Proposed Extension of Public Golf Course
at Kau Sai Chau Island, Sai Kung

Quarterly Environmental Monitoring & Audit (EM&A) Report for July to September 2006

(Report No. 382210/Q_003)

Report Authorized For Issue By:	For and on Behalf of Black & Veatch Hong Kong Limited

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Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung
(Independent Environmental Checker)

CHECK CERTIFICATE

1. We certify that professional skill and care have been used in the checking of the Environmental Team's (ET) Quarterly Report Jul - Sept 06 for the construction of Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung.

2. We certify that the ET's EM&A programme for the reporting period has been satisfactorily executed and the Quarterly Report Jul - Sept 06 has been verified.

3. We would comment that our evaluation of the ET's EM&A is based on a random audit process which cannot be guaranteed to have all non-conformities identified.

Signed 

_____
Independent Environmental Checker

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Date 31 October 2006

Executive Summary

This is the third quarterly Environmental Monitoring and Audit (EM&A) report prepared by Black & Veatch, the designated Environmental Team (ET), for the Project "Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung". The construction works of golf course was commenced on 16th January 2006. This report presents the results of the EM&A works conducted in the third quarter of 2006 from July to September 2006.

In the reporting quarter, the following activities took place for the Project:

- Vegetation Clearance (Holes 3-11, 16-18)
- Earthworks
  - Holes 3-12, 16-18
  - Desalination plant (site formation and related pipelines but no dredging of pipelines)
  - Operation of concrete batching plant (located at Hole 2)
  - Operation of sewage treatment work (site office)
  - Operation of wastewater treatment plants (near Hole 1 and Contractor's site office)
- Operation of temporary barging point at EP location
- Demarcation of Stream buffer zone of Streams B (B1 and B2) and C (one side near to the work)
- Construction of permanent bridge no. 5 (near the freshwater inland marsh)
- Operation of temporary bridges no. 9 at Stream A, no. 10 at Stream B1 and B2 and no. 5 at freshwater inland marsh
- Temporary drainage system implementation
- Permanent close low flow drainage implementation including lakes, gravity drains, rising mains, pumping stations
- Operation of wheel washing facility near maintenance building
- No major earthwork has been carried out at Holes 12, 13, 14 and 15 (part of haul road only).

Variation of the Environmental Permit for the temporary stream crossings at Stream B (B1 & B2) during wet seasons was approved on 18 August 2006 and construction at the southern portion of the third golf course was commenced after approval was obtained. Construction of temporary crossings at Streams B2 and B1 were completed in late August 2006 and early September 2006 respectively. The decking of the two temporary crossings was paved with concrete. Vegetation clearance and haul road formation were started in early September 2006 at Holes 11, 12 and 14-16. Bulk earthwork was commenced in mid-September 2006 at Hole 11.

Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) were approved on 18 August 2006. A pilot scale for the remedial work of the contaminated soil at Hole 18 was carried out during the reporting month. The full scale remediation work will be carried out on 4 October 2006 and a Final Site Remediation Report (FSRR) will be prepared by the Contractor in the next reporting month.

According to the EM&A manual, a grave (G20) located at Hole 2 is required to be preserved by record and will be carried out during the next reporting month (23 October 2006). Archaeology watching brief was started at Holes 11, 12, and 16 in September 2006.

For northern and central portions of the third golf course, most of the bulk earthworks were completed at Holes 1-9 and 17 during the reporting month. It will move to the next phases of the construction sequence which are mainly the drainage system installation, irrigation system installation, turfing and furnishing. For southern portions of the third golf course, major construction works are vegetation clearance, haul road formation and bulk earthworks. The expected turf establishment period will be started in December 2006 but it will totally depend on the availability and water quality of the water source from desalination plant, existing reservoir and water storage from rain water on site. There is no conclusive planting date

yet. However, Holes 3, 5 & 8 will be the three targets golf holes for earliest turfing.

Environmental Monitoring Works

A summary of the monitoring activities in this quarter is listed below:

24-hour Total Suspended Particulates (TSP) monitoring at GCA B1	16 times
Water quality monitoring (marine + freshwater)	18 times
Terrestrial Ecology	3 times
Marine Ecology	1 time
Landscaping & Visual	6 times

Air Quality

All measured 24-hour TSP concentrations in the reporting quarter were below the Action and Limit (AL) Levels.

Water Quality

During the third quarterly period (Jul to Sept 2006), exceedances were recorded, mainly suspended solids and turbidity, at M_RO1, KLW, M_Marsh, TTC, M_BP and KS (marine monitoring stations). Only exceedances recorded at M_Marsh and M_BP were considered project-related. The other exceedances were considered not attributed to the works and therefore no further action was required.

For freshwater monitoring stations, exceedances were recorded, mainly suspended solids and turbidity, at all monitoring locations (Streams A, B, C and downstream of freshwater inland marsh). There is long term exceedances trend of suspended solids and turbidity at freshwater inland marsh since late April 2006 after the first rainstorm occurred on 24th April 2006. Exceedances were mainly contributed due to the heavy rainstorm events and insufficient temporary drainage system implemented on site. There is also sharp increase of suspended solids and turbidity at Stream C once commencement of work at Holes 14 and 16. This is mainly attributed to insufficient temporary drainage system implemented on site.

Ecology

Terrestrial

Non-compliance was recorded at downstream end of Stream A during the previous reporting quarter (June 2006). The incident was due to the rock fill slope failure located adjacent to the Stream A of Hole 17 after several rainstorm events. Different size of rocks were being washed away and filled at the downstream end of the Stream A. The main stream course of Stream A was found to be filled up with rubbles to the level of the weir at its downstream end. Remedial work was not implemented by the Contractor to clear the rubbles and restore the channel by hand during the reporting quarter.

Several rainfalls in September 2006 had significantly increased the flow in the streams, but the advance of works fronts also increased the sediment inside the streams, especially in Stream C. It was observed that the water in Stream C was not clear but with a certain degree of turbulence. This observation coincided with the suspended solids and turbidity exceedances of water quality record during the reporting quarter.

Marine

According to the additional three month coral monitoring at Site B2, Site C and Control Site (Apr to June 06) due to the coral damage incident happened on 26th Mar 06, no exceedance was recorded on corals. The quarterly coral monitoring has been resumed in September 2006. In the quarterly coral survey, most of these tagged corals at Site B2 were in similar conditions as in last monitoring (June 2006), but two

tagged corals were missing (B-59 & B-60) and B-42 was found upside down on the seabed. Mortality was also found on B-19. There were also damages (mortality and anchor damages) on two tagged corals at Site C (C-04 and C-10). The partial mortality of those colonies should not be considered as a consequence of the operation of the temporary barging point. It is considered that coral damages were cause by the vigorous waves action induced by the typhoon occurred between July to September 2006. The Control Site still remained in similar conditions as during the Baseline Survey (no mortality, sedimentation or bleaching was found).

Environmental, Landscape and Visual Audit, Watching Brief, Land Contamination

Environmental Audit

Site audit was carried out on a weekly basis to monitor environmental issues on the construction sites. The Contractor generally implemented the mitigation measures recommended in the EIA report to minimise the environmental impacts due to the construction works. Weekly site inspection and *ad hoc* site inspection were carried out to identify the potential source of dust, silt and waste management. However, the monitoring results revealed that the temporary drainage system implemented and dust suppression measures were insufficient during reporting quarter. Waste management was unsatisfactory during the reporting quarter.

The Contractor was reminded the following issues and to take actions if necessary:

- Water/modify the haul road during rock breaking, loading/unloading of dusty materials in order to minimize dust generation;
- Minimize the water quality impact when undertaking cut-and-fill works. It is important to provide sufficient temporary drainage at critical areas to confine, collect and provide proper treatment before discharging to marine water and stream courses to ensure that the water quality is complied with WPCO requirements;
- Minimize the exposed areas by controlling the vegetation clearance area. Vegetation should be kept in-situ as much as possible until works require at the construction areas;
- Provide mitigation measures to the large stockpiles located near Hole 9 & 18 to prevent silty runoff and dust generation;
- Minimize the cut-and-fill areas especially during wet seasons;
- Properly dispose of the vegetation stockpiles, general refuse and construction waste off-site;
- Strengthen the preventive/interim measures for avoiding silty runoff from the exposed areas to the low lying areas. More frequent maintenance of the silt fence is necessary;
- Enhance the wheel washing facility;
- Provide chemical storage areas on site;
- Provide temporary drainage at the temporary bridges;
- Provide treatment facilities especially at water sensitive areas before water discharges from construction site;
- Maintain the integrity of silt curtains and remove of settled silt within the silt curtain which have been installed outside the fresh water inland marsh, near Hole 2 and Hole 4;
- Commission the wastewater treatment plants;
- Remove of rocks at downstream A by hand; and
- Protect the retain trees with sufficient watering mainly located at the Administration Building.

Landscaping & Visual

Bi-weekly site audits were conducted in respect of landscape and visual mitigation measure in the reporting quarter. Tree protection on site was satisfactory. The Contractor should take measures to improve the condition of damaged trees. Damaged trees next to the administration building were unprotected after being damaged by the adjacent construction activities since July 2006. All transplanted trees were in fair condition. Mal-pruning of transplanted trees had not been rectified. Construction

material was still stockpiled within tree protection zones. A statement on the cause of death of tree T925 recorded was still outstanding since July 2006.

Watching Brief

Watching Brief was carried out at Hole 2 in February 2006. The major activity carried out at part of the Hole 2 (60%) was rock breaking activity. Other Hole 2 areas were remained the same as after vegetation clearance. Vegetation clearance and excavation were carried out at Holes 11, 12, 14 and 16 during the reporting quarter. Archaeology watching brief was resumed since September 2006.

Land Contamination

Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) were approved on 18 August 2006. A pilot scale for the remedial work of the contaminated soil at Hole 18 was carried out on September 2006. The full scale remediation work will be carried out on 4 October 2006 and a Final Site Remediation Report (FSRR) will be prepared by the Contractor in the next reporting quarter.

Environmental Complaints and Prosecution

One environmental complaint was received from Tai Tau Chau and Kai Lung Wan fish farmers about the silty runoff from the construction site and fish death at second reporting quarter. Investigation report on the cause of the fish death had been completed and negotiation on the fish compensation was in progress during the reporting quarter.

One environmental complaint was received from the golfers on 6 September 2006 (this reporting quarter) about the dust generation from the construction site in this reporting period. No environmental summon was received in this reporting period.

Environmental Licensing and Permitting

License/Permits granted to the Project include the Environmental Permit (EP), construction noise permit (CNP) and chemical waste producer. The water discharge licences for the construction site and sewage treatment plant were in progress during this reporting quarter.

Future Key Issues

Key issues to be considered in the coming reporting quarter include:

- Minimize potential dust generation from activities on-site : bulk earthworks at Holes 10 to 16, concrete batching plant operation, exposed/bare slope areas/stockpiles and temporary haul roads;
- Resume archaeology watching brief at Holes 11, 12, 14, 15 & 16;
- Carry out preservation by record of grave (G20) at Hole 2;
- Provide sufficient temporary drainage for construction temporary crossing at Streams B1, B2 and C;
- Carry out full scale remedial work for the contaminated soil at Hole 17 from Hole 18 (Hotspot L3);
- Implement sufficient and improve the temporary drainage system on site to prevent silty runoff discharging to marine and stream courses;
- Implement sufficient temporary drainage system before carrying out any newly exposed area;
- Implement permanent closed low flow drainage system, irrigation system, furnishing work and turf establishment at Northern and Central part of the golf course;
- Carry out land formation works for the desalination plant near to the existing pier;
- Carry out coral transplantation at the temporary barging point due to pipeline construction;
- Store chemicals/fuel and chemical waste/waste oil on site; and
- Dispose of construction wastes, vegetation and general refuse.

1. Introduction

1.1 Background of the Project

1.1.1 Black & Veatch (hereinafter called the "ET") was appointed by Hong Kong Jockey Club (hereinafter called the "Project Proponent") to undertake Environmental Monitoring and Audit (EM&A) for "Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung" (hereinafter called the "Project"). Under the requirements of Section 4 of Environmental Permit EP-224/2005, EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality, water quality, terrestrial and marine ecology, landscape and visual, archaeology (watching brief) and land contamination are required for the Project.

1.1.2 This is the third quarterly EM&A report which summarises the environmental monitoring and audit works for the Project in the third quarter of 2006 from July to September 2006.

2. Project Information

2.1 Background

2.1.1 The Project comprises the following major components:

- Construction of a third 18-hole public golf course on the east side of the island, south of the existing golfing area;
- A new irrigation lake to collect surface runoff from new 18-hole golf course. Water stored at the new irrigation lake can also be diverted to existing reservoir for tertiary treatment and recycling;
- A new desalination plant adjacent to the existing pier to serve as an additional irrigation water supply for the new golf course during dry season; and
- Expansion of existing administration and maintenance buildings.

2.1.2 The potential environmental impacts of the Project have been studied in the Environmental Impact Assessment (EIA) report (EIAO Register No. AEIAR- 091/2005). The EIA was approved on 14th November 2005 under the EIAO. An Environmental Permit (EP-224/2005) was granted on 28th November 2005.

2.2 Site Description

2.2.1 A layout plan of the Project is provided in **Figure 1.1**.

2.3 Project Organization

2.3.1 Project organization and lines of communication are shown in **Figure 1.2**.

2.4 Construction Programme

2.4.1 The tentative construction programme for the Project is presented in **Annex A**. The construction works were commenced on 16th January 2006 and are scheduled to be completed by end of July 2007.

2.5 Summary of EM&A Requirements

2.5.1 The EM&A programme requires environmental monitoring for air quality, water quality, terrestrial and marine ecology, landscape and visual, archaeology (watching brief) and land contamination. The EM&A requirements for each parameter are described in subsequent sections, including:

- All monitoring parameters;
- Action and Limit Levels for all environmental parameters;
- Event and Action Plans; and
- Environmental mitigation measures, as recommended in the project EIA final report.

Monitoring Parameters and Locations

2.5.2 24-hour TSP was the monitoring parameter for dust monitoring. One location for monitoring air quality was identified.

2.5.3 The water quality parameters which need to be monitored are as follows:

- Marine water quality (9 monitoring locations) - dissolved oxygen (DO), temperature, turbidity, suspended solids (SS), pH and salinity
- Freshwater water quality (7 monitoring locations) - dissolved oxygen (DO), temperature, turbidity, suspended solids (SS) , pH and salinity

2.5.4 Additional marine and freshwater water quality monitoring parameters for the impact monitoring during construction include nitrate nitrogen (NO_3-N), nitrite nitrogen (NO_2-N), ammonia nitrogen (NH_3-N), total phosphate (TP) and selected pesticides.

2.5.5 Additional water quality monitoring at Tai Tau Chau FCZ (TTC), Kai Lung Wan FCZ (KLW), Kau Sai FCZ (KS), downstream of the existing marsh (M_Marsh), marine water of Port Shelter (M_Coral), existing reservoir (F_Inland M) and Control stations (M_A and M_B) shall be carried out after heavy rain storm or when there is an overflow event from the reservoir, irrigation buffer lake or detention ponds/tanks. The heavy rain storm shall be defined when there is an amber/red/black rainstorm warning signal issued by the Hong Kong Observatory.

2.5.6 Aquatic fauna and integrity of stream buffer zone at Streams A, B and C were identified to monitor the potential land formation impact on terrestrial ecology especially stream courses. For coral monitoring, there were one control and three impact monitoring locations were identified to monitor the marine construction activities.

2.5.7 Watching Brief (archaeology) monitoring locations are identified at the cut areas of Holes 2, 11, 12, 14, 15 & 16.

2.5.8 The monitoring locations for air, water, ecology and watching brief (archaeology) are depicted in **Annex B**.

Monitoring Methodology and Calibration Details

2.5.9 All monitoring works were conducted and monitoring equipment was regularly calibrated in accordance with the EM&A Manual. Calibration records were shown in the monthly EM&A reports for July to September 2006.

Environmental Quality Performance Limits (Action and Limit Levels)

2.5.10 The environmental quality performance limits, i.e. Action and Limit Levels (AL Levels) were derived from the baseline monitoring results and make reference to EIA report and latest EPD monitoring data. If the measured environmental quality parameters exceed the AL Levels, the respective action plan would be implemented. The AL Levels for each environmental parameter are given in **Annex C**.

3. Monitoring Result & Site Audit

3.1 Air Quality

3.1.1 Graphical presentation of the trend of the monitoring results of 24-hour TSP is provided in **Annex D**. All measured 24-hour TSP in the reporting quarter was below the Action and Limit (AL) Levels.

3.2 Water Quality

3.2.1 Graphical presentations of the trends of the monitoring results of water quality are provided in **Annex D**. Sixteen action level and eleventh limit level exceedances were recorded for marine water quality during the reporting quarter. Nineteen action level and fifty three limit level exceedances were recorded for stream courses quality during the reporting quarter.

3.3 Ecology

3.3.1 Construction work was approached to the Stream B & C, the riparian vegetation of Stream B and C was in natural conditions similar to the condition during the Baseline Survey. For Stream A, rocks were washed from Stream A2 near Hole 17 and filled the downstream of Stream A within the buffer zone area after the several rainstorm events occurred in June 2006. No rectification work has been carried out during the reporting quarter.

3.3.2 Additional three month monitoring was carried out in April, May and June 2006 at Site B2, Site C and Control Site during the reporting quarter. No exceedance and incident report was recorded. Minor sedimentation on some corals was recorded. Damaged corals were repaired and recently deposit boulders were removed at the temporary baring point in mid-May 2006. The conditions of the tagged corals during the quarterly survey (September 2006) was compared with the conditions during the Baseline Survey. Only 48 tagged corals were recovered. These two missing corals (B59-B60) were probably removed by the wave actions during the adverse weather conditions such as typhoons between July to September 2006 this year. The partial mortality of few coral colonies was considered not a consequence due to the operation of the temporary barging point. No mortality, sedimentation and bleaching was recorded at Site C and Control Site for corals during the reporting quarter.

3.4 Landscape and Visual

3.4.1 The only landscape resource change during the site clearance work is the loss of scrubland. As the construction progress, more vegetation and shrubs will be cleared, which will be followed by planting works. Vegetation clearance work is being carried out at present. Tree protection is satisfactory. Stockpiles of cleared vegetation were found stored on site and require removal. The Contractor was reminded to rectify the mal-pruning practice of the transplanted trees and maintain all transplanted trees in good health condition with sufficient buffer zone protection and watering. In addition, the Contractor was also reminded to replant the dead hydroseeding grass (mainly due to fungi infection) on the bare slope area near Contractor's site office, Hole 1 and Hole 3.

3.5 Archaeology (Watching Brief)

3.5.1 Watching brief at Holes 11-12, 14-16 was resumed during the reporting quarter. No further excavation was carried out at Hole 2. The summary report will be available during the next reporting quarter.

3.6 Land Contamination

3.6.1 The Contaminated soil will be transferred from the cut area of Hole 18 (hotspot L3) to major fill area of Hole 17 for soil remediation. The full scale remediation work will be carried out at Hole 17 and Final Site Remediation Work (FSRR) will be prepared by the Contractor during the next reporting quarter.

4. Environmental Audit

4.1 Implementation Status of Environmental Mitigation Measures

4.1.1 Major construction works of the third golf course were (i) vegetation clearance at Hole 11, 12 and 16, (ii) major filling work at Holes 1 & 17, (iii) drainage system installation at Hole 7 was completed and Hole 5 was on-going, (iv) gravity drain from Lake 1D to existing reservoir was in progress, (v) rock breaking activities were carried out mainly at Holes 6, 10 and 18 and (vi) construction of the permanent bridge no.5 at the downstream of freshwater inland marsh. Sheet piles have been installed at both sides of bridge abutment.

4.1.2 The weather is approaching to dry season. The Contractor concentrates more on the dust suppression mitigation measures than the silty runoff impact to water sensitive receivers. According to the approved Temporary Drainage Management Plan, installation of temporary drainage is still required on site during the dry season. Silt fence was implemented along the site boundary (major component of the temporary drainage system) for most of the newly exposed areas once after vegetation clearance was completed. However, maintenance frequency of the silt fence was not satisfactory. Most of the formerly installed silt fence were collapsed and not installed properly and recorded during the site audit. The Contractor was reminded to rectify the situation to prevent silty runoff to the water sensitive areas. Potential heavy rain(s) could occur during the dry season.

4.1.3 The wheel washing facility provided on site was still not effective to mitigate the silty water discharge since the Aug and Sept 2006, silty runoff was observed from this area to the freshwater inland marsh for all site audits. The sewage treatment plant was started to operate at the end of May 2006. Discharge licence for the construction site was obtained from EPD on 12 September 2006.

4.1.4 For dust suppression, the Contractor was providing mainly at Hole 6 (with water sprayer) during rock breaking activities. The water source was mainly pumped from the downstream of the fresh water inland marsh which could dry up during the dry season. The Contractor has already successfully applied water supply from WSD one month ago and the water supply outlet is located mainly at Hole 18. The slope of the haul road to Hole 18 was very steep, water trucks were not able to drive up in order to fill up their water tanks. However, no diversion of the water source to other areas for dust suppression was done by the Contractor.

4.1.5 Dust suppression measures for loading/unloading activities, rough shaping and haul road (truck traffic) were insufficient. Only three watering trucks were provided on site for the dust suppression at haul road mainly. According to the site observation and air quality results, it demonstrated that the provided mitigation measures on site were insufficient for dust suppression. Heavy dust emissions were observed at the road between the existing administration buildings to the construction site which could highly affect the golfers when playing near to the practice green and staffs working near to those areas.

4.1.6 Hydroseeding was observed at part of stockpile near Hole 17, stockpile at Hole 18 was covered by tarpaulin but no mitigation measure provided for the stockpile at Hole 9. Insufficient watering to the hydroseeded areas led to poor growth to minimize the dust generation and silty runoff properly.

4.1.7 Vegetation stockpile, general refuse and construction waste stockpiles were temporary stored on site for long time without proper disposal. No chemical storage area was available on site since the start of this project. No mobile toilets were available on site at remote area to the site office.

4.1.8 No dredging work has been carried out near to the existing pier for the desalination plant pipelines.

4.1.9 Summary of implementation status is provided in **Annex E**.

4.2 Status of Environmental Licensing and Permitting

4.2.1 Valid environmental licenses and permits for the project during the reporting quarter are summarised in **Annex F**.

4.3 Advice on Solid and Liquid Waste Management Status

4.3.1 The solid waste generated from the construction site was mainly dry vegetation after clearance and general refuse. Disposal record submitted by the Contractor in Sept 2006 indicated that disposal was only started during Sept 2006 with small quantity since the start of this project in January 2006. Construction waste stockpile (Hole 2 mainly), general refuse collection point (Hole 2 mainly) and vegetation stockpiles (Holes 1 and 4) were not disposed properly and frequently for months. The Contractor was repeatedly reminded to dispose the vegetation and construction waste as soon as possible and agreed to speed up the disposal in Nov 2006.

5. Non-compliance (Exceedances) of the Environmental Quality Performance Limits (Action and Limit Levels)

5.1 Air Quality

5.1.1 No non-compliance of 24-hr TSP was recorded at air monitoring location GCA B1 during the reporting quarter.

5.2 Water Quality

5.2.1 Rainstorm events occurred on 8th July, 16th July, 27th July, 10th Aug, 19th Aug, 9th Sept and 19th Aug 2006 during the reporting quarter. The marine water exceedances were summarised in **Table 5.2-2.**

Table 5.2-1 Marine Water Exceedance Summary Jul - Sept 2006

Monitoring Station	Exceedance Level	Date	Parameters	Project-related
KLW	Action Level	8th Jul 06	SS	No
KLW	Action Level	16th Jul 06	SS	No
KLW	Limit Level	23rd Aug 06	SS	No
KLW	Action Level	4th Sept 06	SS	No
KLW	Limit Level	12th Sept 06	SS	No
KLW	Action Level	14th Sept 06	SS	No
KS	Action Level	23rd Aug 06	SS	No
KS	Action Level	12th Sept 06	SS	No
KS	Action Level	14th Sept 06	SS	No
M_BP	Action Level	27th Jul 06	SS, Turbidity	Yes
M_BP	Limit Level	4th Sept 06	SS, Turbidity	Yes
M_Marsh	Limit Level	16th Jul 06	SS, Turbidity	Yes
M_Marsh	Limit Level	27th Jul 06	SS, Turbidity	Yes
M_Marsh	Limit Level	9th Sept 06	SS	Yes
M_Marsh	Limit Level	12th Sept 06	SS	Yes
M_Marsh	Action Level	14th Sept 06	SS, Turbidity	Yes
TTC	Action Level	8th Jul 06	SS	No
TTC	Action Level	16th Jul 06	SS	No
TTC	Limit Level	4th Sept 06	SS	No
TTC	Limit Level	9th Sept 06	SS	No
TTC	Action Level	12th Sept 06	SS	No
TTC	Limit Level	14th Sept 06	SS	No

Freshwater

5.2.1 The freshwater water exceedances were summarised in **Table 5.2-2.**

Table 5.2-2 Freshwater Exceedance Summary Jul - Sept 2006

Monitoring Station	Exceedance Level	Date	Parameters	Project-related
F_DA	Limit Level	30th Jun 06	Turbidity	Yes
F_DA	Action Level	30th Jun 06	SS	Yes
F_DA	Limit Level	5th Jul 06	Turbidity	Yes
F_DA	Action Level	5th Jul 06	SS	Yes
F_DA	Limit Level	8th Jul 06	SS, Turbidity	Yes
F_DA	Limit Level	16th Jul 06	Turbidity	Yes
F_DA	Action Level	18th Jul 06	Turbidity	Yes

Monitoring Station	Exceedance Level	Date	Parameters	Project-related
F_DA	Limit Level	27th Jul 2006	SS, Turbidity	Yes
F_DA	Action Level	31st Jul 2006	SS	Yes
F_DA	Limit Level	31st Jul 2006	Turbidity	Yes
F_DA	Action Level	7th Aug 2006	Turbidity	Yes
F_DA	Action Level	10th Aug 2006	Turbidity	Yes
F_DA	Action Level	19th Aug 2006	SS	Yes
F_DA	Action Level	19th Aug 2006	Turbidity	Yes
F_DA	Limit Level	23rd Aug 2006	SS, Turbidity	Yes
F_DA	Limit Level	14th Sept 06	Turbidity	Yes
F_DA	Action Level	14th Sept 06	SS	Yes
F_DB	Action Level	16th Jul 06	Turbidity	No
F_DB	Limit Level	27th Jul 2006	SS, Turbidity	No
F_DB	Limit Level	31st Jul 2006	SS, Turbidity	No
F_DB	Action Level	9th Sept 06	Turbidity	Yes
F_DB	Action Level	14th Sept 06	Turbidity	Yes
F_DC	Limit Level	9th Sept 06	Turbidity	Yes
F_DC	Limit Level	12th Sept 06	Turbidity	Yes
F_DC	Limit Level	14th Sept 06	Turbidity	Yes
F_DC	Limit Level	18th Sept 06	Turbidity	Yes
F_DC	Action Level	9th Sept 06	SS	Yes
F_DC	Action Level	12th Sept 06	SS	Yes
F_DC	Action Level	14th Sept 06	SS	Yes
F_DC	Action Level	18th Sept 06	SS	Yes
F_Inland M	Limit Level	30th Jun 06	SS, Turbidity	Yes
F_Inland M	Limit Level	5th Jul 06	SS, Turbidity	Yes
F_Inland M	Limit Level	8th Jul 06	SS, Turbidity	Yes
F_Inland M	Limit Level	12th Jul 06	SS, Turbidity	Yes
F_Inland M	Limit Level	16th Jul 06	SS, Turbidity	Yes
F_Inland M	Limit Level	18th Jul 06	SS, Turbidity	Yes
F_Inland M	Limit Level	24th Jul 06	SS, Turbidity	Yes
F_Inland M	Limit Level	27th Jul 2006	SS, Turbidity	Yes
F_Inland M	Limit Level	31st Jul 2006	SS, Turbidity	Yes
F_Inland M	Limit Level	7th Aug 2006	SS, Turbidity	Yes
F_Inland M	Limit Level	10th Aug 2006	SS, Turbidity	Yes
F_Inland M	Action Level	14th Aug 2006	SS	Yes
F_Inland M	Limit Level	14th Aug 2006	Turbidity	Yes
F_Inland M	Limit Level	19th Aug 2006	SS, Turbidity	Yes
F_Inland M	Limit Level	23rd Aug 2006	SS, Turbidity	Yes
F_Inland M	Limit Level	31st Aug 06	Turbidity	Yes
F_Inland M	Limit Level	4th Sept 06	Turbidity	Yes
F_Inland M	Limit Level	9th Sept 06	Turbidity	Yes
F_Inland M	Limit Level	12th Sept 06	Turbidity	Yes
F_Inland M	Limit Level	14th Sept 06	Turbidity	Yes
F_Inland M	Limit Level	18th Sept 06	Turbidity	Yes
F_Inland M	Action Level	31st Aug 06	SS	Yes
F_Inland M	Action Level	4th Sept 06	SS	Yes
F_Inland M	Action Level	9th Sept 06	SS	Yes
F_Inland M	Limit Level	12th Sept 06	SS	Yes
F_Inland M	Limit Level	14th Sept 06	SS	Yes
F_Inland M	Limit Level	18th Sept 06	SS	Yes

5.2.2 The exceedances recorded at Streams A, B & C and freshwater inland marsh were mainly attributed to insufficient temporary drainage system during reporting quarter. The non-compliance was attributed to the works and therefore further action was required.

5.2.3 The exceedances at M_Marsh and M_BP were considered project-related because silty runoff was confirmed by site observation during the sampling. The exceedances at TTC, KLW and KS were considered natural variation of the marine water and considered not project-related.

5.2.4 The Contractor was reminded to improve and provide sufficient temporary drainage system and treatment facilities on site before water discharge to marine and stream water.

5.3 Ecology

5.4.1 The Contractor was reminded to remove the boulders within the stream buffer zone area at the downstream end of Stream A by hand. No equipment was allowed entering to the stream buffer zone area to rectify the situation.

5.4.2 No exceedance or incident during the additional monitoring period at Site B2, Site C and Control Site during the quarterly coral monitoring (September 2006).

5.4 Summary of Environmental Complaint

5.4.1 One environmental complaint was received on the dust generation from the construction site during the reporting quarter. Site investigation report was submitted to EPD. The Contractor was reminded to provide sufficient dust suppression measures on site to minimize the nuisance to the golfers.

5.5 Summary of Environmental Summons

5.5.1 There was no notification of summons with respect to environmental issues registered in this reporting quarter.

6. Recommendations and Conclusions

6.1.1 This Quarterly Environmental Monitoring and Audit (EM&A) Report presents the EM&A works undertaken during the period from July to September 2006 in accordance with EM&A Manual and the requirement under EP-224/2005.

6.1.2 No exceedance of the Action Level was recorded for 24-hour TSP.

6.1.3 Water quality exceedances, suspended solids and turbidity, at marine and stream monitoring locations were mainly due to the heavy rainstorm events, insufficient temporary drainage system implemented and treatment facilities provided on site.

6.1.4 The Contractor was reminded to rectify the Stream A (rock fill at downstream portion) as soon as possible without using any equipment/machinery within the buffer zone. For Streams B & C, the riparian vegetation was in natural conditions similar to the condition during the Baseline Survey.

6.1.5 No exceedance or incident was recorded at the Site B2 during the quarterly coral monitoring in Sept 2006. For Site C and the Control Site, the tagged corals still remained similar conditions as during the Baseline Survey. No mortality, sedimentation or bleaching was found on the tagged corals in these two sites.

6.1.6 Tree protection is satisfactory. Stockpiles of cleared vegetation were found stored on site and required removal. The Contractor was reminded to proper dispose the vegetation stockpiles and construction waste. The Contractor was also reminded to rectify the mal-pruning practice of the transplanted trees and maintain all transplanted trees in good health condition in particular provision of tree buffer zone and sufficient watering. In addition, the Contractor was also reminded to replant the dead hydroseeding grass (mainly due to fungi infection) on the bare slope area near Contractor's site office, Hole 1 and Hole 3.

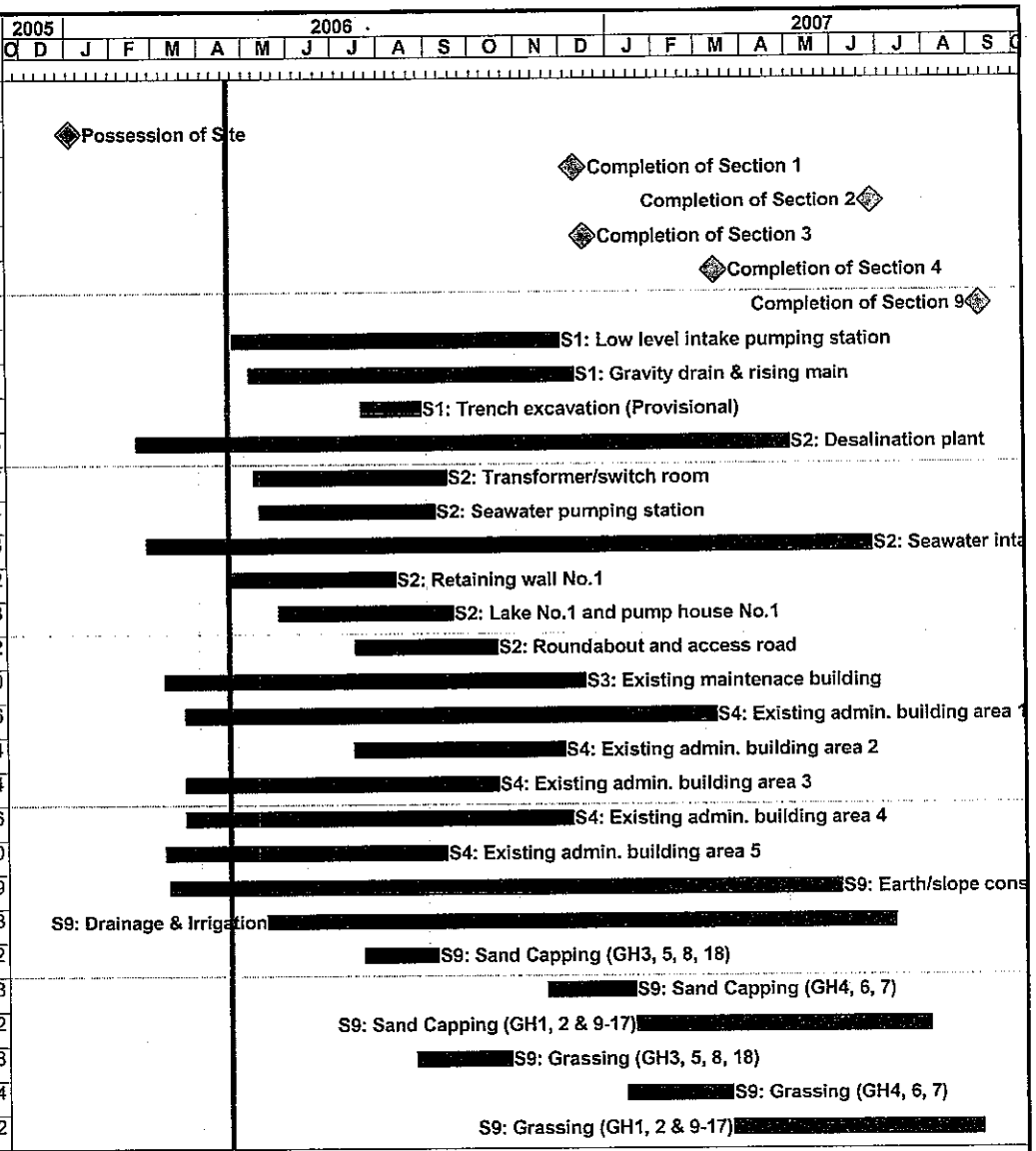
6.1.7 Environmental non-compliance on silty water discharge (mainly from the freshwater inland marsh) was recorded during the site audit. One environmental complaint and no environmental summons/prosecutions were received during the reporting period since the commencement of the Project.

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

Annex A
Tentative Construction Programme

SUMMARY PROGRAMME

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
SU00100	Possession of Site	0	03/01/06A		
SU00110	Completion of Section 1	0		09/12/06	-67
SU00120	Completion of Section 2	0		26/06/07	-266
SU00130	Completion of Section 3	0		16/12/06	-11
SU00140	Completion of Section 4	0		13/03/07	-7
SU00150	Completion of Section 9	0		07/09/07	-37
SU00160	S1: Low level intake pumping station	183*	24/04/06	30/11/06	-56
SU00170	S1: Gravity drain & rising main	182*	06/05/06	09/12/06	-56
SU00180	S1: Trench excavation (Provisional)	35*	20/07/06	29/08/06	29
SU00190	S2: Desalination plant	354*	18/02/06A	02/05/07	-168
SU00200	S2: Transformer/switch room	111*	08/05/06	15/09/06	7
SU00210	S2: Seawater pumping station	100*	12/05/06	07/09/06	-4
SU00220	S2: Seawater intake & dischange pipe	394*	24/02/06A	26/06/07	-213
SU00230	S2: Retaining wall No.1	93*	21/04/06	11/08/06	-12
SU00240	S2: Lake No.1 and pump house No.1	99*	24/05/06	18/09/06	-13
SU00250	S2: Roundabout and access road	80*	15/07/06	18/10/06	-12
SU00260	S3: Existing maintenace building	234*	07/03/06A	16/12/06	-10
SU00270	S4: Existing admin. building area 1	290*	21/03/06A	13/03/07	-6
SU00280	S4: Existing admin. building area 2	119*	14/07/06	02/12/06	14
SU00290	S4: Existing admin. building area 3	172*	21/03/06A	18/10/06	14
SU00300	S4: Existing admin. building area 4	214*	21/03/06A	07/12/06	-6
SU00310	S4: Existing admin. building area 5	156*	07/03/06A	13/09/06	0
SU00330	S9: Earth/slope construction works	364*	10/03/06A	05/06/07	-29
SU00350	S9: Drainage & Irrigation	343*	16/05/06	11/07/07	-23
SU00360	S9: Sand Capping (GH3, 5, 8, 18)	43*	20/07/06	07/09/06	42
SU00370	S9: Sand Capping (GH4, 6, 7)	48*	20/11/06	17/01/07	-23
SU00380	S9: Sand Capping (GH1, 2 & 9-17)	159*	18/01/07	03/08/07	-32
SU00390	S9: Grassing (GH3, 5, 8, 18)	54*	23/08/06	26/10/06	88
SU00400	S9: Grassing (GH4, 6, 7)	57*	12/01/07	22/03/07	4
SU00410	S9: Grassing (GH1, 2 & 9-17)	137*	23/03/07	07/09/07	-32



Start Date	28/12/05
Finish Date	07/09/07
Data Date	21/04/06
Run Date	02/05/06 16:38

?Primavera Systems, Inc.

