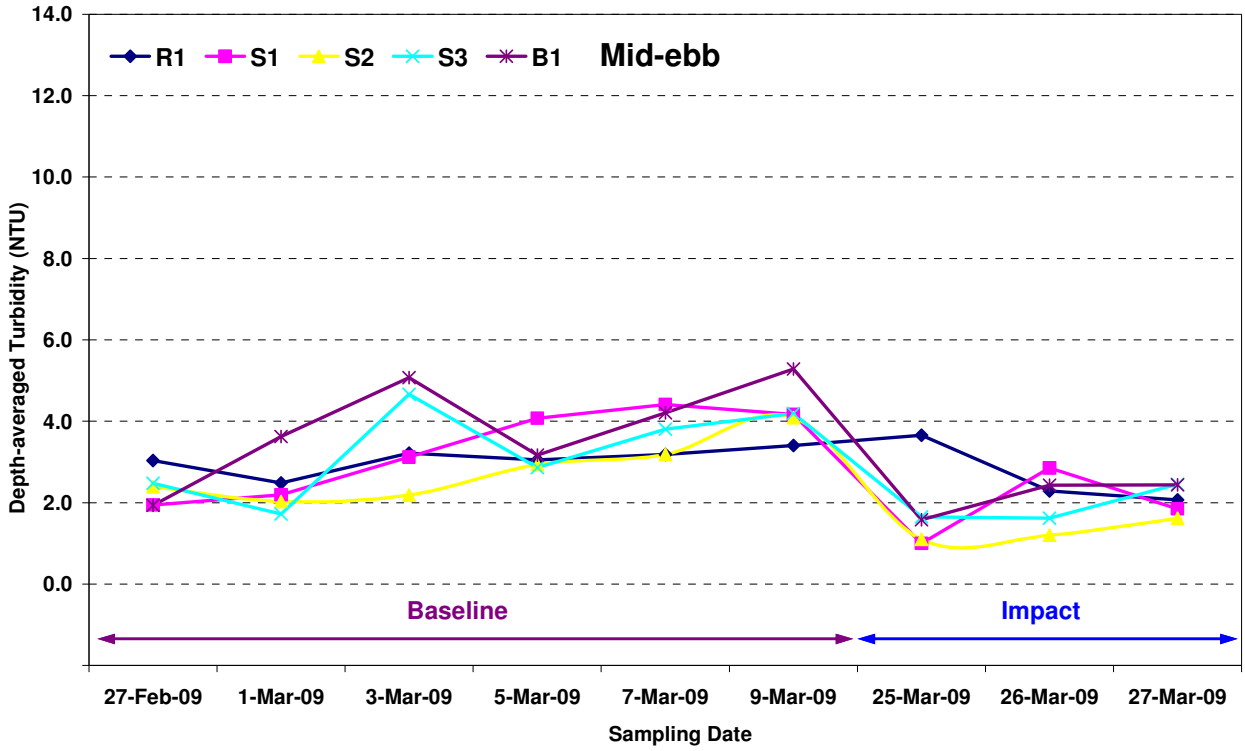


Figure C2 Dissolved Oxygen (mg/L) near the bottom of the water column measured during the monitoring period from 27 February to 27 March 2009 for Zone A.



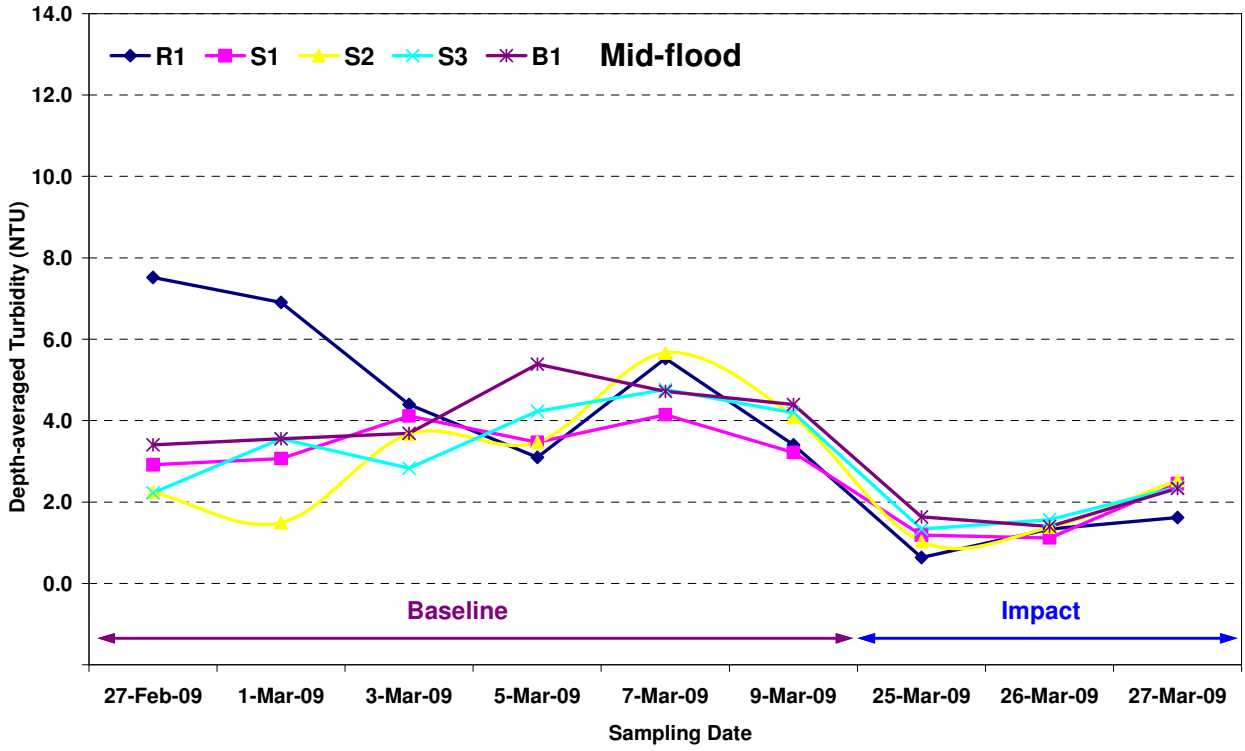
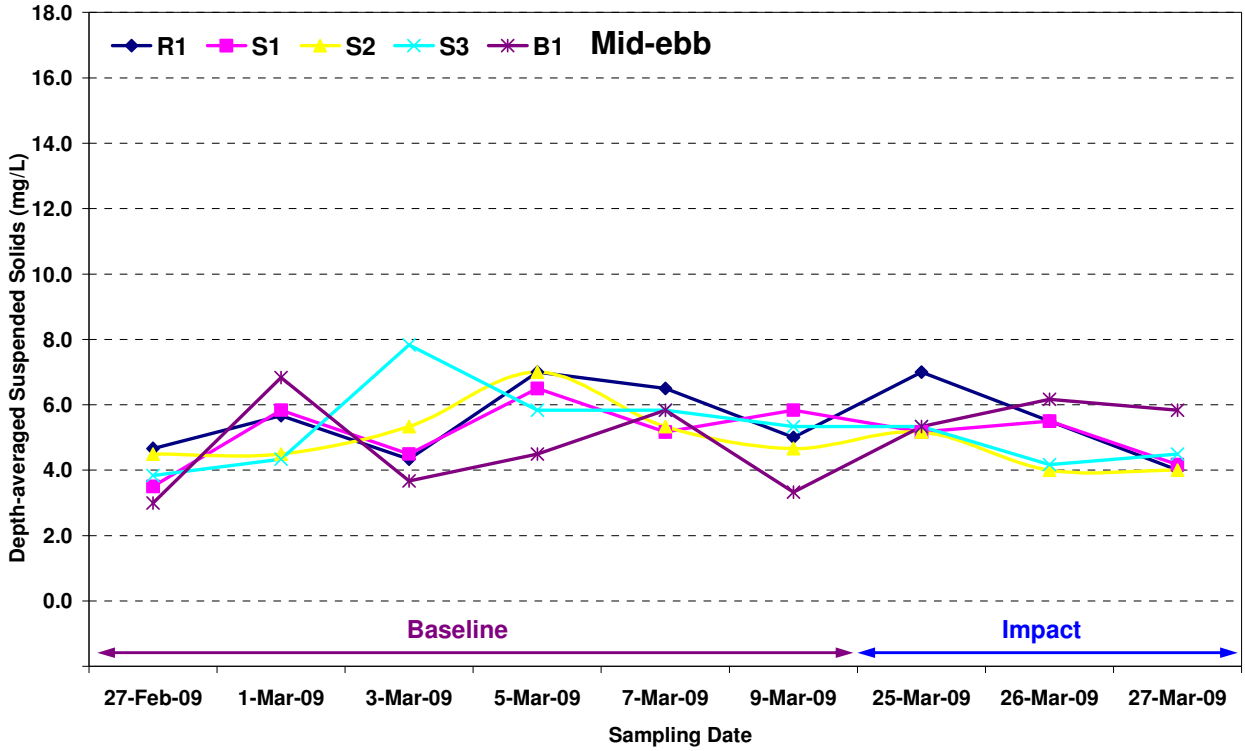


Figure C3 Depth-averaged turbidity (NTU) of water samples measured during the monitoring period from 27 February to 27 March 2009 for Zone A.



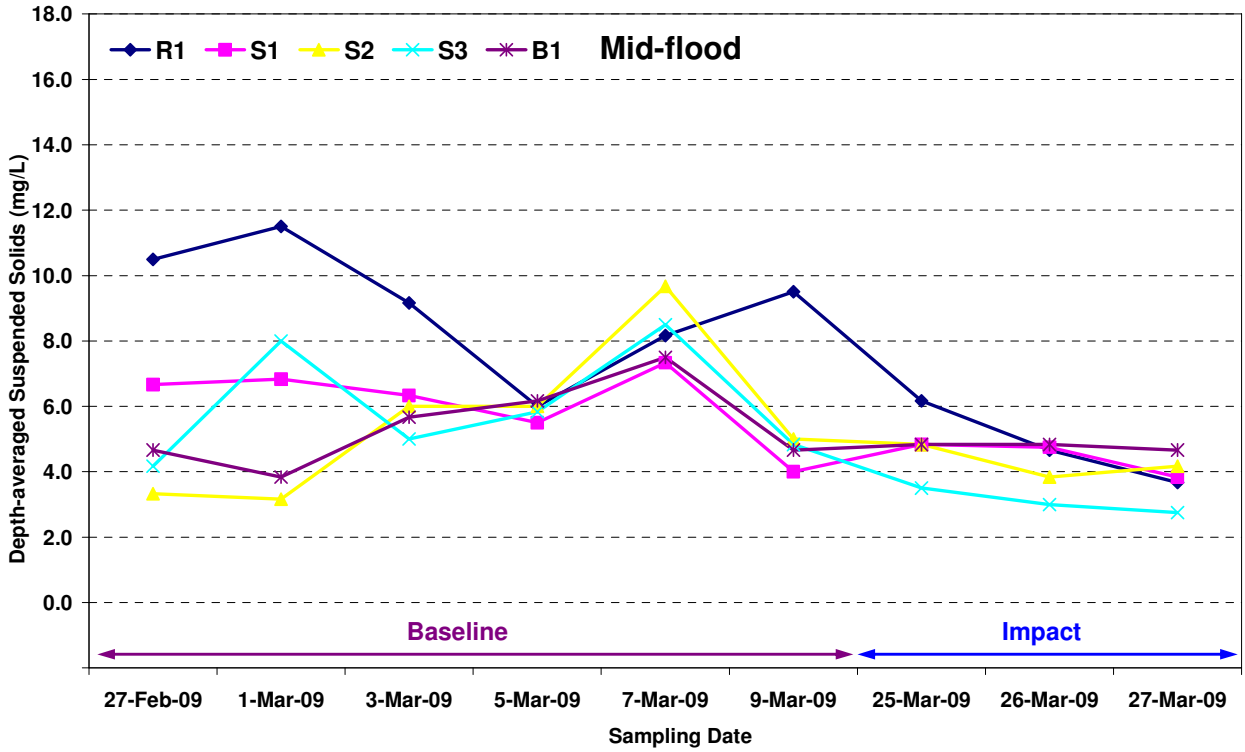


Figure C4 Depth-averaged Suspended Solids (mg/L) of water samples measured during the monitoring period from 27 February to 27 March 2009 for Zone A.

Annex C1 Impact Water Quality Monitoring Results During Mid-ebb tide for 25 March 2009

Sampling Date	3/25/2009
Weather	Cloudy
Ambient Temperature (℃)	

Station	**Zone A: R1**								
Time (hh:mm)	10:53-11:01								
Water Depth (m)	21.50								
Monitoring Depth (m)	0.85		10.90		20.20				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.6	20.6	20.4	20.4	20.2	20.2	20.37	-	-
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.81	-	-
D.O. Saturation (%)	98.0	98.1	97.4	97.4	97.0	97.2	97.54	-	-
D.O. (mg/L)	7.2	7.2	7.2	7.2	7.2	7.2	7.22	7.22	7.21
Turbidity (NTU)	0.1	0.1	3.0	4.2	6.6	7.9	3.66	-	-
SS (mg/L)	3.0	2.0	6.0	6.0	13.0	12.0	7.00	-	-
Remarks									

Station	**Zone A: S3**								
Time (hh:mm)	11:55-12:02								
Water Depth (m)	13.10								
Monitoring Depth (m)	1.00		6.55		11.95				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.5	20.5	20.5	20.5	20.5	20.5	20.52	-	-
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.83	-	-
D.O. Saturation (%)	96.4	96.2	96.2	96.1	95.4	96.9	96.23	-	-
D.O. (mg/L)	7.1	7.1	7.1	7.1	7.0	7.2	7.10	7.10	7.10
Turbidity (NTU)	0.8	0.6	1.4	1.3	3.1	2.7	1.65	-	-
SS (mg/L)	4.0	3.0	4.0	5.0	7.0	9.0	5.33	-	-
Remarks									

Station	**Zone A: S1**								
Time (hh:mm)	11:25-11:30								
Water Depth (m)	8.90								
Monitoring Depth (m)	1.20		4.60		7.95				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.6	20.6	20.6	20.6	20.6	20.6	20.57	-	-
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.81	-	-
D.O. Saturation (%)	95.3	95.7	95.8	95.6	97.4	95.0	95.78	-	-
D.O. (mg/L)	7.0	7.1	7.1	7.1	7.2	7.0	7.06	7.05	7.09
Turbidity (NTU)	0.9	0.7	0.8	1.0	1.0	1.6	1.00	-	-
SS (mg/L)	4.0	6.0	5.0	3.0	8.0	5.0	5.17	-	-
Remarks									

Station	**Zone A: B1**								
Time (hh:mm)	11:37-11:42								
Water Depth (m)	7.00								
Monitoring Depth (m)	1.05		3.45		6.00				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.6	20.6	20.6	20.6	20.6	20.6	20.58	-	-
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.9	33.83	-	-
D.O. Saturation (%)	92.8	92.4	93.0	92.4	94.4	93.3	93.04	-	-
D.O. (mg/L)	6.8	6.8	6.9	6.8	7.0	6.9	6.86	6.83	6.92
Turbidity (NTU)	1.4	1.6	1.5	1.5	1.6	1.9	1.58	-	-
SS (mg/L)	5.0	3.0	5.0	6.0	6.0	7.0	5.33	-	-
Remarks									

Station	**Zone A: S2**								
Time (hh:mm)	11:14-11:19								
Water Depth (m)	9.90								
Monitoring Depth (m)	1.00		5.20		8.80				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.6	20.6	20.6	20.5	20.5	20.5	20.54	-	-
Salinity (ppt)	33.8	33.8	33.7	33.8	33.8	33.8	33.78	-	-
D.O. Saturation (%)	96.0	96.1	95.7	96.0	95.8	95.8	95.86	-	-
D.O. (mg/L)	7.1	7.1	7.1	7.1	7.1	7.1	7.07	7.07	7.07
Turbidity (NTU)	0.5	0.6	0.9	0.9	2.1	1.6	1.10	-	-
SS (mg/L)	1.0	4.0	7.0	4.0	5.0	10.0	5.17	-	-
Remarks									

Compliance with Action and Limit Level

Parameter	**Action Level (baseline data)**	**Limit Level (baseline data)**	**Action Level (R1*1.2)**	**Limit Level (R1*1.3)**	**S1**		**S2**		**S3**		**B1**	
					Exceedance of Action Level	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**
DO (Bottom)	6.59	6.42			N	N	N	N	N	N	N	N
DO (Depth-averaged)	6.58	6.42			N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	5.17	5.72	4.4	4.8	N	N	N	N	N	N	N	N
SS (Depth-averaged)	7.91	8.96	8.4	9.1	N	N	N	N	N	N	N	N