Summary Bar
Progress Bar

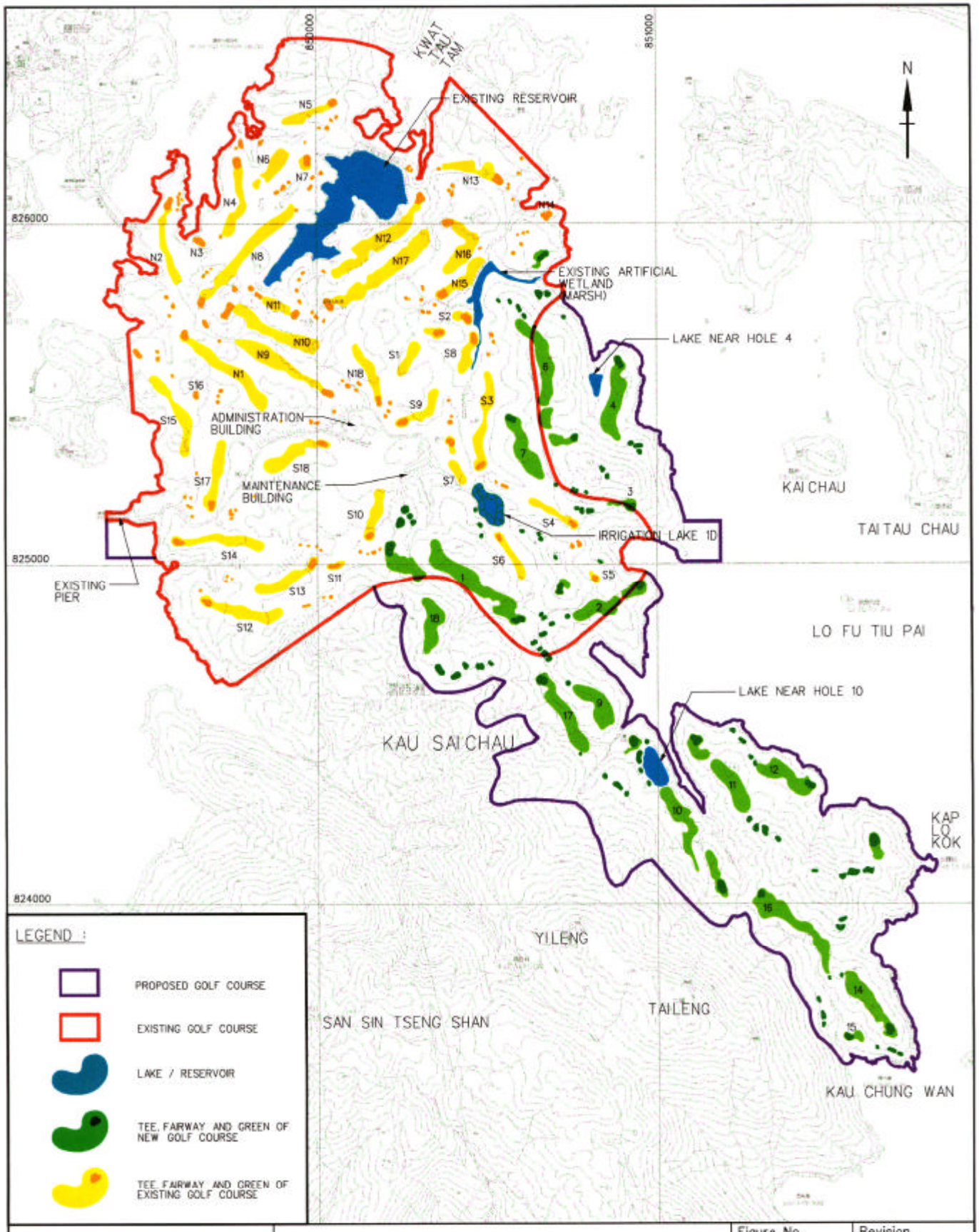
KS04

Sheet 1 of 1

China Harbour Engineering Co.
Third Golf Course at Kau Sai Chau
Summary Programme

Date	Revision	Checked	Approved
28/12/05	4th Final for Submission	Tim	
01/03/06	Ver 5th (KST5)	Tim	

Annex B
Monitoring Locations



The Hong Kong Jockey Club

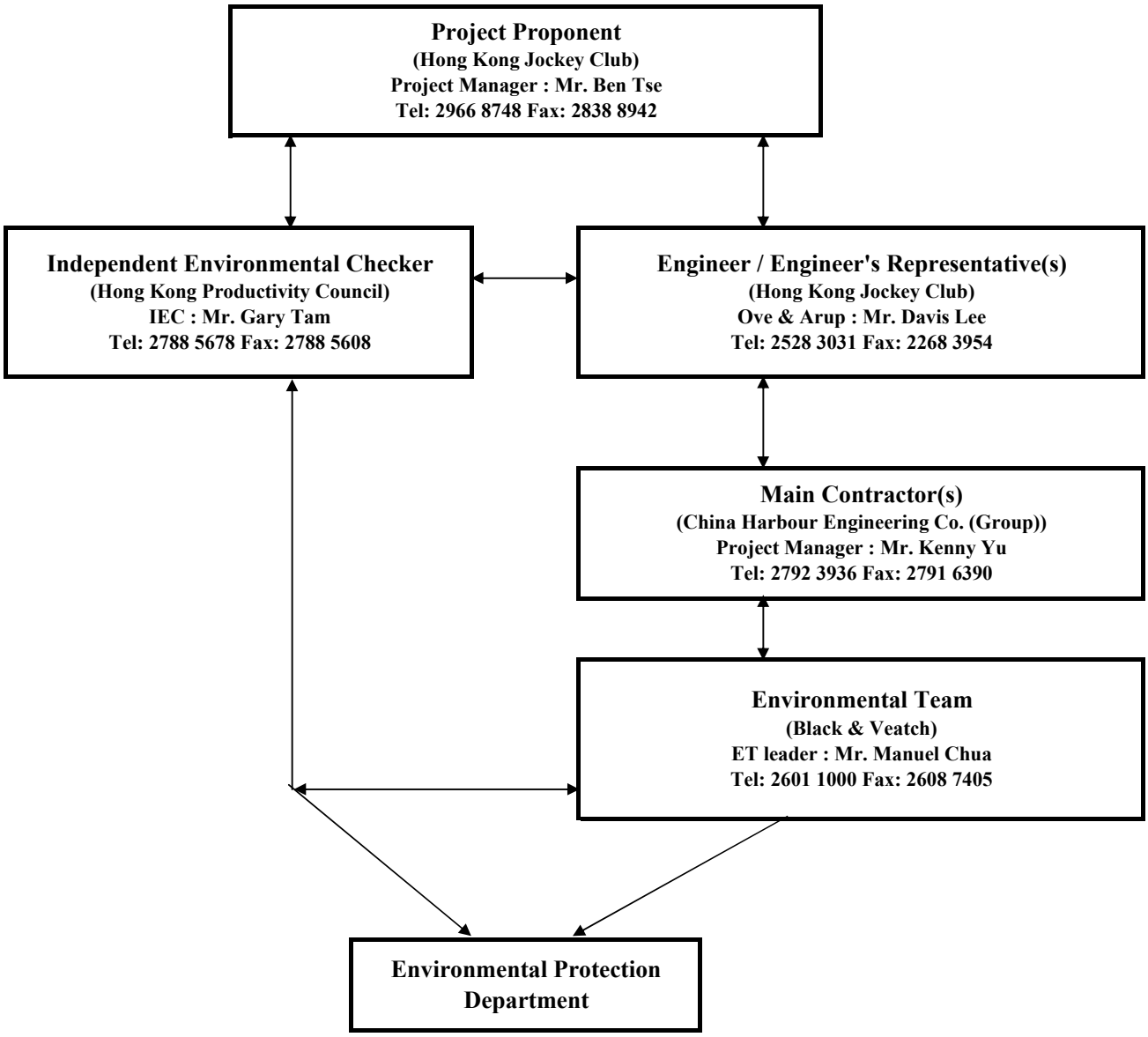
BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

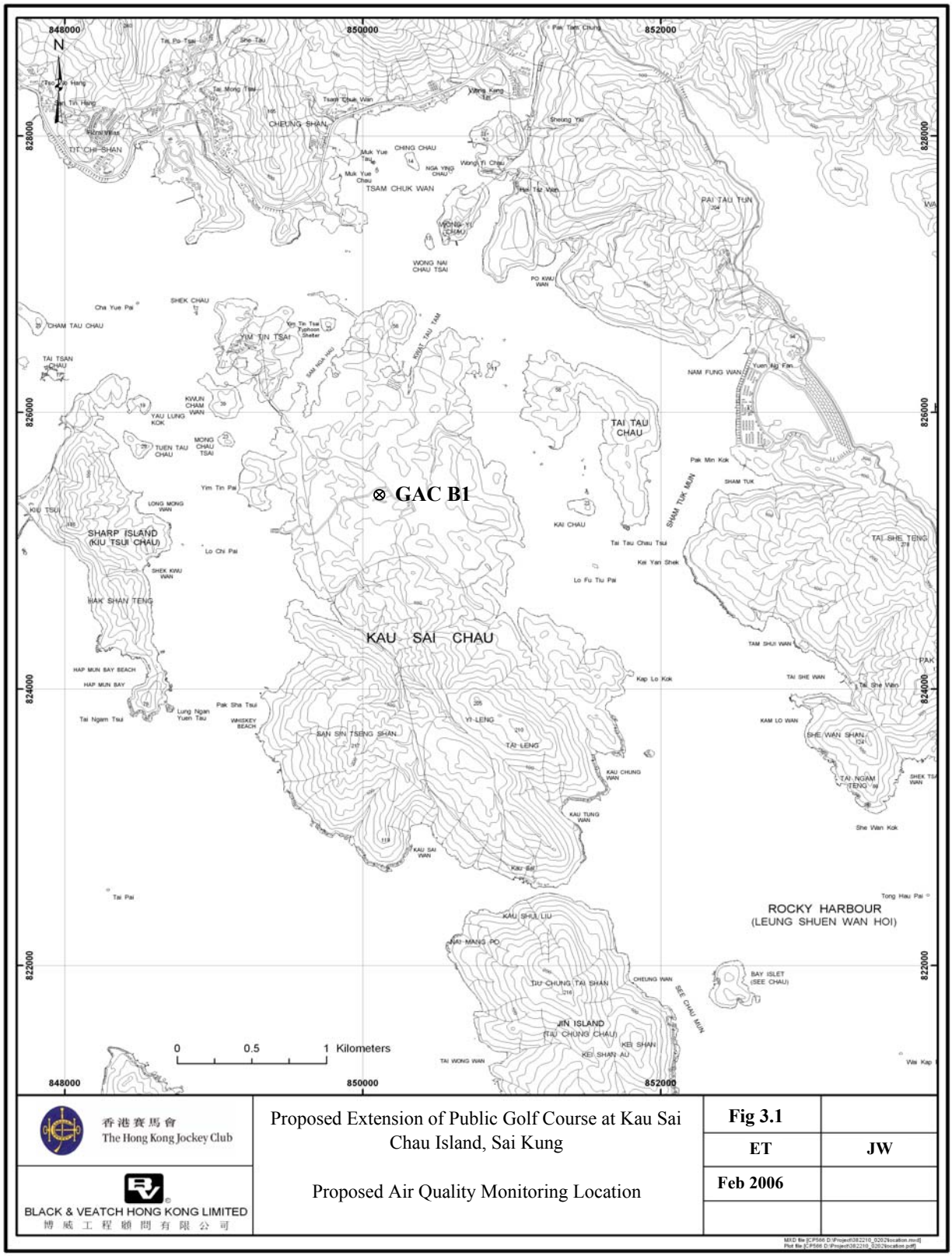
PROPOSED EXTENSION OF PUBLIC GOLF COURSE AT KAU SAI CHAU, SAI KUNG

PROPOSED 18-HOLE THIRD GOLF COURSE (MASTER LAYOUT PLAN)

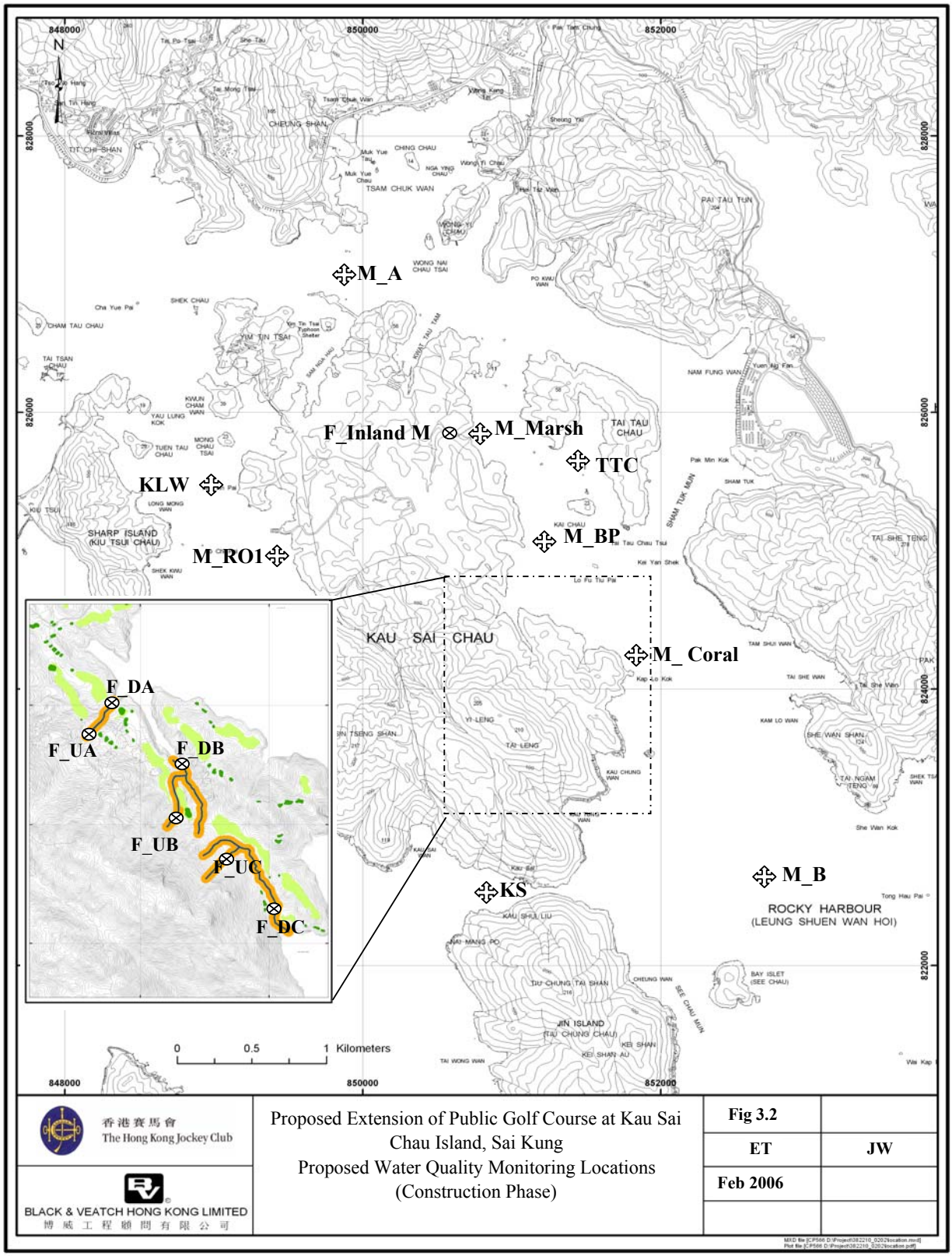
Figure No.	Revision
2.1	-
Reference	File Name
-	3822100201-2.1.DGN
Prepared	Checked
ET	JW
Date	Scale
MAY 2005	1 : 15000 (A4)

Figure 1.2
Project Organisation and Lines of Communication

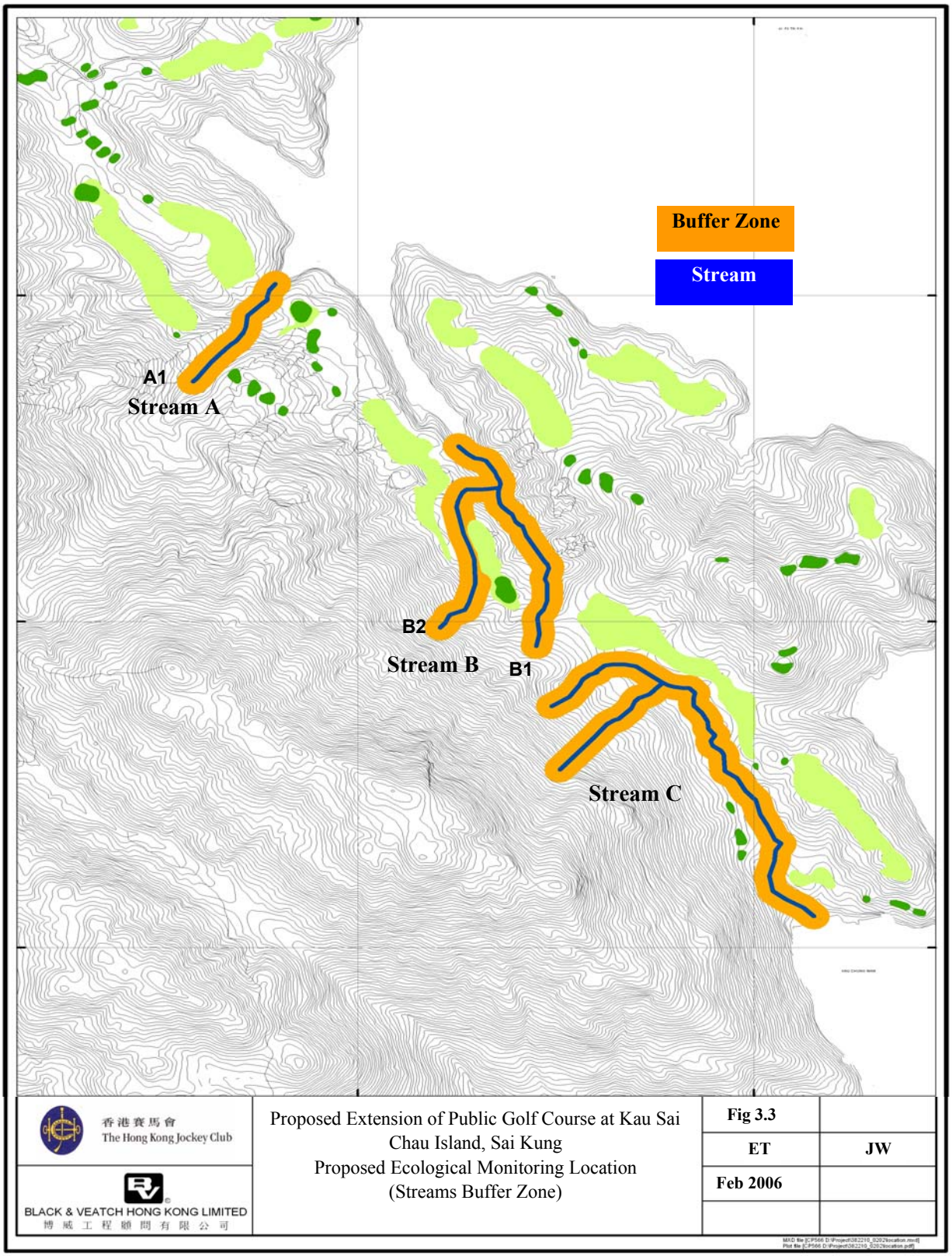




香港賽馬會 The Hong Kong Jockey Club	Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung	Fig 3.1	
		ET	JW
BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司	Proposed Air Quality Monitoring Location	Feb 2006	



香港賽馬會 The Hong Kong Jockey Club	Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung Proposed Water Quality Monitoring Locations (Construction Phase)	Fig 3.2	
		ET	JW
BLACK & VEATCH HONG KONG LIMITED 博威工程顧問有限公司		Feb 2006	

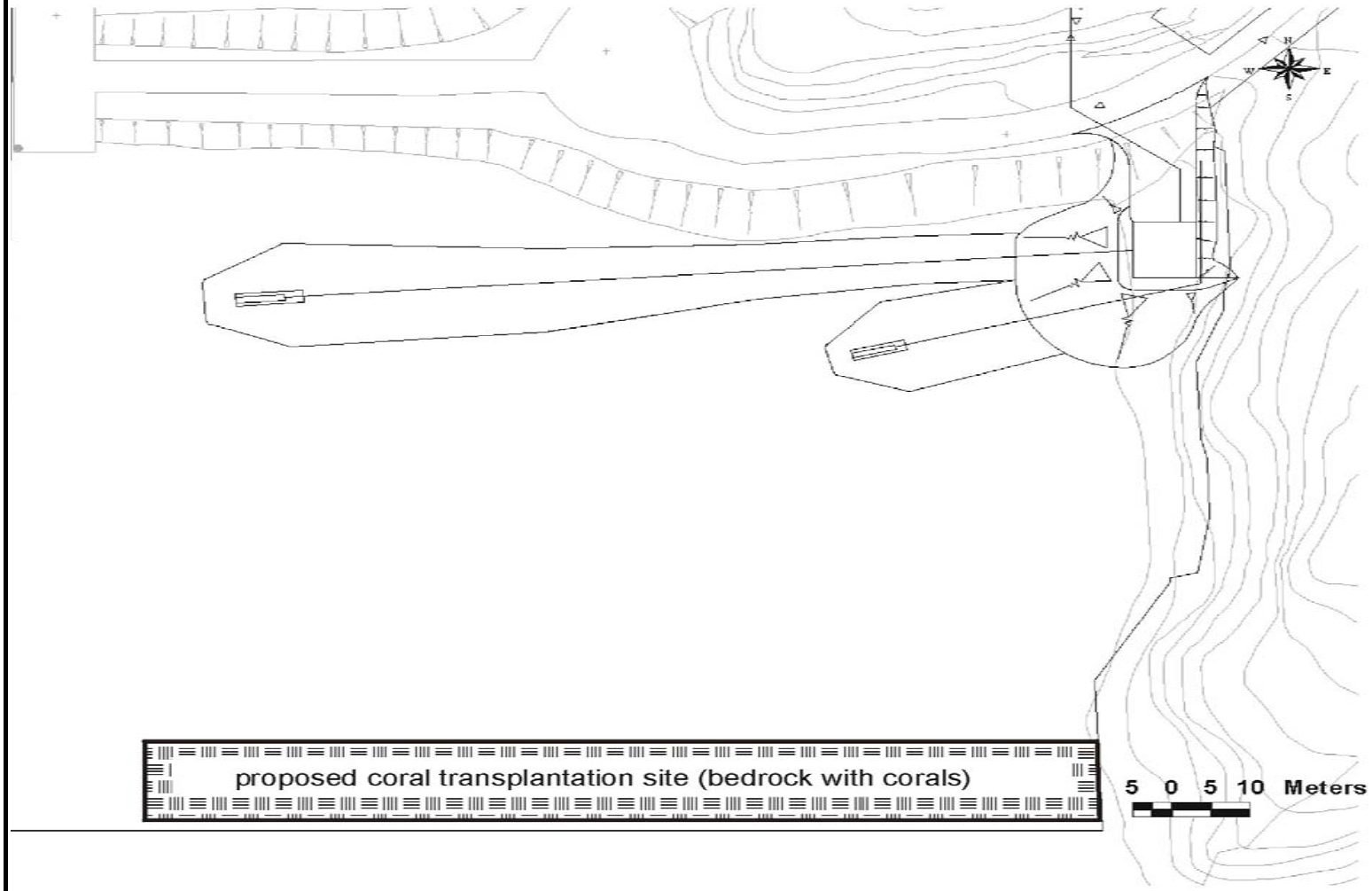


香港賽馬會
The Hong Kong Jockey Club

BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司

Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung
Proposed Ecological Monitoring Location
(Streams Buffer Zone)

Fig 3.3	
ET	JW
Feb 2006	



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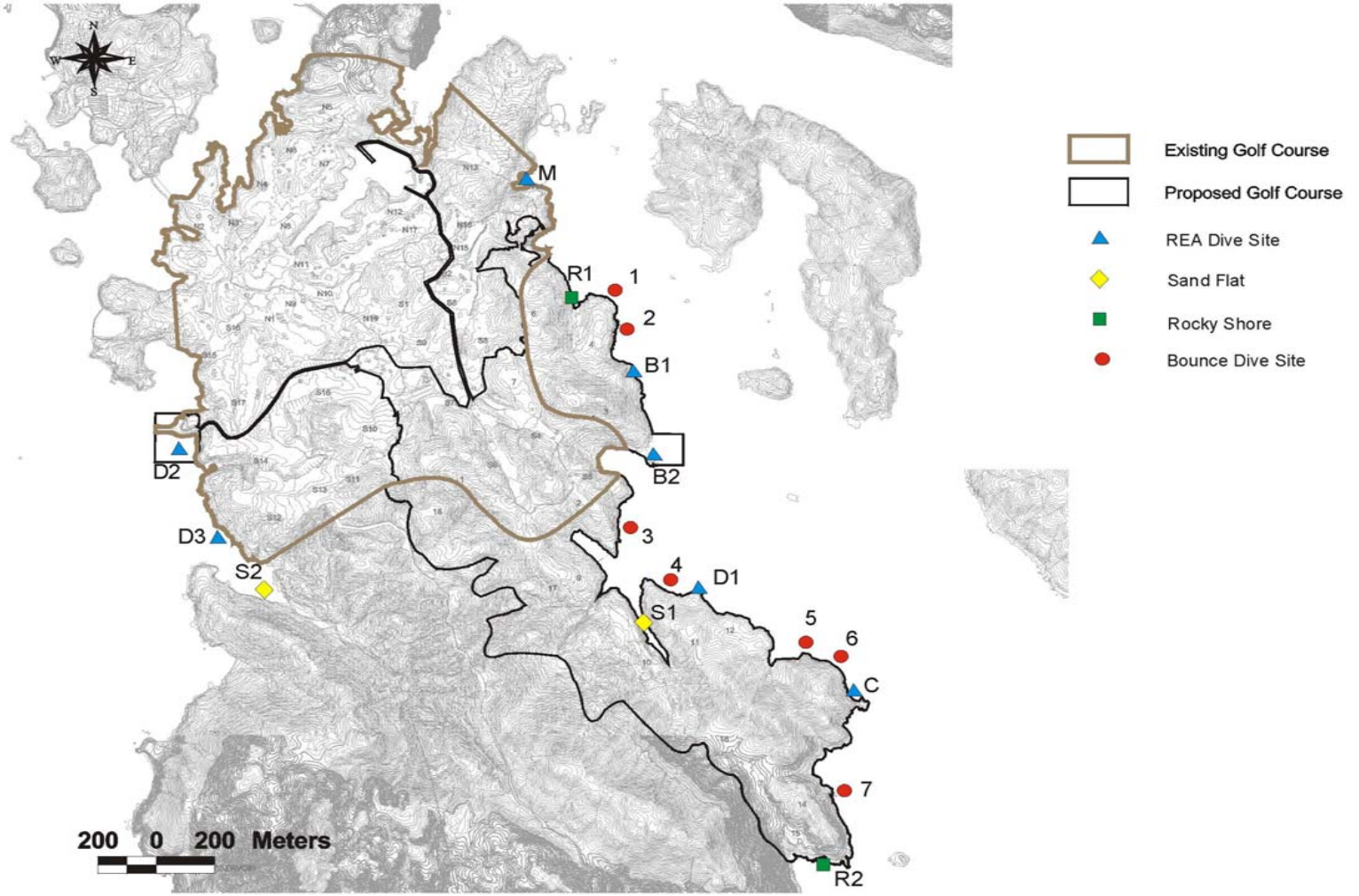
Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung

Location of proposed coral transplantation site (Bedrock with corals)

Fig 3.4	
Prepared	**Checked**
ET	JW
Date	
Feb-06	



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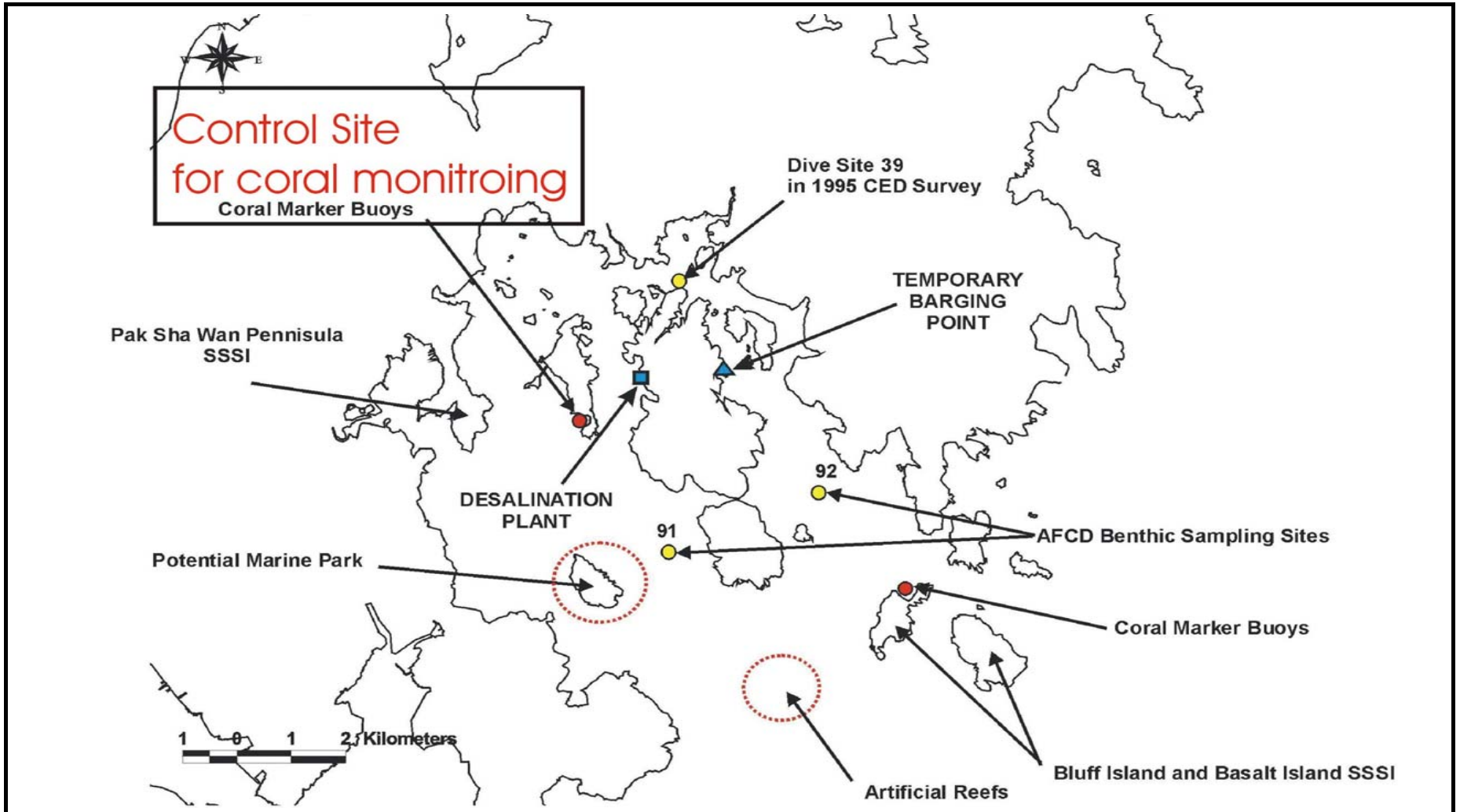
Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung

Location of coral and seagrass monitoring (Sites D2, D3 and C)

Fig 3.5

Prepared	Checked
ET	JW

Date
Feb-06



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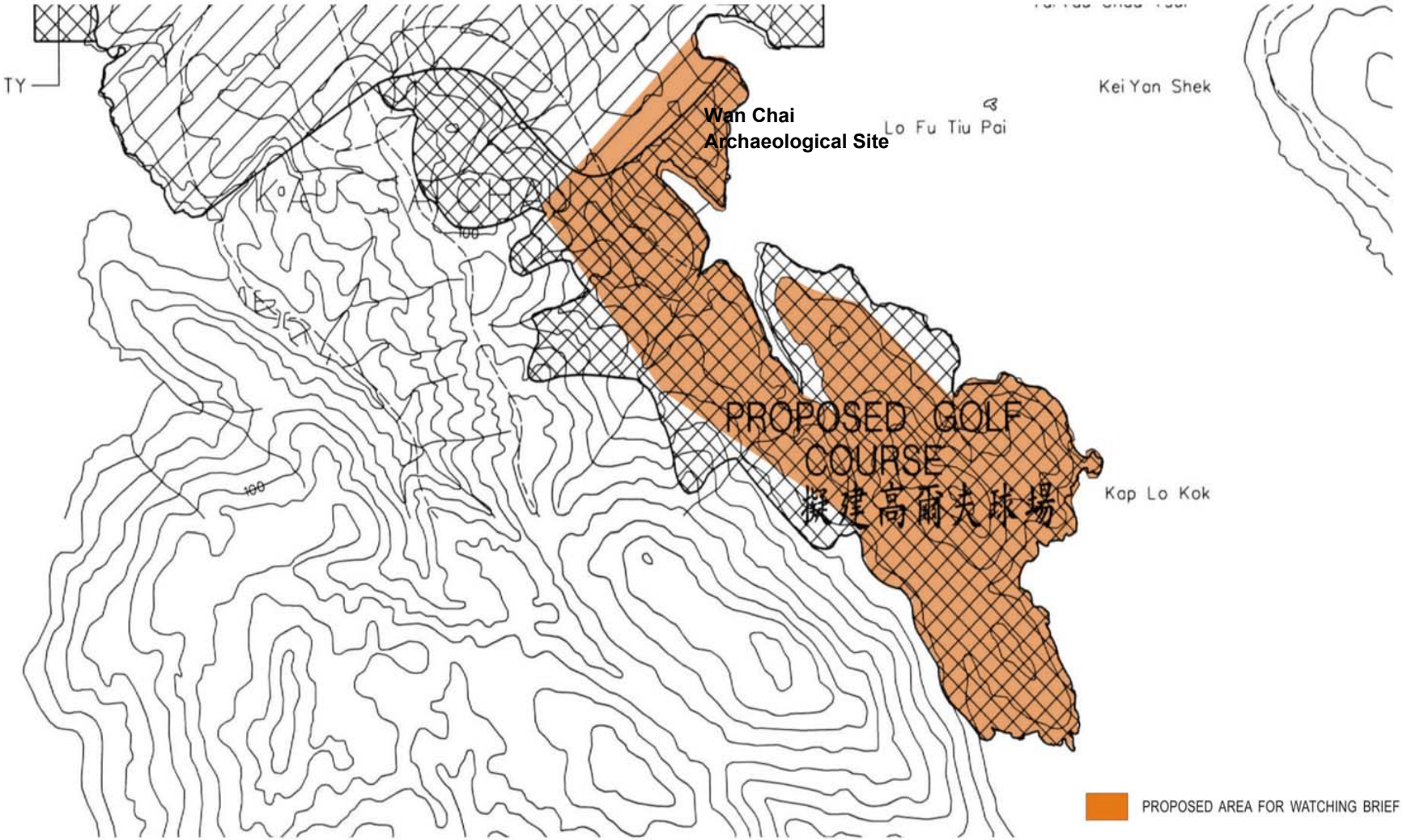
Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung

Control Site for Natural Coral Monitoring

Fig 3.6

Prepared	Checked
ET	JW

Date: Feb-06



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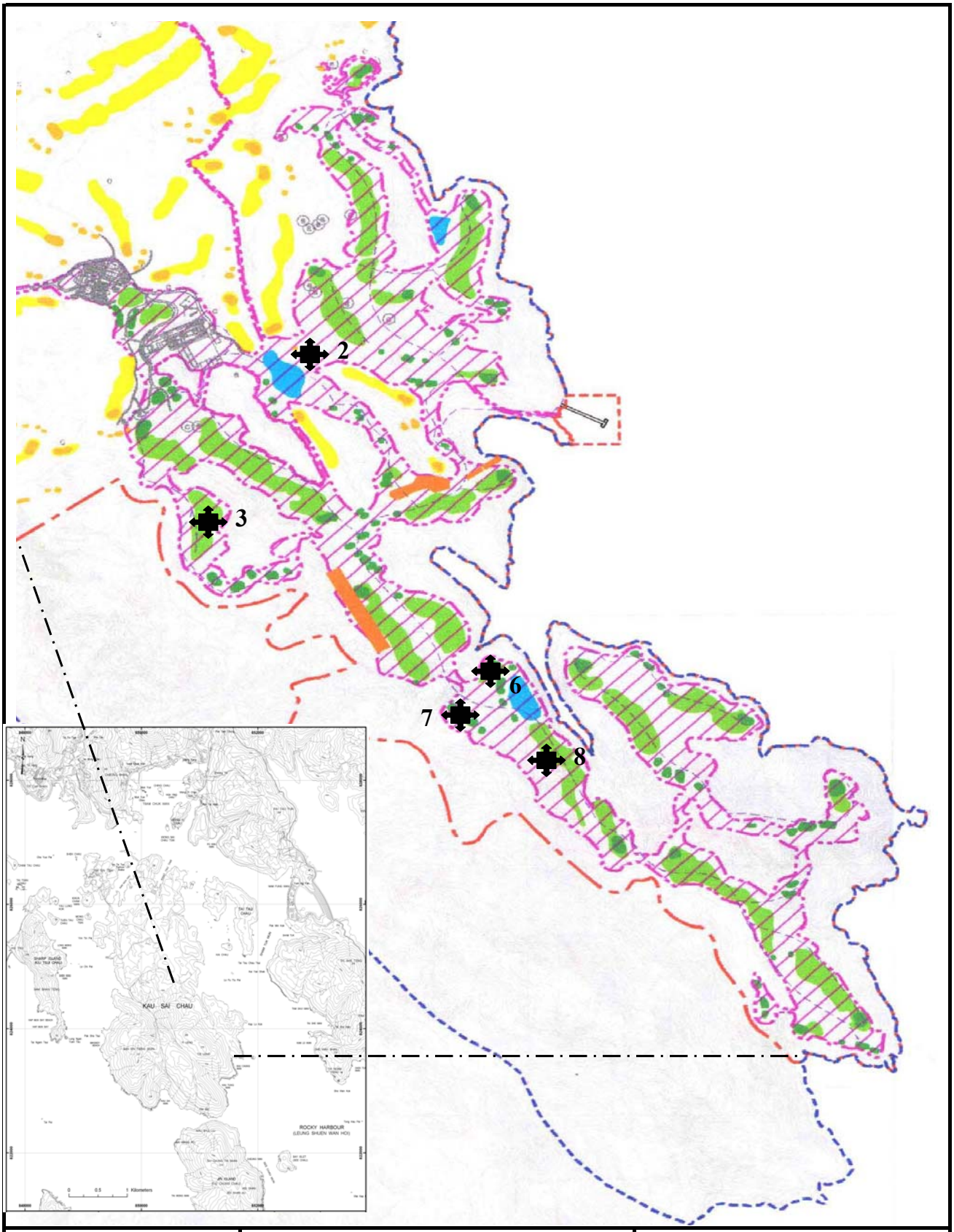
博威工程顧問有限公司

Archaeological Assessments
A2, 1/F, Po Shan Mansions,
14 -16 Po Shan Rd., HK.
Tel: (852) 2521 4718

Hong Kong Jockey Club
Kau Sai Chau Public Golf Course New Development

Figure 3.7
Map Showing the Extent of the Area to monitored under the Watching Brief



香港賽馬會
The Hong Kong Jockey Club

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博威工程顧問有限公司

Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung

Sampling location for land contamination

Fig 3.8

Prepared	Checked
ET	JW

Date
Feb-06

Annex C
Event Action Plan

Event / Action Plan for Air Quality

EVENT	ACTION			
	ET	IC(E)	Engineer	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IC(E) and Engineer; 3. Repeat measurement to confirm finding; 4. Increase to daily monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IC(E) and Engineer; 3. Advise Engineer on effectiveness of proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase to daily monitoring; 6. Discuss with IC(E) and Contractor remedial actions required; 7. If exceedance continues, arrange meeting with IC(E) and Engineer; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor possible remedial measures; 4. Advise ET on the effectiveness of proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm in writing receipt of notification of exceedance; 2. Notify Contractor; 3. Supervise proper implementation of remedial measures.	1. Submit proposals for remedial measures to Engineer within three working days of notification; 2. Implement agreed proposals; 3. Amend proposal if appropriate.
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate causes of exceedance and propose remedial measures; 2. Inform IC(E), Engineer, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase to daily monitoring; 5. Assess effectiveness of Contractor's remedial actions	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor possible remedial measures; 4. Advise Engineer on effectiveness of proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm in writing receipt of notification of exceedance; 2. Notify Contractor; 3. Supervise proper implementation of remedial measures.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E) within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposals if appropriate.

EVENT	ACTION			
	ET	IC(E)	Engineer	CONTRACTOR
	and keep IC(E), EPD and Engineer informed of results.			
2 Exceedance for two or more consecutive samples	1. Notify IC(E), Engineer, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase to daily monitoring; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation measures to be implemented; 6. Arrange meeting with IC(E) and Engineer to discuss remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and Engineer informed of results; 8. If exceedance stops, cease additional monitoring.	Discuss amongst Engineer, ET, and Contractor the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness, and advise Engineer accordingly; Supervise implementation of remedial measures.	Confirm receipt of notification of exceedance in writing; Notify Contractor; In consultation with the IC(E), agree with the Contractor the remedial measures to be implemented; Supervise proper implementation of remedial measures; If exceedance continues, consider what portion of the works is responsible and instruct the Contractor to stop that portion of work until exceedance has abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E) within three working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as instructed by Engineer until the exceedance is abated.

Event and Action Plan for Water Quality

Event	ET Leader	IC(E)	Engineer	Contractor
ACTION LEVEL				
Action level being exceeded by one sampling day	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E) and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IC(E) and Contractor; Repeat measurement on next day of exceedance.	Discuss mitigation measures with ET and Contractor ; Review proposals on mitigation measures submitted by Contractor and advise the Engineer accordingly; Assess effectiveness of implemented mitigation measures.	Discuss proposed mitigation measures with IC(E); Make agreement on mitigation measures to be implemented. Assess effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes in working methods; Discuss with ET and IC(E) and propose mitigation measures to IC(E) and Engineer; Implement agreed mitigation measures.
Action level being exceeded by more than two consecutive sampling days	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E) and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IC(E) and Contractor; Ensure mitigation measures are implemented; Prepare to increase to daily monitoring; Repeat measurement on next day of exceedance.	Discuss mitigation measures with ET and Contractor ; Review proposals on mitigation measures submitted by Contractor and advise the Engineer accordingly; Assess effectiveness of implemented mitigation measures.	Discuss the proposed mitigation measures with IC(E); Make agreement on mitigation measures to be implemented; Assess effectiveness of implemented mitigation measures.	Inform Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes in working methods; Discuss with ET and IC(E) and propose mitigation measures to IC(E) and Engineer within three working days; Implement agreed mitigation measures.
LIMIT LEVEL				
Limit level being exceeded by one sampling day	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E) Contractor and EPD; Check monitoring data, all plant, equipment	Discuss mitigation measures with ET and Contractor; Review proposals on mitigation measures submitted by Contractor and advise the Engineer accordingly; Assess effectiveness of implemented	Discuss proposed mitigation measures with IC(E), ET and Contractor; Request Contractor to critically review the working methods; Make agreement on mitigation measures to be implemented;	Inform Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes in working methods;

Event	ET Leader	IC(E)	Engineer	Contractor
	and Contractor's working methods; Discuss mitigation measures with IC(E), Engineer and Contractor; Ensure mitigation measures are implemented; Increase to daily monitoring until no exceedance of Limit level.	mitigation measures.	Assess effectiveness of implemented mitigation measures.	Discuss with ET, IC(E) and Engineer and propose mitigation measures to IC(E) and Engineer within three working days; Implement agreed mitigation measures.
Limit level being exceeded by more than two consecutive sampling days	Repeat *in situ* measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IC(E), Contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IC(E), Engineer and Contractor; Ensure mitigation measures are implemented; Increase to daily monitoring until no exceedance of Limit level for two consecutive days.	Discuss mitigation measures with ET and Contractor; Review proposals on mitigation measures submitted by Contractor and advise Engineer accordingly; Assess effectiveness of implemented mitigation measures.	Discuss proposed mitigation measures with IC(E), ET and Contractor; Request Contractor to critically review working methods; Make agreement on mitigation measures to be implemented; Assess effectiveness of implemented mitigation measures; Consider and if necessary instruct Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.	Inform Engineer and confirm in writing notification of the non-compliance; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IC(E) and Engineer and propose mitigation measures to IC(E) and Engineer within three working days; Implement agreed mitigation measures; As directed by the Engineer, slow down or stop all or part of the construction activities until no exceedance of Limit level.

Action and Limit level and Event Action Plan for natural corals monitoring

Parameters	Action Level	Limit Level
Sedimentation	a 15% increase in the percentage of sedimentation on the hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites	a 25% increase in the percentage of sedimentation on the hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites
Bleaching	a 15% increase in the percentage of bleaching of hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites	a 25% increase in the percentage of bleaching of hard corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites
Mortality	a 15% increase in the percentage of partial mortality of corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites	a 25% increase in the percentage of partial mortality of corals occurs at more than 20% of the tagged coral colonies at one or more monitoring sites

Action	Action Level	Limit Level
Construction phase	If the Action Level is exceeded the ET Leader should inform all parties (Contractor, Project Proponent, EPD, AFCD and IEC). The data from the water quality monitoring should also be reviewed. If the water quality monitoring shows no attributable effects of the installation works, then the Action Level is not triggered. If the water quality data indicate exceedances (for SS and/or turbidity) the ET Leader should discuss with the Contractor the most appropriate method of reducing suspended solids during dredging (e.g. reduce the rate of dredging), and/or control sedimentation during earth works (e.g. check the intactness and effectiveness of the temporary drainage system and stream buffer zone). This mitigated method should then be enacted on the next working day.	If the Limit Level is exceeded the ET Leader should inform all parties (Contractor, Project Proponent, EPD, AFCD and IEC) immediately. Should the Limit Level be exceeded, the contractor should stop dredging and/or earth works immediately and work out the solution according to the requirements of EPD and AFCD. The ET Leader should inform the Contractor to suspend dredging and/or earth works until an effective solution is identified. Once the solution has been identified and agreed with all parties dredging and/or earth works may commence
Operation phase	If the Action Level is exceeded the ET Leader should inform Golf Course Operator, EPD, and AFCD. The data from the water quality monitoring should also be reviewed. If the water quality monitoring shows no attributable effects of the installation works, then the Action Level is not triggered. If the water quality data indicate exceedances (salinity and/or pesticides) the ET Leader should discuss with the Golf Course Operator the most appropriate method of reducing salinity (e.g. reduce the daily operation time of the desalination plant), and/or control chemicals from runoff (e.g. reduce the frequency and quantity of chemical applied, check the intactness and effectiveness of the closed drainage system and stream buffer zone). This mitigated method should then be enacted on the next working day.	If the Limit Level is exceeded the ET Leader should inform all parties Golf Course Operator, EPD, and AFCD immediately. Should the Limit Level be exceeded, the Golf Course Operator should stop the operation of the desalination plant and/or the application of chemicals immediately and work out the solution according to the requirements of EPD and AFCD. The operation of the desalination plant and/or the application of chemicals would be suspended until an effective solution is identified.

Categories of Archaeological Finds and Recommended Action

Categories of Archaeological Material	Retrieval Procedure
Human burial • Skeleton remains • Items associated with human burial, i.e. grave goods	Full recording and recovering of human remains and associated features • Complete recoding by photography, drawing, written description • Full measurement of burial and surrounding matrix • Retrieval of human remains and associated materials • Retrieval of surrounding soil for further analysis
Intact features • Structural/architectural remains • Undisturbed context, such as hearth, midden, habitation area, assemblages of artefacts and/or environmental material	Limited recording and recovery of archaeological features • Recording and measurement of salient features by photography, drawing and written description • Retrieval of all archaeological material • Retrieval of samples from the surrounding matrix
Intact artefacts • Complete objects such as pottery, metal objects, stone and bone tools. The objects are complete but isolated and are no part of assemblages or feature.	Recovery of artefacts • Recovery of objects • Sampling of the surrounding matrix • Proper treatment with cleaning, marking and packing under international acceptable standards
Isolated material • Sherds, non-human bone, artefact fragments (metal, pottery, glass). There are no complete objects, the material is isolated and fragmentary in nature.	Recovery of artefact fragments/archaeological material • Recovery of material, such as artefact fragments, environmental material and sampling of surrounding matrix
Deposits with archaeological potential • Soil deposits which exhibit characteristics associated with archaeological remains in Hong Kong	Sampling of the deposit • Collection of soil samples from deposits displaying archaeological potential

Annex D
Monitoring Results

Air Quality

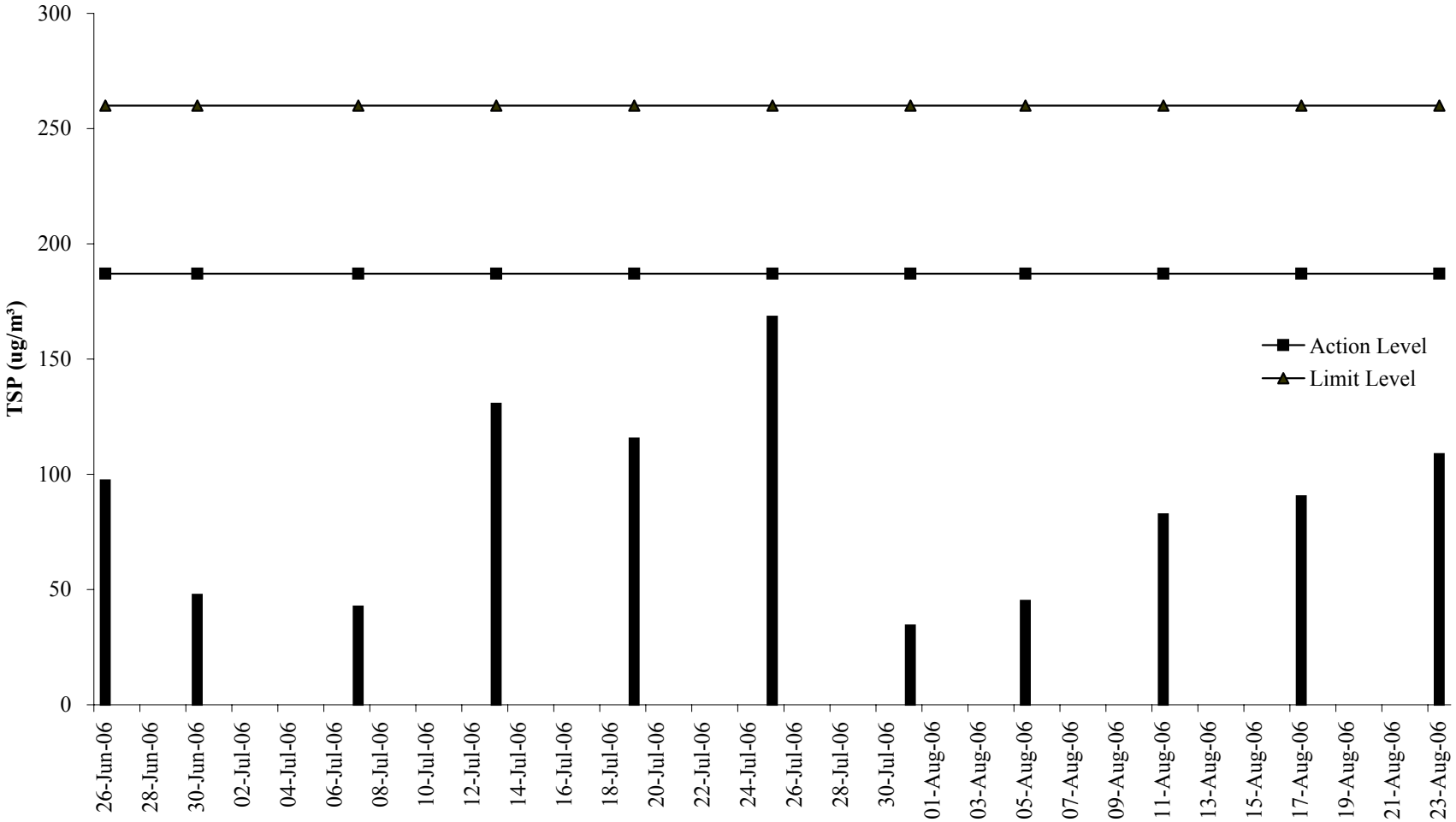
Proposed Extension of Public Golf Course at Kau Sai Chau Island, Sai Kung
24-hour TSP Monitoring Results at Station GCA B1

Date	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Sampling Time(hrs.)	Conc. (μg/m^3)	Weather Condition	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)
	Initial	Final	Initial	Final	Initial	Final						
26-Jun-06	3.4991	3.7177	1.56	1.56	10126.6	10150.6	24.0	97.4	Sunny	0.22	1.56	2243.5
30-Jun-06	3.4557	3.5653	1.60	1.60	10150.6	10174.6	24.0	47.7	Sunny	0.11	1.60	2296.8
07-Jul-06	3.5895	3.6763	1.41	1.41	10174.6	10198.6	24.0	42.7	Sunny	0.09	1.41	2034.7
13-Jul-06	3.5849	3.8645	1.49	1.49	10198.6	10222.6	24.0	130.7	Sunny	0.28	1.49	2139.8
19-Jul-06	3.5924	3.8216	1.38	1.38	10222.6	10246.6	24.0	115.6	Sunny	0.23	1.38	1983.5
25-Jul-06	3.5921	3.9438	1.45	1.45	10246.6	10270.6	24.0	168.4	Sunny	0.35	1.45	2088.0
31-Jul-06	3.5835	3.6518	1.38	1.38	10270.6	10294.6	24.0	34.4	Sunny	0.07	1.38	1982.9
05-Aug-06	3.5664	3.6559	1.38	1.38	10294.6	10318.6	24.0	45.1	Sunny	0.09	1.38	1982.9
11-Aug-06	3.5878	3.7517	1.38	1.38	10318.6	10342.6	24.0	82.7	Sunny	0.16	1.38	1982.9
17-Aug-06	3.4995	3.6789	1.38	1.38	10342.6	10366.6	24.0	90.5	Sunny	0.18	1.38	1982.9
23-Aug-06	3.6283	3.8439	1.38	1.38	10366.6	10390.6	24.0	108.7	Sunny	0.22	1.38	1982.9
29-Aug-06	3.5543	3.7033	1.38	1.38	10390.6	10414.6	24.0	75.1	Sunny	0.15	1.38	1982.9
04-Sep-06	3.5725	3.6707	1.38	1.38	10414.6	10438.6	24.0	49.5	Sunny	0.10	1.38	1982.9
09-Sep-06	3.5895	3.6981	1.38	1.38	10438.6	10462.6	24.0	54.8	Sunny	0.11	1.38	1982.9
15-Sep-06	3.5619	3.7085	1.38	1.38	10462.6	10486.6	24.0	73.9	Sunny	0.15	1.38	1982.9
21-Sep-06	3.5755	3.9187	1.45	1.45	10462.6	10486.6	24.0	164.4	Sunny	0.34	1.45	2088.0

Min	34.4
Max	168.4
Average	86.4

Remark: Bold value indicated an Action level exceedance
Bold & Italic value indicated an Limit level exceedance

24-hour TSP Monitoring Results at Station GCA B1 (Apr- Jun 2006)



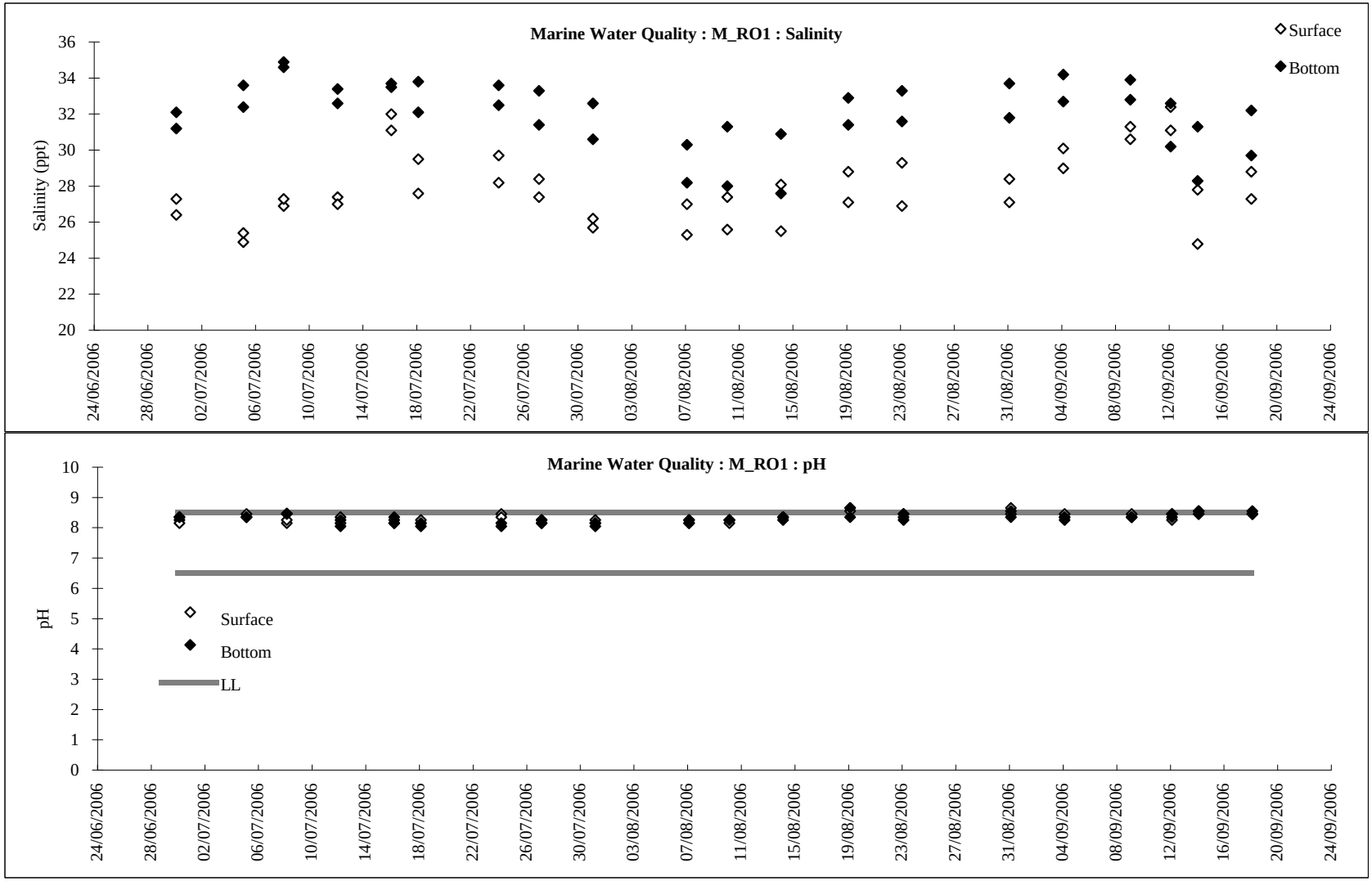
Water Quality

KSC Rainfall (source: Hong Kong Observatory)

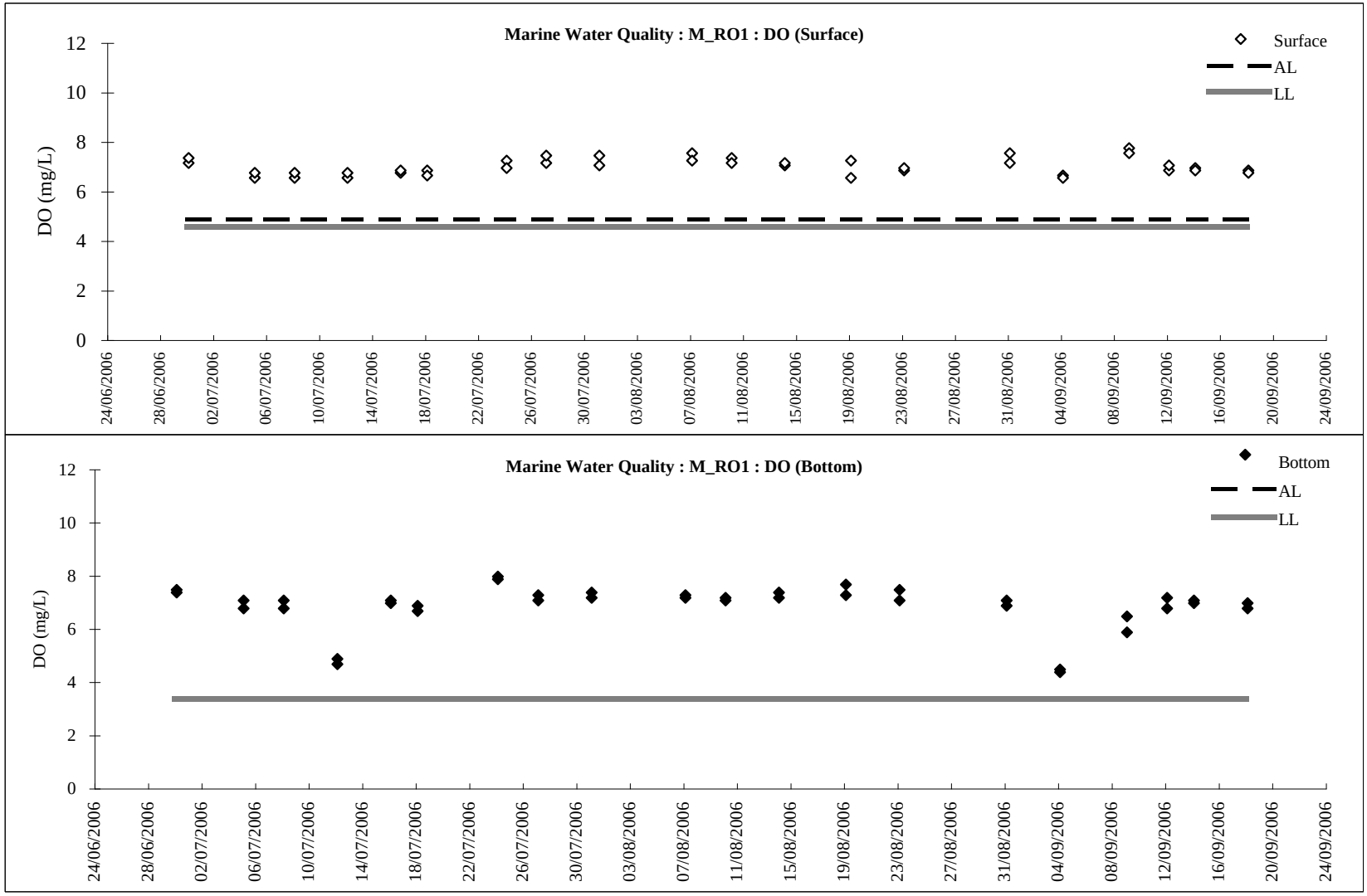
Date	Rainfall mm	Date	Rainfall mm	Date	Rainfall mm
25/06/2006	<0.5	25/07/2006	<0.5	25/08/2006	10-30
26/06/2006	<0.5	26/07/2006	0-2	26/08/2006	10-40
27/06/2006	10-20	27/07/2006	40-70	27/08/2006	0-2
28/06/2006	10-30	28/07/2006	70-100	28/08/2006	10-20
29/06/2006	2-20	29/07/2006	70-150	29/08/2006	<0.5
30/06/2006	2-5	30/07/2006	5-10	30/08/2006	<0.5
01/07/2006	0.5-5	31/07/2006	<0.5	31/08/2006	<0.5
02/07/2006	0.5-5	01/08/2006	<0.5	01/09/2006	<0.5
03/07/2006	0.5-2	02/08/2006	10-20	02/09/2006	<0.5
04/07/2006	10-20	03/08/2006	30-50	03/09/2006	<0.5
05/07/2006	2-10	04/08/2006	5-20	04/09/2006	<0.5
06/07/2006	2-5	05/08/2006	0.5-2	05/09/2006	0-2
07/07/2006	2-10	06/08/2006	20-40	06/09/2006	0.5-2
08/07/2006	40-70	07/08/2006	<0.5	07/09/2006	20-30
09/07/2006	10-70	08/08/2006	<0.5	08/09/2006	0-2
10/07/2006	5-70	09/08/2006	5-20	09/09/2006	10-20
11/07/2006	2-50	10/08/2006	5-20	10/09/2006	0.5-5
12/07/2006	<0.5	11/08/2006	2-5	11/09/2006	<0.5
13/07/2006	<0.5	12/08/2006	0-2	12/09/2006	2-20
14/07/2006	0.5-5	13/08/2006	<0.5	13/09/2006	150-200
15/07/2006	5-30	14/08/2006	<0.5	14/09/2006	0.5-5
16/07/2006	70-150	15/08/2006	<0.5	15/09/2006	0.5-20
17/07/2006	0.5-2	16/08/2006	<0.5	16/09/2006	<0.5
18/07/2006	<0.5	17/08/2006	<0.5	17/09/2006	<0.5
19/07/2006	<0.5	18/08/2006	2-20	18/09/2006	<0.5
20/07/2006	<0.5	19/08/2006	2-20		
21/07/2006	<0.5	20/08/2006	10-30		
22/07/2006	<0.5	21/08/2006	<0.5		
23/07/2006	<0.5	22/08/2006	<0.5		
24/07/2006	0.5-20	23/08/2006	<0.5		
		24/08/2006	10-30		

Weather record during sampling at Kau Sai Chau

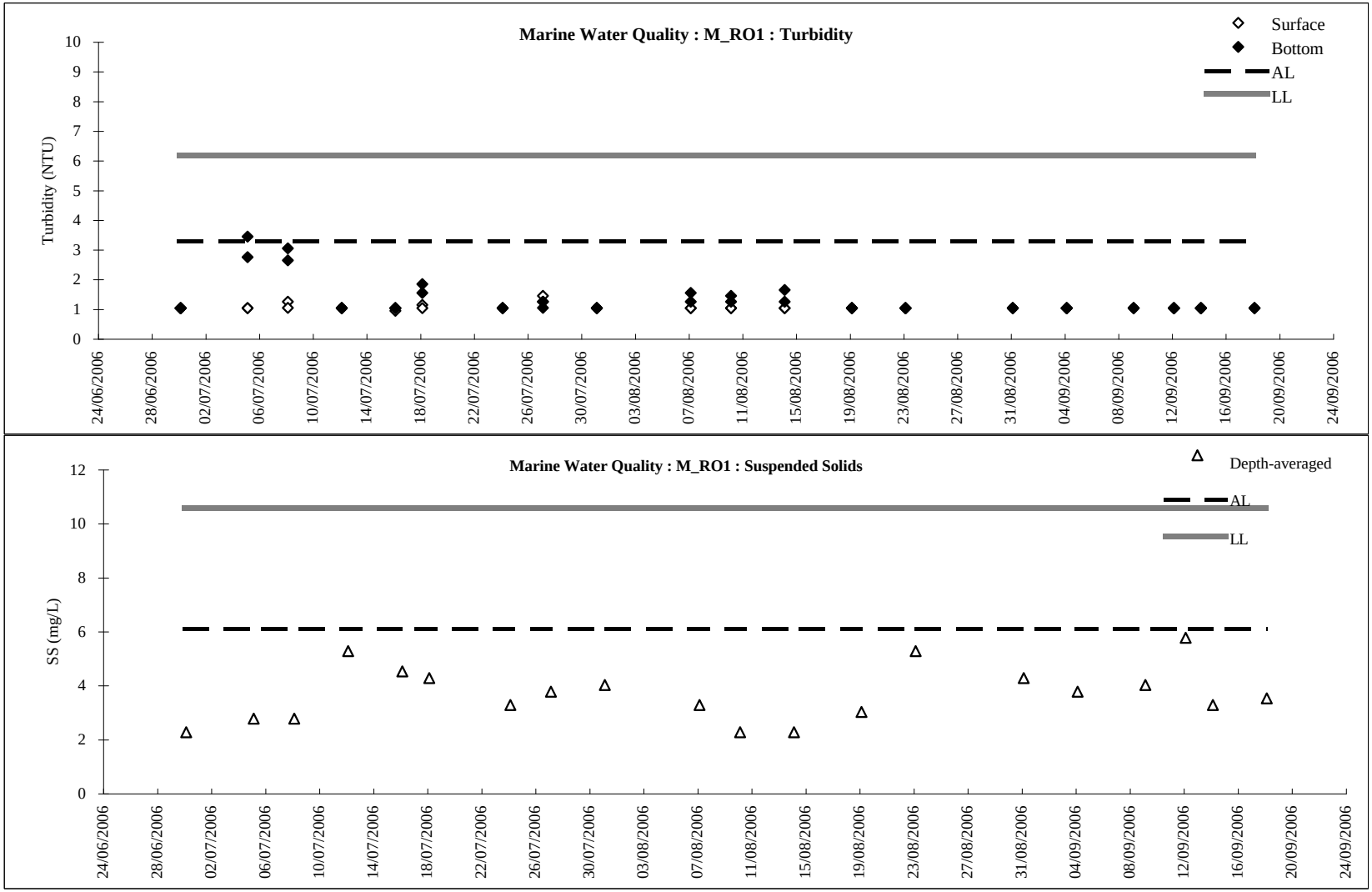
	Weather	
	am	pm
30/06/2006	cloudy / rainy	cloudy
05/07/2006	cloudy / sunny	sunny
08/07/2006	cloudy / rainy	sunny
12/07/2006	cloudy / sunny	sunny
16/07/2006	cloudy / sunny / windy	cloudy windy
18/07/2006	cloudy / sunny	sunny
24/07/2006	cloudy / sunny	cloudy
27/07/2006	rainy	cloudy
31/07/2006	cloudy	sunny
07/08/2006	sunny	sunny
10/08/2006	cloudy	cloudy
14/08/2006	sunny	sunny
19/08/2006	sunny	sunny
23/08/2006	sunny	sunny
31/08/2006	sunny	sunny
04/09/2006	cloudy	cloudy
09/09/2006	cloudy	cloudy
12/09/2006	cloudy / windy	cloudy / windy
14/09/2006	sunny	cloudy/rainy
18/09/2006	sunny	sunny


Marine Water Quality : M_RO1 : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : M_RO1 : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

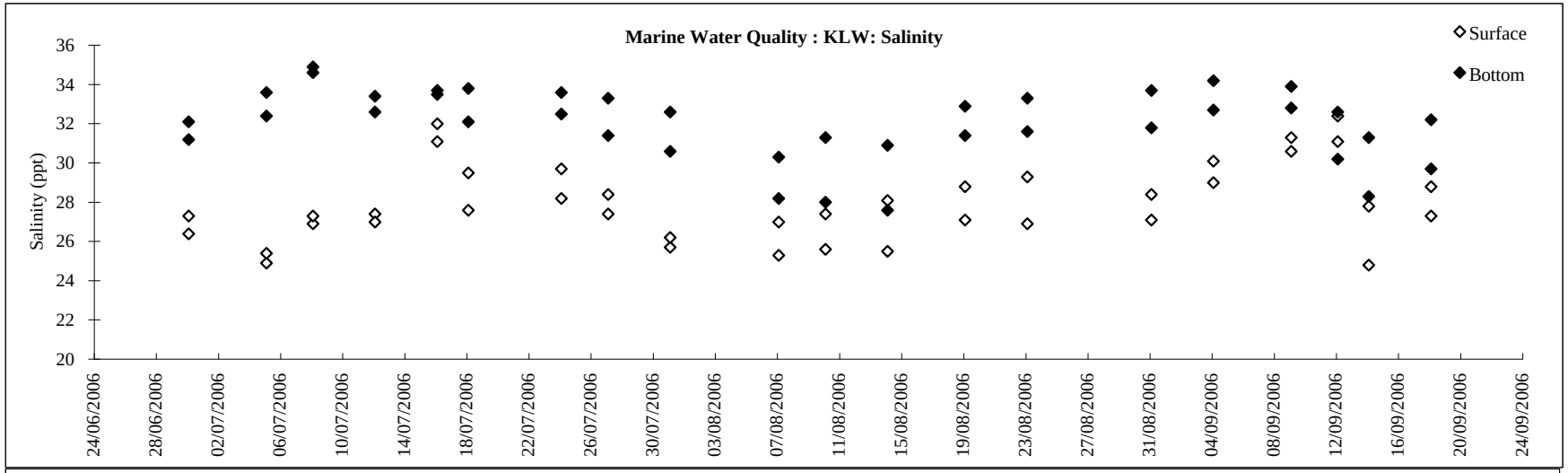
M_RO1

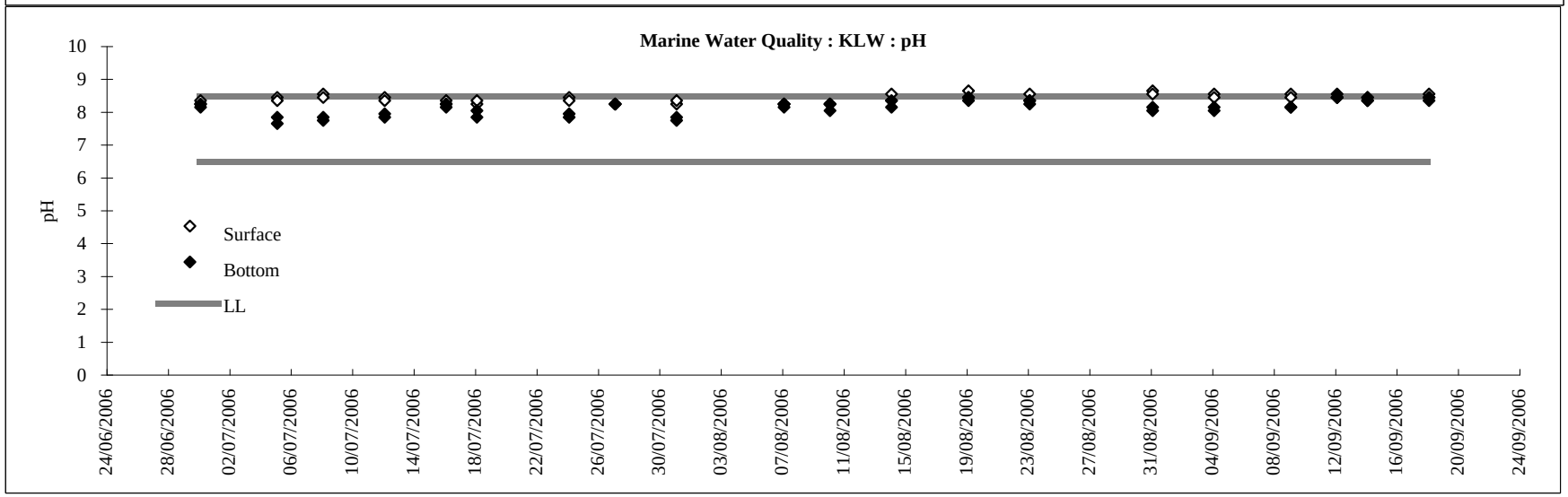

Marine Water Quality : M_RO1 : DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : M_RO1 : DO (Bottom)
Bottom
AL
LL
DO (mg/L)