Annex C2 Impact Water Quality Monitoring Results During Mid-flood Tide for 25 March 2009

Sampling Date	3/25/2009
Weather	Cloudy
Ambient Temperature (℃)	

Station	Zone A: R1								
Time (hh:mm)	4:59-5:07								
Water Depth (m)	22.20								
Monitoring Depth (m)	1.40		11.30		21.20				
Tide	Mid-Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.8	20.8	20.8	20.7	20.6	20.6	20.74	-	-
Salinity (ppt)	33.2	33.6	33.7	33.8	33.8	33.8	33.64	-	-
D.O. Saturation (%)	99.1	100.3	100.1	99.8	99.5	99.2	99.64	-	-
D.O. (mg/L)	7.29	7.37	7.35	7.33	7.32	7.30	7.33	7.34	7.31
Turbidity (NTU)	0.40	0.30	0.20	0.10	1.20	1.60	0.63	-	-
SS (mg/L)	7	4	4	5	9	8	6.17	-	-
Remarks									

Station	Zone A: S3								
Time (hh:mm)	6:30-6:36								
Water Depth (m)	13.10								
Monitoring Depth (m)	1.15		6.55		12.10				
Tide	Mid-Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.59	20.51	20.57	20.57	20.56	20.56	20.56	-	-
Salinity (ppt)	33.80	33.72	33.82	33.82	33.83	33.82	33.80	-	-
D.O. Saturation (%)	98.1	97.4	97.6	97.8	97.0	97.2	97.55	-	-
D.O. (mg/L)	7.23	7.19	7.20	7.21	7.15	7.17	7.19	7.21	7.16
Turbidity (NTU)	0.8	0.6	1.8	1.3	1.7	1.8	1.33	-	-
SS (mg/L)	2	5	4	3	-	-	3.50	-	-
Remarks									

Station	Zone A: S1								
Time (hh:mm)	5:54-6:00								
Water Depth (m)	9.35								
Monitoring Depth (m)	1.10		4.55		8.35				
Tide	Mid-Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.6	20.6	20.6	20.6	20.6	20.6	20.61	-	-
Salinity (ppt)	33.77	33.76	33.81	33.78	33.83	33.81	33.79	-	-
D.O. Saturation (%)	98.0	97.9	97.7	97.7	97.9	96.6	97.66	-	-
D.O. (mg/L)	7.22	7.21	7.20	7.20	7.21	7.12	7.19	7.21	7.17
Turbidity (NTU)	0.9	0.7	1.0	0.8	1.9	1.8	1.18	-	-
SS (mg/L)	3	6	4	4	4	8	4.83	-	-
Remarks									

Station	Zone A: B1								
Time (hh:mm)	6:11-6:17								
Water Depth (m)	7.00								
Monitoring Depth (m)	1.15		3.50		6.00				
Tide	Mid-Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.64	20.64	20.61	20.61	20.61	20.60	20.62	-	-
Salinity (ppt)	33.78	33.78	33.81	33.80	33.81	33.81	33.80	-	-
D.O. Saturation (%)	96.5	96.1	93.8	93.5	93.9	93.2	94.49	-	-
D.O. (mg/L)	7.10	7.07	6.91	6.89	6.92	6.86	6.96	6.99	6.89
Turbidity (NTU)	1.0	1.1	1.6	2.0	1.9	2.2	1.63	-	-
SS (mg/L)	4	3	6	8	2	6	4.83	-	-
Remarks									

Station	Zone A: S2								
Time (hh:mm)	5:25-5:30								
Water Depth (m)	10.40								
Monitoring Depth (m)	1.10		5.35		9.40				
Tide	Mid-Flood								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.61	20.60	20.57	20.57	20.56	20.58	20.58	-	-
Salinity (ppt)	33.81	33.76	33.83	33.82	33.85	33.84	33.82	-	-
D.O. Saturation (%)	98.6	98.0	98.6	98.6	98.4	98.0	98.36	-	-
D.O. (mg/L)	7.26	7.22	7.27	7.27	7.25	7.22	7.25	7.26	7.24
Turbidity (NTU)	0.8	0.8	0.9	0.8	1.7	1.2	1.03	-	-
SS (mg/L)	2	5	5	5	3	9	4.83	-	-
Remarks									

Compliance with Action and Limit Level

Parameter	**Action Level (baseline data)**	**Limit Level (baseline data)**	**Action Level (R1*1.2)**	**Limit Level (R1*1.3)**	**S1**		**S2**		**S3**		**B1**	
					Exceedance of Action Level	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**
DO (Bottom)	6.59	6.42			N	N	N	N	N	N	N	N
DO (Depth-averaged)	6.58	6.42			N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	5.17	5.72	0.8	0.8	N	N	N	N	N	N	N	N
SS (Depth-averaged)	7.91	8.96	7.4	8.0	N	N	N	N	N	N	N	N

Annex C3 Impact Water Quality Monitoring Results During Mid-ebb tide for 26 March 2009

Sampling Date	3/26/2009
Weather	Cloudy
Ambient Temperature (℃)	

Station	**Zone A: R1**								
Time (hh:mm)	11:39-11:46								
Water Depth (m)	21.40								
Monitoring Depth (m)	1.00		11.45		20.75				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.2	20.2	20.2	20.2	20.2	20.2	20.20	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	34.0	33.98	-	-
D.O. Saturation (%)	101.1	101.2	100.7	100.8	100.4	100.8	100.80	-	-
D.O. (mg/L)	7.49	7.50	7.46	7.47	7.45	7.48	7.48	7.48	7.47
Turbidity (NTU)	2.00	1.50	2.00	1.70	3.21	3.31	2.29	-	-
SS (mg/L)	5.0	4.0	4.0	8.0	7.0	5.0	5.50	-	-
Remarks									

Station	**Zone A: S3**								
Time (hh:mm)	12:38-12:44								
Water Depth (m)	12.00								
Monitoring Depth (m)	1.00		6.05		11.45				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.3	20.3	20.3	20.3	20.26	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	33.9	33.95	-	-
D.O. Saturation (%)	99.7	99.9	99.5	99.5	99.2	99.5	99.51	-	-
D.O. (mg/L)	7.38	7.40	7.36	7.37	7.34	7.37	7.37	7.38	7.36
Turbidity (NTU)	1.70	1.20	2.30	1.00	1.60	1.90	1.62	-	-
SS (mg/L)	5.0	3.0	4.0	4.0	5.0	4.0	4.17	-	-
Remarks									

Station	**Zone A: S1**								
Time (hh:mm)	12:10-12:15								
Water Depth (m)	9.10								
Monitoring Depth (m)	1.15		4.65		8.15				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.3	20.3	20.3	20.3	20.29	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	34.0	33.97	-	-
D.O. Saturation (%)	97.8	98.3	97.8	98.0	100.9	98.5	98.51	-	-
D.O. (mg/L)	7.24	7.27	7.24	7.25	7.46	7.29	7.29	7.25	7.38
Turbidity (NTU)	1.50	2.00	2.50	2.50	4.01	4.61	2.85	-	-
SS (mg/L)	4.0	5.0	6.0	4.0	8.0	6.0	5.50	-	-
Remarks									

Station	**Zone A: B1**								
Time (hh:mm)	12:23-12:30								
Water Depth (m)	6.60								
Monitoring Depth (m)	1.20		3.50		5.75				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.2	20.2	20.2	20.2	20.2	20.2	20.22	-	-
Salinity (ppt)	34.0	34.0	33.9	34.0	33.9	34.0	33.95	-	-
D.O. Saturation (%)	97.2	97.4	96.8	97.3	97.1	97.0	97.14	-	-
D.O. (mg/L)	7.20	7.22	7.18	7.21	7.20	7.19	7.20	7.20	7.20
Turbidity (NTU)	2.60	2.80	2.10	2.30	2.30	2.50	2.43	-	-
SS (mg/L)	5.0	6.0	5.0	9.0	6.0	6.0	6.17	-	-
Remarks									

Station	**Zone A: S2**								
Time (hh:mm)	11:59-12:03								
Water Depth (m)	9.90								
Monitoring Depth (m)	1.20		5.10		8.70				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.2	20.3	20.3	20.3	20.3	20.26	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	34.0	33.96	-	-
D.O. Saturation (%)	100.1	99.2	99.4	98.9	98.9	98.7	99.22	-	-
D.O. (mg/L)	7.41	7.35	7.36	7.33	7.32	7.31	7.35	7.36	7.32
Turbidity (NTU)	1.20	1.20	1.60	1.20	1.10	0.90	1.20	-	-
SS (mg/L)	3.0	3.0	4.0	6.0	3.0	5.0	4.00	-	-
Remarks									

Compliance with Action and Limit Level

Parameter	**Action Level (baseline data)**	**Limit Level (baseline data)**	**Action Level (R1*1.2)**	**Limit Level (R1*1.3)**	**S1**		**S2**		**S3**		**B1**	
					Exceedance of Action Level	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**
DO (Bottom)	6.59	6.42			N	N	N	N	N	N	N	N
DO (Depth-averaged)	6.58	6.42			N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	5.17	5.72	2.7	3.0	N	N	N	N	N	N	N	N
SS (Depth-averaged)	7.91	8.96	6.6	7.2	N	N	N	N	N	N	N	N

Annex C4 Impact Water Quality Monitoring Results During Mid-flood Tide for 26 March 2009

Sampling Date	3/26/2009
Weather	Cloudy
Ambient Temperature (℃)	

Station	**Zone A: R1**								
Time (hh:mm)	05:34-05:42								
Water Depth (m)	22.60								
Monitoring Depth (m)	1.00		11.20		21.15				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.6	20.5	20.5	20.6	20.5	20.5	20.53	-	-
Salinity (ppt)	33.7	33.7	33.8	33.9	33.8	33.9	33.79	-	-
D.O. Saturation (%)	97.4	97.4	97.5	97.5	97.5	97.4	97.44	-	-
D.O. (mg/L)	7.18	7.18	7.19	7.18	7.20	7.18	7.19	7.18	7.19
Turbidity (NTU)	0.40	0.40	1.70	1.80	2.10	1.60	1.33	-	-
SS (mg/L)	4.0	2.0	4.0	6.0	8.0	4.0	4.67	-	-
Remarks									

Station	**Zone A: S3**								
Time (hh:mm)	06:44-06:50								
Water Depth (m)	13.40								
Monitoring Depth (m)	1.00		6.60		12.00				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.3	20.3	20.3	20.3	20.31	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.90	-	-
D.O. Saturation (%)	96.4	96.5	95.6	96.2	94.6	98.6	96.29	-	-
D.O. (mg/L)	7.13	7.14	7.07	7.12	7.00	7.30	7.13	7.12	7.15
Turbidity (NTU)	1.40	1.30	1.80	1.40	1.70	1.80	1.57	-	-
SS (mg/L)	2.0	<1	2.0	4.0	4.0	3.0	3.00	-	-
Remarks									

Station	**Zone A: S1**								
Time (hh:mm)	06:14-06:19								
Water Depth (m)	8.80								
Monitoring Depth (m)	0.75		4.70		7.95				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.3	20.3	20.2	20.3	20.30	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.89	-	-
D.O. Saturation (%)	95.1	95.1	94.5	94.0	94.3	93.8	94.44	-	-
D.O. (mg/L)	7.04	7.03	6.99	6.95	6.99	6.94	6.99	7.00	6.97
Turbidity (NTU)	0.90	1.10	1.10	1.00	1.50	1.10	1.12	-	-
SS (mg/L)	4.0	3.0	3.0	9.0	-	-	4.75	-	-
Remarks									

Station	**Zone A: B1**								
Time (hh:mm)	06:29-06:36								
Water Depth (m)	7.00								
Monitoring Depth (m)	1.10		3.40		5.85				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.3	20.3	20.3	20.3	20.30	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.88	-	-
D.O. Saturation (%)	94.6	94.8	93.5	93.5	94.7	92.4	93.94	-	-
D.O. (mg/L)	7.00	7.01	6.92	6.92	7.02	6.85	6.95	6.96	6.94
Turbidity (NTU)	1.20	1.20	1.40	1.40	1.60	1.60	1.40	-	-
SS (mg/L)	5.0	3.0	4.0	5.0	7.0	5.0	4.83	-	-
Remarks									

Station	**Zone A: S2**								
Time (hh:mm)	05:58-06:03								
Water Depth (m)	9.80								
Monitoring Depth (m)	1.40		4.80		8.65				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.3	20.3	20.3	20.3	20.31	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.88	-	-
D.O. Saturation (%)	97.3	97.1	97.3	97.0	97.8	96.7	97.23	-	-
D.O. (mg/L)	7.21	7.19	7.20	7.18	7.24	7.16	7.20	7.20	7.20
Turbidity (NTU)	1.40	1.30	1.50	1.40	1.30	1.40	1.38	-	-
SS (mg/L)	6.0	2.0	4.0	4.0	4.0	3.0	3.83	-	-
Remarks									

Compliance with Action and Limit Level

Parameter	**Action Level (baseline data)**	**Limit Level (baseline data)**	**Action Level (R1*1.2)**	**Limit Level (R1*1.3)**	**S1**		**S2**		**S3**		**B1**	
					Exceedance of Action Level	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**
DO (Bottom)	6.59	6.42			N	N	N	N	N	N	N	N
DO (Depth-averaged)	6.58	6.42			N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	5.17	5.72	1.6	1.7	N	N	N	N	N	N	N	N
SS (Depth-averaged)	7.91	8.96	5.6	6.1	N	N	N	N	N	N	N	N

Annex C5 Impact Water Quality Monitoring Results During Mid-ebb tide for 27 March 2009

Sampling Date	3/27/2009
Weather	Cloudy
Ambient Temperature (℃)	

Station	**Zone A: R1**								
Time (hh:mm)	11:52-11:56								
Water Depth (m)	21.40								
Monitoring Depth (m)	1.10		11.35		20.80				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.2	20.3	20.2	20.3	20.3	20.26	-	-
Salinity (ppt)	33.9	33.9	34.0	34.0	34.0	34.0	33.99	-	-
D.O. Saturation (%)	97.0	97.0	96.9	96.8	96.9	96.4	96.82	-	-
D.O. (mg/L)	7.18	7.19	7.17	7.17	7.17	7.13	7.17	7.18	7.15
Turbidity (NTU)	1.50	1.60	1.60	2.00	2.20	3.51	2.07	-	-
SS (mg/L)	3.0	4.0	4.0	3.0	4.0	6.0	4.00	-	-
Remarks									

Station	**Zone A: S3**								
Time (hh:mm)	12:41-12:49								
Water Depth (m)	13.30								
Monitoring Depth (m)	0.95		6.85		11.95				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.3	20.3	20.1	20.1	20.1	20.1	20.15	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	33.9	33.95	-	-
D.O. Saturation (%)	95.2	96.7	95.4	95.2	95.1	94.5	95.38	-	-
D.O. (mg/L)	7.05	7.16	7.09	7.07	7.07	7.03	7.08	7.09	7.05
Turbidity (NTU)	2.70	1.20	2.60	2.60	2.70	2.90	2.45	-	-
SS (mg/L)	2.0	3.0	7.0	4.0	6.0	5.0	4.50	-	-
Remarks									

Station	**Zone A: S1**								
Time (hh:mm)	12:19-12:23								
Water Depth (m)	9.40								
Monitoring Depth (m)	1.00		4.60		8.15				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.2	20.2	20.2	20.2	20.2	20.2	20.17	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	34.0	33.97	-	-
D.O. Saturation (%)	96.1	96.3	95.9	95.9	98.1	95.5	96.26	-	-
D.O. (mg/L)	7.13	7.13	7.11	7.11	7.28	7.08	7.14	7.12	7.18
Turbidity (NTU)	2.00	1.70	1.80	1.90	1.70	2.00	1.85	-	-
SS (mg/L)	5.0	4.0	3.0	6.0	4.0	3.0	4.17	-	-
Remarks									

Station	**Zone A: B1**								
Time (hh:mm)	12:30-12:34								
Water Depth (m)	7.20								
Monitoring Depth (m)	0.90		3.55		6.00				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.2	20.2	20.2	20.2	20.2	20.2	20.20	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.8	34.0	33.90	-	-
D.O. Saturation (%)	95.7	95.7	95.6	95.4	96.4	95.1	95.66	-	-
D.O. (mg/L)	7.10	7.10	7.09	7.08	7.16	7.06	7.10	7.09	7.11
Turbidity (NTU)	2.00	2.10	2.40	2.20	3.11	2.80	2.44	-	-
SS (mg/L)	6.0	6.0	4.0	5.0	8.0	6.0	5.83	-	-
Remarks									