M_RO1

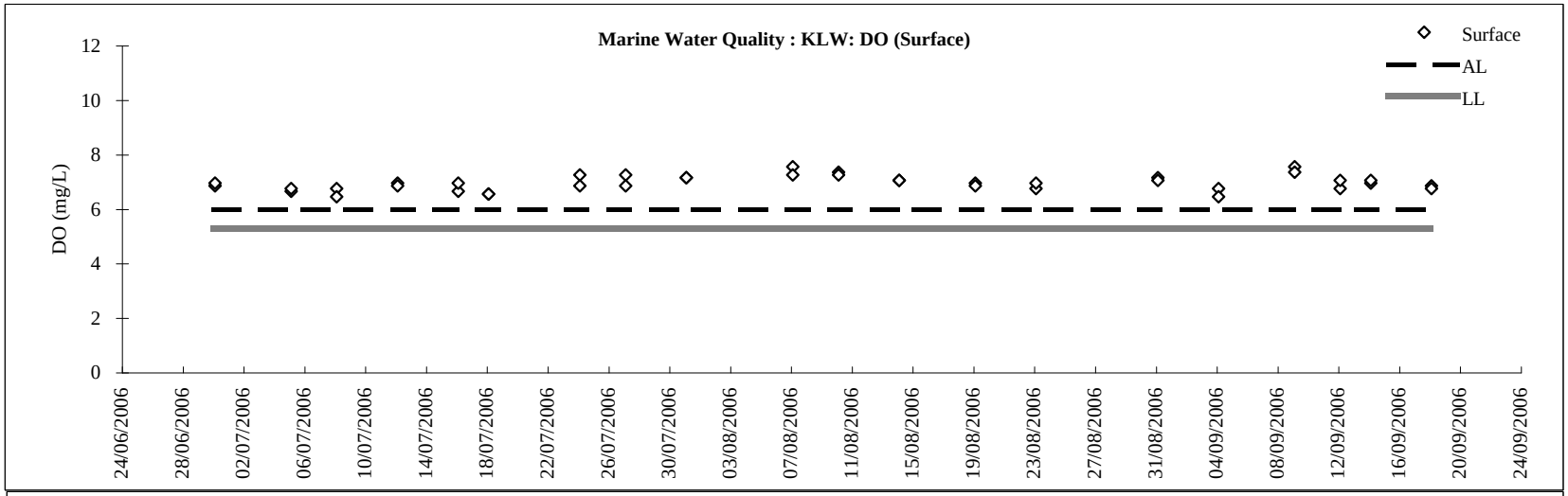

Marine Water Quality : M_RO1 : Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : M_RO1 : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

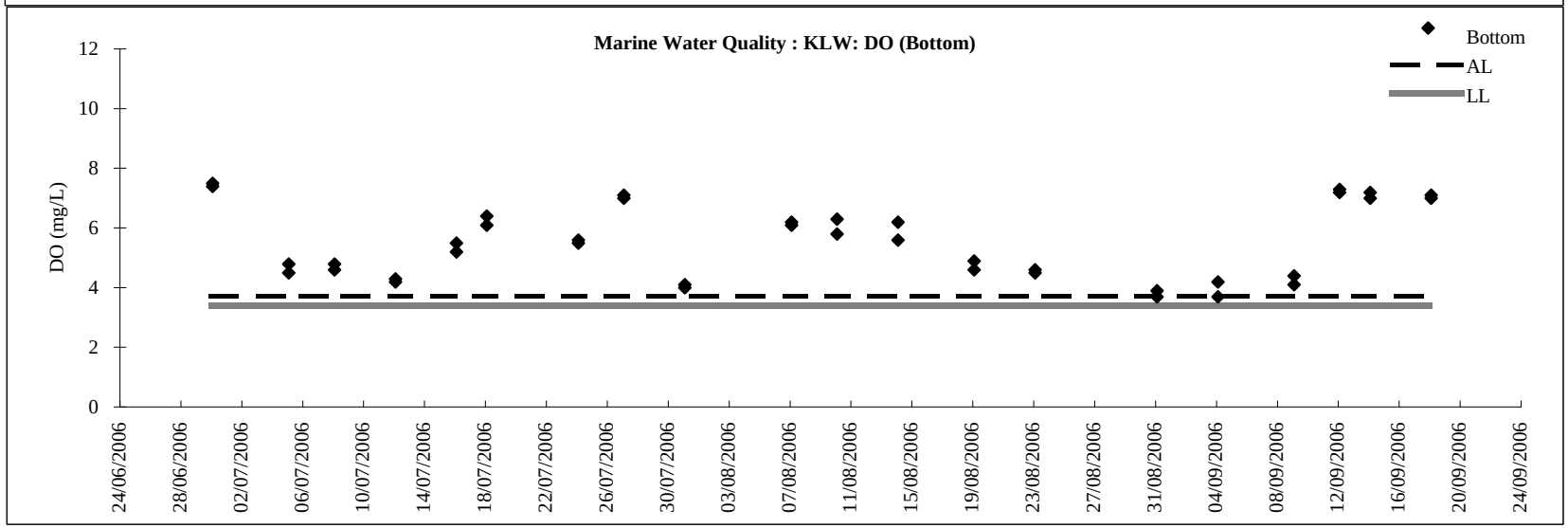
M_RO1


Marine Water Quality : KLW: Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

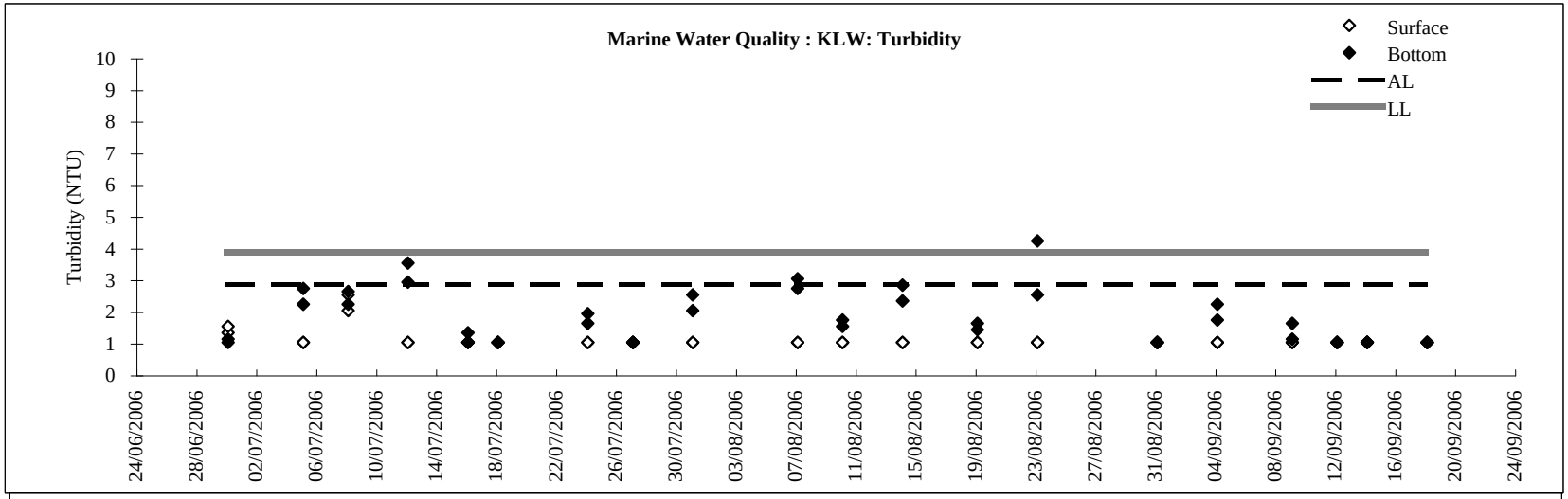

Marine Water Quality : KLW : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

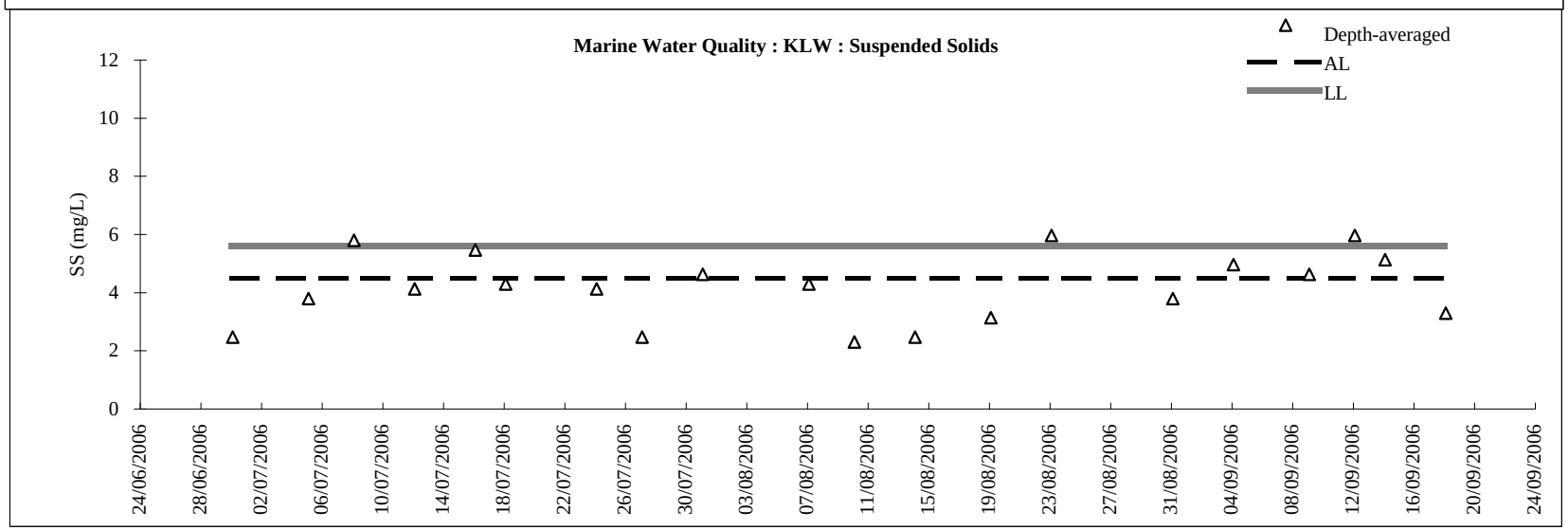
KLW


Marine Water Quality : KLW: DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

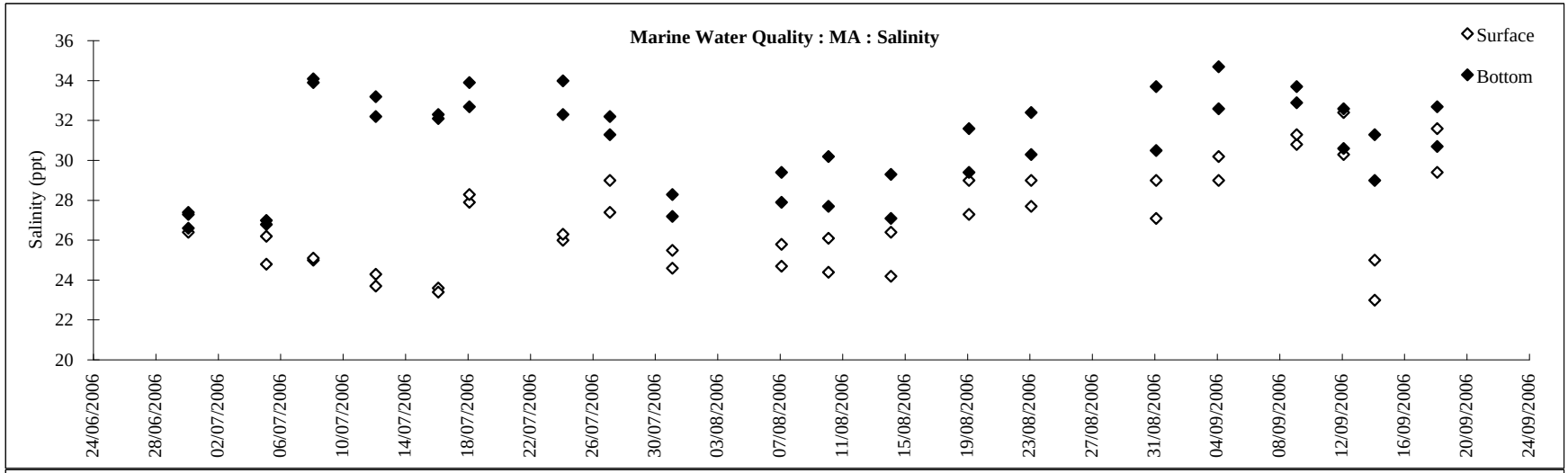

Marine Water Quality : KLW: DO (Bottom)
Bottom
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

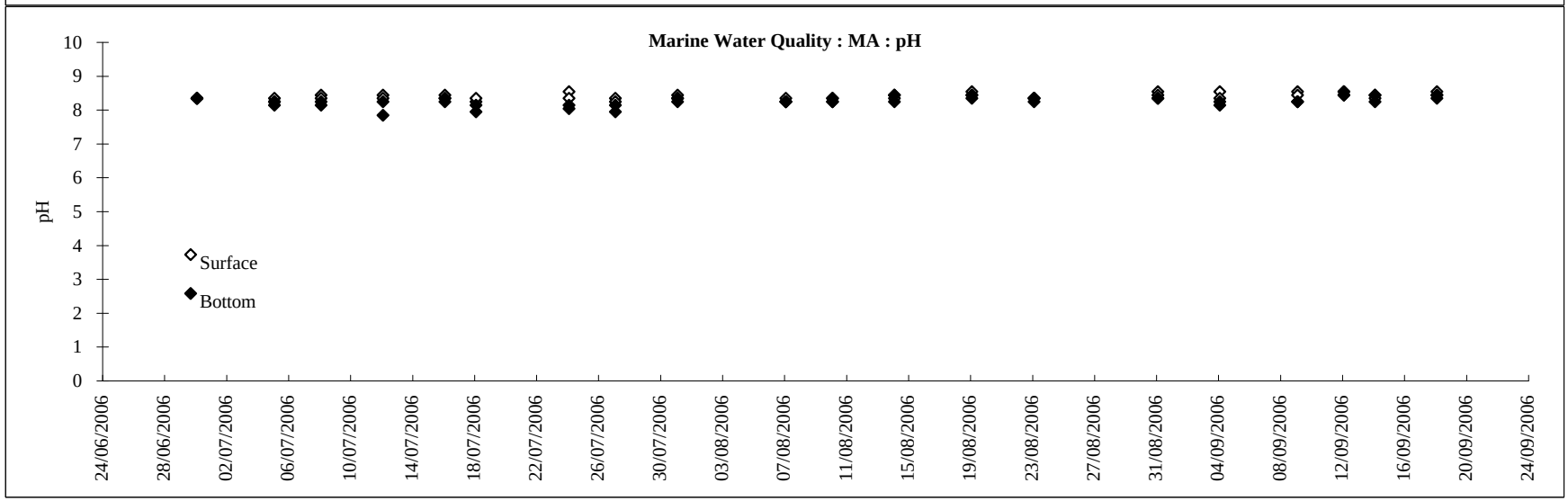
KLW

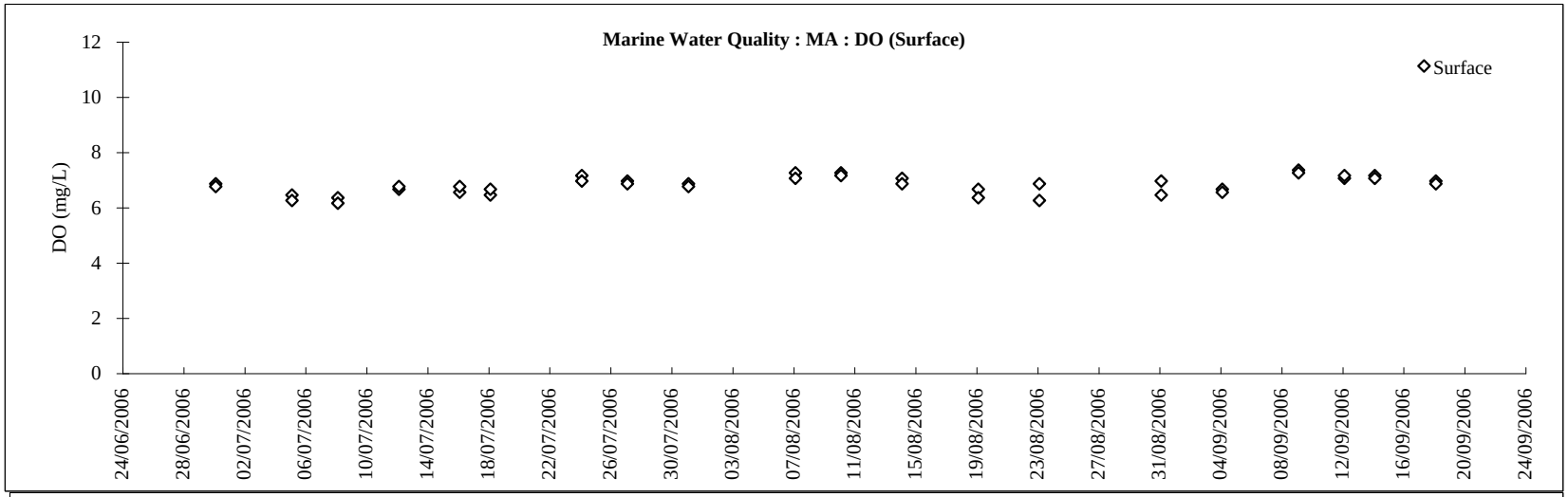

Marine Water Quality : KLW: Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

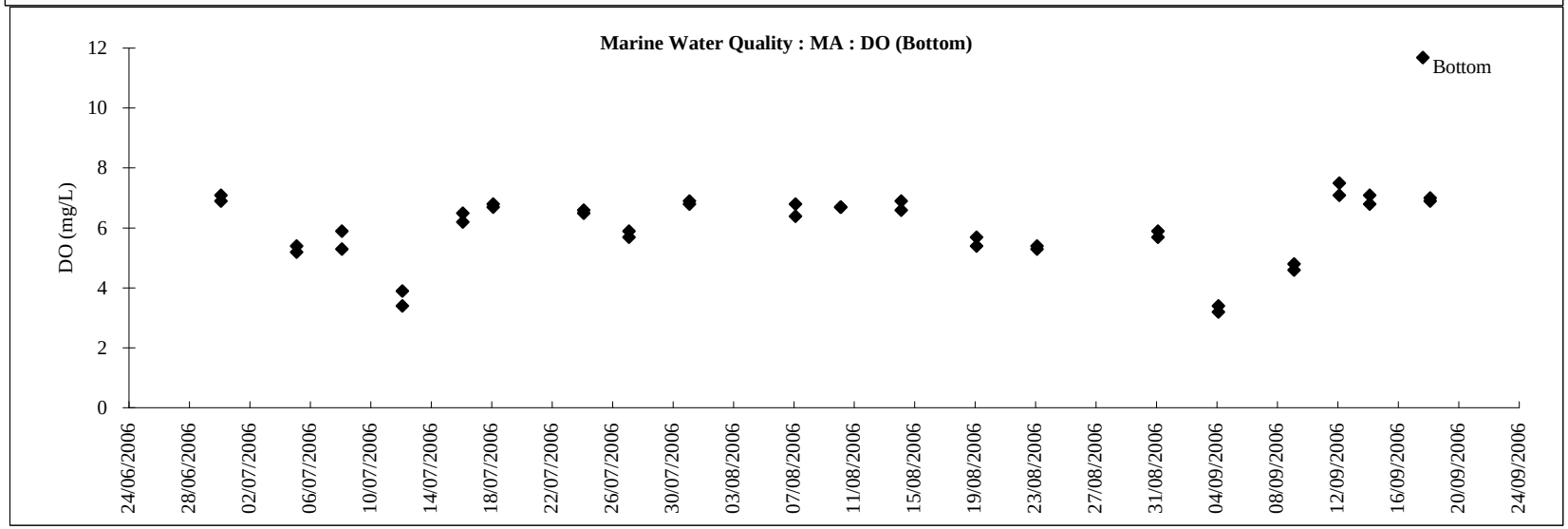

Marine Water Quality : KLW : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

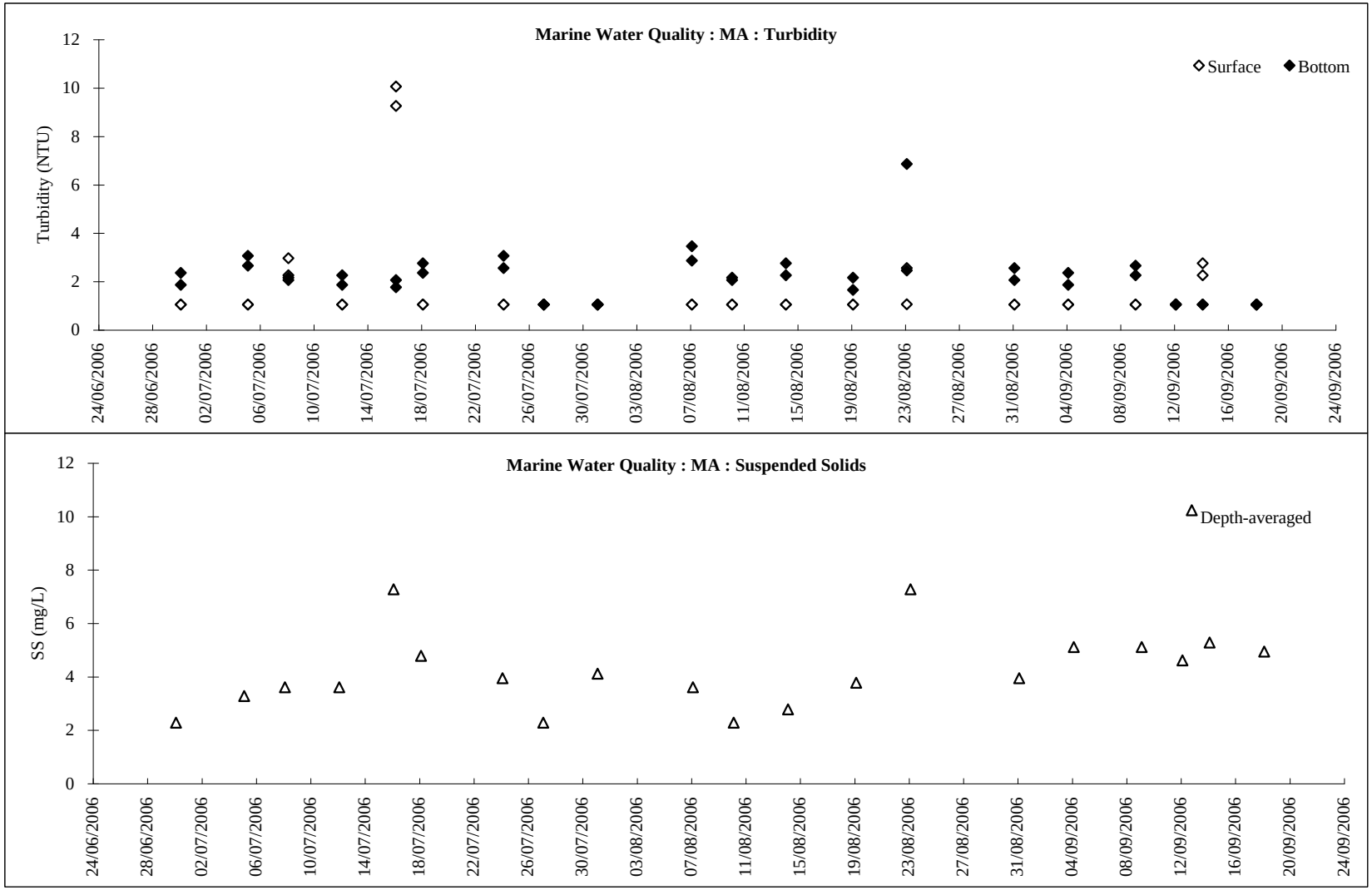
KLW

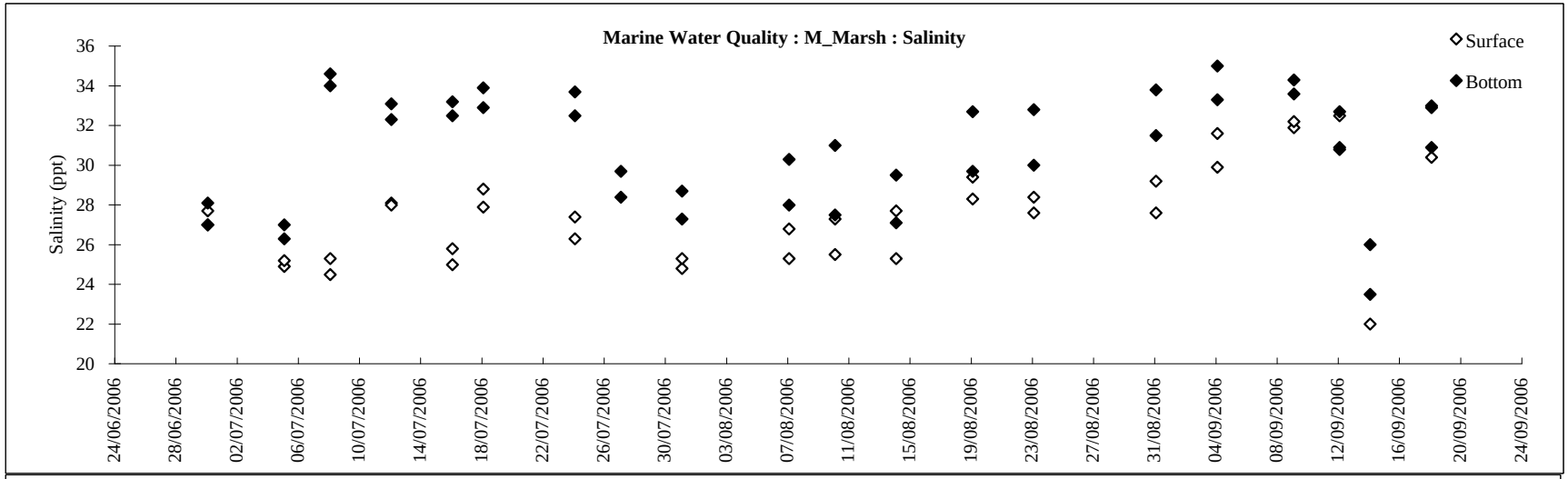

Marine Water Quality : MA : Salinity
Salinity (ppt)
Surface
Bottom
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

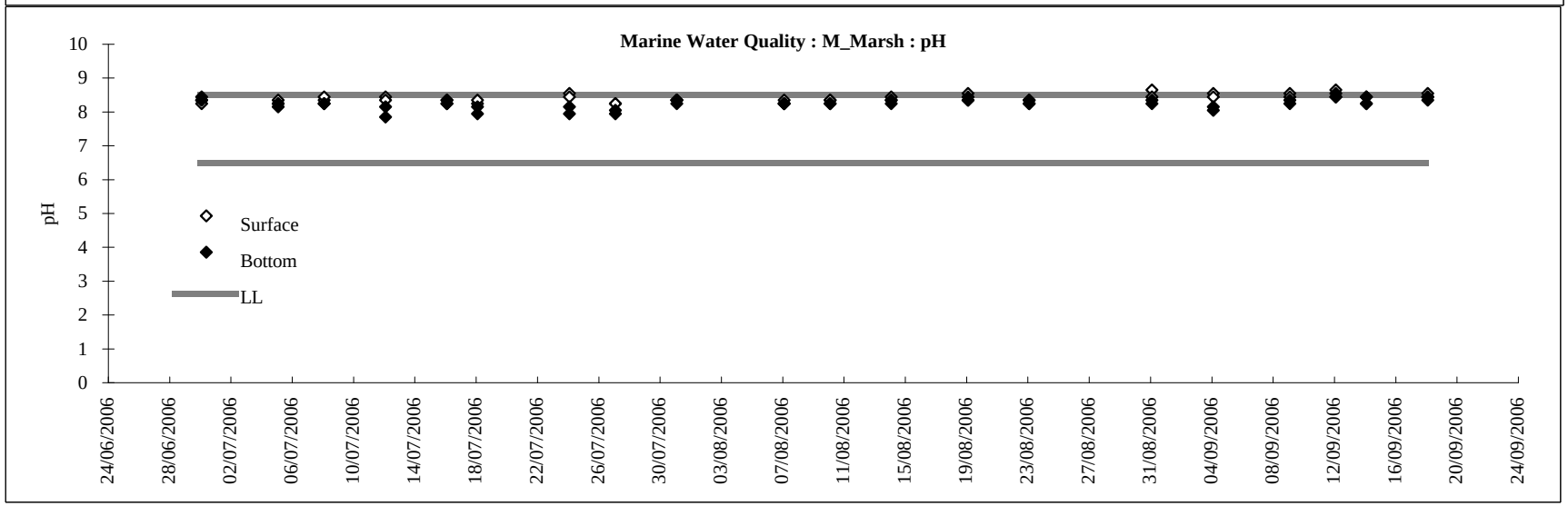

Marine Water Quality : MA : pH
pH
Surface
Bottom
10
9
8
7
6
5
4
3
2
1
0
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006


Marine Water Quality : MA : DO (Surface)
Surface
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

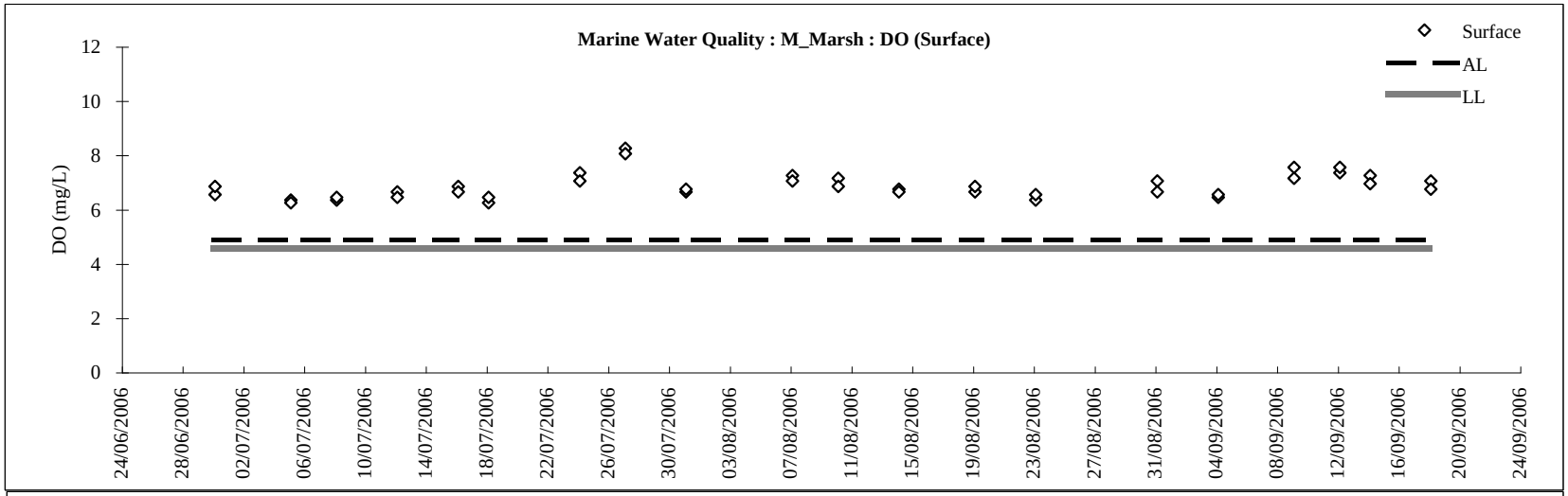

Marine Water Quality : MA : DO (Bottom)
Bottom
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

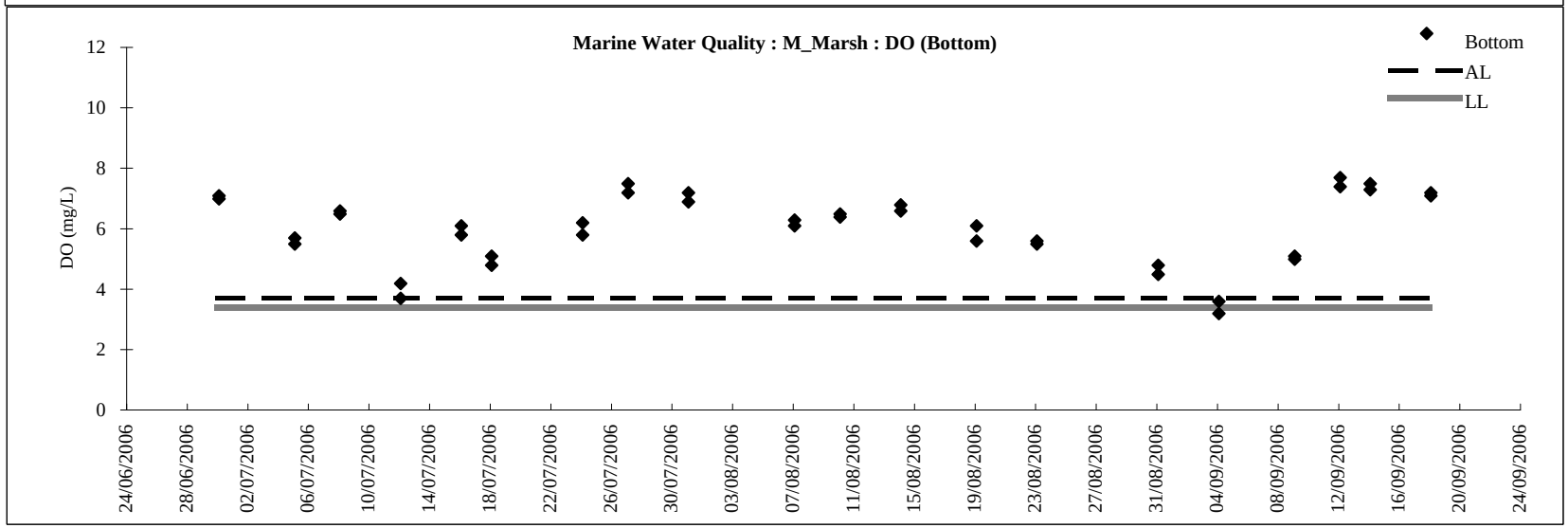

Marine Water Quality : MA : Turbidity
Surface
Bottom
Turbidity (NTU)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : MA : Suspended Solids
Depth-averaged
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006


Marine Water Quality : M_Marsh : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

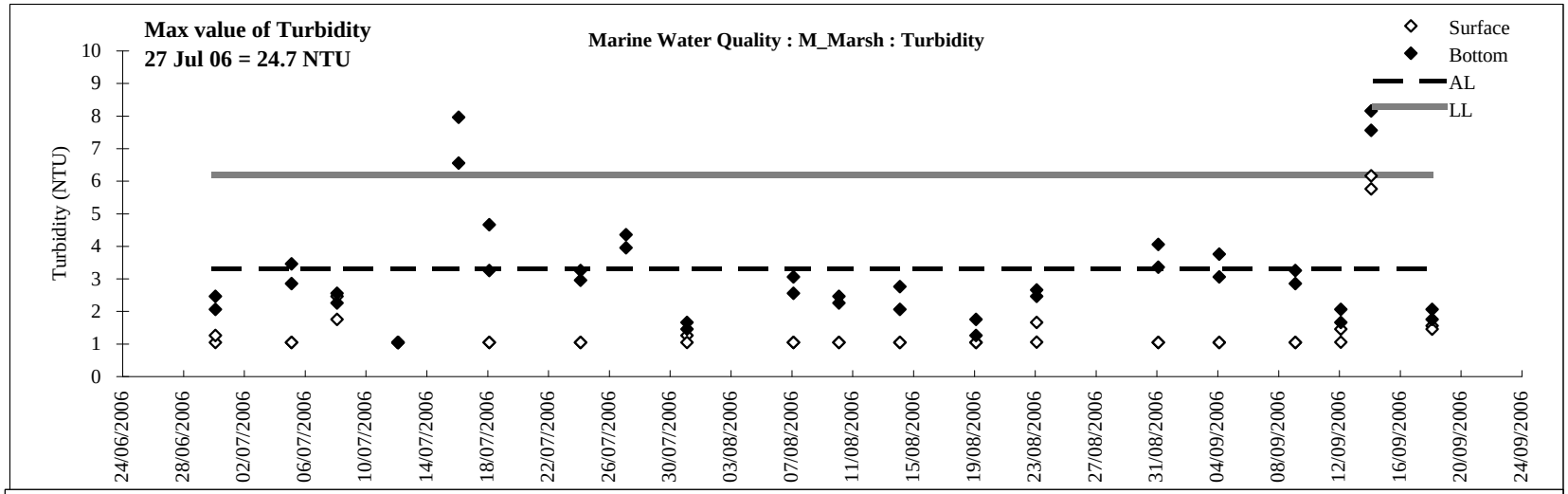

Marine Water Quality : M_Marsh : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

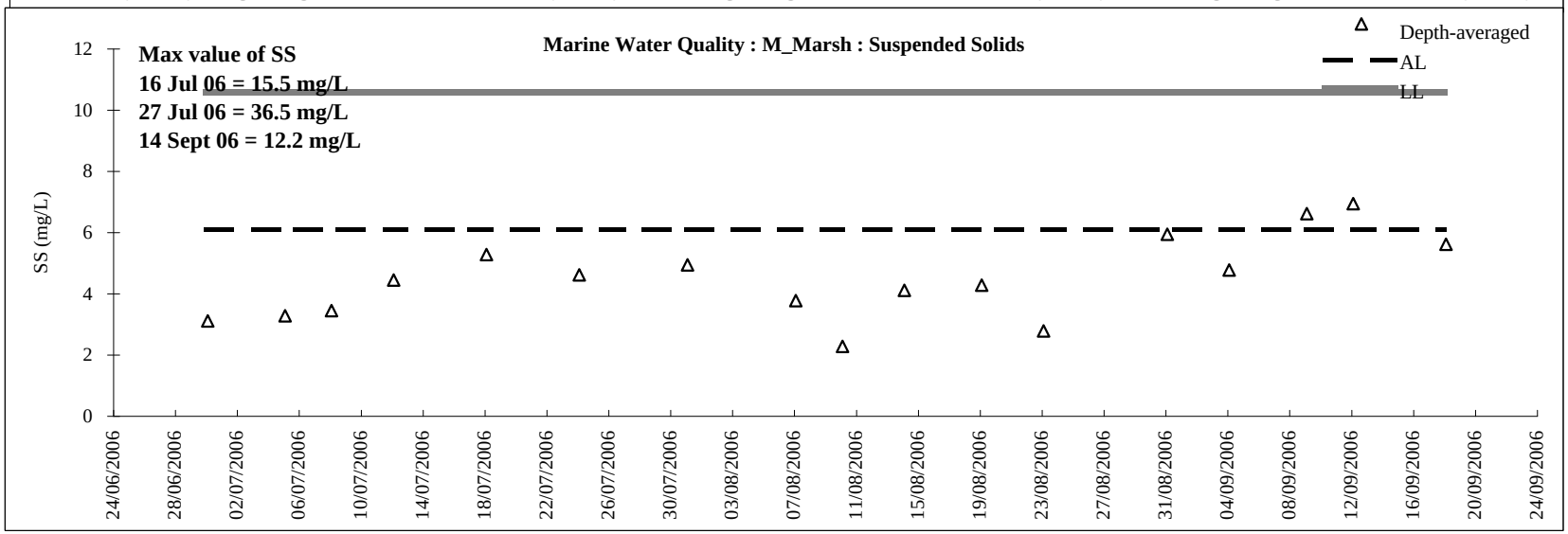
M_Marsh


Marine Water Quality : M_Marsh : DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

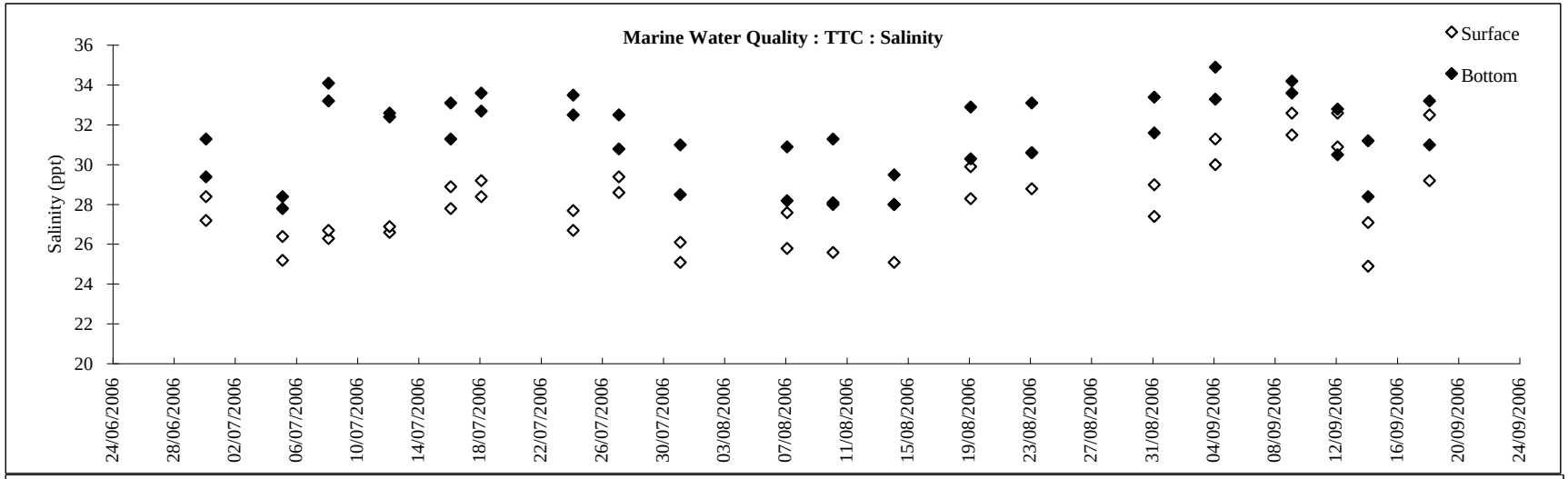

Marine Water Quality : M_Marsh : DO (Bottom)
Bottom
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

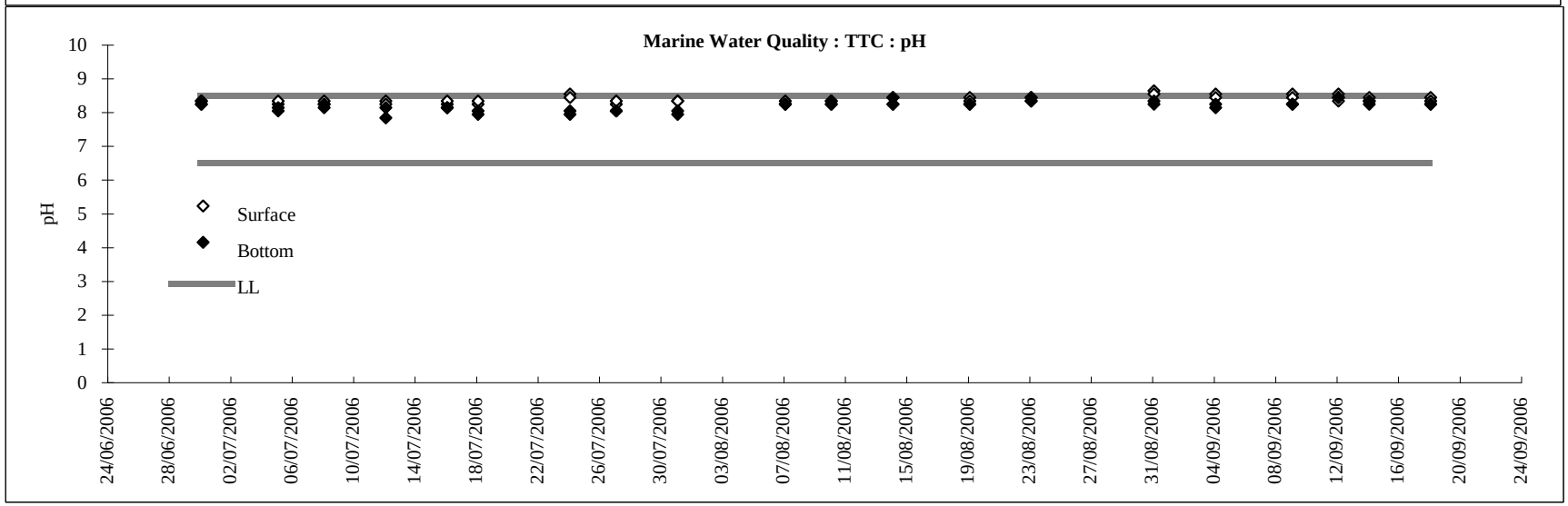
M_Marsh

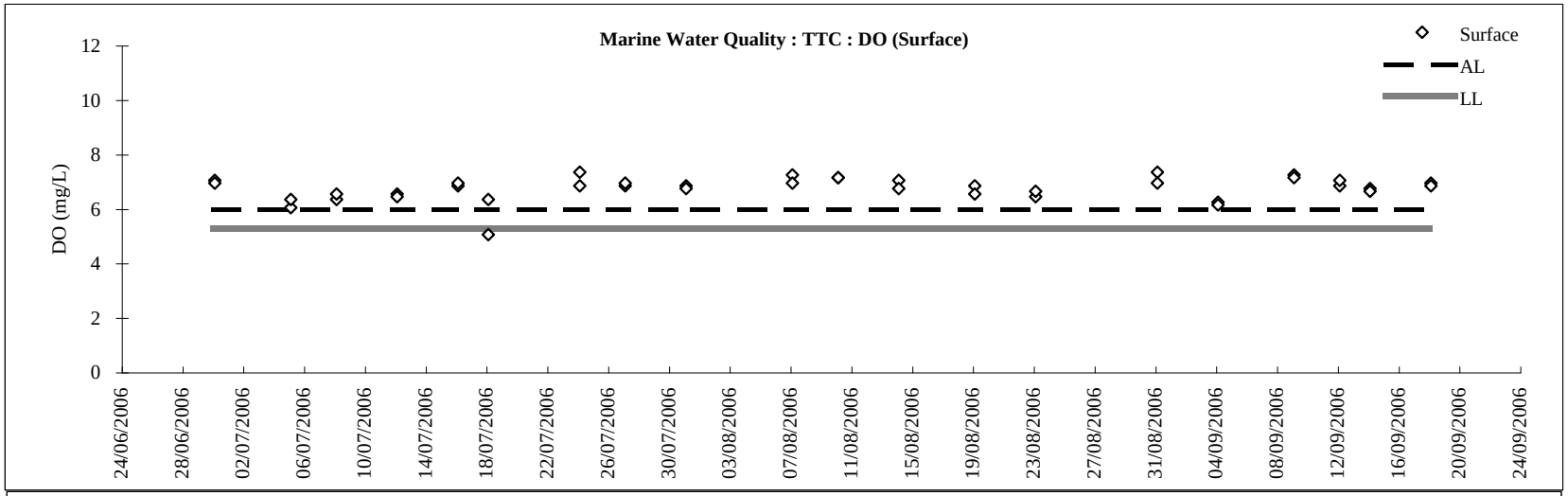

Max value of Turbidity
27 Jul 06 = 24.7 NTU
Marine Water Quality : M_Marsh : Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

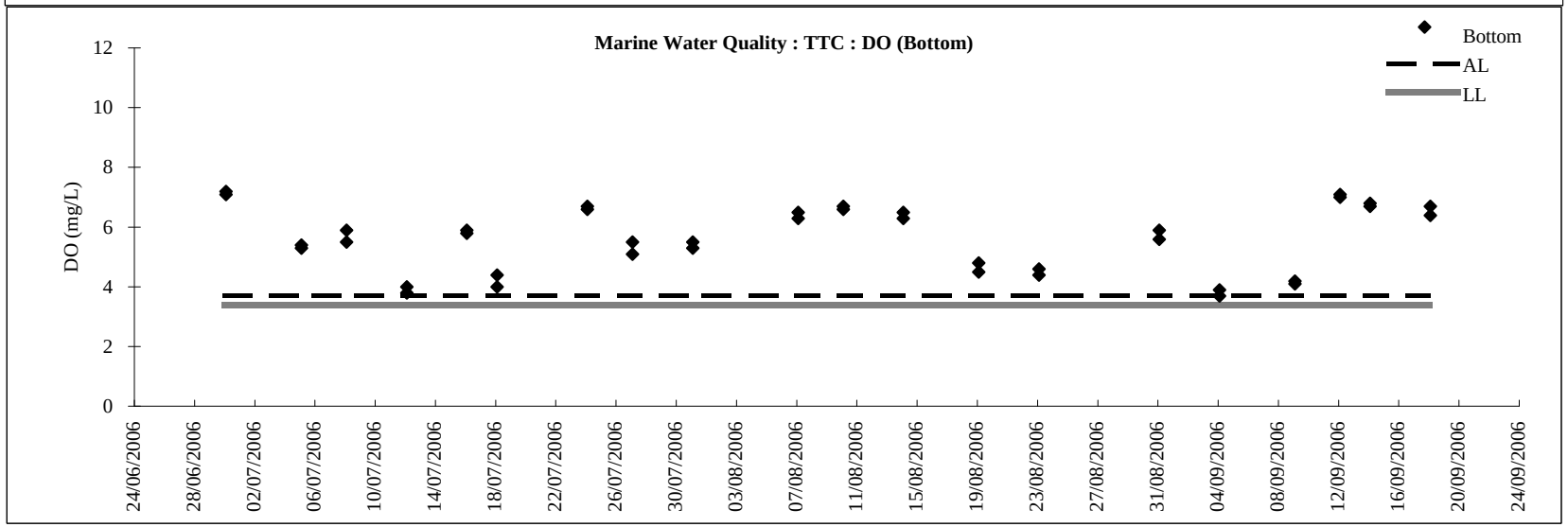

Max value of SS
16 Jul 06 = 15.5 mg/L
27 Jul 06 = 36.5 mg/L
14 Sept 06 = 12.2 mg/L
Marine Water Quality : M_Marsh : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

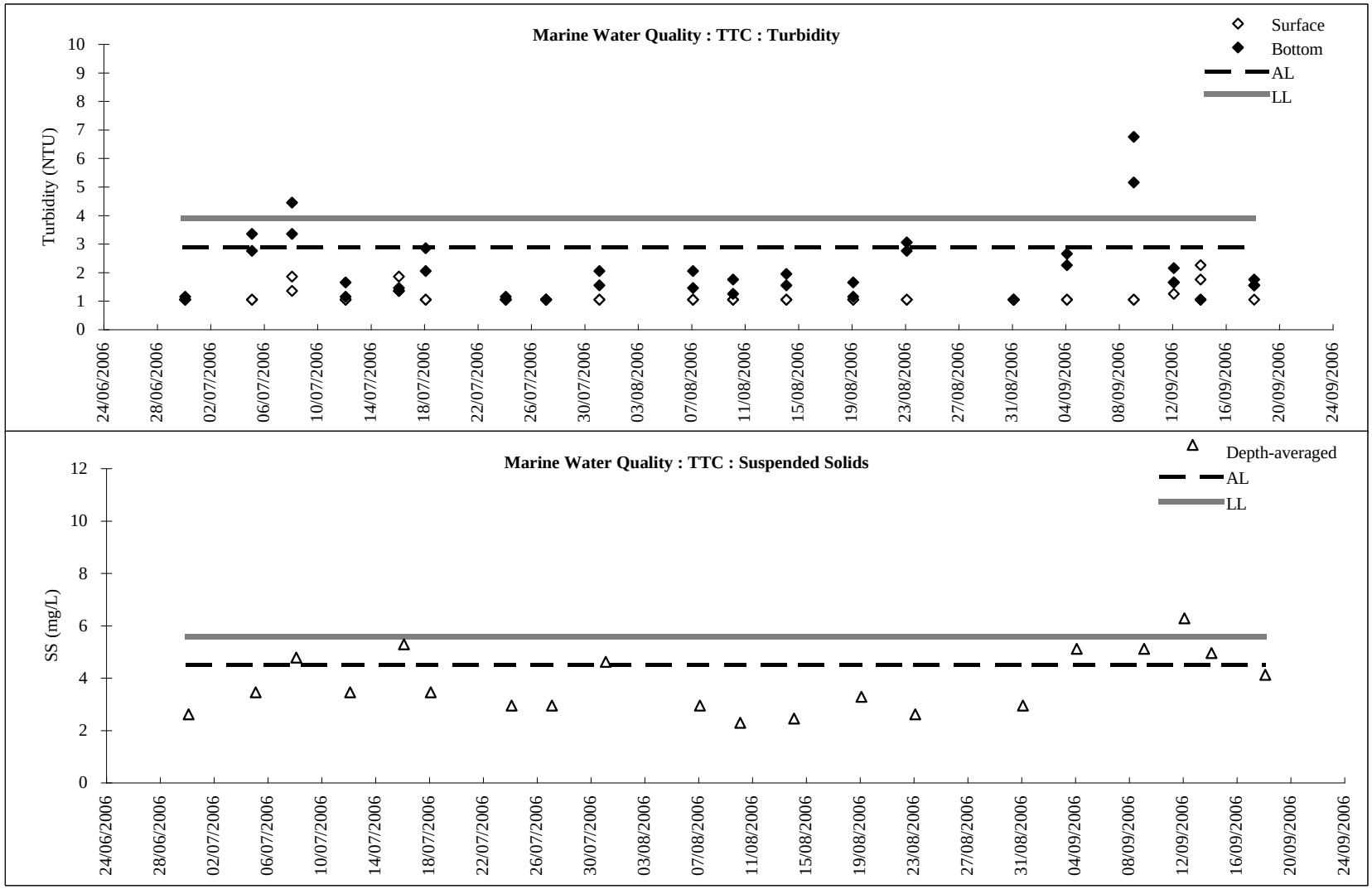
M_Marsh


Marine Water Quality : TTC : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

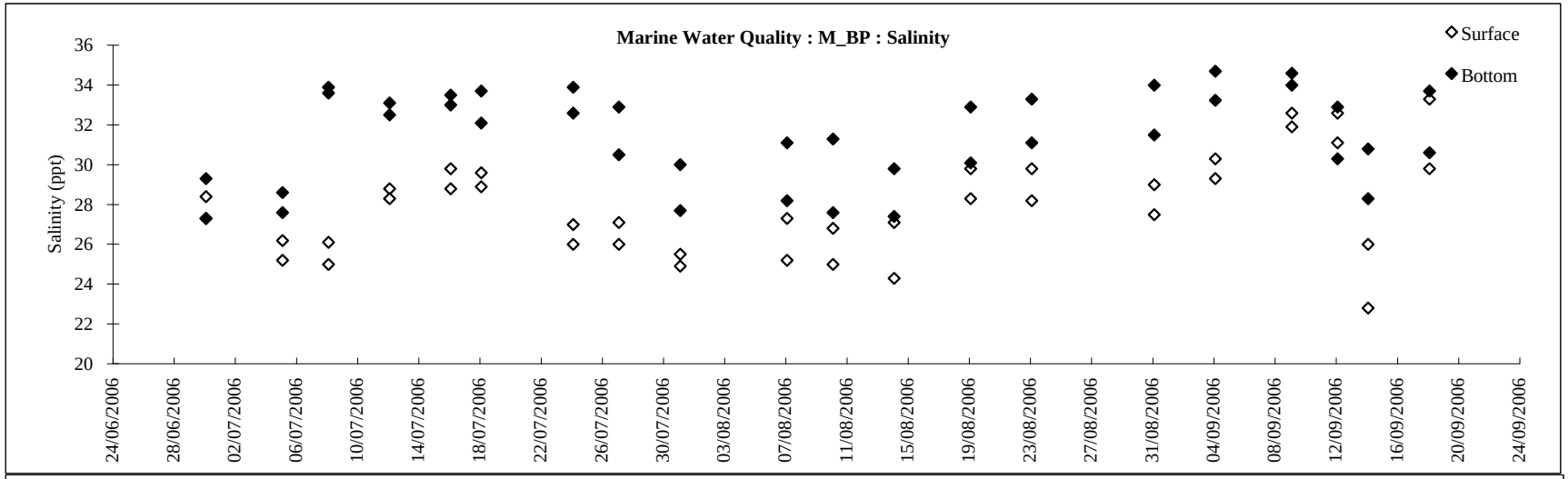

Marine Water Quality : TTC : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

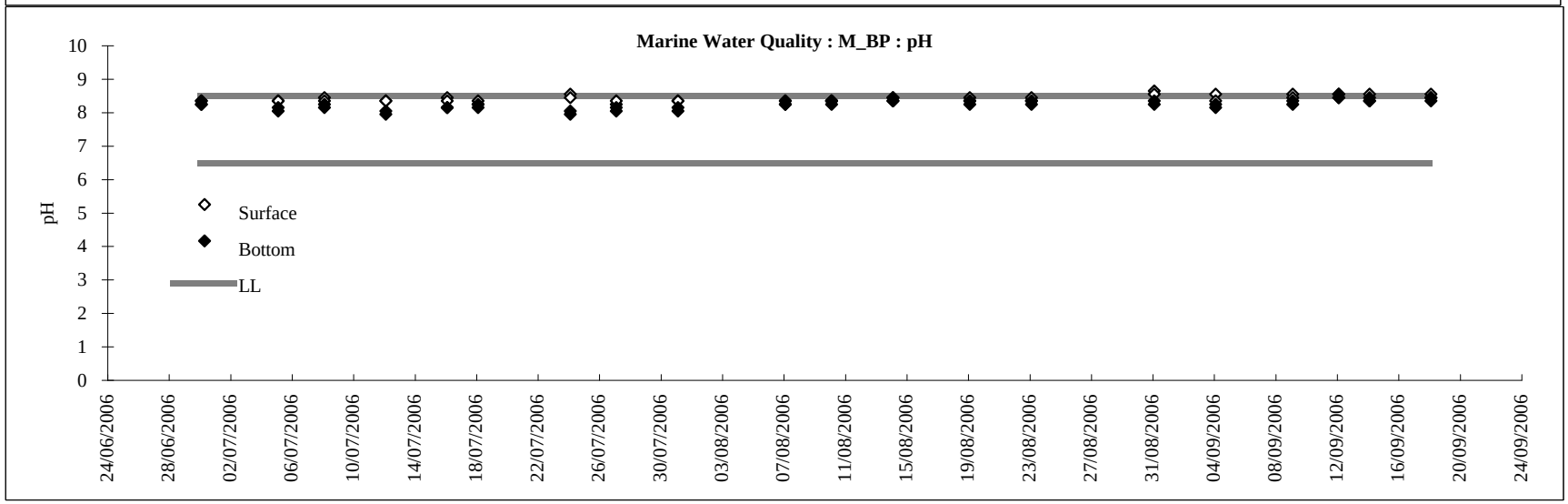

Marine Water Quality : TTC : DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006


Marine Water Quality : TTC : DO (Bottom)
Bottom
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

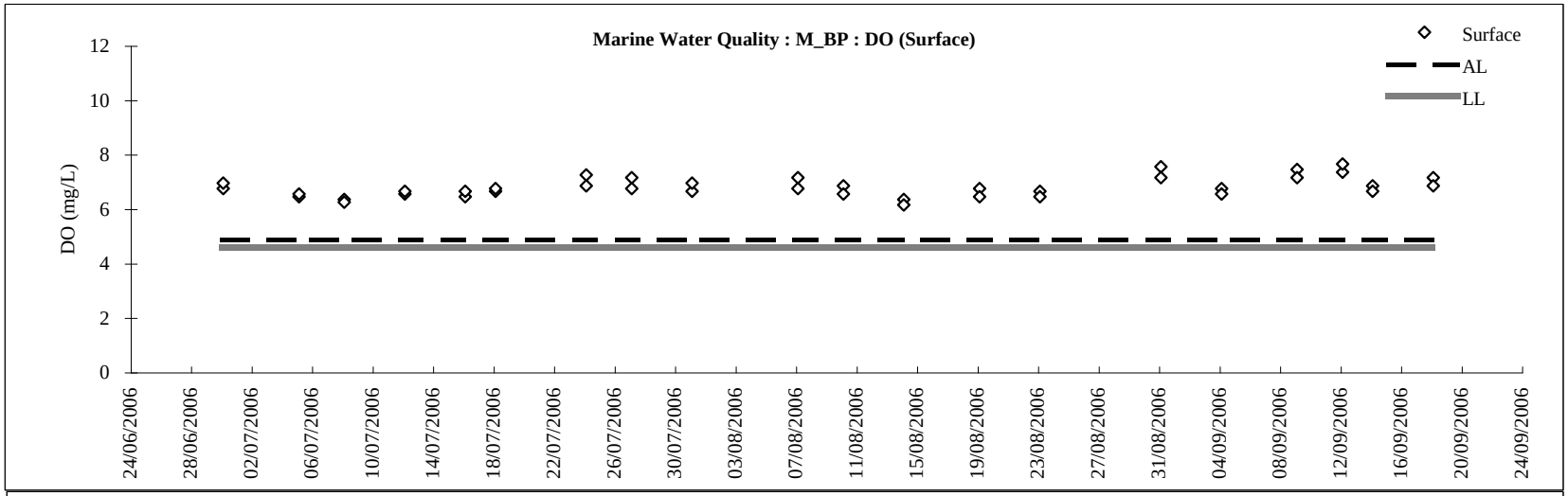

Marine Water Quality : TTC : Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : TTC : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

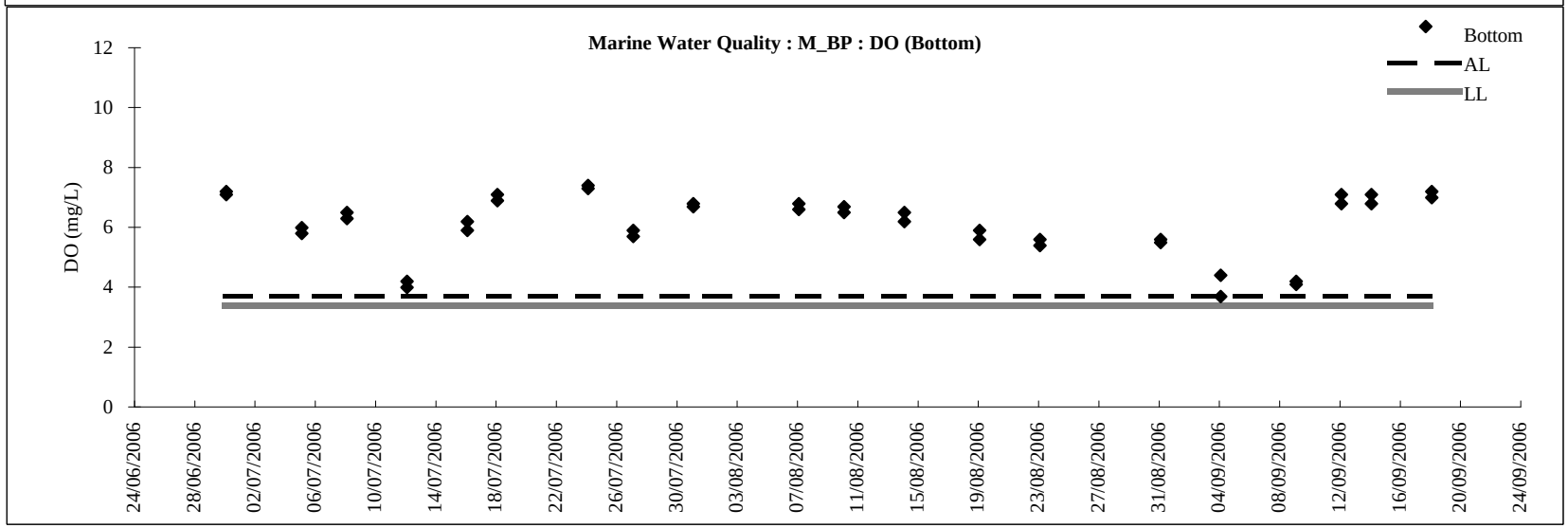
TTC

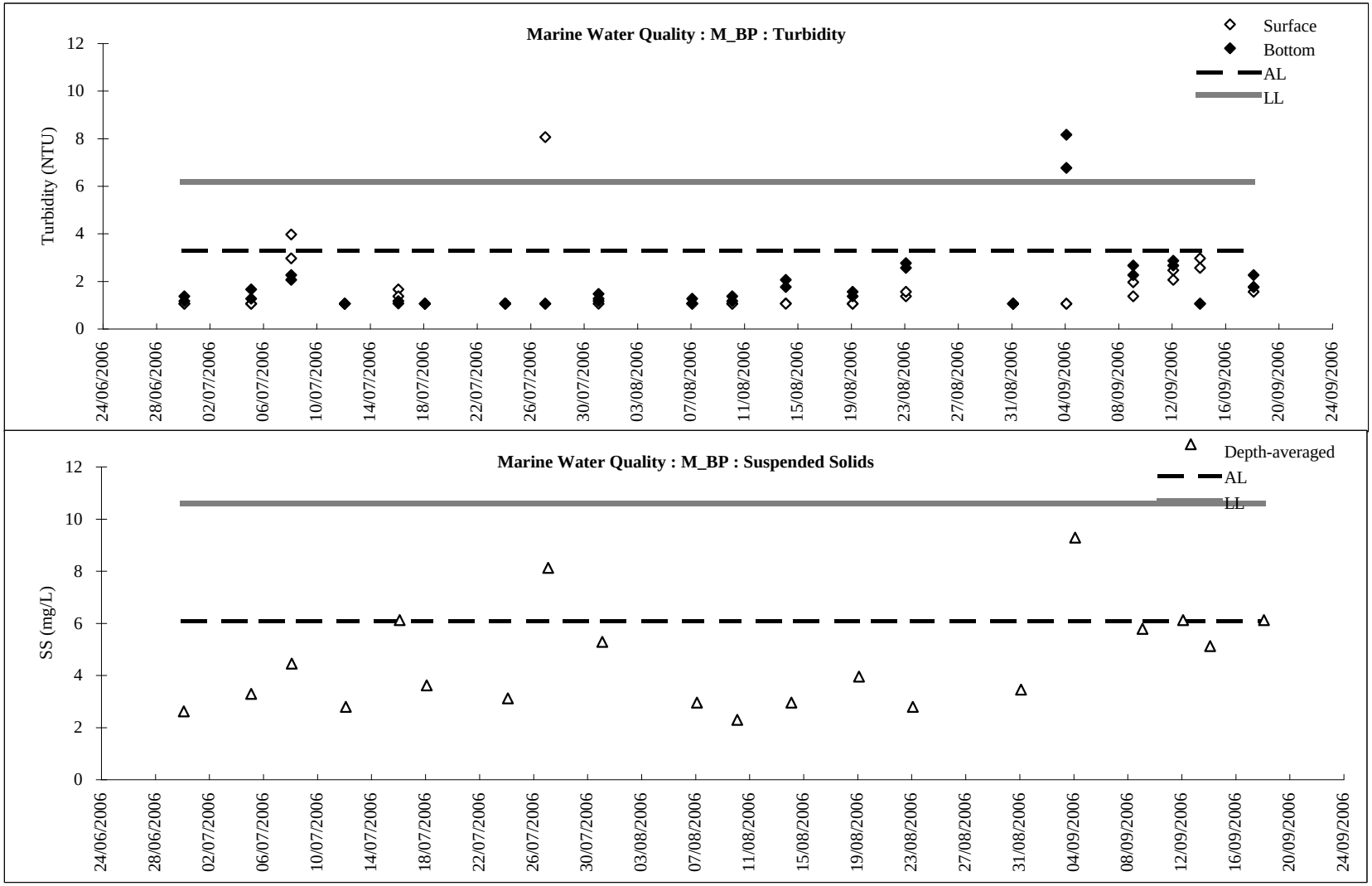

Marine Water Quality : M_BP : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

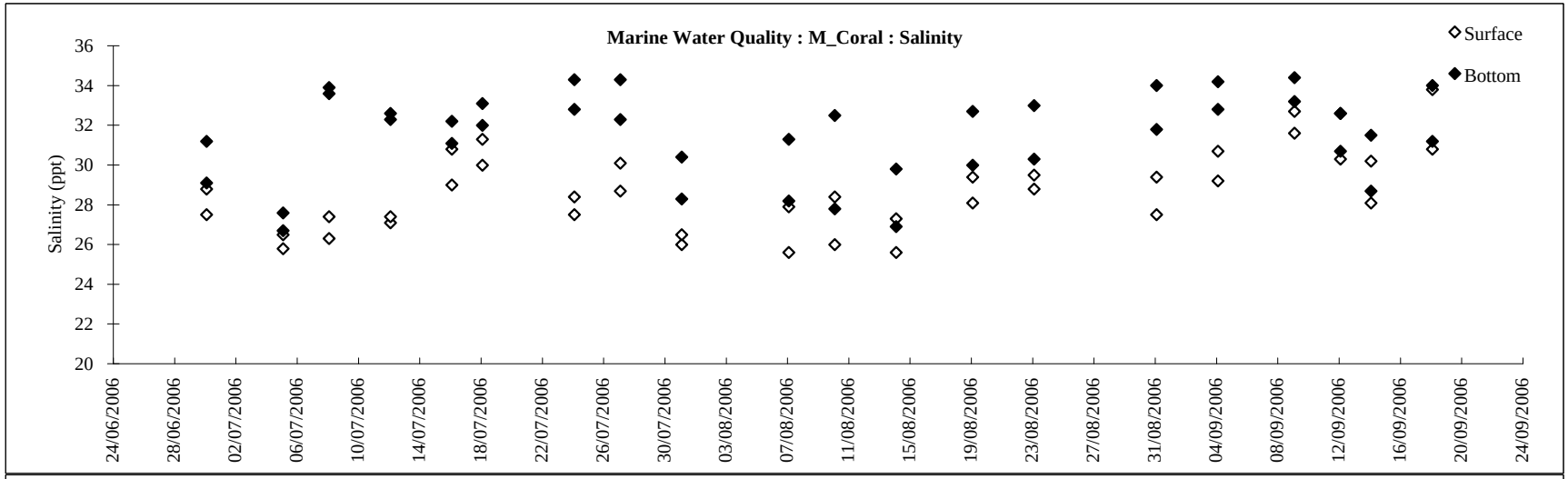

Marine Water Quality : M_BP : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

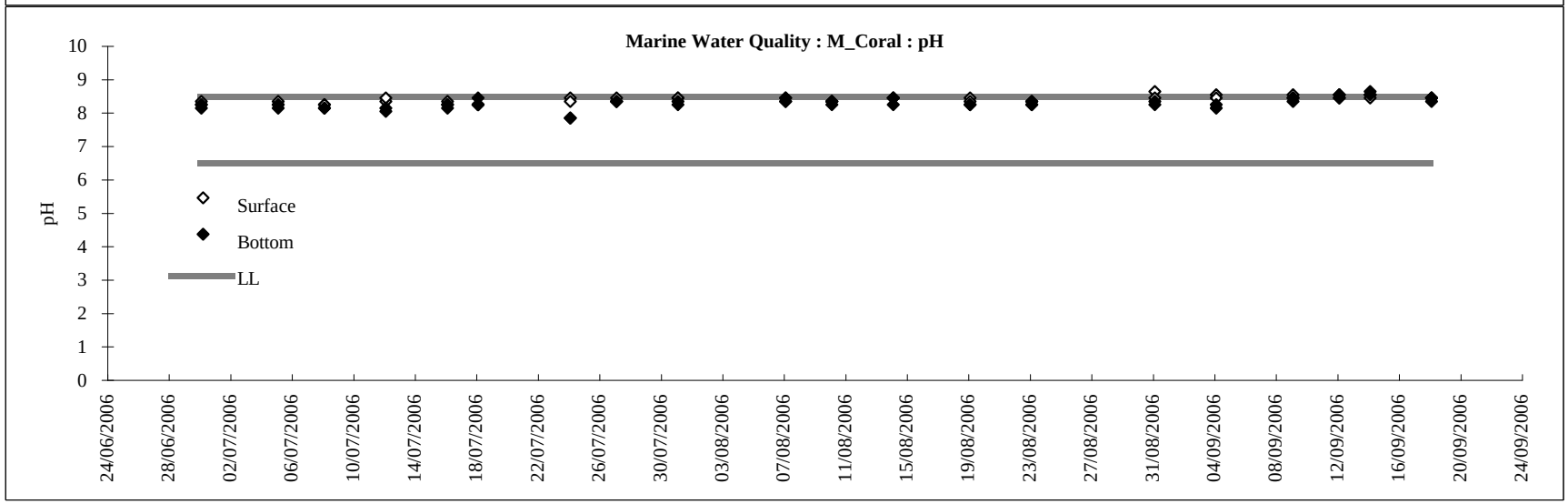
M_BP


Marine Water Quality : M_BP : DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

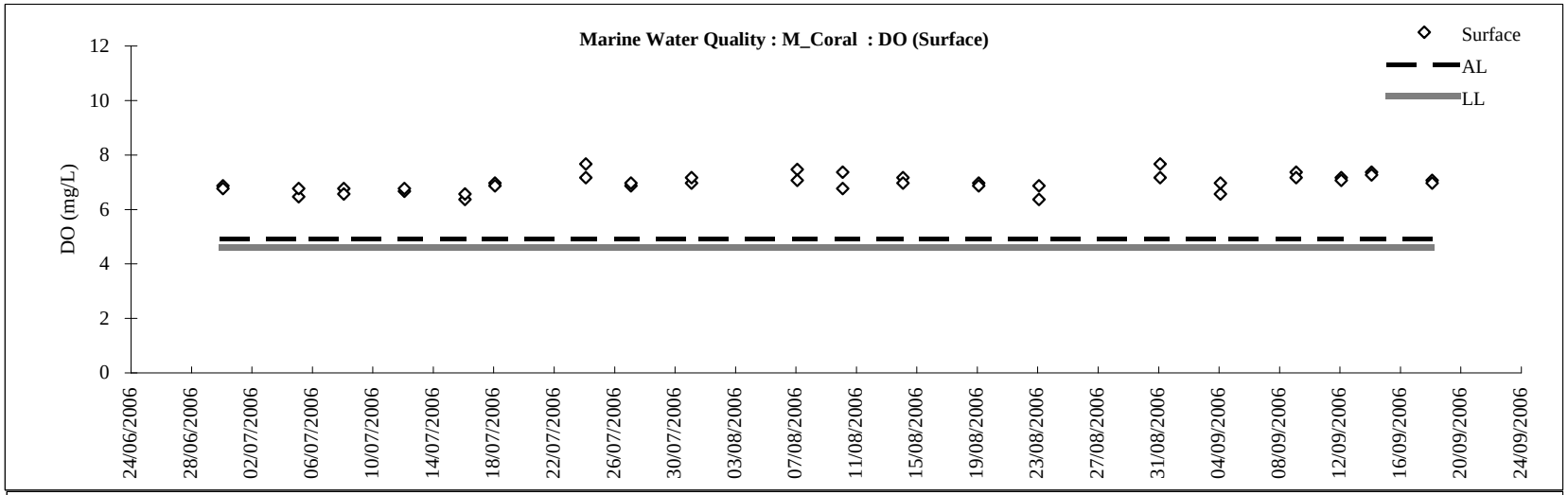

Marine Water Quality : M_BP : DO (Bottom)
Bottom
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