Station	**Zone A: S2**								
Time (hh:mm)	12:10-12:14								
Water Depth (m)	10.10								
Monitoring Depth (m)	0.95		5.15		9.05				
Tide	**Mid-Ebb**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.2	20.2	20.2	20.2	20.2	20.2	20.19	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.7	33.9	33.87	-	-
D.O. Saturation (%)	96.6	97.3	96.6	96.8	95.9	95.6	96.44	-	-
D.O. (mg/L)	7.16	7.21	7.16	7.17	7.12	7.09	7.15	7.18	7.11
Turbidity (NTU)	1.90	1.30	1.50	1.30	1.80	1.90	1.62	-	-
SS (mg/L)	6.0	4.0	3.0	4.0	4.0	3.0	4.00	-	-
Remarks									

Compliance with Action and Limit Level

Parameter	**Action Level (baseline data)**	**Limit Level (baseline data)**	**Action Level (R1*1.2)**	**Limit Level (R1*1.3)**	**S1**		**S2**		**S3**		**B1**	
					Exceedance of Action Level	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**
DO (Bottom)	6.59	6.42			N	N	N	N	N	N	N	N
DO (Depth-averaged)	6.58	6.42			N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	5.17	5.72	2.5	2.7	N	N	N	N	N	N	N	N
SS (Depth-averaged)	7.91	8.96	4.8	5.2	N	N	N	N	N	N	N	N

Annex C6 Impact Water Quality Monitoring Results During Mid-flood Tide for 27 March 2009

Sampling Date	3/27/2009
Weather	Cloudy
Ambient Temperature (℃)	

Station	**Zone A: R1**								
Time (hh:mm)	05:53-06:05								
Water Depth (m)	21.70								
Monitoring Depth (m)	1.30		11.30		20.15				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.4	20.4	20.4	20.4	20.3	20.3	20.36	-	-
Salinity (ppt)	33.7	33.7	33.8	33.8	33.9	33.9	33.80	-	-
D.O. Saturation (%)	95.4	95.3	95.3	95.5	95.3	95.4	95.38	-	-
D.O. (mg/L)	7.06	7.05	7.05	7.06	7.06	7.07	7.06	7.06	7.07
Turbidity (NTU)	1.50	1.50	1.20	1.30	2.30	1.90	1.62	-	-
SS (mg/L)	3.0	4.0	4.0	2.0	4.0	5.0	3.67	-	-
Remarks									

Station	**Zone A: S3**								
Time (hh:mm)	06:54-06:59								
Water Depth (m)	13.60								
Monitoring Depth (m)	0.80		6.20		12.20				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.1	20.1	20.0	20.1	20.0	20.0	20.05	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.0	34.0	33.95	-	-
D.O. Saturation (%)	95.8	95.8	95.5	95.5	95.6	95.2	95.53	-	-
D.O. (mg/L)	7.12	7.12	7.10	7.10	7.11	7.08	7.11	7.11	7.10
Turbidity (NTU)	2.30	1.80	2.50	2.10	3.01	2.50	2.37	-	-
SS (mg/L)	2.0	2.0	3.0	4.0	-	-	2.75	-	-
Remarks									

Station	**Zone A: S1**								
Time (hh:mm)	06:29-06:33								
Water Depth (m)	9.20								
Monitoring Depth (m)	0.90		4.65		8.15				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.1	20.1	20.1	20.1	20.1	20.1	20.06	-	-
Salinity (ppt)	34.0	34.0	34.0	34.0	33.9	34.0	33.94	-	-
D.O. Saturation (%)	95.4	95.3	95.2	95.1	97.7	94.5	95.57	-	-
D.O. (mg/L)	7.09	7.09	7.08	7.07	7.27	7.03	7.11	7.08	7.15
Turbidity (NTU)	2.20	2.20	2.40	2.20	2.80	2.90	2.45	-	-
SS (mg/L)	3.0	3.0	5.0	2.0	4.0	6.0	3.83	-	-
Remarks									

Station	**Zone A: B1**								
Time (hh:mm)	06:40-06:44								
Water Depth (m)	7.30								
Monitoring Depth (m)	0.90		3.60		6.05				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.0	20.0	20.0	20.0	20.0	20.0	20.02	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.93	-	-
D.O. Saturation (%)	93.6	93.4	93.1	93.6	93.8	93.6	93.47	-	-
D.O. (mg/L)	6.96	6.95	6.92	6.96	6.98	6.96	6.96	6.95	6.97
Turbidity (NTU)	2.40	2.00	2.40	2.60	2.40	2.20	2.33	-	-
SS (mg/L)	4.0	2.0	5.0	6.0	4.0	7.0	4.67	-	-
Remarks									

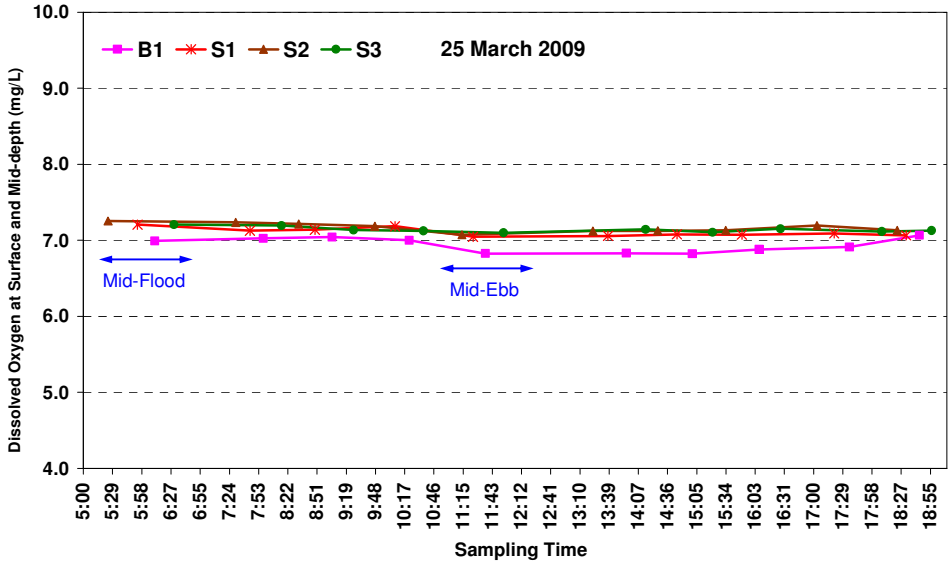
Station	**Zone A: S2**								
Time (hh:mm)	06:18-06:23								
Water Depth (m)	10.10								
Monitoring Depth (m)	1.35		5.25		9.20				
Tide	**Mid-Flood**								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Surface & Middle***	***Bottom***
Water Temperature (℃)	20.0	20.0	20.0	20.0	20.0	20.0	20.04	-	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	33.9	33.93	-	-
D.O. Saturation (%)	94.7	94.7	95.0	94.3	96.3	93.8	94.83	-	-
D.O. (mg/L)	7.05	7.04	7.07	7.01	7.17	6.98	7.05	7.04	7.08
Turbidity (NTU)	2.50	2.30	2.60	2.80	2.60	2.40	2.53	-	-
SS (mg/L)	2.0	4.0	6.0	5.0	2.0	6.0	4.17	-	-
Remarks									

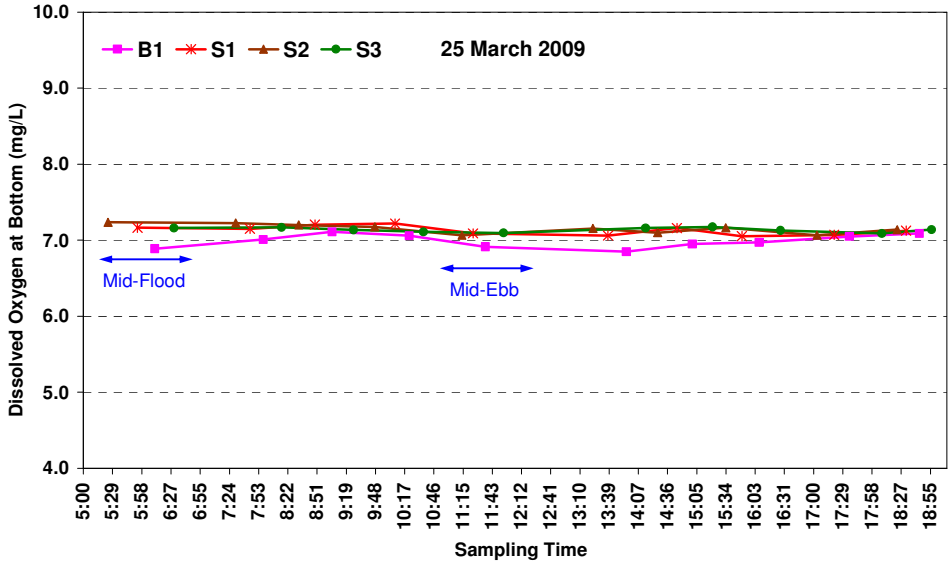
Compliance with Action and Limit Level

Parameter	**Action Level (baseline data)**	**Limit Level (baseline data)**	**Action Level (R1*1.2)**	**Limit Level (R1*1.3)**	**S1**		**S2**		**S3**		**B1**	
					Exceedance of Action Level	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**	**Exceedance of Action Level**	**Exceedance of Limit Level**
DO (Bottom)	6.59	6.42			N	N	N	N	N	N	N	N
DO (Depth-averaged)	6.58	6.42			N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	5.17	5.72	1.9	2.1	N	N	N	N	N	N	N	N
SS (Depth-averaged)	7.91	8.96	4.4	4.8	N	N	N	N	N	N	N	N

Annex D

Continuous *In-situ* Measurement Data





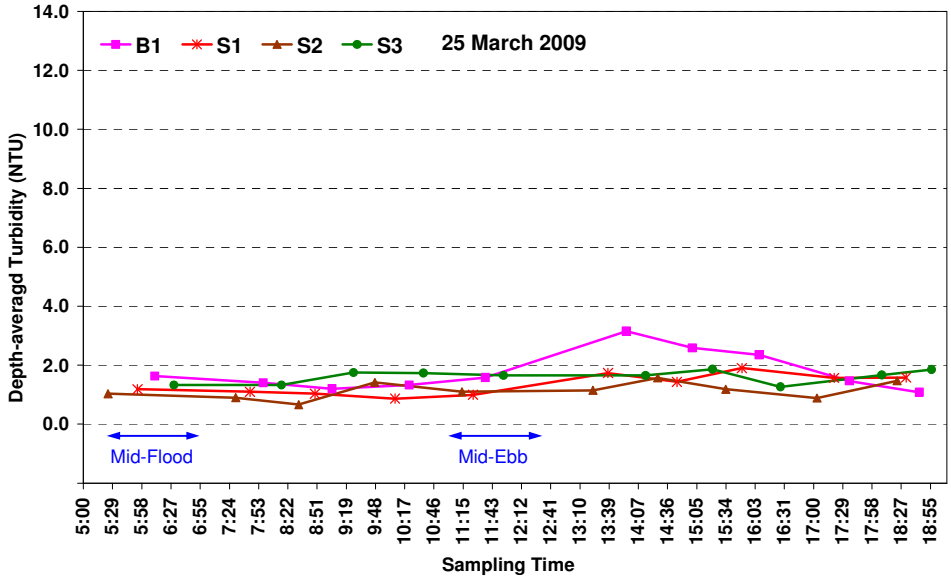
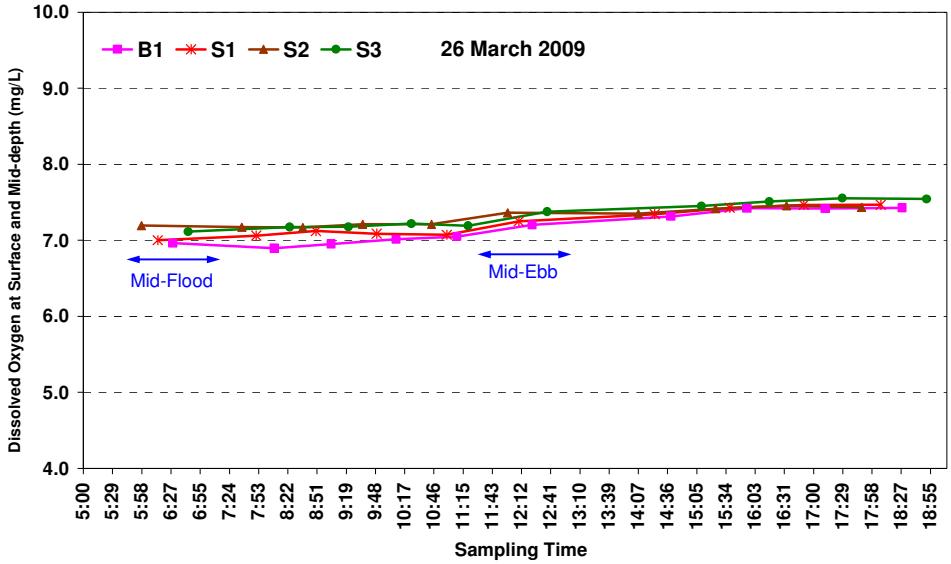
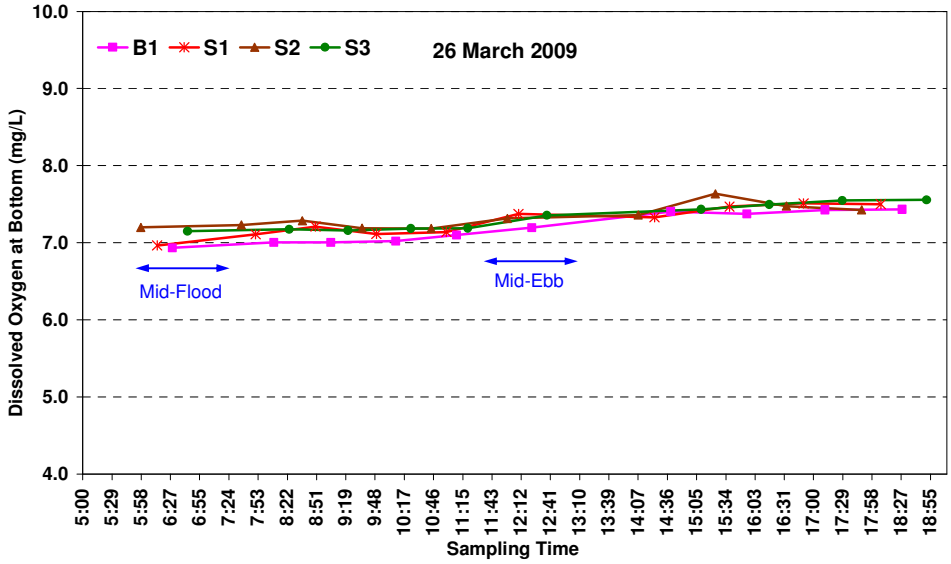


Figure D1 Dissolved Oxygen (mg/L) at the surface and mid-depth, dissolved oxygen (mg/L) near the bottom and depth-averaged turbidity (NTU) of water samples measured at all the impact monitoring stations within Zone A on 25 March 2009.