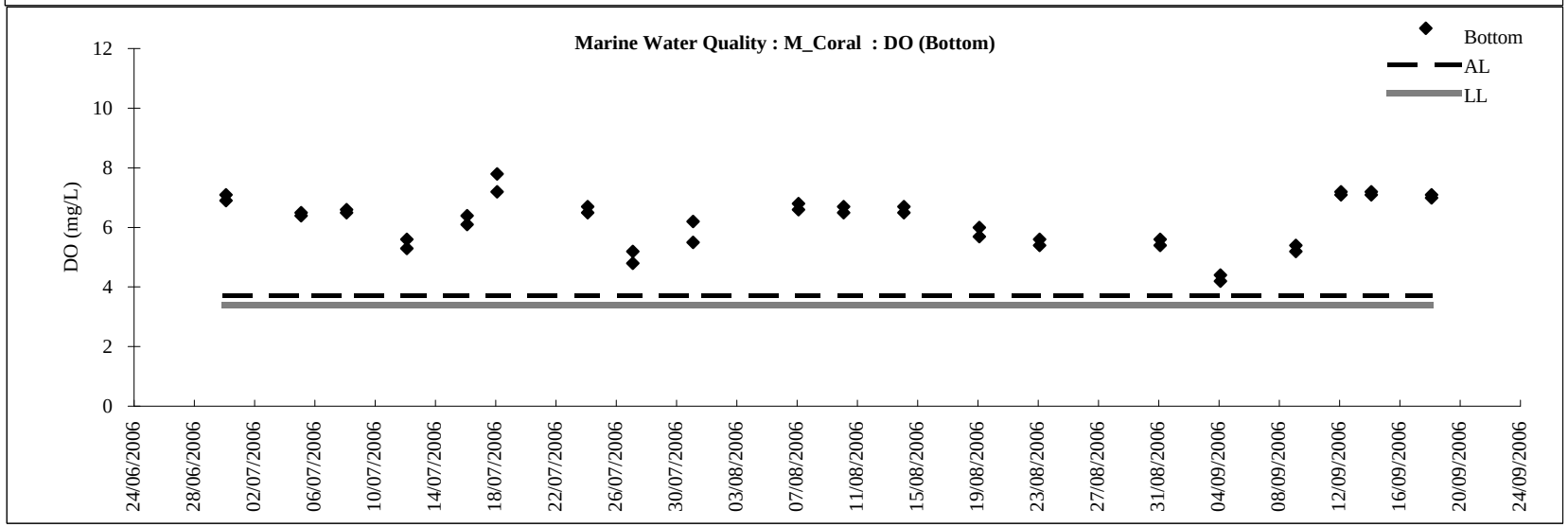

Marine Water Quality : M_BP : Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : M_BP : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006


Marine Water Quality : M_Coral : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

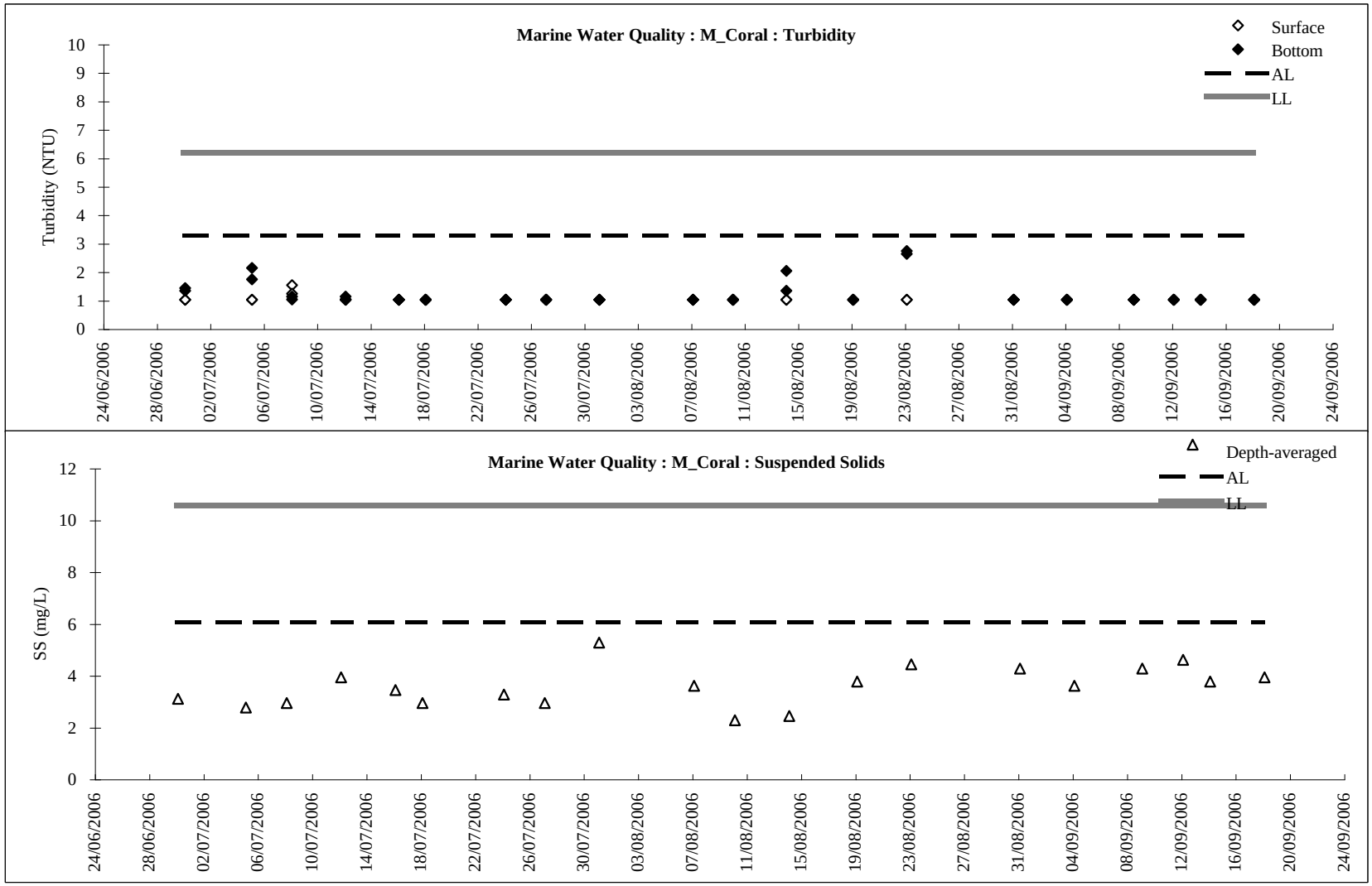

Marine Water Quality : M_Coral : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

M_Coral

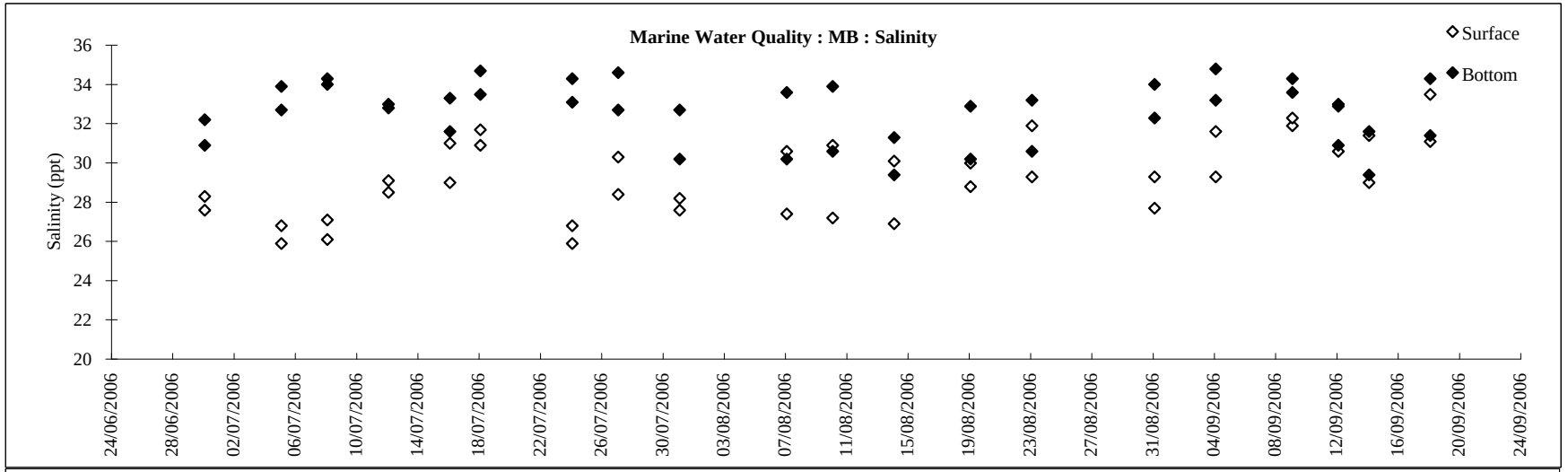

Marine Water Quality : M_Coral : DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

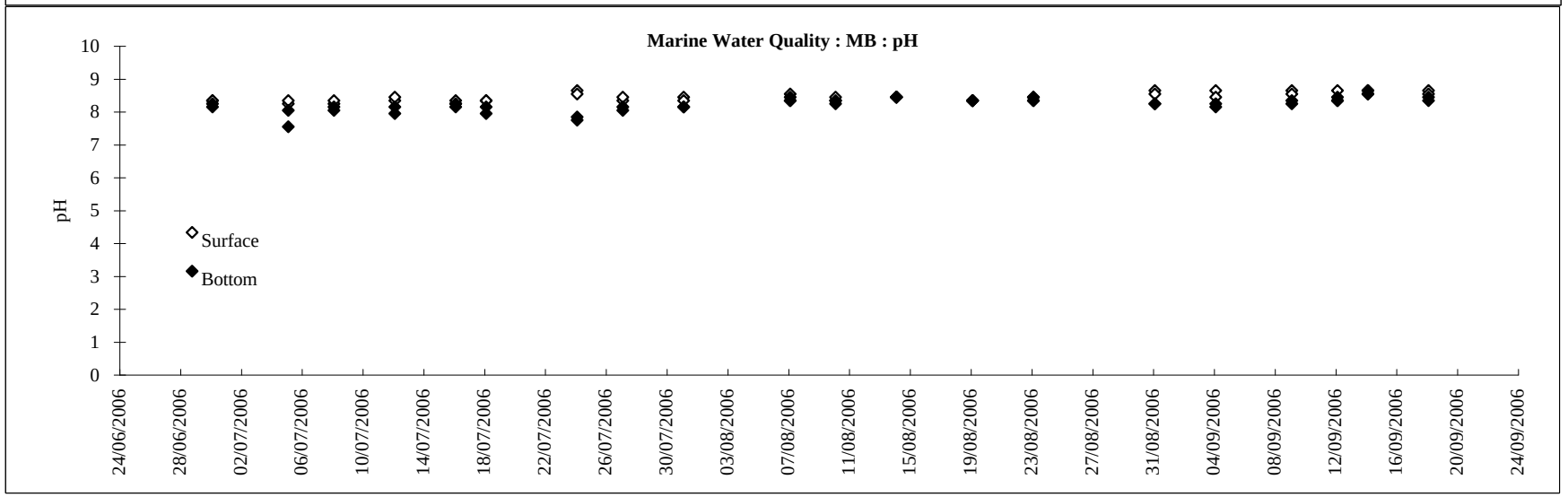

Marine Water Quality : M_Coral : DO (Bottom)
Bottom
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

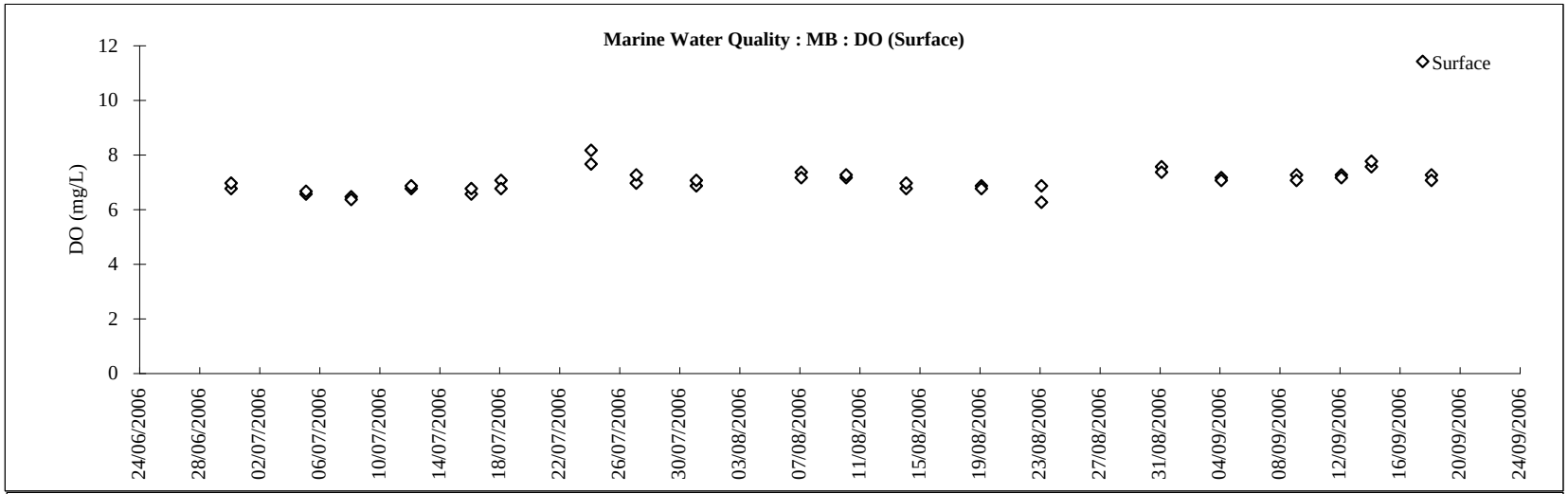
M_Coral

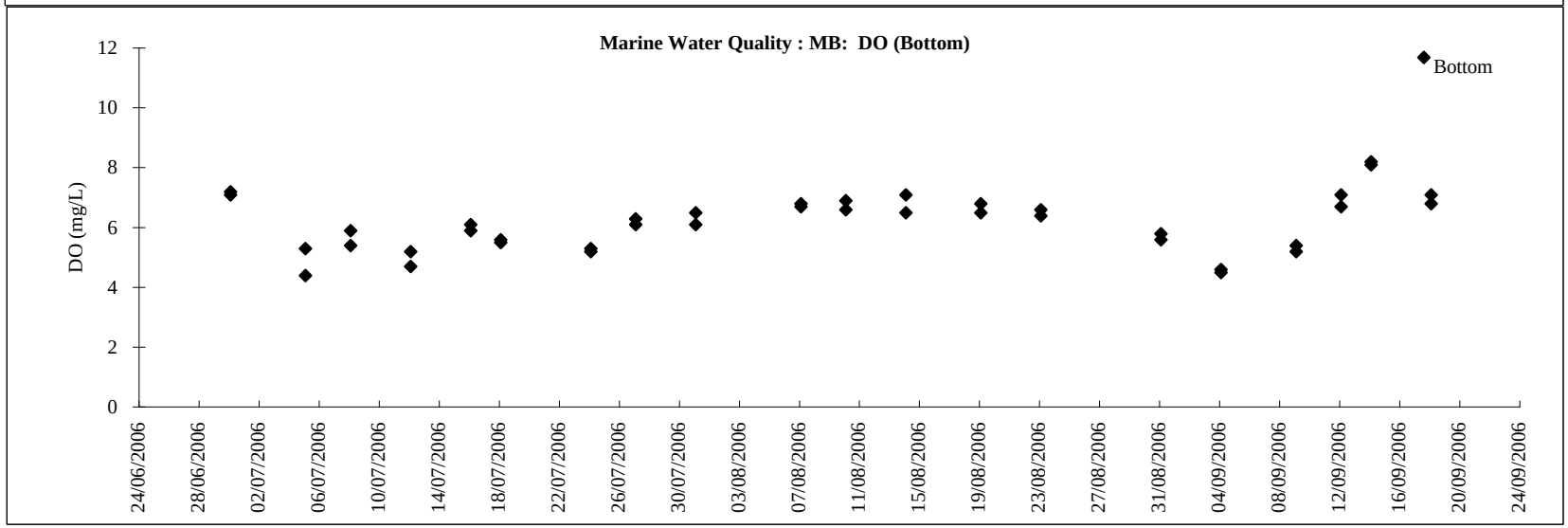

Marine Water Quality : M_Coral : Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : M_Coral : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

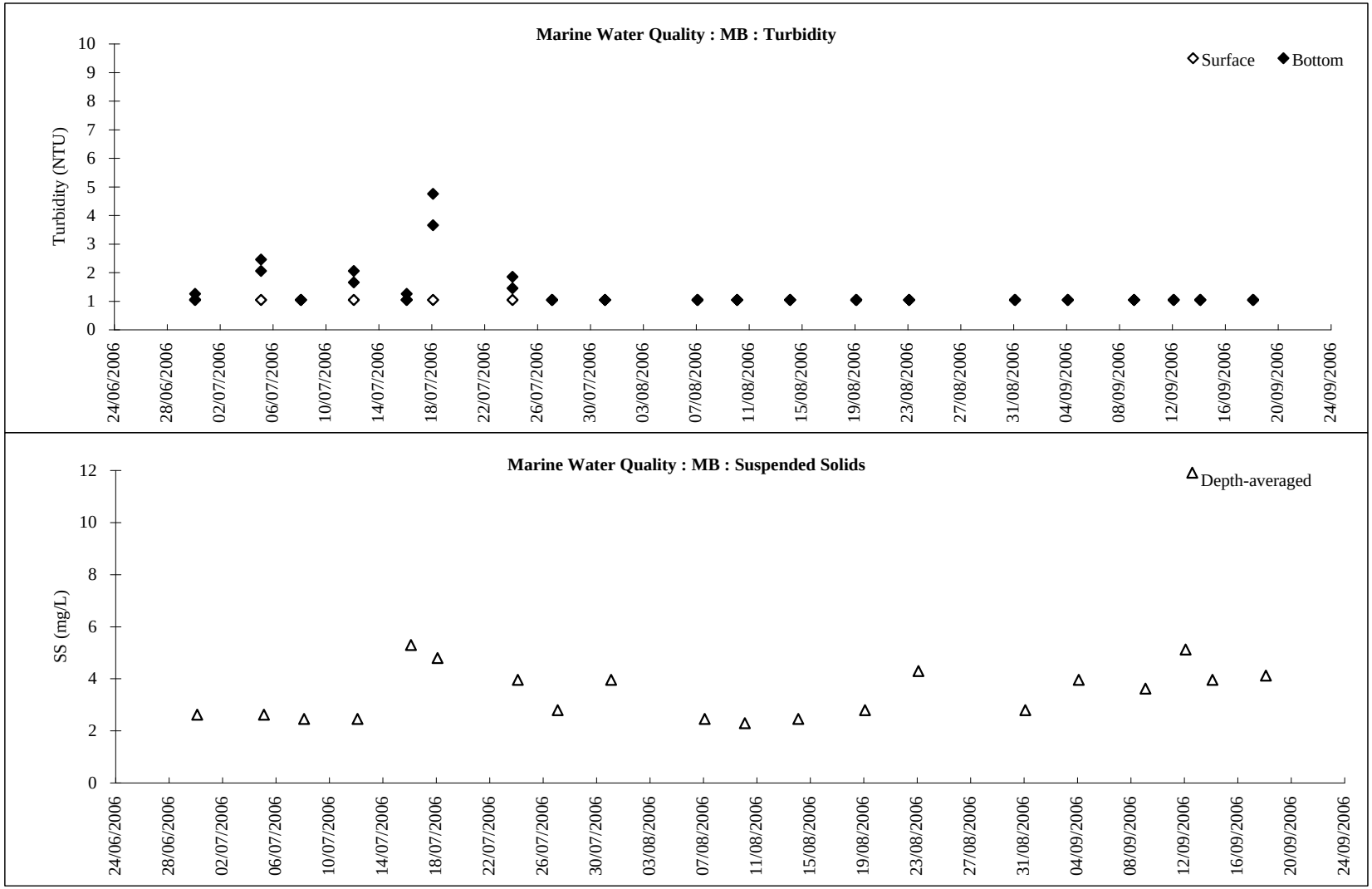
M_Coral

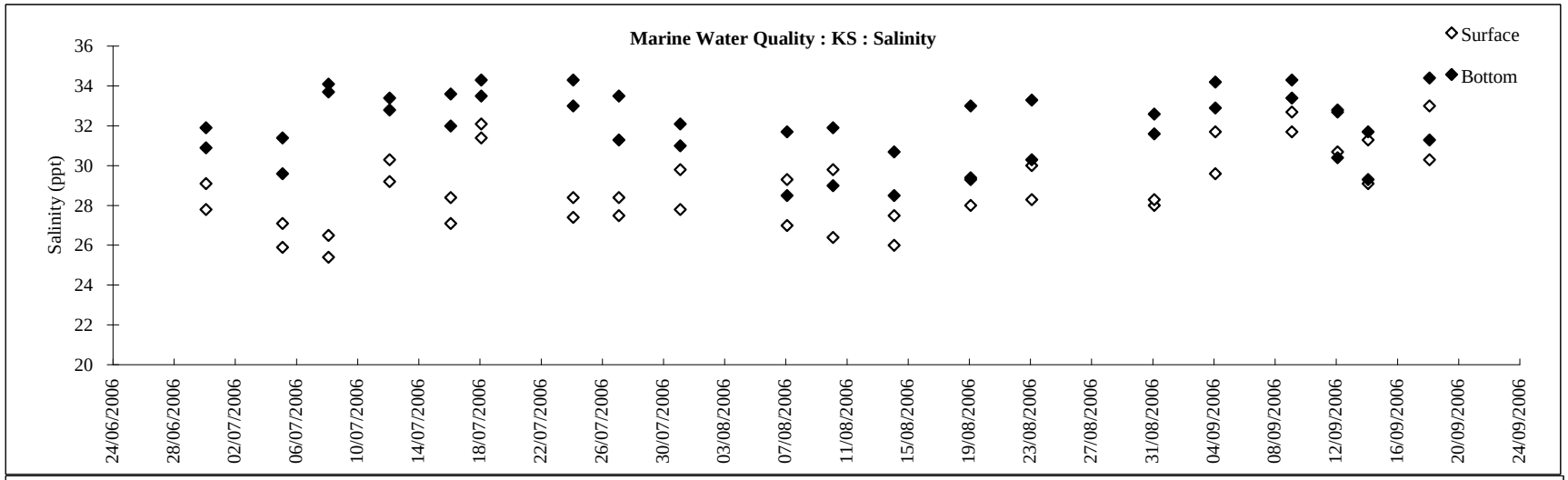

Marine Water Quality : MB : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

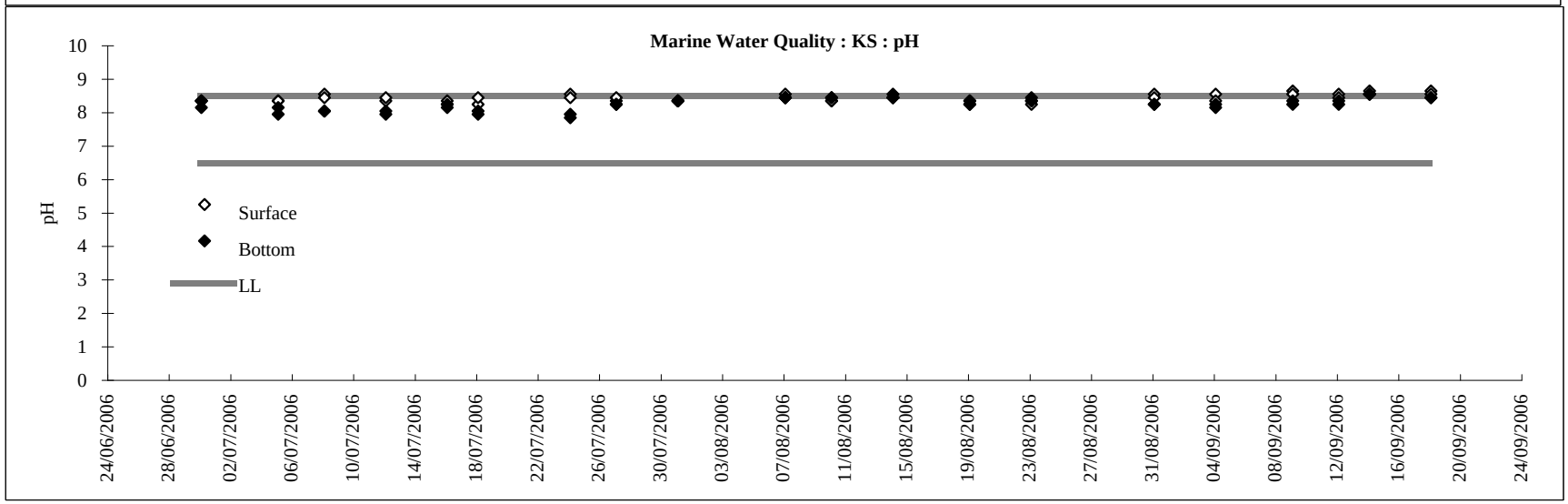

Marine Water Quality : MB : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

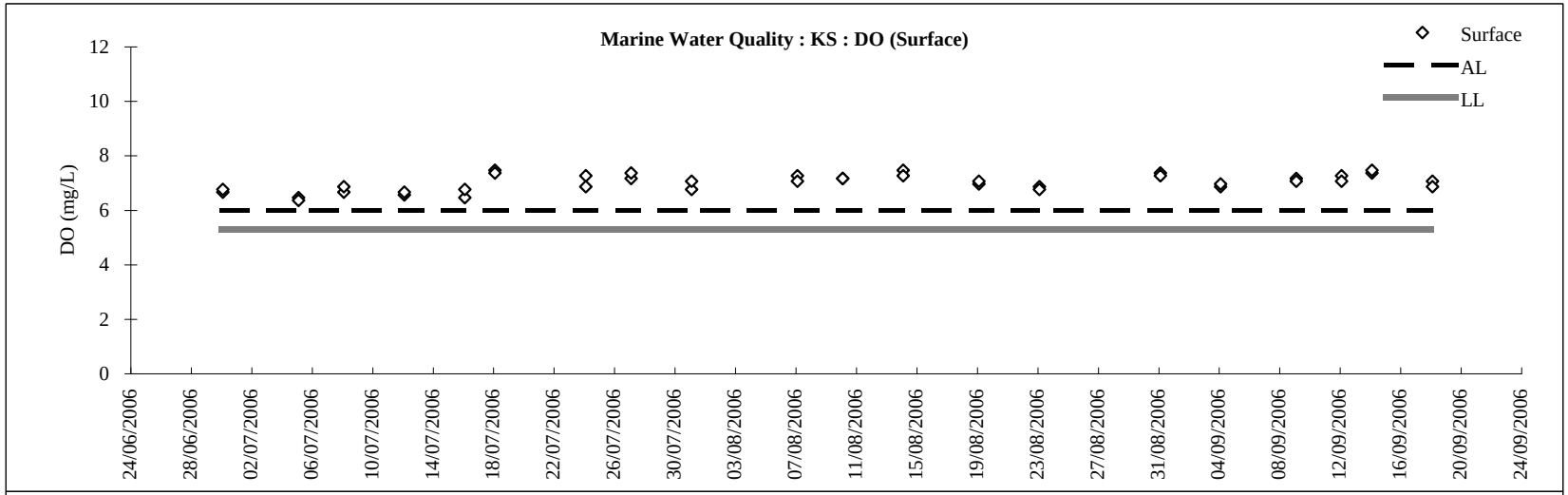

Marine Water Quality : MB : DO (Surface)
Surface
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

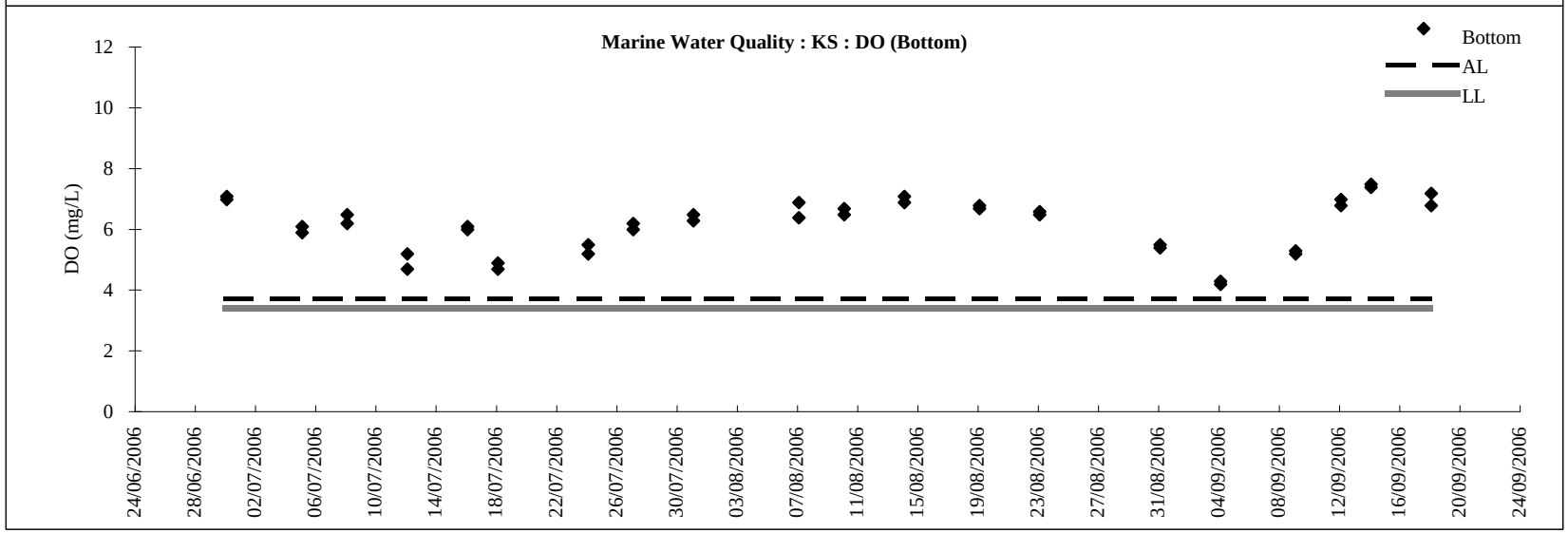

Marine Water Quality : MB: DO (Bottom)
Bottom
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

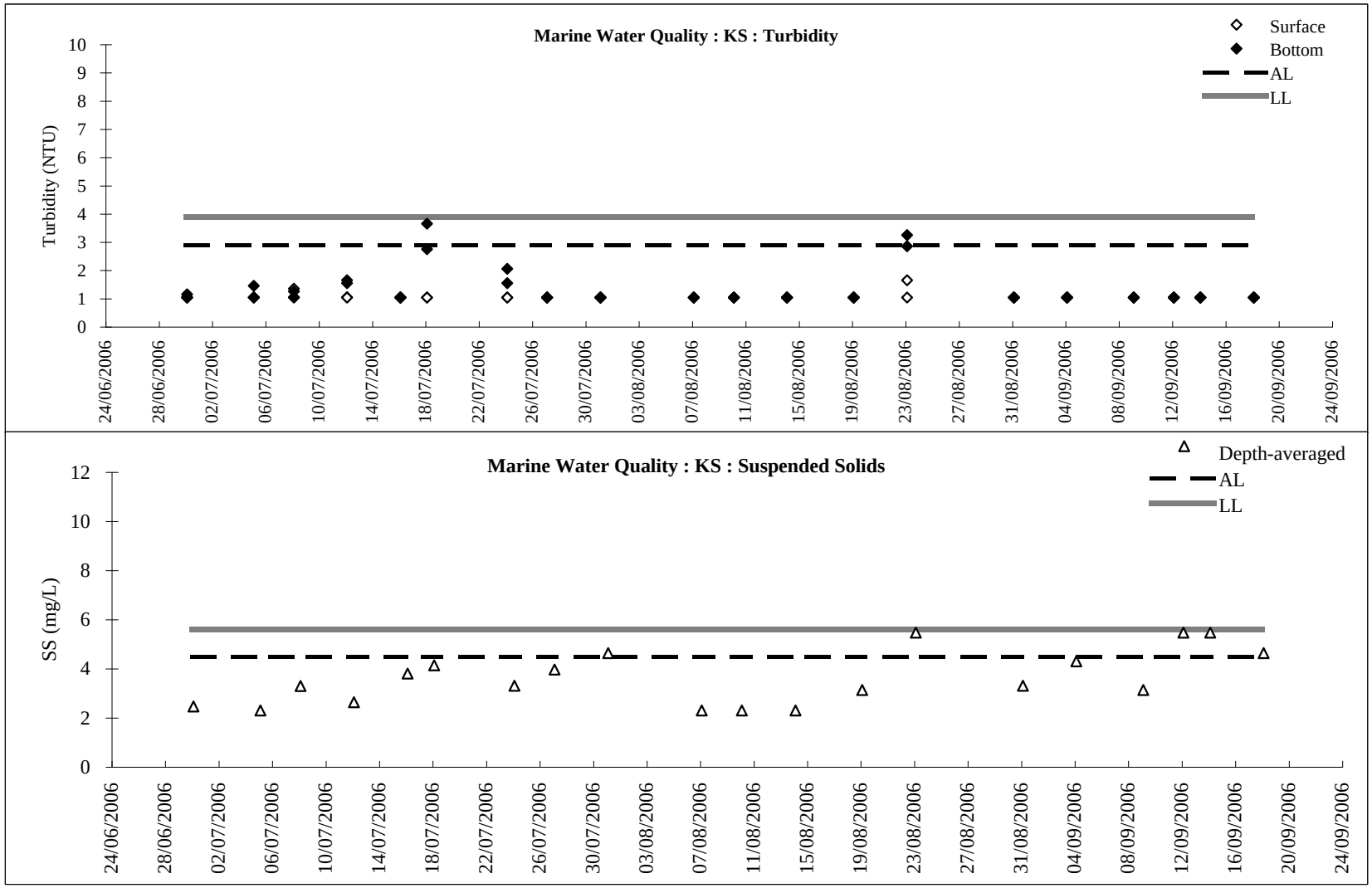

Marine Water Quality : MB : Turbidity
Surface
Bottom
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : MB : Suspended Solids
Depth-averaged
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

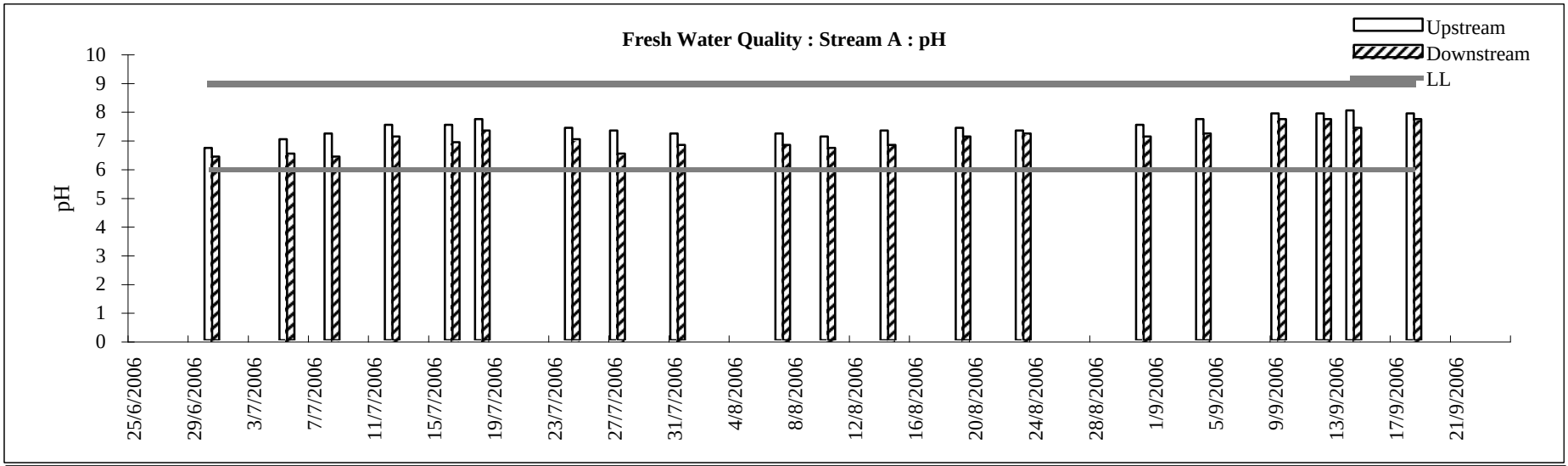

Marine Water Quality : KS : Salinity
Surface
Bottom
Salinity (ppt)
36
34
32
30
28
26
24
22
20
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

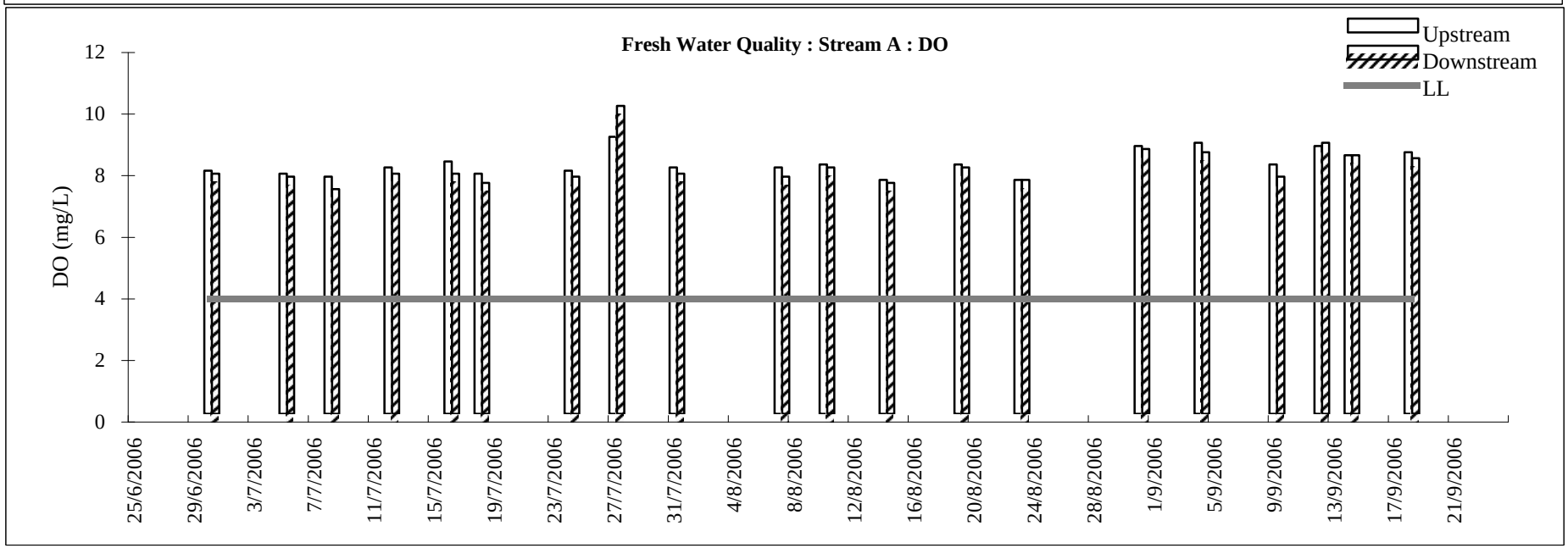

Marine Water Quality : KS : pH
pH
10
9
8
7
6
5
4
3
2
1
0
Surface
Bottom
LL
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006


Marine Water Quality : KS : DO (Surface)
Surface
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

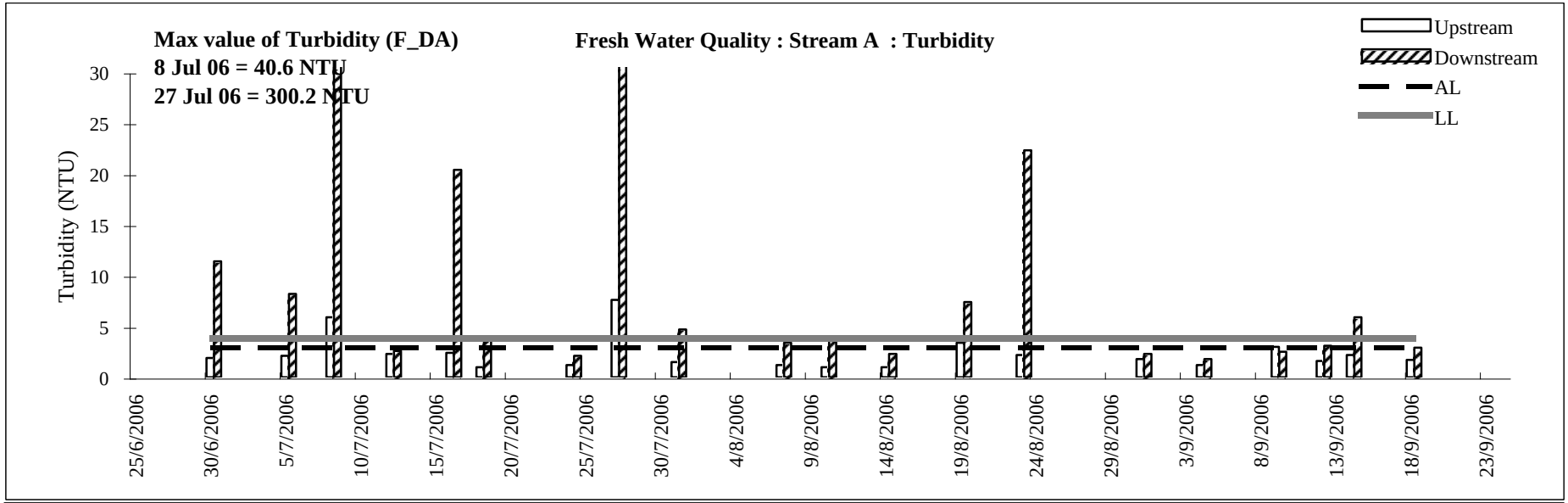

Marine Water Quality : KS : DO (Bottom)
Bottom
AL
LL
DO (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006

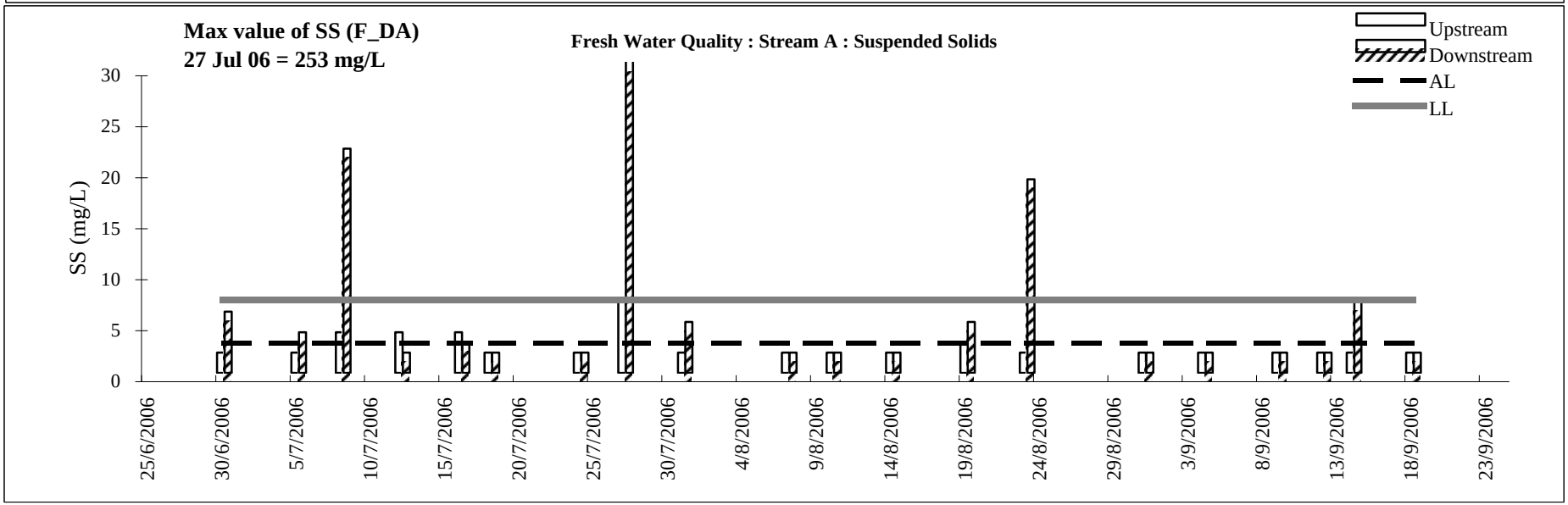

Marine Water Quality : KS : Turbidity
Surface
Bottom
AL
LL
Turbidity (NTU)
0
1
2
3
4
5
6
7
8
9
10
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006
Marine Water Quality : KS : Suspended Solids
Depth-averaged
AL
LL
SS (mg/L)
0
2
4
6
8
10
12
24/06/2006
28/06/2006
02/07/2006
06/07/2006
10/07/2006
14/07/2006
18/07/2006
22/07/2006
26/07/2006
30/07/2006
03/08/2006
07/08/2006
11/08/2006
15/08/2006
19/08/2006
23/08/2006
27/08/2006
31/08/2006
04/09/2006
08/09/2006
12/09/2006
16/09/2006
20/09/2006
24/09/2006


Fresh Water Quality : Stream A : pH
Upstream
Downstream
LL
pH
10
9
8
7
6
5
4
3
2
1
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

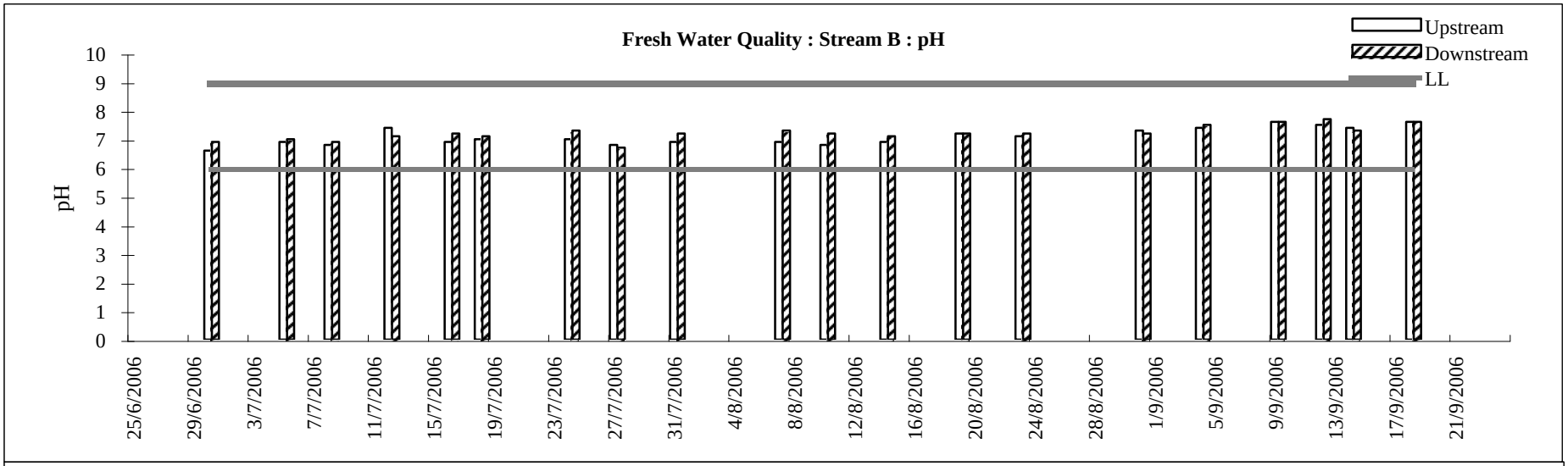

Fresh Water Quality : Stream A : DO
Upstream
Downstream
LL
DO (mg/L)
12
10
8
6
4
2
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

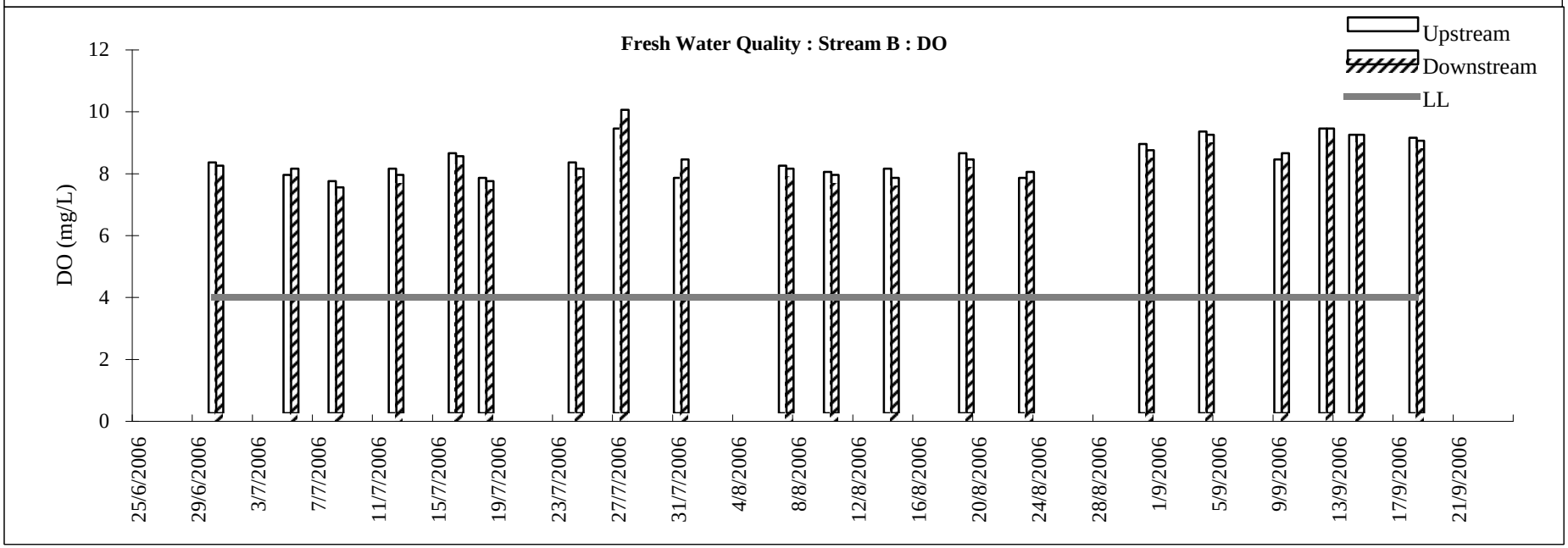
F_A


Max value of Turbidity (F_DA)
8 Jul 06 = 40.6 NTU
27 Jul 06 = 300.2 NTU
Fresh Water Quality : Stream A : Turbidity
Upstream
Downstream
AL
LL
Turbidity (NTU)
0
5
10
15
20
25
30
25/6/2006
30/6/2006
5/7/2006
10/7/2006
15/7/2006
20/7/2006
25/7/2006
30/7/2006
4/8/2006
9/8/2006
14/8/2006
19/8/2006
24/8/2006
29/8/2006
3/9/2006
8/9/2006
13/9/2006
18/9/2006
23/9/2006

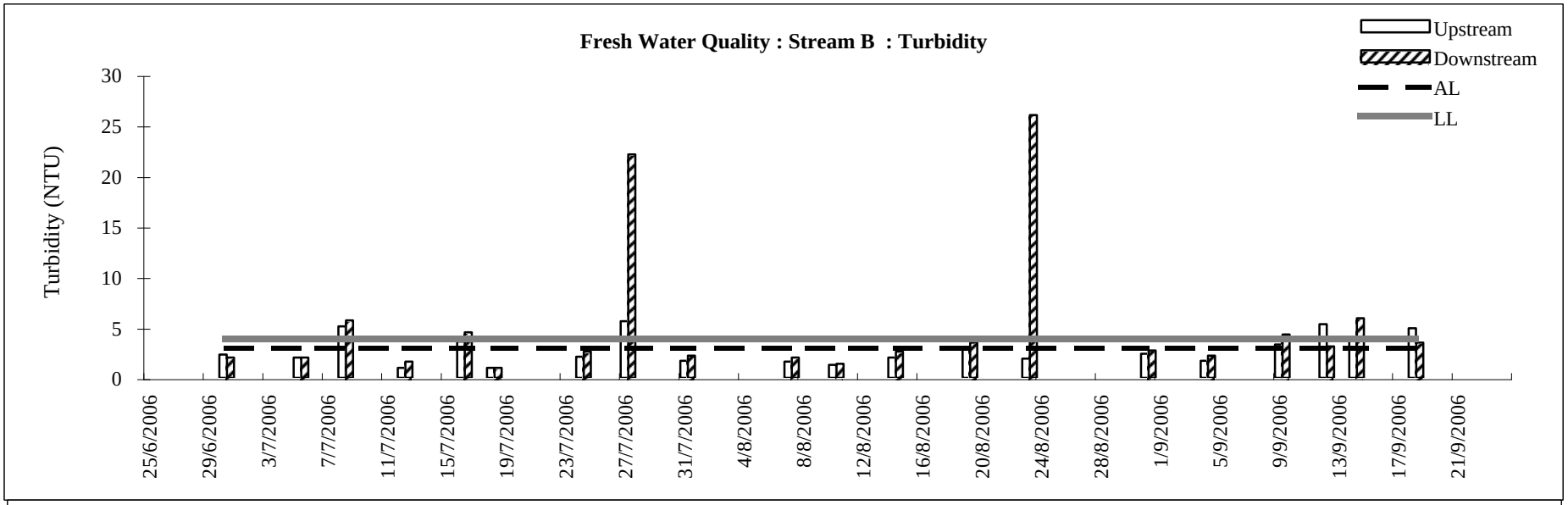

Max value of SS (F_DA)
27 Jul 06 = 253 mg/L
Fresh Water Quality : Stream A : Suspended Solids
Upstream
Downstream
AL
LL
SS (mg/L)
0
5
10
15
20
25
30
25/6/2006
30/6/2006
5/7/2006
10/7/2006
15/7/2006
20/7/2006
25/7/2006
30/7/2006
4/8/2006
9/8/2006
14/8/2006
19/8/2006
24/8/2006
29/8/2006
3/9/2006
8/9/2006
13/9/2006
18/9/2006
23/9/2006

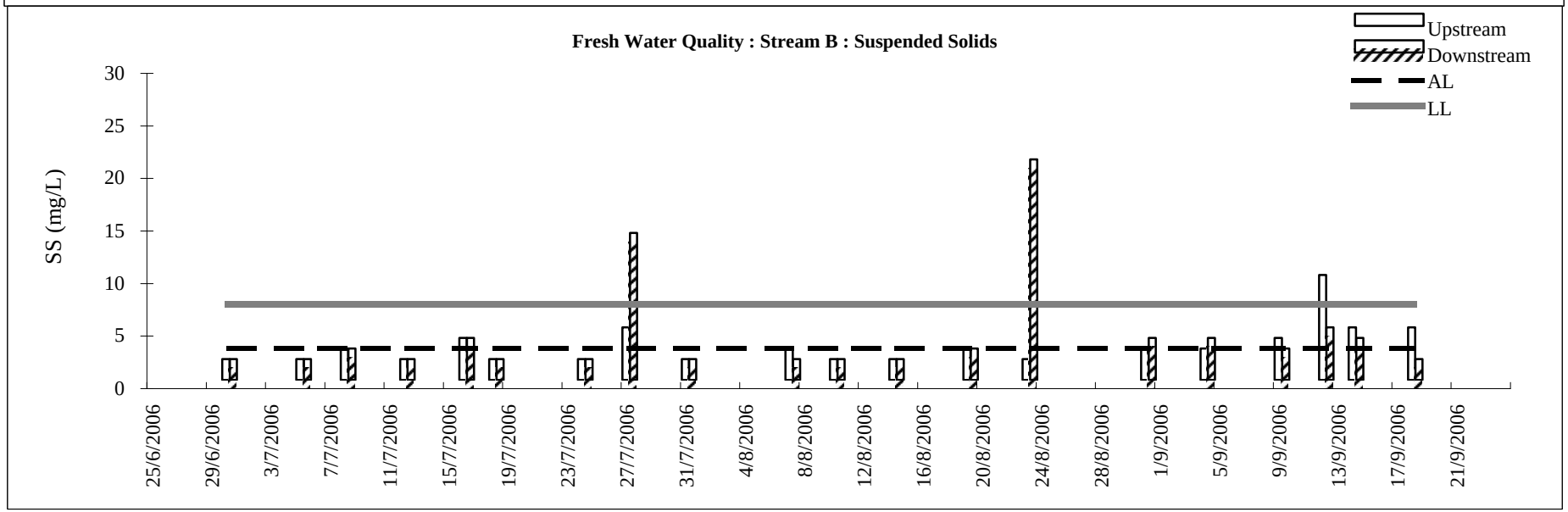
F_A


Fresh Water Quality : Stream B : pH
Upstream
Downstream
LL
pH
10
9
8
7
6
5
4
3
2
1
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

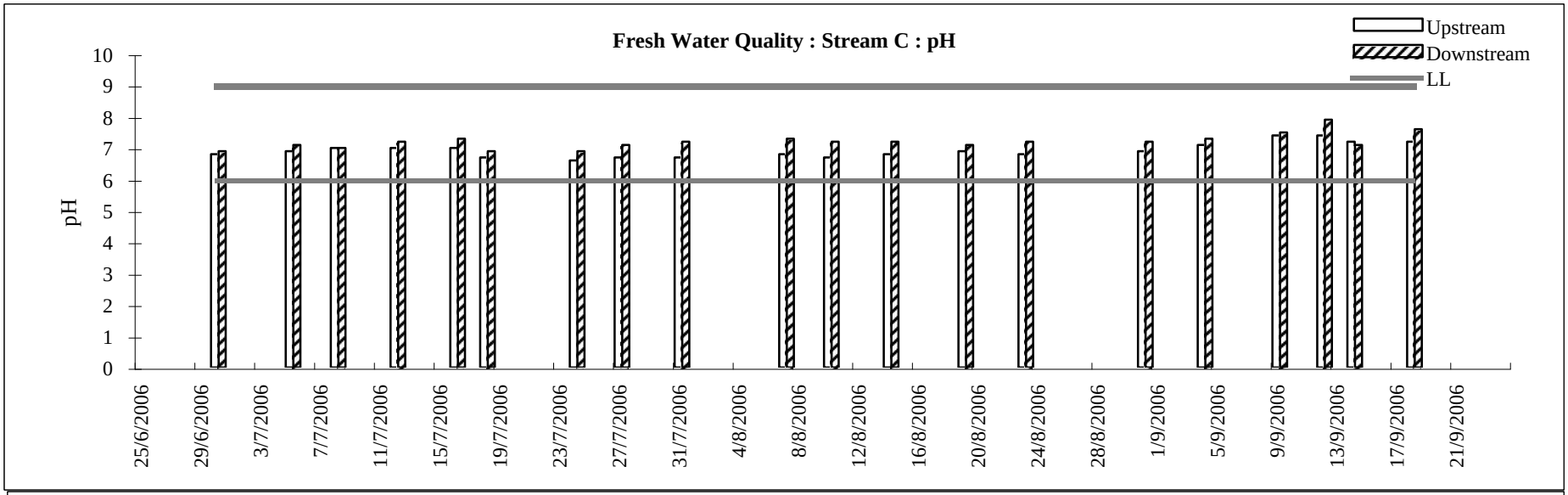

Fresh Water Quality : Stream B : DO
Upstream
Downstream
LL
DO (mg/L)
12
10
8
6
4
2
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

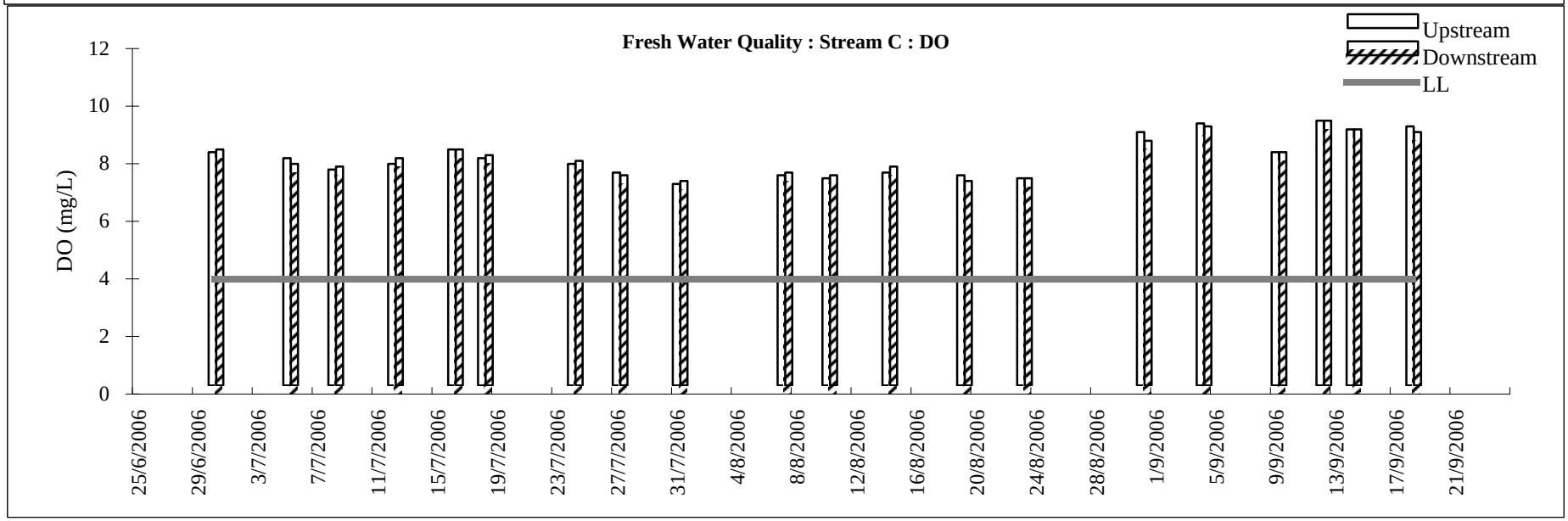
F_B


Fresh Water Quality : Stream B : Turbidity
Upstream
Downstream
AL
LL
Turbidity (NTU)
30
25
20
15
10
5
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

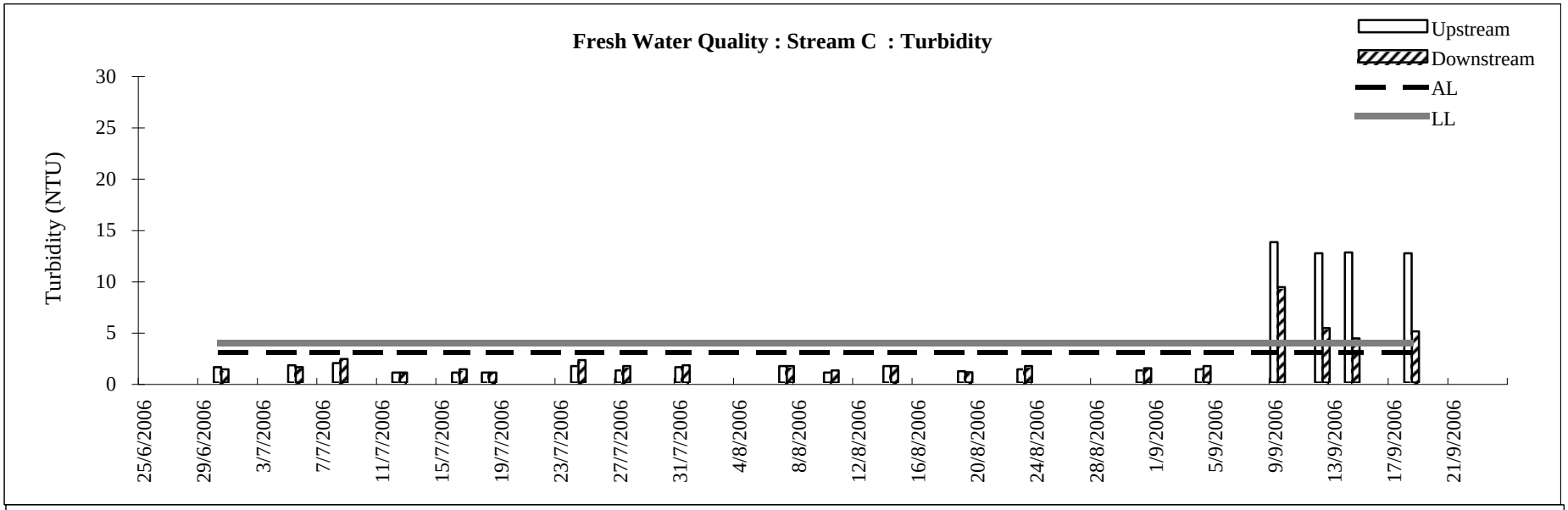

Fresh Water Quality : Stream B : Suspended Solids
Upstream
Downstream
AL
LL
SS (mg/L)
30
25
20
15
10
5
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

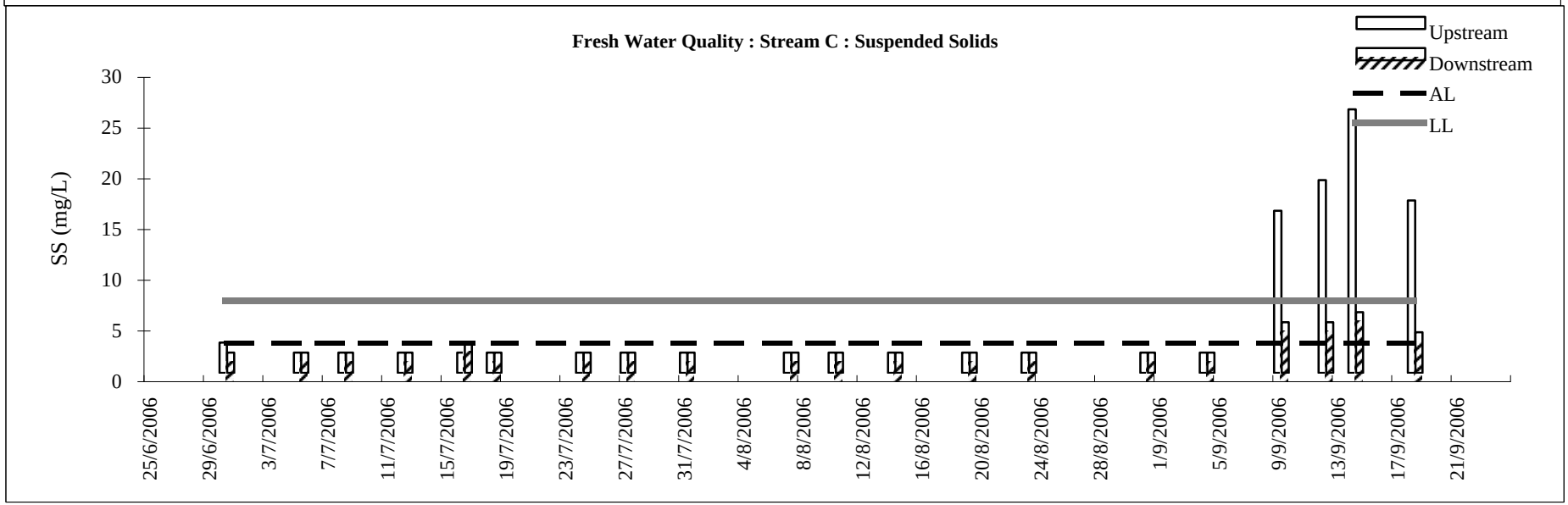
F_B


Fresh Water Quality : Stream C : pH
Upstream
Downstream
LL
pH
10
9
8
7
6
5
4
3
2
1
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

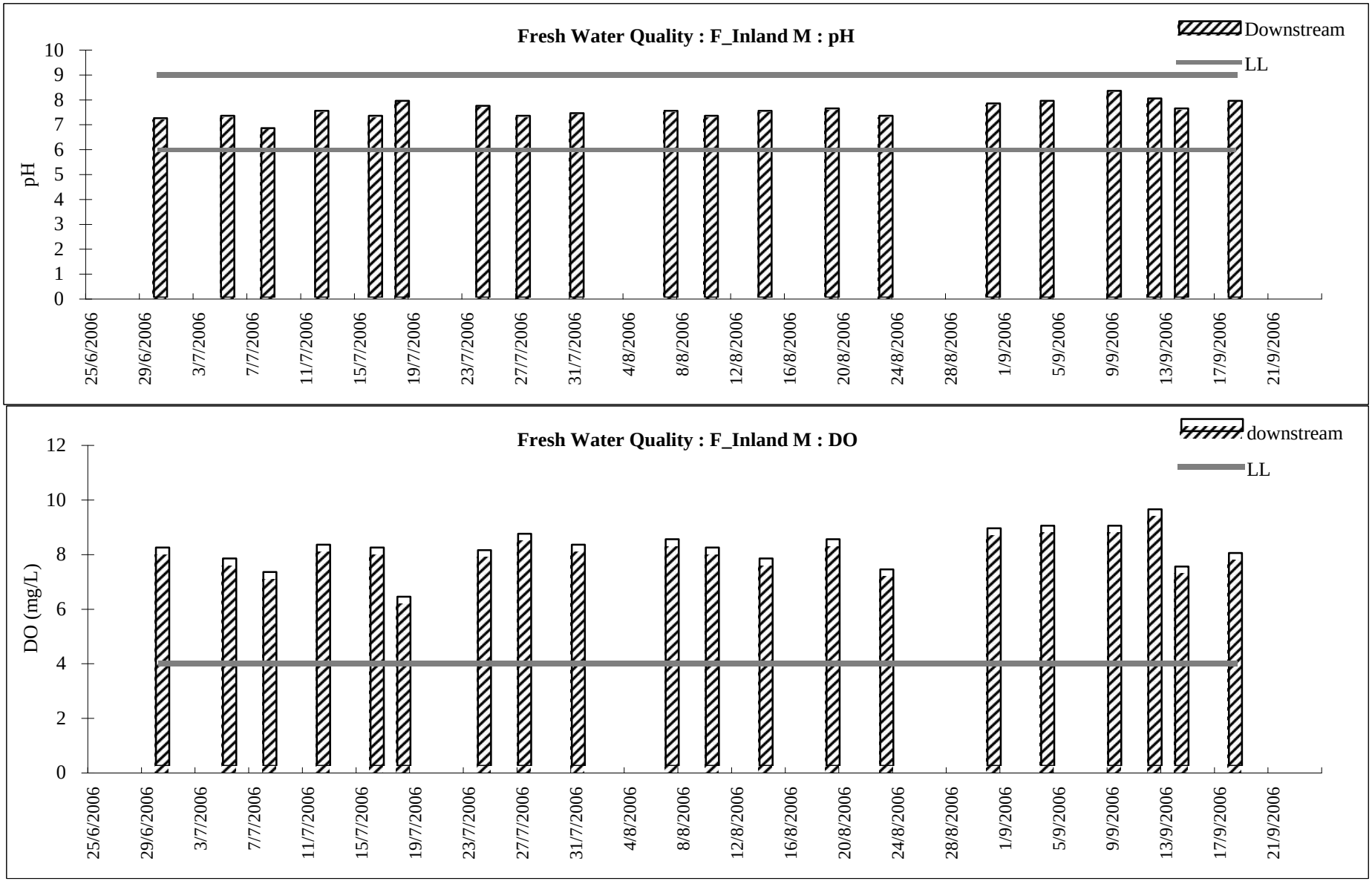

Fresh Water Quality : Stream C : DO
Upstream
Downstream
LL
DO (mg/L)
12
10
8
6
4
2
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

F_C

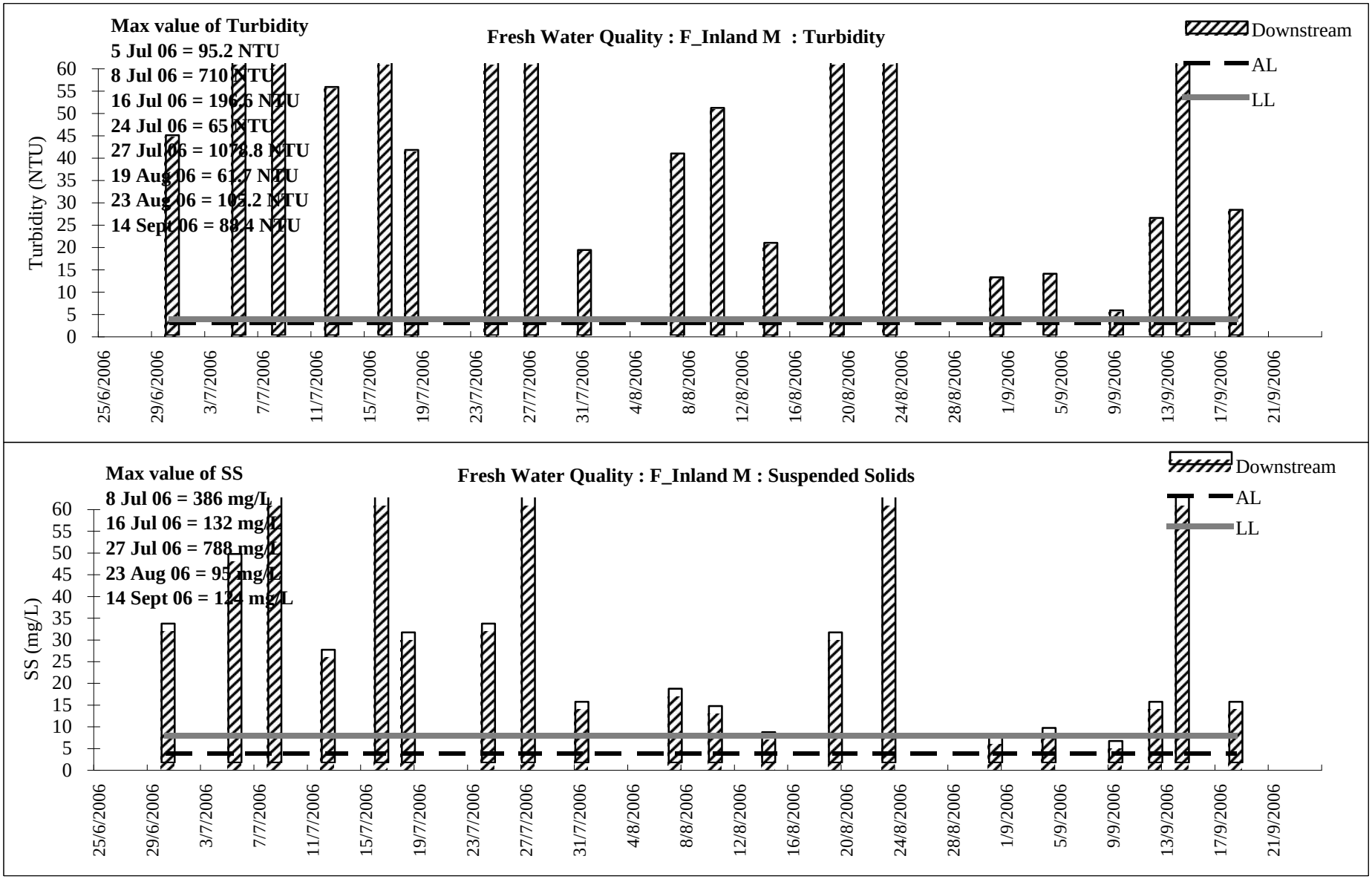

Fresh Water Quality : Stream C : Turbidity
Upstream
Downstream
AL
LL
Turbidity (NTU)
30
25
20
15
10
5
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006


Fresh Water Quality : Stream C : Suspended Solids
Upstream
Downstream
AL
LL
SS (mg/L)
30
25
20
15
10
5
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

F_C


Fresh Water Quality : F_Inland M : pH
Downstream
LL
pH
10
9
8
7
6
5
4
3
2
1
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006
Fresh Water Quality : F_Inland M : DO
downstream
LL
DO (mg/L)
12
10
8
6
4
2
0
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

F_Inland M


Max value of Turbidity
5 Jul 06 = 95.2 NTU
8 Jul 06 = 710 NTU
16 Jul 06 = 196.6 NTU
24 Jul 06 = 65 NTU
27 Jul 06 = 1078.8 NTU
19 Aug 06 = 61.7 NTU
23 Aug 06 = 105.2 NTU
14 Sept 06 = 88.4 NTU
Fresh Water Quality : F_Inland M : Turbidity
Turbidity (NTU)
Downstream
AL
LL
Max value of SS
8 Jul 06 = 386 mg/L
16 Jul 06 = 132 mg/L
27 Jul 06 = 788 mg/L
23 Aug 06 = 95 mg/L
14 Sept 06 = 124 mg/L
Fresh Water Quality : F_Inland M : Suspended Solids
SS (mg/L)
Downstream
AL
LL
25/6/2006
29/6/2006
3/7/2006
7/7/2006
11/7/2006
15/7/2006
19/7/2006
23/7/2006
27/7/2006
31/7/2006
4/8/2006
8/8/2006
12/8/2006
16/8/2006
20/8/2006
24/8/2006
28/8/2006
1/9/2006
5/9/2006
9/9/2006
13/9/2006
17/9/2006
21/9/2006

F_Inland M

Marine Water Monitoring Stations (Fish Culture Zones - FCZ)
(Depth-averaged value for marine water quality samples)

TTC	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	29.0	28.6	6.9	8.1	1.1	2.3	
5-Jul-06	30.2	26.5	5.6	8.0	1.7	3.2	
8-Jul-06	28.6	31.0	6.0	8.0	2.4	4.5	Â
12-Jul-06	26.1	30.3	5.4	7.9	1.1	3.2	
16-Jul-06	25.7	30.3	6.3	8.0	1.3	***5.0***	Â
18-Jul-06	25.6	31.2	5.1	7.9	1.5	3.2	
24-Jul-06	26.2	31.0	6.9	8.0	1.0	2.7	
27-Jul-06	25.8	30.6	6.2	8.0	~~1.0~~	2.7	Â
31-Jul-06	26.0	27.6	6.2	8.0	1.2	4.3	
7-Aug-06	27.4	28.5	6.6	8.0	1.2	2.7	
10-Aug-06	27.3	28.5	6.7	8.1	1.1	2.0	Â
14-Aug-06	27.6	27.9	6.5	8.1	1.2	2.2	
19-Aug-06	29.6	30.3	6.0	8.1	1.1	3.0	Â
23-Aug-06	29.4	30.8	5.7	8.2	1.9	2.3	
31-Aug-06	29.0	30.4	6.3	8.2	~~1.0~~	2.7	
4-Sep-06	26.2	32.7	4.3	8.1	1.6	***4.8***	
9-Sep-06	25.7	33.0	6.1	8.2	2.8	***4.8***	Â
12-Sep-06	22.8	31.6	6.9	8.2	1.6	**6.0**	
14-Sep-06	24.0	28.3	6.6	8.1	1.3	***4.7***	Â
18-Sep-06	25.3	31.4	6.7	8.1	1.3	3.8	

Remarks: Exceedance

> Action level	***Bold & Italic***
> Limit level	**Bold**
< Detection Limit	~~Grey~~

Â = **Rainstorm event**

All exceedances were considered not project related at all Fish Culture Zone marine stations, the control stations were increased in the same magnitude as other locations.