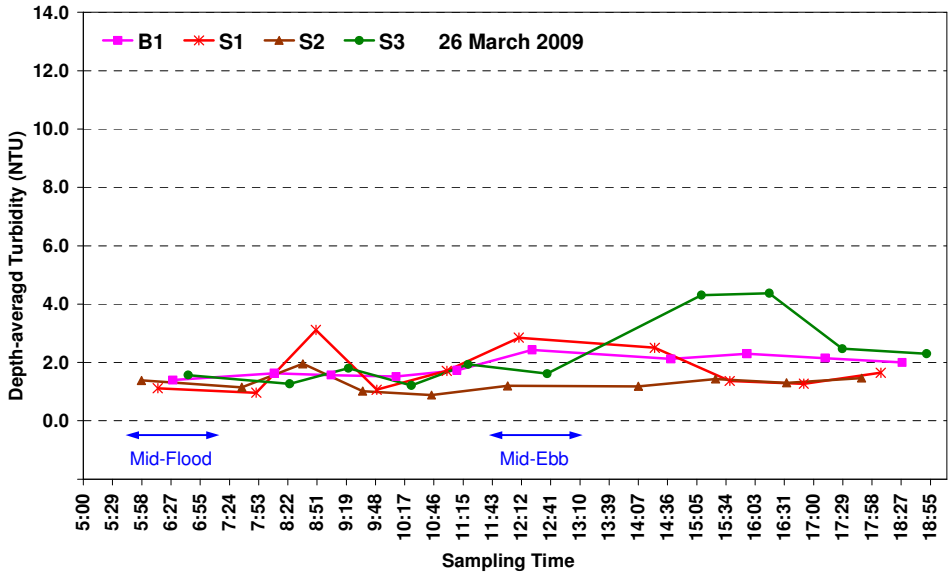
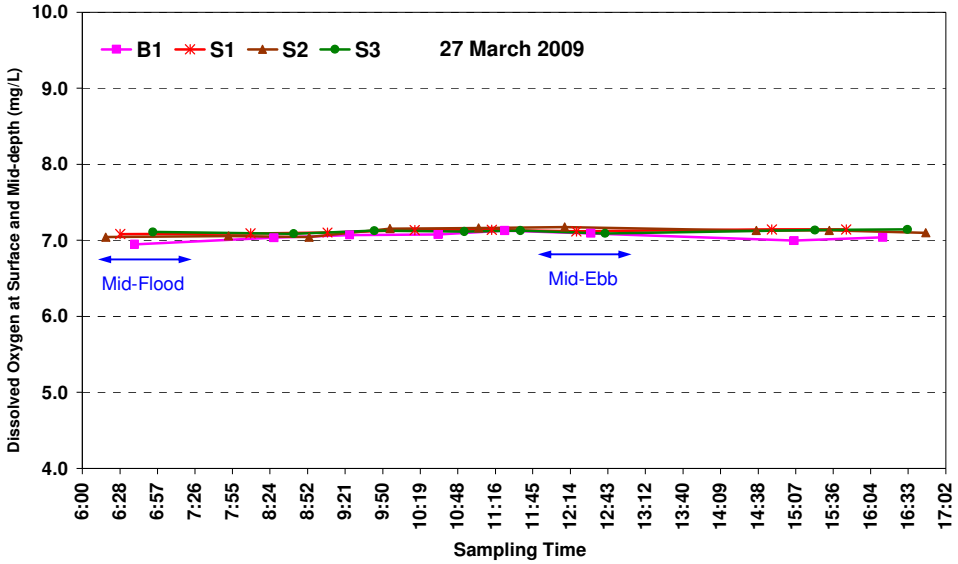
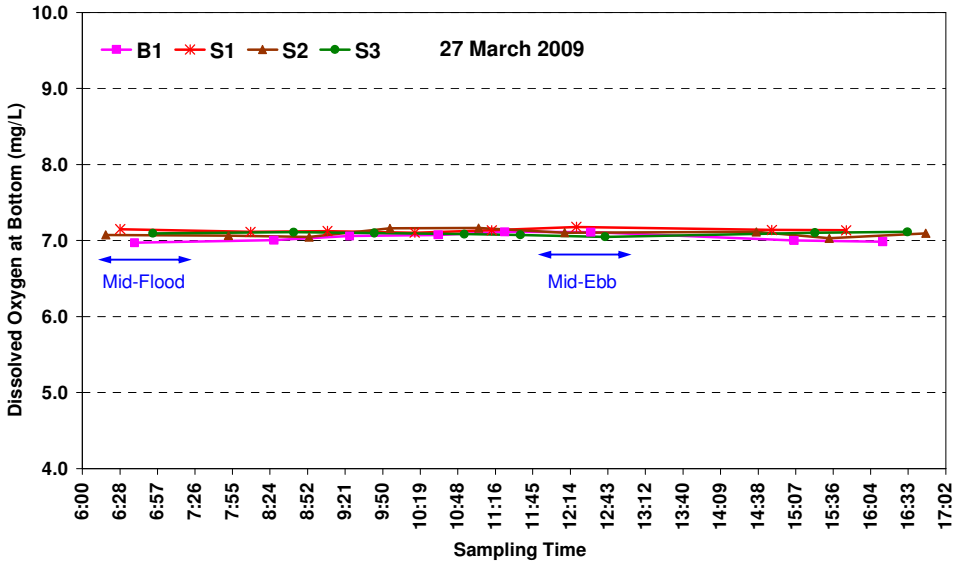


Figure D2 Dissolved Oxygen (mg/L) at the surface and mid-depth, dissolved oxygen (mg/L) near the bottom and depth-averaged turbidity (NTU) of water samples measured at all the impact monitoring stations within Zone A on 26 March 2009.





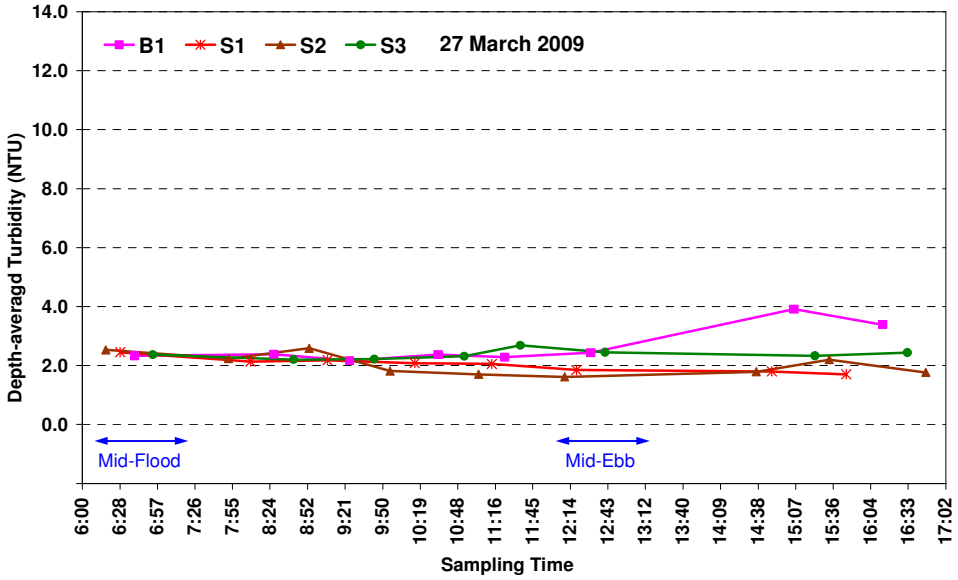


Figure D3 Dissolved Oxygen (mg/L) at the surface and mid-depth, dissolved oxygen (mg/L) near the bottom and depth-averaged turbidity (NTU) of water samples measured at all the impact monitoring stations within Zone A on 27 March 2009

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	R1	3/25/2009	4:59:31	21.1	B	20.64	33.79	99.5	7.32	1.2
A	R1	3/25/2009	5:01:06	11.3	M	20.76	33.72	100.1	7.35	0.2
A	R1	3/25/2009	5:02:36	1.3	S	20.84	33.20	99.1	7.29	0.4
A	R1	3/25/2009	5:06:14	21.3	B	20.64	33.80	99.2	7.30	1.6
A	R1	3/25/2009	5:07:11	11.3	M	20.73	33.76	99.8	7.33	0.1
A	R1	3/25/2009	5:07:55	1.5	S	20.83	33.58	100.3	7.37	0.3
A	S2	3/25/2009	5:25:07	9.6	B	20.56	33.85	98.4	7.25	1.7
A	S2	3/25/2009	5:25:50	5.1	M	20.57	33.83	98.6	7.27	0.9
A	S2	3/25/2009	5:26:39	1.1	S	20.61	33.81	98.6	7.26	0.8
A	S2	3/25/2009	5:28:04	9.2	B	20.58	33.84	98.0	7.22	1.2
A	S2	3/25/2009	5:29:07	5.6	M	20.57	33.82	98.6	7.27	0.8
A	S2	3/25/2009	5:30:02	1.1	S	20.60	33.76	98.0	7.22	0.8
A	S1	3/25/2009	5:54:59	8.4	B	20.61	33.83	97.9	7.21	1.9
A	S1	3/25/2009	5:56:02	4.5	M	20.61	33.81	97.7	7.20	1.0
A	S1	3/25/2009	5:57:09	1.2	S	20.61	33.77	98.0	7.22	0.9
A	S1	3/25/2009	5:58:22	8.3	B	20.61	33.81	96.6	7.12	1.8
A	S1	3/25/2009	5:59:33	4.6	M	20.61	33.78	97.7	7.20	0.8
A	S1	3/25/2009	6:00:31	1.0	S	20.61	33.76	97.9	7.21	0.7
A	B1	3/25/2009	6:11:07	5.9	B	20.61	33.81	93.9	6.92	1.9
A	B1	3/25/2009	6:13:08	3.4	M	20.61	33.81	93.8	6.91	1.6
A	B1	3/25/2009	6:14:02	1.2	S	20.64	33.78	96.5	7.10	1.0
A	B1	3/25/2009	6:15:18	6.1	B	20.60	33.81	93.2	6.86	2.2
A	B1	3/25/2009	6:16:37	3.6	M	20.61	33.80	93.5	6.89	2.0
A	B1	3/25/2009	6:17:13	1.1	S	20.64	33.78	96.1	7.07	1.1
A	S3	3/25/2009	6:30:53	12.1	B	20.56	33.83	97.0	7.15	1.7
A	S3	3/25/2009	6:32:21	6.6	M	20.57	33.82	97.6	7.20	1.8
A	S3	3/25/2009	6:33:27	1.4	S	20.59	33.80	98.1	7.23	0.8
A	S3	3/25/2009	6:34:31	12.1	B	20.56	33.82	97.2	7.17	1.8
A	S3	3/25/2009	6:35:28	6.5	M	20.57	33.82	97.8	7.21	1.3
A	S3	3/25/2009	6:36:39	0.9	S	20.51	33.72	97.4	7.19	0.6
A	S2	3/25/2009	7:31:41	8.9	B	20.57	33.57	98.0	7.23	1.4
A	S2	3/25/2009	7:33:05	8.9	B	20.56	33.59	97.9	7.23	1.2
A	S2	3/25/2009	7:34:43	4.5	M	20.54	33.50	97.7	7.22	0.8
A	S2	3/25/2009	7:35:17	4.4	M	20.54	33.50	97.7	7.22	0.9
A	S2	3/25/2009	7:36:18	1.2	S	20.56	33.38	98.0	7.24	0.6
A	S2	3/25/2009	7:36:49	1.2	S	20.56	33.38	98.1	7.25	0.5
A	S1	3/25/2009	7:45:07	8.0	B	20.61	33.85	97.1	7.15	1.4
A	S1	3/25/2009	7:45:53	8.1	B	20.61	33.85	96.3	7.09	1.8
A	S1	3/25/2009	7:46:54	4.6	M	20.61	33.83	97.1	7.15	1.0
A	S1	3/25/2009	7:47:43	4.5	M	20.61	33.83	97.1	7.15	1.1
A	S1	3/25/2009	7:48:37	0.8	S	20.58	33.76	97.1	7.15	0.7
A	S1	3/25/2009	7:49:22	1.1	S	20.56	33.74	96.6	7.12	0.6
A	B1	3/25/2009	7:58:46	6.0	B	20.59	33.86	96.6	7.12	1.6
A	B1	3/25/2009	7:59:37	6.1	B	20.59	33.87	96.6	7.12	1.3
A	B1	3/25/2009	8:00:50	3.7	M	20.61	33.84	94.2	6.94	1.6
A	B1	3/25/2009	8:01:32	3.7	M	20.60	33.83	93.7	6.90	1.6
A	B1	3/25/2009	8:02:35	1.0	S	20.55	33.79	95.1	7.01	1.3
A	B1	3/25/2009	8:03:38	1.0	S	20.54	33.78	95.3	7.03	1.0
A	S3	3/25/2009	8:16:20	12.0	B	20.56	33.86	97.3	7.17	2.0
A	S3	3/25/2009	8:17:04	12.0	B	20.56	33.86	96.4	7.10	1.8
A	S3	3/25/2009	8:18:18	6.7	M	20.57	33.84	97.4	7.18	1.3
A	S3	3/25/2009	8:19:08	6.8	M	20.56	33.85	97.3	7.17	1.2
A	S3	3/25/2009	8:22:06	1.0	S	20.55	33.81	98.8	7.28	0.9
A	S3	3/25/2009	8:22:56	1.0	S	20.56	33.82	98.0	7.22	0.8
A	S2	3/25/2009	8:33:53	9.2	B	20.56	33.81	97.5	7.19	0.9
A	S2	3/25/2009	8:34:46	8.5	B	20.56	33.80	97.4	7.18	1.2
A	S2	3/25/2009	8:36:02	5.0	M	20.55	33.78	97.8	7.21	0.5
A	S2	3/25/2009	8:37:11	5.2	M	20.56	33.78	97.8	7.21	0.6
A	S2	3/25/2009	8:37:58	1.0	S	20.56	33.75	98.0	7.23	0.5
A	S2	3/25/2009	8:38:23	1.2	S	20.56	33.75	98.1	7.24	0.3
A	S1	3/25/2009	8:49:41	8.1	B	20.59	33.87	98.5	7.25	1.1
A	S1	3/25/2009	8:50:37	8.7	B	20.61	33.87	96.9	7.13	1.7
A	S1	3/25/2009	8:51:50	4.6	M	20.61	33.86	97.0	7.14	1.0
A	S1	3/25/2009	8:52:28	4.9	M	20.61	33.86	97.2	7.16	0.9
A	S1	3/25/2009	8:53:34	1.2	S	20.59	33.83	97.1	7.15	0.8
A	S1	3/25/2009	8:54:12	1.0	S	20.60	33.82	96.9	7.14	0.7
A	B1	3/25/2009	9:06:18	6.2	B	20.57	33.89	97.8	7.20	1.1
A	B1	3/25/2009	9:07:19	6.1	B	20.58	33.88	97.3	7.16	1.0
A	B1	3/25/2009	9:08:29	3.6	M	20.58	33.85	95.5	7.03	1.3

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	B1	3/25/2009	9:09:19	3.5	M	20.58	33.85	95.3	7.02	1.2
A	B1	3/25/2009	9:12:49	1.4	S	20.57	33.83	94.9	6.99	1.4
A	B1	3/25/2009	9:13:49	1.5	S	20.58	33.83	94.9	6.99	1.2
A	S3	3/25/2009	9:27:46	12.0	B	20.56	33.89	96.9	7.14	2.2
A	S3	3/25/2009	9:29:11	12.0	B	20.56	33.88	95.8	7.06	4.3
A	S3	3/25/2009	9:30:49	6.4	M	20.55	33.84	96.1	7.08	1.4
A	S3	3/25/2009	9:32:29	6.8	M	20.56	33.84	96.8	7.13	1.0
A	S3	3/25/2009	9:36:02	1.1	S	20.55	33.79	97.7	7.20	0.8
A	S3	3/25/2009	9:36:56	1.1	S	20.54	33.79	97.6	7.20	0.8
A	S2	3/25/2009	9:48:37	8.7	B	20.57	33.83	97.0	7.15	1.1
A	S2	3/25/2009	9:49:24	9.4	B	20.57	33.84	96.0	7.07	6.2
A	S2	3/25/2009	9:50:37	5.1	M	20.58	33.79	97.9	7.21	0.3
A	S2	3/25/2009	9:51:23	5.0	M	20.58	33.81	97.7	7.20	0.4
A	S2	3/25/2009	9:52:24	1.2	S	20.57	33.78	98.1	7.23	0.3
A	S2	3/25/2009	9:53:29	1.2	S	20.57	33.78	98.1	7.23	0.2
A	S1	3/25/2009	10:08:52	7.9	B	20.58	33.82	98.7	7.27	0.8
A	S1	3/25/2009	10:09:29	8.1	B	20.59	33.83	97.5	7.18	0.9
A	S1	3/25/2009	10:10:10	4.8	M	20.58	33.82	97.4	7.18	0.8
A	S1	3/25/2009	10:10:56	4.8	M	20.58	33.82	97.3	7.17	1.3
A	S1	3/25/2009	10:11:46	1.1	S	20.57	33.84	97.6	7.19	0.7
A	S1	3/25/2009	10:12:10	1.1	S	20.57	33.84	97.6	7.19	0.7
A	B1	3/25/2009	10:22:06	6.0	B	20.58	33.83	96.9	7.14	1.4
A	B1	3/25/2009	10:22:47	6.2	B	20.58	33.84	96.2	7.09	1.5
A	B1	3/25/2009	10:23:48	3.7	M	20.58	33.82	95.0	7.00	1.3
A	B1	3/25/2009	10:24:32	3.7	M	20.58	33.82	94.7	6.98	1.3
A	B1	3/25/2009	10:25:14	1.0	S	20.56	33.81	94.4	6.96	1.3
A	B1	3/25/2009	10:26:00	1.0	S	20.57	33.82	94.4	6.96	1.2
A	S3	3/25/2009	10:36:26	11.6	B	20.56	33.85	96.3	7.09	2.0
A	S3	3/25/2009	10:37:12	12.2	B	20.56	33.85	96.0	7.07	3.3
A	S3	3/25/2009	10:38:15	6.7	M	20.56	33.81	96.0	7.08	2.1
A	S3	3/25/2009	10:38:38	6.8	M	20.56	33.81	96.7	7.13	1.1
A	S3	3/25/2009	10:39:25	1.4	S	20.54	33.84	97.2	7.17	0.7
A	S3	3/25/2009	10:39:59	1.4	S	20.55	33.84	97.4	7.18	1.2
A	R1	3/25/2009	10:53:48	20.1	B	20.19	33.82	97.0	7.20	6.6
A	R1	3/25/2009	10:55:28	10.7	M	20.37	33.83	97.4	7.21	3.0
A	R1	3/25/2009	10:56:29	0.9	S	20.56	33.78	98.0	7.23	0.1
A	R1	3/25/2009	10:59:20	20.3	B	20.19	33.82	97.2	7.22	7.9
A	R1	3/25/2009	11:00:35	11.1	M	20.35	33.84	97.4	7.21	4.2
A	R1	3/25/2009	11:01:34	0.8	S	20.57	33.79	98.1	7.23	0.1
A	S2	3/25/2009	11:14:45	8.7	B	20.52	33.75	95.8	7.07	2.1
A	S2	3/25/2009	11:15:48	5.1	M	20.55	33.70	95.7	7.06	0.9
A	S2	3/25/2009	11:16:20	1.2	S	20.55	33.81	96.0	7.07	0.5
A	S2	3/25/2009	11:17:29	8.9	B	20.51	33.84	95.8	7.06	1.6
A	S2	3/25/2009	11:18:33	5.3	M	20.53	33.81	96.0	7.08	0.9
A	S2	3/25/2009	11:19:41	0.8	S	20.55	33.79	96.1	7.08	0.6
A	S1	3/25/2009	11:25:24	7.9	B	20.57	33.76	97.4	7.18	1.0
A	S1	3/25/2009	11:26:49	4.7	M	20.57	33.80	95.8	7.06	0.8
A	S1	3/25/2009	11:27:35	1.2	S	20.58	33.81	95.3	7.02	0.9
A	S1	3/25/2009	11:28:33	8.0	B	20.57	33.82	95.0	7.00	1.6
A	S1	3/25/2009	11:29:25	4.5	M	20.55	33.82	95.6	7.05	1.0
A	S1	3/25/2009	11:30:02	1.2	S	20.57	33.82	95.7	7.05	0.7
A	B1	3/25/2009	11:37:43	6.0	B	20.58	33.82	94.4	6.96	1.6
A	B1	3/25/2009	11:38:42	3.5	M	20.58	33.82	93.0	6.85	1.5
A	B1	3/25/2009	11:39:44	1.0	S	20.58	33.82	92.8	6.84	1.4
A	B1	3/25/2009	11:40:30	6.0	B	20.58	33.85	93.3	6.87	1.9
A	B1	3/25/2009	11:41:38	3.4	M	20.58	33.82	92.4	6.81	1.5
A	B1	3/25/2009	11:42:36	1.1	S	20.56	33.82	92.4	6.81	1.6
A	S3	3/25/2009	11:55:12	12.0	B	20.53	33.83	95.4	7.04	3.1
A	S3	3/25/2009	11:57:01	7.0	M	20.52	33.83	96.2	7.10	1.4
A	S3	3/25/2009	11:57:48	0.9	S	20.52	33.81	96.4	7.11	0.8
A	S3	3/25/2009	12:00:10	11.9	B	20.52	33.84	96.9	7.15	2.7
A	S3	3/25/2009	12:01:13	6.1	M	20.53	33.83	96.1	7.09	1.3
A	S3	3/25/2009	12:02:28	1.1	S	20.52	33.82	96.2	7.10	0.6
A	S2	3/25/2009	13:23:42	8.7	B	20.51	33.90	97.1	7.16	2.0
A	S2	3/25/2009	13:25:02	8.7	B	20.52	33.87	96.5	7.11	1.7
A	S2	3/25/2009	13:26:13	4.7	M	20.52	33.85	97.0	7.15	0.7
A	S2	3/25/2009	13:27:06	4.7	M	20.52	33.85	97.0	7.15	0.7
A	S2	3/25/2009	13:28:06	1.0	S	20.51	33.81	96.7	7.13	0.9
A	S2	3/25/2009	13:28:47	1.0	S	20.51	33.80	96.3	7.10	0.9

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	S1	3/25/2009	13:38:44	8.7	B	20.55	33.88	95.5	7.04	2.9
A	S1	3/25/2009	13:39:57	8.1	B	20.55	33.87	94.7	6.98	3.9
A	S1	3/25/2009	13:41:16	4.5	M	20.55	33.86	96.0	7.08	0.9
A	S1	3/25/2009	13:42:12	4.5	M	20.55	33.86	96.1	7.08	1.0
A	S1	3/25/2009	13:43:18	1.1	S	20.58	33.82	96.2	7.09	0.9
A	S1	3/25/2009	13:44:20	1.2	S	20.58	33.84	96.1	7.08	0.8
A	B1	3/25/2009	13:56:26	6.3	B	20.58	33.90	92.8	6.84	6.0
A	B1	3/25/2009	13:57:19	6.2	B	20.58	33.89	92.5	6.81	5.1
A	B1	3/25/2009	13:58:33	3.6	M	20.58	33.87	93.2	6.87	2.3
A	B1	3/25/2009	13:59:26	3.7	M	20.58	33.87	93.1	6.86	2.1
A	B1	3/25/2009	14:00:33	1.0	S	20.59	33.85	92.5	6.82	1.8
A	B1	3/25/2009	14:01:26	1.0	S	20.58	33.81	92.5	6.82	1.6
A	S3	3/25/2009	14:15:10	12.6	B	20.51	33.80	97.2	7.17	4.6
A	S3	3/25/2009	14:16:52	12.0	B	20.52	33.82	96.7	7.13	2.1
A	S3	3/25/2009	14:17:44	6.7	M	20.53	33.83	97.0	7.15	1.1
A	S3	3/25/2009	14:18:41	6.7	M	20.52	33.83	97.0	7.15	0.7
A	S3	3/25/2009	14:19:44	1.6	S	20.54	33.80	97.0	7.15	0.7
A	S3	3/25/2009	14:20:26	0.5	S	20.48	33.75	96.9	7.15	0.7
A	S2	3/25/2009	14:27:34	9.0	B	20.52	33.82	95.7	7.06	4.3
A	S2	3/25/2009	14:29:19	9.0	B	20.52	33.83	96.2	7.10	1.8
A	S2	3/25/2009	14:30:32	5.3	M	20.52	33.82	96.8	7.14	0.9
A	S2	3/25/2009	14:31:41	5.0	M	20.52	33.82	96.8	7.14	0.7
A	S2	3/25/2009	14:33:36	1.1	S	20.52	33.81	96.8	7.14	0.9
A	S2	3/25/2009	14:34:36	1.1	S	20.51	33.80	96.5	7.12	0.8
A	S1	3/25/2009	14:46:34	7.8	B	20.54	33.85	98.0	7.23	2.1
A	S1	3/25/2009	14:47:21	8.1	B	20.55	33.86	95.4	7.03	2.4
A	S1	3/25/2009	14:48:37	4.4	M	20.55	33.85	96.1	7.09	1.1
A	S1	3/25/2009	14:49:21	4.4	M	20.55	33.85	96.1	7.09	0.9
A	S1	3/25/2009	14:50:44	1.3	S	20.57	33.84	96.3	7.10	1.1
A	S1	3/25/2009	14:51:47	1.3	S	20.58	33.84	96.3	7.10	1.0
A	B1	3/25/2009	15:01:08	5.9	B	20.57	33.83	95.2	7.02	3.4
A	B1	3/25/2009	15:02:14	6.1	B	20.58	33.85	92.6	6.82	3.3
A	B1	3/25/2009	15:03:04	3.4	M	20.58	33.82	92.9	6.85	2.6
A	B1	3/25/2009	15:03:53	3.4	M	20.58	33.82	93.3	6.88	2.0
A	B1	3/25/2009	15:04:56	1.3	S	20.59	33.80	92.5	6.82	2.1
A	B1	3/25/2009	15:06:11	1.2	S	20.56	33.75	92.3	6.81	2.1
A	S3	3/25/2009	15:21:23	12.2	B	20.51	33.86	97.8	7.21	2.6
A	S3	3/25/2009	15:22:12	12.2	B	20.51	33.86	96.4	7.11	2.9
A	S3	3/25/2009	15:24:01	6.6	M	20.52	33.85	96.7	7.13	1.1
A	S3	3/25/2009	15:24:46	6.6	M	20.52	33.85	96.8	7.14	1.2
A	S3	3/25/2009	15:25:42	1.0	S	20.50	33.81	96.2	7.10	1.5
A	S3	3/25/2009	15:26:13	1.0	S	20.51	33.83	96.1	7.09	1.9
A	S2	3/25/2009	15:34:28	9.3	B	20.51	33.78	97.9	7.23	1.6
A	S2	3/25/2009	15:35:29	9.0	B	20.52	33.80	96.9	7.15	1.9
A	S2	3/25/2009	15:36:48	5.3	M	20.52	33.77	96.9	7.15	0.7
A	S2	3/25/2009	15:37:50	5.3	M	20.51	33.77	96.2	7.10	1.0
A	S2	3/25/2009	15:39:37	1.0	S	20.42	33.55	96.0	7.11	1.0
A	S2	3/25/2009	15:40:22	0.9	S	20.33	33.42	96.0	7.12	0.9
A	S1	3/25/2009	15:50:12	8.0	B	20.55	33.83	95.5	7.04	3.0
A	S1	3/25/2009	15:51:47	8.0	B	20.56	33.84	95.3	7.03	3.6
A	S1	3/25/2009	15:52:40	4.6	M	20.56	33.84	95.8	7.06	1.5
A	S1	3/25/2009	15:53:20	4.6	M	20.56	33.84	95.9	7.07	1.3
A	S1	3/25/2009	15:54:06	1.4	S	20.49	33.68	96.1	7.10	1.1
A	S1	3/25/2009	15:55:18	1.4	S	20.52	33.73	96.1	7.10	0.9
A	B1	3/25/2009	16:07:39	6.0	B	20.56	33.89	96.3	7.09	3.1
A	B1	3/25/2009	16:08:59	6.1	B	20.58	33.90	93.7	6.90	2.6
A	B1	3/25/2009	16:09:55	3.6	M	20.58	33.89	93.6	6.89	2.2
A	B1	3/25/2009	16:10:54	3.7	M	20.58	33.89	93.0	6.85	2.7
A	B1	3/25/2009	16:11:48	1.0	S	20.47	33.59	93.0	6.87	1.8
A	B1	3/25/2009	16:12:33	0.9	S	20.53	33.74	93.0	6.86	1.7
A	S3	3/25/2009	16:28:39	12.3	B	20.51	33.86	96.8	7.14	2.4
A	S3	3/25/2009	16:29:46	12.3	B	20.51	33.87	96.1	7.09	2.2
A	S3	3/25/2009	16:30:39	6.5	M	20.52	33.86	96.5	7.12	1.0
A	S3	3/25/2009	16:31:29	6.5	M	20.52	33.86	96.6	7.12	0.9
A	S3	3/25/2009	16:32:28	1.4	S	20.44	33.73	97.3	7.19	0.7
A	S3	3/25/2009	16:33:34	1.4	S	20.40	33.72	97.4	7.21	0.4
A	S2	3/25/2009	17:04:49	4.9	B	20.52	33.85	94.8	6.99	1.8
A	S2	3/25/2009	17:06:52	9.1	B	20.51	33.85	98.5	7.26	1.2
A	S2	3/25/2009	17:07:56	5.0	M	20.43	33.75	97.1	7.18	0.7

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	S2	3/25/2009	17:08:38	5.0	M	20.44	33.74	96.7	7.14	0.6
A	S2	3/25/2009	17:09:30	0.9	S	20.36	33.65	96.9	7.17	0.5
A	S2	3/25/2009	17:10:16	0.9	S	20.35	33.63	96.8	7.17	0.5
A	S1	3/25/2009	17:21:37	8.3	B	20.56	33.91	96.0	7.07	2.9
A	S1	3/25/2009	17:22:30	8.3	B	20.57	33.91	95.0	7.00	2.5
A	S1	3/25/2009	17:23:37	4.4	M	20.56	33.89	95.9	7.07	1.5
A	S1	3/25/2009	17:24:28	4.4	M	20.56	33.89	95.9	7.07	1.4
A	S1	3/25/2009	17:25:16	1.3	S	20.42	33.75	96.5	7.13	0.6
A	S1	3/25/2009	17:26:02	1.3	S	20.39	33.74	96.8	7.16	0.5
A	B1	3/25/2009	17:36:05	6.1	B	20.57	33.90	96.8	7.13	1.8
A	B1	3/25/2009	17:38:02	6.2	B	20.58	33.91	95.0	7.00	1.5
A	B1	3/25/2009	17:38:53	4.0	M	20.58	33.90	94.7	6.98	1.6
A	B1	3/25/2009	17:40:18	3.5	M	20.59	33.90	94.7	6.97	1.3
A	B1	3/25/2009	17:41:19	1.2	S	20.32	33.46	92.6	6.87	1.4
A	B1	3/25/2009	17:42:05	1.2	S	20.33	33.52	91.7	6.80	1.2
A	S3	3/25/2009	18:08:36	12.1	B	20.50	33.90	96.0	7.08	3.0
A	S3	3/25/2009	18:10:13	11.6	B	20.50	33.90	95.7	7.06	2.7
A	S3	3/25/2009	18:11:10	7.0	M	20.48	33.87	96.2	7.10	1.6
A	S3	3/25/2009	18:11:43	7.0	M	20.48	33.88	96.3	7.10	1.6
A	S3	3/25/2009	18:13:34	1.3	S	20.47	33.85	97.0	7.16	0.6
A	S3	3/25/2009	18:13:57	1.3	S	20.46	33.85	96.8	7.15	0.5
A	S2	3/25/2009	18:23:37	9.2	B	20.52	33.88	96.3	7.10	3.4
A	S2	3/25/2009	18:24:06	9.0	B	20.52	33.88	95.2	7.02	3.8
A	S2	3/25/2009	18:25:24	5.1	M	20.47	33.83	97.0	7.16	0.3
A	S2	3/25/2009	18:25:46	5.1	M	20.47	33.83	97.2	7.18	0.2
A	S2	3/25/2009	18:26:50	1.4	S	20.41	33.74	97.1	7.18	0.3
A	S2	3/25/2009	18:27:17	1.4	S	20.37	33.69	96.9	7.17	0.8
A	S1	3/25/2009	18:32:57	7.8	B	20.56	33.90	97.2	7.16	2.6
A	S1	3/25/2009	18:33:36	7.6	B	20.56	33.90	95.0	7.00	2.6
A	S1	3/25/2009	18:34:19	4.6	M	20.41	33.75	95.8	7.08	0.9
A	S1	3/25/2009	18:34:52	4.8	M	20.54	33.86	96.1	7.09	0.9
A	S1	3/25/2009	18:35:42	1.2	S	20.38	33.61	95.9	7.10	1.3
A	S1	3/25/2009	18:36:06	1.2	S	20.32	33.46	95.4	7.08	1.2
A	B1	3/25/2009	18:45:21	5.9	B	20.59	33.92	95.9	7.06	1.2
A	B1	3/25/2009	18:45:47	5.5	B	20.59	33.92	95.5	7.03	1.1
A	B1	3/25/2009	18:46:57	3.4	M	20.58	33.90	96.4	7.10	0.8
A	B1	3/25/2009	18:47:21	3.5	M	20.58	33.90	96.6	7.12	1.0
A	B1	3/25/2009	18:48:11	1.0	S	20.30	33.61	96.5	7.16	1.2
A	B1	3/25/2009	18:48:40	1.0	S	20.32	33.65	94.1	6.98	1.2
A	S3	3/25/2009	18:57:22	11.4	B	20.49	33.90	96.9	7.15	3.3
A	S3	3/25/2009	18:57:46	11.5	B	20.50	33.90	96.7	7.13	3.1
A	S3	3/25/2009	18:58:46	6.8	M	20.48	33.88	96.7	7.13	1.3
A	S3	3/25/2009	18:59:09	6.8	M	20.47	33.87	96.6	7.13	1.4
A	S3	3/25/2009	18:59:59	1.3	S	20.47	33.87	96.6	7.13	0.8
A	S3	3/25/2009	19:00:23	1.2	S	20.47	33.87	96.6	7.13	1.2

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp(℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	R1	3/26/2009	5:34:51	21.4	B	20.52	33.82	97.54	7.2	2.1
A	R1	3/26/2009	5:35:56	11.1	M	20.53	33.82	97.54	7.2	1.70
A	R1	3/26/2009	5:37:17	1.1	S	20.55	33.67	97.35	7.2	0.40
A	R1	3/26/2009	5:40:40	20.9	B	20.50	33.85	97.36	7.2	1.6
A	R1	3/26/2009	5:41:49	11.3	M	20.56	33.85	97.46	7.2	1.80
A	R1	3/26/2009	5:42:54	0.9	S	20.53	33.74	97.37	7.2	0.40
A	S2	3/26/2009	5:58:25	8.8	B	20.29	33.89	97.82	7.2	1.3
A	S2	3/26/2009	5:59:36	4.7	M	20.31	33.88	97.32	7.2	1.50
A	S2	3/26/2009	6:00:33	1.6	S	20.30	33.88	97.32	7.2	1.40
A	S2	3/26/2009	6:01:37	8.5	B	20.31	33.89	96.73	7.2	1.4
A	S2	3/26/2009	6:02:42	4.9	M	20.32	33.88	97.03	7.2	1.40
A	S2	3/26/2009	6:03:41	1.2	S	20.31	33.88	97.13	7.2	1.30
A	S1	3/26/2009	6:14:52	7.7	B	20.20	33.86	94.26	7.0	1.5
A	S1	3/26/2009	6:15:57	4.7	M	20.31	33.90	94.47	7.0	1.10
A	S1	3/26/2009	6:16:58	0.7	S	20.32	33.90	95.07	7.0	0.90
A	S1	3/26/2009	6:17:42	8.2	B	20.28	33.89	93.77	6.9	1.1
A	S1	3/26/2009	6:18:36	4.7	M	20.33	33.90	93.98	7.0	1.00
A	S1	3/26/2009	6:19:16	0.8	S	20.33	33.91	95.08	7.0	1.10
A	B1	3/26/2009	6:29:47	6.0	B	20.27	33.85	94.71	7.0	1.6
A	B1	3/26/2009	6:30:36	3.6	M	20.30	33.88	93.51	6.9	1.40
A	B1	3/26/2009	6:31:20	0.9	S	20.32	33.89	94.62	7.0	1.20
A	B1	3/26/2009	6:34:21	5.7	B	20.27	33.88	92.42	6.9	1.6
A	B1	3/26/2009	6:35:14	3.2	M	20.32	33.89	93.53	6.9	1.40
A	B1	3/26/2009	6:36:28	1.3	S	20.34	33.91	94.83	7.0	1.20
A	S3	3/26/2009	6:44:59	12.3	B	20.31	33.92	94.56	7.0	1.7
A	S3	3/26/2009	6:45:50	6.6	M	20.31	33.91	95.56	7.1	1.80
A	S3	3/26/2009	6:46:44	1.0	S	20.31	33.90	96.37	7.1	1.40
A	S3	3/26/2009	6:48:59	11.7	B	20.32	33.88	98.58	7.3	1.8
A	S3	3/26/2009	6:49:50	6.6	M	20.30	33.87	96.18	7.1	1.40
A	S3	3/26/2009	6:50:41	1.0	S	20.31	33.90	96.48	7.1	1.30
A	S2	3/26/2009	7:37:56	9.2	B	20.26	33.84	98.64	7.3	1.3
A	S2	3/26/2009	7:38:43	9.4	B	20.25	33.85	96.64	7.2	1.10
A	S2	3/26/2009	7:39:26	5.1	M	20.25	33.83	96.64	7.2	1.00
A	S2	3/26/2009	7:40:06	5.1	M	20.25	33.82	96.44	7.2	1.1
A	S2	3/26/2009	7:40:46	1.0	S	20.26	33.81	96.84	7.2	1.10
A	S2	3/26/2009	7:41:12	1.1	S	20.25	33.81	96.94	7.2	1.30
A	S1	3/26/2009	7:51:09	8.4	B	20.25	33.92	96.68	7.2	1.1
A	S1	3/26/2009	7:51:32	8.8	B	20.22	33.91	95.27	7.1	1.30
A	S1	3/26/2009	7:52:13	4.6	M	20.28	33.92	95.27	7.1	1.00
A	S1	3/26/2009	7:53:00	4.3	M	20.28	33.92	95.37	7.1	0.8
A	S1	3/26/2009	7:53:51	1.2	S	20.28	33.92	95.38	7.1	0.80
A	S1	3/26/2009	7:54:30	1.2	S	20.29	33.92	95.58	7.1	0.80
A	B1	3/26/2009	8:09:35	5.4	B	20.25	33.91	96.03	7.1	1.6
A	B1	3/26/2009	8:10:17	6.0	B	20.24	33.92	93.32	6.9	1.90
A	B1	3/26/2009	8:11:03	3.7	M	20.23	33.92	92.82	6.9	1.80
A	B1	3/26/2009	8:11:27	3.8	M	20.22	33.92	92.92	6.9	1.6
A	B1	3/26/2009	8:12:03	1.0	S	20.22	33.91	93.02	6.9	1.50
A	B1	3/26/2009	8:12:27	1.1	S	20.22	33.92	93.02	6.9	1.40
A	S3	3/26/2009	8:24:31	12.1	B	20.28	33.91	96.88	7.2	1.3
A	S3	3/26/2009	8:25:30	12.1	B	20.29	33.91	96.28	7.1	1.10
A	S3	3/26/2009	8:26:35	6.6	M	20.28	33.90	96.79	7.2	0.80
A	S3	3/26/2009	8:27:16	6.6	M	20.28	33.90	96.89	7.2	1.2
A	S3	3/26/2009	8:28:09	1.1	S	20.27	33.91	97.20	7.2	1.00
A	S3	3/26/2009	8:28:36	1.1	S	20.27	33.91	97.20	7.2	2.20
A	S2	3/26/2009	8:37:13	9.0	B	20.24	33.89	99.84	7.4	3.61
A	S2	3/26/2009	8:37:57	9.0	B	20.24	33.90	96.52	7.2	3.71
A	S2	3/26/2009	8:39:24	5.1	M	20.28	33.91	96.83	7.2	1.20
A	S2	3/26/2009	8:39:47	5.1	M	20.28	33.91	96.83	7.2	1
A	S2	3/26/2009	8:40:58	1.1	S	20.29	33.90	97.04	7.2	1.20
A	S2	3/26/2009	8:41:32	1.1	S	20.29	33.90	97.04	7.2	1.00
A	S1	3/26/2009	8:50:26	7.8	B	20.28	33.89	98.78	7.3	3.11
A	S1	3/26/2009	8:50:49	8.2	B	20.28	33.91	97.07	7.2	3.11
A	S1	3/26/2009	8:51:37	4.5	M	20.31	33.92	96.16	7.1	3.11
A	S1	3/26/2009	8:52:02	4.5	M	20.30	33.92	95.86	7.1	3.11
A	S1	3/26/2009	8:52:53	1.1	S	20.31	33.92	95.87	7.1	3.01
A	S1	3/26/2009	8:53:21	1.1	S	20.31	33.92	95.77	7.1	3.21
A	B1	3/26/2009	9:05:09	6.0	B	20.24	33.93	95.10	7.1	1.7
A	B1	3/26/2009	9:05:41	6.0	B	20.20	33.93	93.59	6.9	1.80
A	B1	3/26/2009	9:07:01	3.4	M	20.23	33.94	93.90	7.0	1.50
A	B1	3/26/2009	9:07:36	3.4	M	20.23	33.93	93.90	7.0	1.5
A	B1	3/26/2009	9:08:17	1.1	S	20.22	33.93	93.80	7.0	1.40
A	B1	3/26/2009	9:09:05	1.1	S	20.22	33.93	93.90	7.0	1.50
A	S3	3/26/2009	9:22:13	12.4	B	20.27	33.94	96.56	7.2	2.1

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp(℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	S3	3/26/2009	9:22:48	12.1	B	20.27	33.93	96.57	7.2	2.40
A	S3	3/26/2009	9:23:45	6.9	M	20.27	33.93	96.87	7.2	1.60
A	S3	3/26/2009	9:24:14	7.2	M	20.27	33.93	96.77	7.2	1.8
A	S3	3/26/2009	9:25:12	0.8	S	20.26	33.93	97.08	7.2	1.50
A	S3	3/26/2009	9:25:46	0.7	S	20.26	33.93	97.18	7.2	1.40
A	S2	3/26/2009	9:36:37	8.8	B	20.24	33.93	96.51	7.2	1.6
A	S2	3/26/2009	9:37:06	8.8	B	20.27	33.93	96.31	7.1	1.20
A	S2	3/26/2009	9:38:08	5.3	M	20.29	33.91	97.52	7.2	0.80
A	S2	3/26/2009	9:38:35	5.3	M	20.29	33.92	97.63	7.2	1
A	S2	3/26/2009	9:39:30	1.1	S	20.28	33.91	97.93	7.3	0.80
A	S2	3/26/2009	9:40:07	1.0	S	20.28	33.91	97.83	7.2	0.70
A	S1	3/26/2009	9:50:33	7.8	B	20.27	33.97	96.66	7.2	1.5
A	S1	3/26/2009	9:51:08	7.8	B	20.27	33.96	95.75	7.1	1.00
A	S1	3/26/2009	9:52:18	4.9	M	20.29	33.96	95.65	7.1	0.80
A	S1	3/26/2009	9:53:06	4.9	M	20.29	33.96	95.55	7.1	1
A	S1	3/26/2009	9:54:25	1.1	S	20.30	33.96	95.76	7.1	1.20
A	S1	3/26/2009	9:55:05	1.1	S	20.30	33.96	95.86	7.1	0.90
A	B1	3/26/2009	10:09:24	5.9	B	20.23	33.96	94.80	7.0	1.5
A	B1	3/26/2009	10:09:49	6.1	B	20.23	33.96	94.80	7.0	1.50
A	B1	3/26/2009	10:10:37	3.7	M	20.22	33.96	94.80	7.0	1.40
A	B1	3/26/2009	10:11:08	3.7	M	20.22	33.96	94.70	7.0	1.7
A	B1	3/26/2009	10:12:23	1.0	S	20.21	33.96	94.50	7.0	1.50
A	B1	3/26/2009	10:13:10	1.1	S	20.22	33.95	94.51	7.0	1.50
A	S3	3/26/2009	10:24:23	11.8	B	20.26	33.96	97.07	7.2	1.4
A	S3	3/26/2009	10:25:06	11.7	B	20.26	33.95	96.97	7.2	1.30
A	S3	3/26/2009	10:26:17	6.8	M	20.25	33.95	97.07	7.2	1.30
A	S3	3/26/2009	10:27:06	6.7	M	20.24	33.95	96.98	7.2	1.2
A	S3	3/26/2009	10:32:40	1.2	S	20.24	33.94	98.21	7.3	0.90
A	S3	3/26/2009	10:33:11	1.2	S	20.24	33.94	97.60	7.2	1.20
A	S2	3/26/2009	10:44:24	8.9	B	20.26	33.94	96.93	7.2	1
A	S2	3/26/2009	10:45:04	9.2	B	20.26	33.94	96.53	7.2	1.10
A	S2	3/26/2009	10:46:05	5.6	M	20.28	33.94	96.94	7.2	1.00
A	S2	3/26/2009	10:46:41	5.1	M	20.29	33.94	97.14	7.2	1
A	S2	3/26/2009	10:47:34	1.1	S	20.28	33.93	97.95	7.3	0.60
A	S2	3/26/2009	10:48:08	1.1	S	20.28	33.93	98.05	7.3	0.60
A	S1	3/26/2009	10:59:27	8.1	B	20.24	33.96	97.69	7.2	1.9
A	S1	3/26/2009	11:00:05	8.1	B	20.25	33.96	95.46	7.1	2.80
A	S1	3/26/2009	11:01:05	4.3	M	20.26	33.96	95.37	7.1	1.30
A	S1	3/26/2009	11:01:42	4.3	M	20.26	33.96	95.06	7.0	1.8
A	S1	3/26/2009	11:02:32	0.9	S	20.29	33.96	95.67	7.1	1.30
A	S1	3/26/2009	11:03:07	0.9	S	20.28	33.96	95.68	7.1	1.20
A	B1	3/26/2009	11:09:52	6.0	B	20.22	33.96	96.81	7.2	2
A	B1	3/26/2009	11:10:17	5.8	B	20.22	33.96	95.40	7.1	1.90
A	B1	3/26/2009	11:11:03	4.1	M	20.22	33.96	94.89	7.0	1.70
A	B1	3/26/2009	11:11:34	3.6	M	20.22	33.96	94.89	7.0	1.8
A	B1	3/26/2009	11:12:41	1.1	S	20.21	33.96	95.10	7.1	1.60
A	B1	3/26/2009	11:13:09	1.2	S	20.20	33.96	95.10	7.1	1.40
A	S3	3/26/2009	11:20:33	12.0	B	20.25	33.95	97.05	7.2	2.6
A	S3	3/26/2009	11:21:03	12.1	B	20.24	33.96	96.64	7.2	2.50
A	S3	3/26/2009	11:22:04	6.5	M	20.25	33.95	97.05	7.2	2.00
A	S3	3/26/2009	11:22:35	6.5	M	20.25	33.95	97.05	7.2	1.6
A	S3	3/26/2009	11:23:17	0.9	S	20.25	33.95	97.36	7.2	1.40
A	S3	3/26/2009	11:24:03	1.1	S	20.25	33.95	97.36	7.2	1.50
A	R1	3/26/2009	11:39:29	20.4	B	20.17	34.02	100.44	7.5	3.21
A	R1	3/26/2009	11:40:37	11.2	M	20.22	33.97	100.65	7.5	2.00
A	R1	3/26/2009	11:41:28	1.2	S	20.22	33.96	101.05	7.5	2.00
A	R1	3/26/2009	11:44:09	21.1	B	20.16	33.97	100.76	7.5	3.31
A	R1	3/26/2009	11:45:18	11.7	M	20.20	33.98	100.76	7.5	1.70
A	R1	3/26/2009	11:46:02	0.8	S	20.22	33.96	101.16	7.5	1.50
A	S2	3/26/2009	11:59:35	8.9	B	20.26	33.97	98.91	7.3	1.1
A	S2	3/26/2009	12:00:11	5.0	M	20.27	33.96	99.41	7.4	1.60
A	S2	3/26/2009	12:00:58	1.1	S	20.28	33.95	100.12	7.4	1.20
A	S2	3/26/2009	12:01:59	8.5	B	20.26	33.96	98.72	7.3	0.9
A	S2	3/26/2009	12:02:57	5.2	M	20.26	33.96	98.92	7.3	1.20
A	S2	3/26/2009	12:03:50	1.3	S	20.24	33.96	99.23	7.4	1.20
A	S1	3/26/2009	12:10:25	8.1	B	20.30	33.97	100.85	7.5	4.01
A	S1	3/26/2009	12:11:16	4.8	M	20.29	33.96	97.75	7.2	2.50
A	S1	3/26/2009	12:12:14	1.1	S	20.28	33.98	97.75	7.2	1.50
A	S1	3/26/2009	12:13:50	8.2	B	20.30	33.96	98.46	7.3	4.61
A	S1	3/26/2009	12:14:47	4.5	M	20.30	33.97	97.96	7.3	2.50
A	S1	3/26/2009	12:15:43	1.2	S	20.29	33.98	98.27	7.3	2.00
A	B1	3/26/2009	12:23:15	5.5	B	20.21	33.89	97.09	7.2	2.3
A	B1	3/26/2009	12:24:06	3.5	M	20.20	33.92	96.79	7.2	2.10

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp(℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	B1	3/26/2009	12:27:29	1.0	S	20.21	33.97	97.21	7.2	2.60
A	B1	3/26/2009	12:28:31	6.0	B	20.23	33.97	97.01	7.2	2.5
A	B1	3/26/2009	12:29:41	3.5	M	20.23	33.97	97.31	7.2	2.30
A	B1	3/26/2009	12:30:22	1.4	S	20.22	33.97	97.42	7.2	2.80
A	S3	3/26/2009	12:38:31	11.0	B	20.26	33.95	99.15	7.3	1.6
A	S3	3/26/2009	12:39:34	6.1	M	20.27	33.95	99.45	7.4	2.30
A	S3	3/26/2009	12:40:35	1.2	S	20.26	33.95	99.66	7.4	1.70
A	S3	3/26/2009	12:42:55	11.9	B	20.26	33.94	99.46	7.4	1.9
A	S3	3/26/2009	12:43:40	6.0	M	20.26	33.95	99.47	7.4	1.00
A	S3	3/26/2009	12:44:25	0.8	S	20.25	33.95	99.87	7.4	1.20
A	S2	3/26/2009	14:08:08	9.0	B	20.27	34.00	99.67	7.4	1.5
A	S2	3/26/2009	14:08:38	9.1	B	20.27	33.99	99.06	7.3	1.60
A	S2	3/26/2009	14:09:33	5.0	M	20.27	33.98	99.07	7.3	1.20
A	S2	3/26/2009	14:10:16	5.2	M	20.27	33.97	99.07	7.3	1
A	S2	3/26/2009	14:11:01	0.9	S	20.26	33.97	99.58	7.4	0.90
A	S2	3/26/2009	14:11:23	1.1	S	20.26	33.96	99.48	7.4	0.90
A	S1	3/26/2009	14:24:59	8.1	B	20.23	33.95	98.82	7.3	4.41
A	S1	3/26/2009	14:25:36	7.9	B	20.24	33.96	98.82	7.3	4.41
A	S1	3/26/2009	14:26:31	4.6	M	20.26	33.97	99.13	7.3	1.60
A	S1	3/26/2009	14:27:07	4.5	M	20.26	33.97	99.13	7.3	1.5
A	S1	3/26/2009	14:28:03	1.2	S	20.27	33.95	99.44	7.4	1.60
A	S1	3/26/2009	14:28:27	1.2	S	20.27	33.95	99.44	7.4	1.50
A	B1	3/26/2009	14:40:28	6.2	B	20.20	33.97	101.49	7.5	1.6
A	B1	3/26/2009	14:41:16	6.1	B	20.20	33.96	98.27	7.3	2.80
A	B1	3/26/2009	14:42:03	3.5	M	20.21	33.96	98.48	7.3	2.00
A	B1	3/26/2009	14:42:44	3.6	M	20.20	33.96	98.28	7.3	2.3
A	B1	3/26/2009	14:48:50	1.1	S	20.21	33.96	99.01	7.3	2.10
A	B1	3/26/2009	14:49:16	1.1	S	20.21	33.96	98.91	7.3	1.90
A	S3	3/26/2009	15:10:26	11.7	B	20.20	33.93	100.29	7.4	6.61
A	S3	3/26/2009	15:11:04	11.8	B	20.20	33.93	100.70	7.5	5.91
A	S3	3/26/2009	15:11:55	6.4	M	20.20	33.91	100.40	7.5	5.41
A	S3	3/26/2009	15:12:24	6.4	M	20.21	33.91	100.20	7.4	5.31
A	S3	3/26/2009	15:13:10	1.1	S	20.28	33.89	100.40	7.4	1.40
A	S3	3/26/2009	15:13:49	1.0	S	20.27	33.89	100.40	7.4	1.20
A	S2	3/26/2009	15:24:10	8.7	B	20.24	33.90	106.39	7.9	2
A	S2	3/26/2009	15:25:03	9.1	B	20.25	33.91	100.55	7.5	1.40
A	S2	3/26/2009	15:26:04	5.1	M	20.26	33.91	100.05	7.4	1.40
A	S2	3/26/2009	15:27:04	5.0	M	20.26	33.91	99.75	7.4	1.3
A	S2	3/26/2009	15:28:07	1.0	S	20.27	33.91	99.85	7.4	1.20
A	S2	3/26/2009	15:28:36	1.0	S	20.26	33.91	99.85	7.4	1.30
A	S1	3/26/2009	15:38:49	8.0	B	20.22	33.90	101.50	7.5	1.7
A	S1	3/26/2009	15:39:16	8.0	B	20.23	33.91	99.99	7.4	1.60
A	S1	3/26/2009	15:40:07	4.6	M	20.24	33.91	99.69	7.4	1.30
A	S1	3/26/2009	15:40:41	4.3	M	20.24	33.91	100.00	7.4	1.3
A	S1	3/26/2009	15:41:26	1.0	S	20.25	33.88	100.50	7.5	1.10
A	S1	3/26/2009	15:42:04	1.0	S	20.25	33.87	100.71	7.5	1.20
A	B1	3/26/2009	15:55:18	6.1	B	20.23	33.91	100.25	7.4	2
A	B1	3/26/2009	15:55:52	5.8	B	20.23	33.92	99.45	7.4	2.80
A	B1	3/26/2009	16:00:00	3.5	M	20.25	33.90	99.06	7.3	2.40
A	B1	3/26/2009	16:00:50	3.8	M	20.26	33.89	98.86	7.3	2.5
A	B1	3/26/2009	16:04:39	0.9	S	20.23	33.90	101.80	7.6	2.00
A	B1	3/26/2009	16:05:09	1.0	S	20.23	33.90	100.19	7.4	2.10
A	S3	3/26/2009	16:17:05	12.0	B	20.20	33.93	100.94	7.5	4.91
A	S3	3/26/2009	16:17:42	12.0	B	20.20	33.94	100.84	7.5	5.01
A	S3	3/26/2009	16:21:31	6.6	M	20.22	33.91	101.76	7.5	6.11
A	S3	3/26/2009	16:22:05	6.4	M	20.22	33.91	101.36	7.5	5.91
A	S3	3/26/2009	16:24:47	1.0	S	20.23	33.92	101.37	7.5	2.20
A	S3	3/26/2009	16:25:30	1.0	S	20.22	33.92	101.27	7.5	2.10
A	S2	3/26/2009	16:34:53	9.0	B	20.24	33.88	101.40	7.5	1.5
A	S2	3/26/2009	16:35:22	8.8	B	20.24	33.89	101.00	7.5	1.60
A	S2	3/26/2009	16:36:10	5.1	M	20.24	33.92	100.30	7.4	1.30
A	S2	3/26/2009	16:36:51	5.1	M	20.24	33.92	100.30	7.4	1.2
A	S2	3/26/2009	16:37:39	0.9	S	20.23	33.92	100.50	7.5	1.10
A	S2	3/26/2009	16:38:13	0.9	S	20.23	33.92	100.51	7.5	1.10
A	S1	3/26/2009	16:51:19	7.9	B	20.23	33.91	102.17	7.6	1.5
A	S1	3/26/2009	16:52:02	8.1	B	20.24	33.92	100.45	7.4	1.50
A	S1	3/26/2009	16:53:05	4.5	M	20.24	33.92	100.56	7.5	1.10
A	S1	3/26/2009	16:53:40	4.5	M	20.24	33.92	100.56	7.5	1.3
A	S1	3/26/2009	16:54:33	0.8	S	20.23	33.90	100.97	7.5	1.00
A	S1	3/26/2009	16:55:05	1.0	S	20.23	33.90	101.07	7.5	1.20
A	B1	3/26/2009	17:12:09	6.2	B	20.22	33.92	100.43	7.4	2.3
A	B1	3/26/2009	17:12:48	5.8	B	20.22	33.93	99.72	7.4	2.40
A	B1	3/26/2009	17:17:20	3.1	M	20.21	33.79	100.55	7.5	2.20

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp(℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	B1	3/26/2009	17:18:03	3.6	M	20.21	33.82	99.84	7.4	2.1
A	B1	3/26/2009	17:19:04	0.9	S	20.20	33.85	99.84	7.4	2.00
A	B1	3/26/2009	17:19:52	0.9	S	20.20	33.86	99.95	7.4	1.90
A	S3	3/26/2009	17:29:45	11.6	B	20.19	33.95	102.52	7.6	3.51
A	S3	3/26/2009	17:30:18	11.4	B	20.20	33.95	102.01	7.6	3.51
A	S3	3/26/2009	17:31:36	6.2	M	20.22	33.94	101.31	7.5	2.10
A	S3	3/26/2009	17:32:29	6.1	M	20.22	33.94	101.21	7.5	2.3
A	S3	3/26/2009	17:37:18	1.0	S	20.22	33.88	102.34	7.6	1.80
A	S3	3/26/2009	17:38:05	1.1	S	20.21	33.89	101.94	7.6	1.60
A	S2	3/26/2009	17:48:27	9.1	B	20.23	33.94	100.15	7.4	1.6
A	S2	3/26/2009	17:48:53	9.2	B	20.23	33.94	100.05	7.4	1.40
A	S2	3/26/2009	17:51:50	5.2	M	20.23	33.93	100.37	7.4	1.60
A	S2	3/26/2009	17:52:13	5.2	M	20.22	33.93	100.27	7.4	1.4
A	S2	3/26/2009	17:53:17	1.1	S	20.23	33.93	100.47	7.5	1.40
A	S2	3/26/2009	17:54:21	1.2	S	20.23	33.93	100.38	7.4	1.40
A	S1	3/26/2009	18:07:17	8.1	B	20.22	33.95	101.54	7.5	2.2
A	S1	3/26/2009	18:08:52	8.1	B	20.23	33.95	100.33	7.4	2.30
A	S1	3/26/2009	18:13:23	4.6	M	20.22	33.94	100.85	7.5	1.50
A	S1	3/26/2009	18:13:48	4.5	M	20.22	33.94	100.75	7.5	1.4
A	S1	3/26/2009	18:14:36	1.1	S	20.21	33.94	100.85	7.5	1.30
A	S1	3/26/2009	18:15:00	1.1	S	20.20	33.94	100.86	7.5	1.20
A	B1	3/26/2009	18:28:17	6.2	B	20.20	33.94	100.30	7.4	1.9
A	B1	3/26/2009	18:28:38	5.8	B	20.20	33.94	100.09	7.4	1.80
A	B1	3/26/2009	18:40:53	3.5	M	20.20	33.87	100.44	7.5	2.10
A	B1	3/26/2009	18:41:17	3.4	M	20.20	33.87	100.14	7.4	2
A	B1	3/26/2009	18:42:06	1.1	S	20.18	33.86	100.04	7.4	1.90
A	B1	3/26/2009	18:42:28	1.0	S	20.18	33.86	99.94	7.4	2.30
A	S3	3/26/2009	18:52:01	12.3	B	20.21	33.91	101.91	7.6	3.61
A	S3	3/26/2009	18:52:25	12.4	B	20.21	33.91	101.30	7.5	2.90
A	S3	3/26/2009	18:54:41	6.5	M	20.21	33.93	102.12	7.6	1.70
A	S3	3/26/2009	18:55:04	6.5	M	20.22	33.93	101.81	7.6	1.9
A	S3	3/26/2009	18:56:11	1.1	S	20.21	33.92	101.82	7.6	1.60
A	S3	3/26/2009	18:56:34	1.0	S	20.21	33.92	101.82	7.6	2.10

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	R1	3/27/2009	5:53:18	20.7	B	20.26	33.90	95.31	7.1	2.3
A	R1	3/27/2009	5:54:36	11.3	M	20.39	33.81	95.31	7.1	1.20
A	R1	3/27/2009	5:58:27	1.3	S	20.41	33.69	95.41	7.1	1.50
A	R1	3/27/2009	6:03:37	19.6	B	20.29	33.87	95.42	7.1	1.9
A	R1	3/27/2009	6:04:39	11.3	M	20.40	33.82	95.52	7.1	1.30
A	R1	3/27/2009	6:05:20	1.3	S	20.39	33.69	95.32	7.1	1.50
A	S2	3/27/2009	6:18:54	9.1	B	20.03	33.90	96.33	7.2	2.6
A	S2	3/27/2009	6:19:49	5.1	M	20.04	33.94	95.03	7.1	2.60
A	S2	3/27/2009	6:20:33	1.4	S	20.04	33.93	94.73	7.1	2.50
A	S2	3/27/2009	6:21:35	9.3	B	20.03	33.94	93.83	7.0	2.4
A	S2	3/27/2009	6:22:32	5.4	M	20.04	33.94	94.33	7.0	2.80
A	S2	3/27/2009	6:23:17	1.3	S	20.04	33.94	94.73	7.0	2.30
A	S1	3/27/2009	6:29:35	8.2	B	20.05	33.91	97.74	7.3	2.8
A	S1	3/27/2009	6:30:12	4.7	M	20.06	33.95	95.24	7.1	2.40
A	S1	3/27/2009	6:31:06	0.9	S	20.06	33.95	95.44	7.1	2.20
A	S1	3/27/2009	6:31:51	8.1	B	20.05	33.95	94.54	7.0	2.9
A	S1	3/27/2009	6:32:47	4.6	M	20.06	33.95	95.14	7.1	2.20
A	S1	3/27/2009	6:33:39	0.9	S	20.07	33.95	95.34	7.1	2.20
A	B1	3/27/2009	6:40:27	6.0	B	20.00	33.92	93.75	7.0	2.4
A	B1	3/27/2009	6:41:19	3.7	M	20.00	33.93	93.05	6.9	2.40
A	B1	3/27/2009	6:42:11	0.7	S	20.01	33.93	93.55	7.0	2.40
A	B1	3/27/2009	6:43:16	6.1	B	20.04	33.94	93.55	7.0	2.2
A	B1	3/27/2009	6:44:09	3.5	M	20.03	33.93	93.55	7.0	2.60
A	B1	3/27/2009	6:44:59	1.1	S	20.01	33.93	93.35	7.0	2.00
A	S3	3/27/2009	6:54:07	12.5	B	20.03	33.96	95.56	7.1	3.01
A	S3	3/27/2009	6:55:25	5.9	M	20.04	33.96	95.46	7.1	2.50
A	S3	3/27/2009	6:56:12	0.9	S	20.07	33.95	95.76	7.1	2.30
A	S3	3/27/2009	6:57:06	11.9	B	20.02	33.95	95.16	7.1	2.5
A	S3	3/27/2009	6:58:10	6.5	M	20.06	33.95	95.46	7.1	2.10
A	S3	3/27/2009	6:59:11	0.7	S	20.07	33.95	95.76	7.1	1.80
A	S2	3/27/2009	7:52:04	9.0	B	20.03	33.90	95.20	7.1	2.5
A	S2	3/27/2009	7:52:34	9.2	B	20.04	33.91	94.80	7.1	2.40
A	S2	3/27/2009	7:53:24	5.4	M	20.03	33.92	94.70	7.0	2.30
A	S2	3/27/2009	7:54:05	5.0	M	20.05	33.92	94.80	7.1	2.2
A	S2	3/27/2009	7:55:12	1.1	S	20.05	33.92	95.10	7.1	2.00
A	S2	3/27/2009	7:55:41	1.2	S	20.05	33.92	95.11	7.1	2.00
A	S1	3/27/2009	8:09:19	7.8	B	20.07	33.87	96.22	7.2	2.3
A	S1	3/27/2009	8:10:03	8.2	B	20.07	33.90	95.32	7.1	2.20
A	S1	3/27/2009	8:11:04	4.7	M	20.07	33.95	95.32	7.1	2.10
A	S1	3/27/2009	8:11:38	4.5	M	20.07	33.95	95.32	7.1	2.2
A	S1	3/27/2009	8:12:20	1.0	S	20.08	33.95	95.52	7.1	1.90
A	S1	3/27/2009	8:13:03	1.0	S	20.08	33.94	95.52	7.1	2.10
A	B1	3/27/2009	8:27:43	5.5	B	20.03	33.88	94.33	7.0	2.7
A	B1	3/27/2009	8:28:10	5.5	B	20.03	33.89	94.03	7.0	2.30
A	B1	3/27/2009	8:28:58	3.6	M	20.03	33.93	93.93	7.0	2.40
A	B1	3/27/2009	8:29:31	3.5	M	20.03	33.93	93.93	7.0	2.3
A	B1	3/27/2009	8:32:12	1.0	S	20.04	33.79	95.33	7.1	2.40
A	B1	3/27/2009	8:32:45	1.0	S	20.04	33.80	94.63	7.0	2.20
A	S3	3/27/2009	8:42:20	11.9	B	20.06	33.95	96.04	7.1	2.4
A	S3	3/27/2009	8:43:01	11.9	B	20.07	33.95	95.04	7.1	3.11
A	S3	3/27/2009	8:44:01	6.5	M	20.08	33.95	95.24	7.1	1.90
A	S3	3/27/2009	8:44:39	6.5	M	20.08	33.95	95.24	7.1	2.2
A	S3	3/27/2009	8:45:26	1.2	S	20.10	33.94	95.65	7.1	1.70
A	S3	3/27/2009	8:46:03	1.0	S	20.10	33.94	95.75	7.1	1.90
A	S2	3/27/2009	8:54:09	8.9	B	20.02	33.88	94.85	7.1	3.01
A	S2	3/27/2009	8:54:43	8.7	B	20.02	33.89	94.65	7.0	3.11
A	S2	3/27/2009	8:55:27	5.2	M	20.03	33.93	94.55	7.0	2.20
A	S2	3/27/2009	8:56:04	5.1	M	20.02	33.93	94.45	7.0	2.3
A	S2	3/27/2009	8:57:01	0.9	S	20.04	33.93	94.75	7.1	2.20
A	S2	3/27/2009	8:57:33	0.9	S	20.04	33.93	94.75	7.1	2.70
A	S1	3/27/2009	9:08:24	8.0	B	20.07	33.91	96.47	7.2	2.6
A	S1	3/27/2009	9:09:02	8.0	B	20.06	33.92	95.16	7.1	2.50
A	S1	3/27/2009	9:10:01	4.5	M	20.09	33.94	95.56	7.1	2.10
A	S1	3/27/2009	9:10:37	4.6	M	20.07	33.94	95.26	7.1	2.2
A	S1	3/27/2009	9:11:17	0.8	S	20.10	33.94	95.77	7.1	1.90
A	S1	3/27/2009	9:12:02	1.0	S	20.10	33.94	95.87	7.1	1.80
A	B1	3/27/2009	9:25:13	5.9	B	20.05	33.96	95.08	7.1	2.1
A	B1	3/27/2009	9:25:47	6.2	B	20.05	33.95	94.68	7.0	2.20
A	B1	3/27/2009	9:26:38	3.6	M	20.06	33.95	94.78	7.1	2.10
A	B1	3/27/2009	9:27:07	3.4	M	20.06	33.95	94.88	7.1	2.3
A	B1	3/27/2009	9:30:35	1.0	S	20.08	33.94	95.88	7.1	2.20
A	B1	3/27/2009	9:31:01	1.3	S	20.08	33.94	95.18	7.1	2.10
A	S3	3/27/2009	9:44:07	12.0	B	20.09	33.97	95.69	7.1	2.7
A	S3	3/27/2009	9:44:43	12.2	B	20.08	33.96	95.49	7.1	2.50
A	S3	3/27/2009	9:45:47	6.4	M	20.10	33.95	95.59	7.1	2.60

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	S3	3/27/2009	9:46:21	6.5	M	20.10	33.95	95.49	7.1	2.5
A	S3	3/27/2009	9:47:12	1.1	S	20.17	33.95	96.40	7.2	1.60
A	S3	3/27/2009	9:47:43	1.1	S	20.17	33.95	96.50	7.2	1.40
A	S2	3/27/2009	9:56:26	8.9	B	20.11	33.92	96.50	7.2	1.9
A	S2	3/27/2009	9:57:01	8.8	B	20.11	33.93	95.60	7.1	1.90
A	S2	3/27/2009	9:58:04	5.6	M	20.11	33.94	96.00	7.1	2.90
A	S2	3/27/2009	9:58:43	5.6	M	20.17	33.93	96.30	7.2	1.5
A	S2	3/27/2009	9:59:40	1.1	S	20.23	33.93	96.91	7.2	1.40
A	S2	3/27/2009	10:00:21	1.1	S	20.24	33.93	97.31	7.2	1.30
A	S1	3/27/2009	10:15:01	8.1	B	20.12	33.96	95.62	7.1	2.2
A	S1	3/27/2009	10:15:28	8.3	B	20.11	33.96	95.42	7.1	2.70
A	S1	3/27/2009	10:16:32	4.5	M	20.15	33.96	95.92	7.1	2.10
A	S1	3/27/2009	10:17:02	4.6	M	20.13	33.96	95.82	7.1	1.9
A	S1	3/27/2009	10:20:11	1.3	S	20.15	33.90	96.72	7.2	1.80
A	S1	3/27/2009	10:20:35	1.3	S	20.15	33.90	96.32	7.2	1.80
A	B1	3/27/2009	10:33:36	5.8	B	20.09	33.96	95.13	7.1	3.01
A	B1	3/27/2009	10:33:59	6.1	B	20.10	33.96	95.13	7.1	2.60
A	B1	3/27/2009	10:34:49	3.2	M	20.15	33.95	95.13	7.1	2.40
A	B1	3/27/2009	10:35:14	3.2	M	20.13	33.95	95.43	7.1	2.1
A	B1	3/27/2009	10:36:07	1.2	S	20.14	33.95	95.53	7.1	2.10
A	B1	3/27/2009	10:36:32	1.3	S	20.14	33.95	95.53	7.1	2.00
A	S3	3/27/2009	10:53:35	12.1	B	20.08	33.95	95.05	7.1	2.9
A	S3	3/27/2009	10:53:57	12.1	B	20.07	33.95	94.95	7.1	2.80
A	S3	3/27/2009	10:55:28	6.6	M	20.11	33.94	95.75	7.1	2.10
A	S3	3/27/2009	10:56:00	7.0	M	20.11	33.94	95.75	7.1	2
A	S3	3/27/2009	10:56:56	1.1	S	20.14	33.94	96.35	7.2	2.00
A	S3	3/27/2009	10:57:25	1.3	S	20.14	33.94	96.35	7.2	2.10
A	S2	3/27/2009	11:04:45	9.3	B	20.15	33.95	96.86	7.2	1.5
A	S2	3/27/2009	11:05:08	9.1	B	20.16	33.95	96.16	7.1	1.70
A	S2	3/27/2009	11:06:06	5.4	M	20.17	33.95	96.66	7.2	1.60
A	S2	3/27/2009	11:06:36	5.5	M	20.15	33.95	96.26	7.1	1.9
A	S2	3/27/2009	11:07:25	1.3	S	20.17	33.95	96.66	7.2	1.80
A	S2	3/27/2009	11:08:02	1.4	S	20.18	33.94	96.76	7.2	1.70
A	S1	3/27/2009	11:14:10	8.5	B	20.14	33.93	96.27	7.2	2.1
A	S1	3/27/2009	11:14:37	7.9	B	20.14	33.93	96.17	7.1	2.00
A	S1	3/27/2009	11:15:41	4.6	M	20.15	33.92	95.97	7.1	1.90
A	S1	3/27/2009	11:16:07	4.6	M	20.14	33.92	95.97	7.1	2.4
A	S1	3/27/2009	11:17:01	1.1	S	20.15	33.96	96.37	7.2	2.00
A	S1	3/27/2009	11:17:31	1.2	S	20.15	33.96	96.27	7.1	1.90
A	B1	3/27/2009	11:24:09	6.3	B	20.13	33.96	96.07	7.1	2.4
A	B1	3/27/2009	11:24:33	6.3	B	20.10	33.96	95.87	7.1	2.50
A	B1	3/27/2009	11:25:17	3.4	M	20.15	33.95	95.77	7.1	2.30
A	B1	3/27/2009	11:26:00	3.4	M	20.15	33.95	95.67	7.1	2.3
A	B1	3/27/2009	11:28:16	1.1	S	20.16	33.95	96.58	7.2	2.10
A	B1	3/27/2009	11:29:01	1.1	S	20.16	33.95	95.98	7.1	2.10
A	S3	3/27/2009	11:36:59	12.0	B	20.08	33.96	95.08	7.1	4.31
A	S3	3/27/2009	11:37:34	12.0	B	20.08	33.96	94.88	7.1	4.21
A	S3	3/27/2009	11:38:20	6.6	M	20.10	33.95	95.58	7.1	2.10
A	S3	3/27/2009	11:39:00	6.8	M	20.10	33.95	95.48	7.1	2.3
A	S3	3/27/2009	11:40:08	0.9	S	20.19	33.94	96.79	7.2	1.60
A	S3	3/27/2009	11:40:32	0.9	S	20.19	33.94	96.89	7.2	1.60
A	R1	3/27/2009	11:52:34	20.2	B	20.28	34.01	96.89	7.2	2.2
A	R1	3/27/2009	11:53:35	11.3	M	20.25	34.01	96.89	7.2	1.60
A	R1	3/27/2009	11:54:18	1.0	S	20.25	33.94	96.99	7.2	1.50
A	R1	3/27/2009	11:55:13	21.4	B	20.28	34.04	96.39	7.1	3.51
A	R1	3/27/2009	11:55:51	11.4	M	20.24	34.01	96.79	7.2	2.00
A	R1	3/27/2009	11:56:33	1.2	S	20.24	33.94	96.99	7.2	1.60
A	S2	3/27/2009	12:10:16	9.1	B	20.17	33.72	95.87	7.1	1.8
A	S2	3/27/2009	12:11:05	5.2	M	20.20	33.86	96.57	7.2	1.50
A	S2	3/27/2009	12:11:49	1.0	S	20.20	33.88	96.57	7.2	1.90
A	S2	3/27/2009	12:12:33	9.0	B	20.15	33.92	95.57	7.1	1.9
A	S2	3/27/2009	12:13:23	5.1	M	20.21	33.93	96.77	7.2	1.30
A	S2	3/27/2009	12:14:10	0.9	S	20.22	33.92	97.27	7.2	1.30
A	S1	3/27/2009	12:19:42	8.4	B	20.15	33.97	98.06	7.3	1.7
A	S1	3/27/2009	12:20:34	4.8	M	20.16	33.97	95.86	7.1	1.80
A	S1	3/27/2009	12:21:18	1.0	S	20.17	33.97	96.06	7.1	2.00
A	S1	3/27/2009	12:22:17	7.9	B	20.16	33.96	95.46	7.1	2
A	S1	3/27/2009	12:23:08	4.4	M	20.18	33.96	95.86	7.1	1.90
A	S1	3/27/2009	12:23:56	1.0	S	20.21	33.96	96.25	7.1	1.70
A	B1	3/27/2009	12:30:24	6.1	B	20.16	33.78	96.35	7.2	3.11
A	B1	3/27/2009	12:31:12	3.5	M	20.20	33.87	95.55	7.1	2.40
A	B1	3/27/2009	12:31:52	1.0	S	20.23	33.92	95.74	7.1	2.00
A	B1	3/27/2009	12:32:39	5.9	B	20.15	33.95	95.14	7.1	2.8
A	B1	3/27/2009	12:33:34	3.6	M	20.20	33.94	95.44	7.1	2.20
A	B1	3/27/2009	12:34:09	0.8	S	20.23	33.94	95.74	7.1	2.10

Annex D Continuous *In-situ* Measurement Data

Zone	Station	Sampling Date	Time	Depth (m)	Depth	Water Temp (℃)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)
A	S3	3/27/2009	12:41:51	12.1	B	20.08	33.96	95.13	7.1	2.7
A	S3	3/27/2009	12:44:14	6.7	M	20.12	33.96	95.43	7.1	2.60
A	S3	3/27/2009	12:44:48	1.0	S	20.28	33.95	95.23	7.1	2.70
A	S3	3/27/2009	12:47:19	11.8	B	20.07	33.94	94.53	7.0	2.9
A	S3	3/27/2009	12:48:12	7.0	M	20.11	33.96	95.23	7.1	2.60
A	S3	3/27/2009	12:49:07	0.9	S	20.26	33.95	96.72	7.2	1.20
A	S2	3/27/2009	14:37:22	9.2	B	20.11	34.00	95.29	7.1	3.01
A	S2	3/27/2009	14:37:48	9.2	B	20.10	33.99	94.40	7.0	3.31
A	S2	3/27/2009	14:38:31	5.1	M	20.25	33.98	96.09	7.1	1.40
A	S2	3/27/2009	14:39:03	5.1	M	20.25	33.98	96.69	7.2	1.2
A	S2	3/27/2009	14:39:41	0.9	S	20.29	33.96	96.69	7.2	1.20
A	S2	3/27/2009	14:40:08	1.1	S	20.32	33.94	97.79	7.2	0.60
A	S1	3/27/2009	14:49:06	7.9	B	20.19	33.97	96.28	7.1	1.7
A	S1	3/27/2009	14:49:33	8.2	B	20.18	33.97	96.18	7.1	1.60
A	S1	3/27/2009	14:50:13	4.5	M	20.23	33.96	96.28	7.1	1.90
A	S1	3/27/2009	14:50:37	4.5	M	20.22	33.96	96.28	7.1	1.9
A	S1	3/27/2009	14:51:11	1.1	S	20.28	33.95	96.77	7.2	1.90
A	S1	3/27/2009	14:51:36	1.1	S	20.28	33.94	96.77	7.2	1.80
A	B1	3/27/2009	15:06:15	5.9	B	20.11	33.96	94.26	7.0	5.41
A	B1	3/27/2009	15:06:37	5.9	B	20.11	33.96	92.77	6.9	6.11
A	B1	3/27/2009	15:07:29	3.6	M	20.15	33.96	94.36	7.0	3.21
A	B1	3/27/2009	15:07:52	3.6	M	20.16	33.96	94.36	7.0	3.21
A	B1	3/27/2009	15:08:24	0.8	S	20.18	33.96	94.96	7.0	2.70
A	B1	3/27/2009	15:08:46	1.2	S	20.19	33.95	95.16	7.1	2.80
A	S3	3/27/2009	15:22:37	12.0	B	20.17	33.98	95.74	7.1	2.5
A	S3	3/27/2009	15:23:00	12.1	B	20.17	33.98	95.54	7.1	3.71
A	S3	3/27/2009	15:24:00	6.2	M	20.17	33.97	95.94	7.1	2.80
A	S3	3/27/2009	15:24:22	6.4	M	20.17	33.97	95.84	7.1	2.6
A	S3	3/27/2009	15:25:12	0.8	S	20.24	33.85	96.73	7.2	1.20
A	S3	3/27/2009	15:25:41	1.3	S	20.25	33.92	96.63	7.2	1.20
A	S2	3/27/2009	15:33:09	8.4	B	20.10	33.96	94.23	7.0	3.71
A	S2	3/27/2009	15:33:36	8.9	B	20.10	33.96	93.93	7.0	3.91
A	S2	3/27/2009	15:34:25	5.0	M	20.21	33.96	95.23	7.1	2.10
A	S2	3/27/2009	15:34:52	5.0	M	20.21	33.96	95.22	7.1	2.1
A	S2	3/27/2009	15:35:34	1.0	S	20.33	33.90	97.82	7.2	0.70
A	S2	3/27/2009	15:35:56	1.0	S	20.32	33.92	98.02	7.3	0.70
A	S1	3/27/2009	15:46:26	7.9	B	20.17	33.93	96.11	7.1	2
A	S1	3/27/2009	15:46:48	8.0	B	20.17	33.93	95.81	7.1	2.70
A	S1	3/27/2009	15:47:29	4.5	M	20.19	33.93	96.11	7.1	1.60
A	S1	3/27/2009	15:47:52	4.5	M	20.19	33.93	96.21	7.1	1.3
A	S1	3/27/2009	15:50:24	1.0	S	20.25	33.82	96.70	7.2	1.30
A	S1	3/27/2009	15:50:45	1.0	S	20.24	33.85	96.70	7.2	1.30
A	B1	3/27/2009	16:14:07	6.2	B	20.12	33.96	93.48	6.9	5.41
A	B1	3/27/2009	16:14:30	6.2	B	20.12	33.96	93.18	6.9	5.61
A	B1	3/27/2009	16:15:12	3.8	M	20.15	33.96	94.38	7.0	3.11
A	B1	3/27/2009	16:15:40	3.8	M	20.14	33.96	94.68	7.0	2.9
A	B1	3/27/2009	16:16:25	0.9	S	20.23	33.33	95.77	7.1	1.70
A	B1	3/27/2009	16:16:49	1.1	S	20.24	33.57	95.77	7.1	1.60
A	S3	3/27/2009	16:33:49	12.2	B	20.14	33.97	95.85	7.1	3.01
A	S3	3/27/2009	16:34:15	11.9	B	20.15	33.97	95.65	7.1	3.21
A	S3	3/27/2009	16:35:03	6.4	M	20.14	33.96	95.85	7.1	2.80
A	S3	3/27/2009	16:35:25	6.6	M	20.14	33.96	95.95	7.1	3.01
A	S3	3/27/2009	16:36:04	1.1	S	20.25	33.88	96.85	7.2	1.40
A	S3	3/27/2009	16:36:30	1.2	S	20.25	33.90	97.04	7.2	1.20
A	S2	3/27/2009	16:47:41	8.5	B	20.11	33.96	94.64	7.0	2
A	S2	3/27/2009	16:48:12	8.5	B	20.11	33.96	94.44	7.0	2.80
A	S2	3/27/2009	16:48:50	5.2	M	20.16	33.95	95.14	7.1	1.80
A	S2	3/27/2009	16:49:32	0.9	S	20.32	33.54	96.53	7.2	1.2
A	S2	3/27/2009	16:50:51	4.7	M	20.18	33.95	96.23	7.1	1.60
A	S2	3/27/2009	16:51:25	1.1	S	20.31	33.53	96.93	7.2	1.20

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ERM's Hong Kong Office

21/F Lincoln House
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