KLW	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	29.1	28.3	7.0	8.0	1.1	2.2	
5-Jul-06	28.7	27.8	5.8	7.9	1.5	3.5	
8-Jul-06	28.2	31.9	5.8	8.0	2.0	***5.5***	Â
12-Jul-06	25.3	30.9	5.2	7.9	1.7	3.8	
16-Jul-06	25.0	32.5	6.1	8.0	1.0	***5.2***	Â
18-Jul-06	25.4	31.1	6.5	7.9	~~1.0~~	4.0	
24-Jul-06	25.7	31.5	6.8	7.9	1.2	3.8	
27-Jul-06	25.7	29.6	6.8	8.0	~~1.0~~	2.2	Â
31-Jul-06	25.4	28.4	5.9	7.9	1.4	4.3	
7-Aug-06	27.4	27.8	6.6	8.0	1.6	4.0	
10-Aug-06	27.2	28.2	6.6	8.0	1.2	2.0	Â
14-Aug-06	28.0	27.9	6.4	8.1	1.6	2.2	
19-Aug-06	28.8	29.8	6.0	8.3	1.2	2.8	Â
23-Aug-06	29.2	30.2	5.9	8.1	1.9	**5.7**	
31-Aug-06	28.4	30.5	5.6	8.1	~~1.0~~	3.5	
4-Sep-06	26.3	32.0	4.6	8.0	1.3	***4.7***	
9-Sep-06	25.5	32.3	6.1	8.1	1.5	4.3	Â
12-Sep-06	23.1	31.4	6.9	8.2	~~1.0~~	**5.7**	
14-Sep-06	24.9	28.5	6.8	8.2	~~1.0~~	***4.8***	Â
18-Sep-06	25.3	29.6	6.7	8.2	~~1.0~~	3.0	

KS	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	28.9	29.4	6.7	8.1	1.0	2.2	
5-Jul-06	30.0	28.0	6.2	8.0	1.1	2.0	
8-Jul-06	28.9	30.9	6.4	8.0	1.1	3.0	Â
12-Jul-06	25.7	31.8	5.7	8.0	1.2	2.3	
16-Jul-06	25.1	30.4	6.1	8.0	~~1.0~~	3.5	Â
18-Jul-06	24.8	32.8	6.8	8.0	1.7	3.8	
24-Jul-06	26.2	31.4	6.7	8.0	1.2	3.0	
27-Jul-06	25.2	30.2	6.7	8.1	~~1.0~~	3.7	Â
31-Jul-06	25.7	29.9	6.6	8.1	~~1.0~~	4.3	
7-Aug-06	27.6	29.2	6.7	8.2	~~1.0~~	2.0	
10-Aug-06	27.4	29.3	6.7	8.2	~~1.0~~	2.0	Â
14-Aug-06	27.5	28.5	6.9	8.2	~~1.0~~	2.0	
19-Aug-06	29.2	29.8	6.7	8.1	~~1.0~~	2.8	Â
23-Aug-06	29.3	30.3	6.5	8.1	2.2	***5.2***	
31-Aug-06	28.5	30.5	6.4	8.1	~~1.0~~	3.0	
4-Sep-06	27.0	32.3	5.7	8.1	~~1.0~~	4.0	
9-Sep-06	26.1	33.0	6.4	8.3	~~1.0~~	2.8	Â
12-Sep-06	22.7	31.5	6.9	8.2	~~1.0~~	***5.2***	
14-Sep-06	26.5	30.3	7.3	8.3	~~1.0~~	***5.2***	Â
18-Sep-06	25.4	32.2	6.8	8.3	~~1.0~~	4.3	

Marine Water Monitoring Stations (Other than FCZ)
(Depth-averaged value for marine water quality samples)

M_RO1	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	28.8	28.9	7.2	8.0	~~1.0~~	2.0	
5-Jul-06	30.4	25.6	6.6	8.1	2.0	2.5	
8-Jul-06	30.5	25.7	6.6	8.1	2.0	2.5	Â
12-Jul-06	26.8	29.5	5.6	8.0	~~1.0~~	5.0	
16-Jul-06	25.5	30.2	6.8	8.0	~~1.0~~	4.3	Â
18-Jul-06	26.1	28.7	6.6	7.9	1.3	4.0	
24-Jul-06	27.1	30.4	7.4	8.0	~~1.0~~	3.0	
27-Jul-06	25.5	28.9	7.1	8.0	1.2	3.5	Â
31-Jul-06	26.1	28.7	7.1	7.9	~~1.0~~	3.8	
7-Aug-06	27.8	27.5	7.2	8.0	1.2	3.0	
10-Aug-06	27.8	26.9	7.0	8.0	1.1	2.0	Â
14-Aug-06	28.7	27.3	7.0	8.1	1.2	2.0	
19-Aug-06	30.0	28.5	7.0	8.3	~~1.0~~	2.8	Â
23-Aug-06	29.8	28.7	6.9	8.1	~~1.0~~	5.0	
31-Aug-06	29.8	28.8	7.0	8.3	~~1.0~~	4.0	
4-Sep-06	27.6	30.9	5.4	8.1	~~1.0~~	3.5	
9-Sep-06	26.4	31.9	6.8	8.1	~~1.0~~	3.8	Â
12-Sep-06	23.1	31.6	6.8	8.1	~~1.0~~	5.5	
14-Sep-06	25.9	29.3	6.8	8.3	~~1.0~~	3.0	Â
18-Sep-06	25.4	30.4	6.7	8.2	~~1.0~~	3.3	

Remarks: Exceedance

> Action level	***Bold & Italic***
> Limit level	**Bold**
< Detection Limit	~~Grey~~

Â = **Rainstorm event**

Â All exceedances were considered project related at all marine stations (other than fish culture zone) in particular M_Marsh and M_BP

M_Marsh	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	29.3	27.2	6.8	8.1	1.4	2.8	
5-Jul-06	30.4	25.7	6.0	8.0	1.8	3.0	
8-Jul-06	29.0	31.0	6.3	8.1	2.0	3.2	Â
12-Jul-06	26.1	30.6	5.5	8.0	~~1.0~~	4.2	
16-Jul-06	25.9	29.3	6.2	8.1	**8.6**	**15.5**	Â
18-Jul-06	26.0	31.2	5.8	7.9	2.3	5.0	
24-Jul-06	26.6	30.9	6.6	8.0	1.7	4.3	
27-Jul-06	25.4	23.8	7.6	7.9	**24.7**	**36.5**	Â
31-Jul-06	26.3	26.5	6.9	8.1	1.2	4.7	
7-Aug-06	27.5	27.8	6.5	8.0	1.7	3.5	
10-Aug-06	27.4	28.0	6.6	8.1	1.4	2.0	Â
14-Aug-06	27.8	27.6	6.6	8.1	1.6	3.8	
19-Aug-06	29.8	30.1	6.2	8.2	1.4	4.0	Â
23-Aug-06	29.9	30.2	5.9	8.1	1.9	2.5	
31-Aug-06	29.1	30.5	5.8	8.2	2.5	5.7	
4-Sep-06	26.5	32.6	4.5	8.1	1.8	4.5	
9-Sep-06	26.1	33.0	6.3	8.2	1.9	***6.3***	Â
12-Sep-06	22.8	31.7	7.3	8.3	1.5	***6.7***	
14-Sep-06	24.5	22.1	7.0	8.1	**6.6**	**12.2**	Â
18-Sep-06	25.5	31.6	6.8	8.2	1.6	5.3	

M_BP	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	29.4	28.0	6.8	8.1	1.2	2.3	
5-Jul-06	30.2	26.5	6.1	8.0	1.2	3.0	
8-Jul-06	28.8	30.7	6.2	8.1	2.2	4.2	Â
12-Jul-06	26.1	31.0	5.6	8.0	~~1.0~~	2.5	
16-Jul-06	25.8	31.1	6.2	8.0	1.4	5.8	Â
18-Jul-06	26.1	31.3	6.7	8.0	~~1.0~~	3.3	
24-Jul-06	26.3	30.9	7.2	8.0	~~1.0~~	2.8	
27-Jul-06	25.6	28.7	6.3	8.0	***4.7***	***7.8***	Â
31-Jul-06	26.2	27.2	6.7	8.0	1.1	5.0	
7-Aug-06	27.4	28.3	6.6	8.1	1.0	2.7	
10-Aug-06	27.3	28.3	6.6	8.1	1.1	2.0	Â
14-Aug-06	27.7	27.5	6.3	8.1	1.3	2.7	
19-Aug-06	29.8	30.2	6.3	8.1	1.1	3.7	Â
23-Aug-06	29.7	30.4	6.0	8.1	1.9	2.5	
31-Aug-06	28.9	30.7	6.4	8.2	~~1.0~~	3.2	
4-Sep-06	26.6	32.2	5.0	8.1	***3.5***	***9.0***	
9-Sep-06	25.8	33.2	6.1	8.2	1.7	5.5	Â
12-Sep-06	22.7	31.6	7.0	8.3	2.3	5.8	
14-Sep-06	24.5	27.5	6.7	8.2	1.6	4.8	Â
18-Sep-06	25.5	31.7	6.8	8.2	1.8	5.8	

M_Coral	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	29.2	28.8	6.7	8.0	1.1	2.8	
5-Jul-06	30.4	26.4	6.4	8.0	1.3	2.5	
8-Jul-06	28.7	31.1	6.4	8.0	1.2	2.7	Â
12-Jul-06	26.7	30.4	6.1	8.0	1.0	3.7	
16-Jul-06	25.6	30.7	6.2	8.0	~~1.0~~	3.2	Â
18-Jul-06	25.7	31.7	7.0	8.1	~~1.0~~	2.7	
24-Jul-06	26.5	31.5	7.1	7.8	~~1.0~~	3.0	
27-Jul-06	25.3	31.6	6.0	8.1	~~1.0~~	2.7	Â
31-Jul-06	26.0	27.8	6.6	8.1	~~1.0~~	5.0	
7-Aug-06	27.4	28.6	6.6	8.2	1.0	3.3	
10-Aug-06	27.4	29.2	6.5	8.1	1.0	2.0	Â
14-Aug-06	27.6	28.0	6.4	8.2	1.2	2.2	
19-Aug-06	29.6	30.2	6.4	8.1	~~1.0~~	3.5	Â
23-Aug-06	29.5	30.6	6.1	8.1	1.8	4.2	
31-Aug-06	28.8	30.9	6.4	8.2	~~1.0~~	4.0	
4-Sep-06	27.1	31.9	5.6	8.1	~~1.0~~	3.3	
9-Sep-06	26.3	32.9	6.4	8.2	~~1.0~~	4.0	Â
12-Sep-06	22.7	31.5	7.1	8.3	~~1.0~~	4.3	
14-Sep-06	25.4	29.7	7.1	8.3	~~1.0~~	3.5	Â
18-Sep-06	25.4	32.3	6.9	8.2	~~1.0~~	3.7	

Marine Water Monitoring Stations (Control Stations)
(Depth-averaged value for marine water quality samples)

M_A	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	29.7	26.7	6.7	8.1	1.3	2.0	
5-Jul-06	30.2	25.7	5.9	8.0	1.6	3.0	
8-Jul-06	28.4	30.7	5.9	8.1	2.6	3.3	Â
12-Jul-06	26.0	29.5	4.8	7.9	1.3	3.3	
16-Jul-06	26.5	29.2	6.3	8.1	4.2	7.0	Â
18-Jul-06	25.8	31.4	6.7	7.9	1.5	4.5	
24-Jul-06	27.3	30.4	6.8	8.0	1.6	3.7	
27-Jul-06	26.2	29.5	6.4	8.0	1.0	2.0	Â
31-Jul-06	26.5	26.5	6.7	8.1	1.0	3.8	
7-Aug-06	27.4	27.3	6.7	8.0	1.7	3.3	
10-Aug-06	27.4	27.4	6.8	8.1	1.4	2.0	Â
14-Aug-06	28.0	27.3	6.7	8.2	1.6	2.5	
19-Aug-06	29.3	29.3	6.2	8.2	1.3	3.5	Â
23-Aug-06	29.2	29.9	6.1	8.1	3.1	7.0	
31-Aug-06	29.8	30.5	6.2	8.2	1.4	3.7	
4-Sep-06	26.7	32.0	4.3	8.0	1.5	4.8	
9-Sep-06	26.4	32.1	6.3	8.2	1.5	4.8	Â
12-Sep-06	22.9	31.4	7.0	8.3	1.1	4.3	
14-Sep-06	24.3	27.4	6.8	8.1	1.5	5.0	Â
18-Sep-06	26.0	31.1	6.7	8.2	1.1	4.7	

Remarks: Exceedance

> Action level	***Bold & Italic***
> Limit level	**Bold**
< Detection Limit	~~Grey~~

Â = **Rainstorm event**

M_B	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	28.8	29.3	6.8	8.1	1.0	2.3	
5-Jul-06	28.9	29.1	5.7	7.9	1.4	2.3	
8-Jul-06	28.3	31.2	6.0	8.0	1.0	2.2	Â
12-Jul-06	25.4	31.4	5.3	7.9	1.3	2.2	
16-Jul-06	24.5	31.0	6.3	8.0	1.0	5.0	Â
18-Jul-06	24.4	32.9	6.0	7.9	2.4	4.5	
24-Jul-06	26.2	31.1	6.7	7.9	1.2	3.7	
27-Jul-06	24.9	31.2	6.6	8.0	1.0	2.5	Â
31-Jul-06	25.3	29.6	6.5	8.1	1.0	3.7	
7-Aug-06	26.6	30.4	6.8	8.2	1.0	2.2	
10-Aug-06	26.4	30.6	6.8	8.1	1.0	2.0	Â
14-Aug-06	26.8	29.4	6.6	8.2	1.0	2.2	
19-Aug-06	28.5	30.4	6.6	8.1	1.0	2.5	Â
23-Aug-06	28.7	31.2	6.4	8.1	1.0	4.0	
31-Aug-06	27.8	31.0	6.4	8.2	1.0	2.5	
4-Sep-06	26.9	32.4	5.8	8.2	1.0	3.7	
9-Sep-06	25.9	33.0	6.4	8.2	1.0	3.3	Â
12-Sep-06	22.6	31.7	7.0	8.2	1.0	4.8	
14-Sep-06	26.4	30.3	7.7	8.3	1.0	3.7	Â
18-Sep-06	24.9	32.4	6.9	8.3	1.0	3.8	

Freshwater Monitoring Stations (Streams A & B)
(mid depth for freshwater quality samples)

F_UA	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	27.3	<0.1	7.9	6.7	1.9	2	
5-Jul-06	27.7	<0.1	7.8	7	2.1	2	
8-Jul-06	27.9	<0.1	7.7	7.2	5.9	4	Â
12-Jul-06	27.8	<0.1	8	7.5	2.3	4	
16-Jul-06	26.1	<0.1	8.2	7.5	2.4	4	Â
18-Jul-06	28.9	<0.1	7.8	7.7	1.0	2	
24-Jul-06	28.6	<0.1	7.9	7.4	1.2	2	
27-Jul-06	25.2	<0.1	9	7.3	7.6	7	Â
31-Jul-06	26.5	<0.1	8	7.2	1.5	2	
7-Aug-06	26.3	<0.1	8	7.2	1.2	2	
10-Aug-06	26.0	<0.1	8.1	7.1	1.0	2	Â
14-Aug-06	27.2	<0.1	7.6	7.3	1.0	2	
19-Aug-06	28.5	<0.1	8.1	7.4	3.4	3	Â
23-Aug-06	28.9	<0.1	7.6	7.3	2.2	2	
31-Aug-06	27.4	<0.1	8.7	7.5	1.8	2	
4-Sep-06	26.7	<0.1	8.8	7.7	1.2	2	
9-Sep-06	25.9	<0.1	8.1	7.9	3.0	2	Â
12-Sep-06	22.3	<0.1	8.7	7.9	1.6	2	
14-Sep-06	26.0	<0.1	8.4	8	2.2	2	Â
18-Sep-06	25.1	<0.1	8.5	7.9	1.7	2	

Remarks: Exceedance

> Action level	***Bold & Italic***
> Limit level	**Bold**
< Detection Limit	~~Grey~~

Â = **Rainstorm event**

For Streams B and C, temporary bridges were started to install on 22 Aug 06 at Stream B2 and early Sept 06 at Stream C. The exceedances of Streams B & C were considered due to construction work.

F_DA	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	27.2	<0.1	7.8	6.4	11.4	***6.0***	
5-Jul-06	28.1	<0.1	7.7	6.5	8.2	***4.0***	
8-Jul-06	27.7	<0.1	7.3	6.4	40.6	**22.0**	Â
12-Jul-06	28.0	<0.1	7.8	7.1	2.6	2.0	
16-Jul-06	26.1	<0.1	7.8	6.9	**20.4**	3.0	Â
18-Jul-06	28.8	<0.1	7.5	7.3	3.6	2.0	
24-Jul-06	28.2	<0.1	7.7	7	2.1	2.0	
27-Jul-06	25.7	<0.1	10	6.5	300.2	**253.0**	Â
31-Jul-06	26.4	<0.1	7.8	6.8	***4.7***	***5.0***	
7-Aug-06	26.2	<0.1	7.7	6.8	3.4	2.0	
10-Aug-06	26.0	<0.1	8	6.7	3.8	2.0	Â
14-Aug-06	27.0	<0.1	7.5	6.8	2.3	2.0	
19-Aug-06	28.6	<0.1	8	7.1	**7.4**	***5.0***	Â
23-Aug-06	28.8	<0.1	7.6	7.2	**22.3**	**19.0**	
31-Aug-06	27.5	<0.1	8.6	7.1	2.3	2.0	
4-Sep-06	26.7	<0.1	8.5	7.2	1.8	2.0	
9-Sep-06	25.9	<0.1	7.7	7.7	2.5	2.0	Â
12-Sep-06	22.6	<0.1	8.8	7.7	3.1	2.0	
14-Sep-06	26.2	<0.1	8.4	7.4	**5.9**	***7.0***	Â
18-Sep-06	25.2	<0.1	8.3	7.7	2.9	2.0	

F_UB	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	26.8	<0.1	8.1	6.6	2.3	2	
5-Jul-06	27	<0.1	7.7	6.9	2.0	2	
8-Jul-06	27.5	<0.1	7.5	6.8	5.1	3	Â
12-Jul-06	27.5	<0.1	7.9	7.4	1.0	2	
16-Jul-06	25.7	<0.1	8.4	6.9	3.6	4	Â
18-Jul-06	27.9	<0.1	7.6	7	1.0	2	
24-Jul-06	27.4	<0.1	8.1	7	2.1	2	
27-Jul-06	25	<0.1	9.2	6.8	5.6	5	Â
31-Jul-06	25.9	<0.1	7.6	6.9	1.7	2	
7-Aug-06	26.1	<0.1	8	6.9	1.6	3	
10-Aug-06	26.1	<0.1	7.8	6.8	1.3	2	Â
14-Aug-06	27.2	<0.1	7.9	6.9	2.0	2	
19-Aug-06	27.7	<0.1	8.4	7.2	3.0	3	Â
23-Aug-06	28.5	<0.1	7.6	7.1	1.9	2	
31-Aug-06	27.2	<0.1	8.7	7.3	2.4	3	
4-Sep-06	26.7	<0.1	9.1	7.4	1.7	3	
9-Sep-06	25.5	<0.1	8.2	7.6	3.3	4	Â
12-Sep-06	22.6	<0.1	9.2	7.5	5.3	10	
14-Sep-06	25.6	<0.1	9	7.4	3.8	5	Â
18-Sep-06	25	<0.1	8.9	7.6	4.9	5	

F_DB	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	26.8	<0.1	8	6.9	2.0	2.0	
5-Jul-06	27.2	<0.1	7.9	7	2.0	2.0	
8-Jul-06	27.7	<0.1	7.3	6.9	5.7	3.0	Â
12-Jul-06	27.9	<0.1	7.7	7.1	1.6	2.0	
16-Jul-06	25.5	<0.1	8.3	7.2	***4.5***	***4.0***	Â
18-Jul-06	27.4	<0.1	7.5	7.1	1.0	2.0	
24-Jul-06	27.7	<0.1	7.9	7.3	2.6	2.0	
27-Jul-06	24.9	<0.1	9.8	6.7	**22.1**	14.0	Â
31-Jul-06	26	<0.1	8.2	7.2	2.2	2.0	
7-Aug-06	26.3	<0.1	7.9	7.3	2.0	2.0	
10-Aug-06	26.4	<0.1	7.7	7.2	1.4	2.0	Â
14-Aug-06	27.5	<0.1	7.6	7.1	2.6	2.0	
19-Aug-06	27.6	<0.1	8.2	7.2	3.5	3.0	Â
23-Aug-06	28.3	<0.1	7.8	7.2	**26.0**	**21.0**	
31-Aug-06	27.3	<0.1	8.5	7.2	2.7	***4.0***	
4-Sep-06	26.9	<0.1	9	7.5	2.2	***4.0***	
9-Sep-06	25.6	<0.1	8.4	7.6	**4.3**	3	Â
12-Sep-06	22.5	<0.1	9.2	7.7	3.1	***5.0***	
14-Sep-06	25.8	<0.1	9	7.3	5.9	4	Â
18-Sep-06	25.1	<0.1	8.8	7.6	3.5	2	

Freshwater Monitoring Stations (Stream C & Freshwater Inland Marsh)
(mid depth for freshwater quality samples)

F_UC	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	26.7	<0.1	8.1	6.8	1.5	3	
5-Jul-06	26.3	<0.1	7.9	6.9	1.7	2	
8-Jul-06	26.9	<0.1	7.5	7	1.9	2	Â
12-Jul-06	26.9	<0.1	7.7	7	1.0	2	
16-Jul-06	25.8	<0.1	8.2	7	1.0	2	Â
18-Jul-06	27.6	<0.1	7.9	6.7	1.0	2	
24-Jul-06	27.5	<0.1	7.7	6.6	1.6	2	
27-Jul-06	25.3	<0.1	7.4	6.7	1.2	2	Â
31-Jul-06	26	<0.1	7	6.7	1.5	2	
7-Aug-06	26.3	<0.1	7.3	6.8	1.6	2	
10-Aug-06	26.4	<0.1	7.2	6.7	1.0	2	Â
14-Aug-06	27.3	<0.1	7.4	6.8	1.6	2	
19-Aug-06	28.3	<0.1	7.3	6.9	1.1	2	Â
23-Aug-06	28.6	<0.1	7.2	6.8	1.3	2	
31-Aug-06	27.1	<0.1	8.8	6.9	1.2	2	
4-Sep-06	26.6	<0.1	9.1	7.1	1.3	2	
9-Sep-06	25.6	<0.1	8.1	7.4	13.7	16	Â
12-Sep-06	22.4	<0.1	9.2	7.4	12.6	19	
14-Sep-06	25.3	<0.1	8.9	7.2	12.7	26	Â
18-Sep-06	24.9	<0.1	9	7.2	12.6	17	

Remarks: Exceedance

> Action level	***Bold & Italic***
> Limit level	**Bold**
< Detection Limit	~~Grey~~

Â = **Rainstorm event**

For Streams B and C, temporary bridges were started to install on 22 Aug 06 at Stream B2 and early Sept 06 at Stream C. The exceedances of Streams B & C were considered due to construction work. For fresh water inland marsh, the exceedances were due to continuous discharge from construction site and rainstorm events.

F_DC	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	26.5	<0.1	8.2	6.9	1.3	2.0	
5-Jul-06	26.8	<0.1	7.7	7.1	1.5	2.0	
8-Jul-06	26.8	<0.1	7.6	7.0	2.3	2.0	Â
12-Jul-06	26.6	<0.1	7.9	7.2	~~1.0~~	2.0	
16-Jul-06	25.9	<0.1	8.2	7.3	1.3	3.0	Â
18-Jul-06	27.3	<0.1	8.0	6.9	1.0	2.0	
24-Jul-06	27.4	<0.1	7.8	6.9	2.2	2.0	
27-Jul-06	25.5	<0.1	7.3	7.1	1.6	2.0	Â
31-Jul-06	25.9	<0.1	7.1	7.2	1.7	2.0	
7-Aug-06	25.8	<0.1	7.4	7.3	1.6	2.0	
10-Aug-06	26.2	<0.1	7.3	7.2	1.2	2.0	Â
14-Aug-06	27.4	<0.1	7.6	7.2	1.6	2.0	
19-Aug-06	28.3	<0.1	7.1	7.1	1.0	2.0	Â
23-Aug-06	28.6	<0.1	7.2	7.2	1.6	2.0	
31-Aug-06	27.2	<0.1	8.5	7.2	1.4	2.0	
4-Sep-06	26.5	<0.1	9.0	7.3	1.6	2.0	
9-Sep-06	25.8	<0.1	8.1	7.5	**9.3**	***5.0***	Â
12-Sep-06	22.5	<0.1	9.2	7.9	**5.3**	***5.0***	
14-Sep-06	25.5	<0.1	8.9	7.1	4.3	6.0	Â
18-Sep-06	24.8	<0.1	8.8	7.6	5.0	4.0	

F_Inland M	Temp (oC)	Salinity (ppt)	DO (mg/L)	pH	Turbidity (NTU)	SS (mg/L)	
30-Jun-06	27.3	<0.1	8.0	7.2	44.8	**32.0**	
5-Jul-06	28.4	<0.1	7.6	7.3	95.2	**48.0**	
8-Jul-06	28.3	0.1	7.1	6.8	710.0	**386.0**	Â
12-Jul-06	27.5	<0.1	8.1	7.5	55.6	**26.0**	
16-Jul-06	26.7	<0.1	8.0	7.3	**196.6**	**132.0**	Â
18-Jul-06	28.9	<0.1	6.2	7.9	**41.5**	**30.0**	
24-Jul-06	28.6	<0.1	7.9	7.7	**65.0**	**32.0**	
27-Jul-06	25.8	<0.1	8.5	7.3	**1078.8**	**788.0**	Â
31-Jul-06	26.0	<0.1	8.1	7.4	**19.1**	**14.0**	
7-Aug-06	26.3	0.1	8.3	7.5	**40.7**	**17.0**	
10-Aug-06	26.1	<0.1	8.0	7.3	**50.9**	**13.0**	Â
14-Aug-06	27.3	<0.1	7.6	7.5	**20.7**	***7.0***	
19-Aug-06	27.9	<0.1	8.3	7.6	**61.7**	**30.0**	Â
23-Aug-06	28.6	<0.1	7.2	7.3	**105.2**	**95.0**	
31-Aug-06	28.1	<0.1	8.7	7.8	**13.0**	***6.0***	
4-Sep-06	27.1	<0.1	8.8	7.9	**13.8**	***8.0***	
9-Sep-06	26.7	0.1	8.8	8.3	**5.6**	***5.0***	Â
12-Sep-06	22.1	<0.1	9.4	8.0	**26.3**	**14.0**	
14-Sep-06	26.6	<0.1	7.3	7.6	**88.4**	**124.0**	Â
18-Sep-06	25.3	<0.1	7.8	7.9	**28.1**	**14.0**	

Ecology

Plate 5.3-1 Photos of Stream Habitat

Stream A

Stream B

Stream C

Stream D

Plate 5.3-1 Photos of Stream Habitat

Stream A

The haul road beyond Stream A

Crossing at Stream B upstream

Sign of stream buffer zone

Stream B

Stream B close-up

Stream C

Stream D

Plate 5.3-1 Photos of Stream Habitat

Buffer Zone of Stream A

Buffer Zone of Stream A (2)

Stream B and the buffer zones

Stream B close-up

Stream C

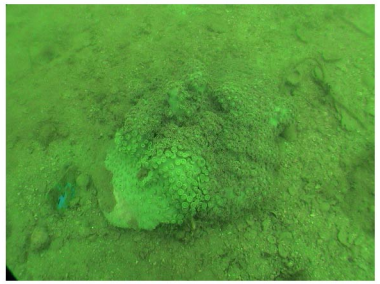
Stream C close-up

Stream D

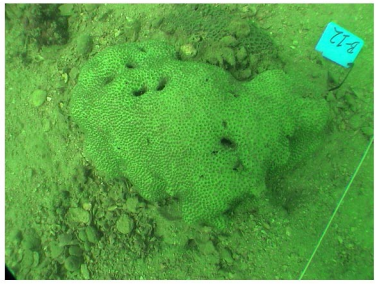
Shrimps in Stream D

Baseline in Dec 05 | Month Nine (Sep 06)

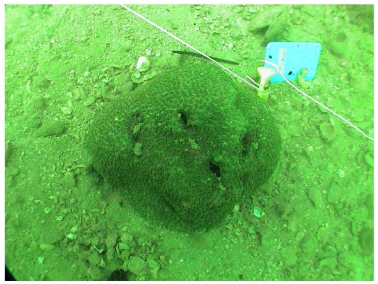
B-11



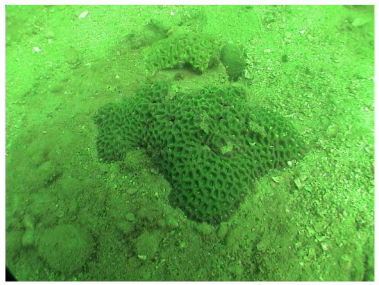
B-12



B-13



B-14

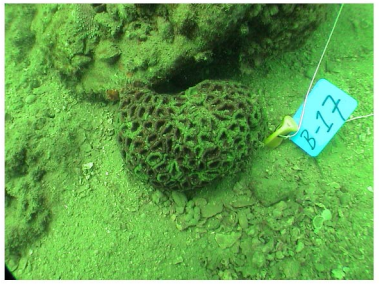


B-15

Baseline in Dec 05 | Month Nine (Sep 06)

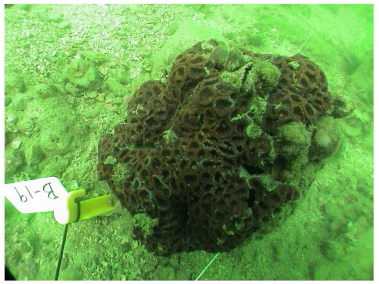
B-16

B-17



B-18

B-19



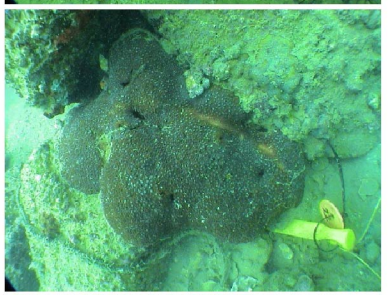
B-20

Baseline in April 06

Month Nine(Sep 06)

B-21

B-22



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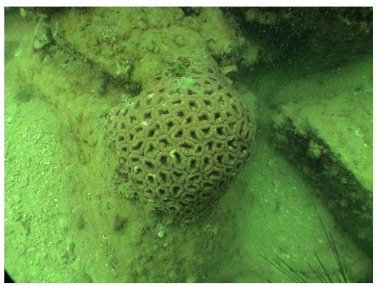

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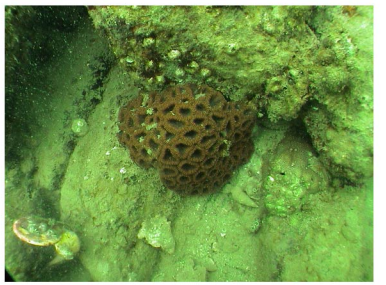

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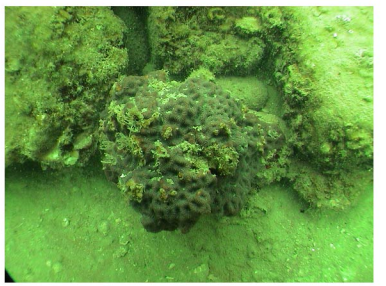


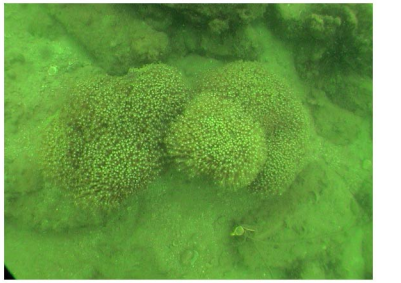
Baseline in April 06

Month Nine (Sep 06)

B-26

B-27

B-28



B-29

B-30

Baseline in April 06

Month Nine (Sep 06)

B-31

B-32

B-33

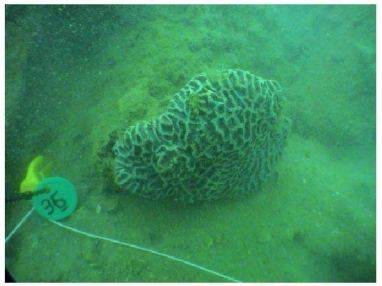
B-34

B-35

Baseline in April 06

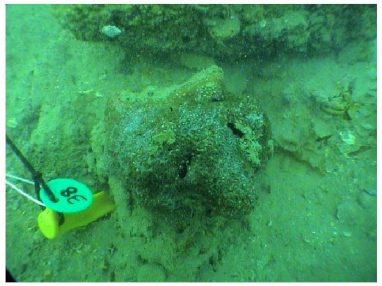
Month Nine (Sep 06)

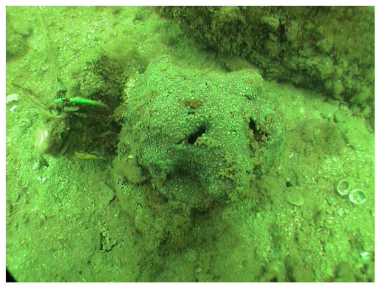
B-36



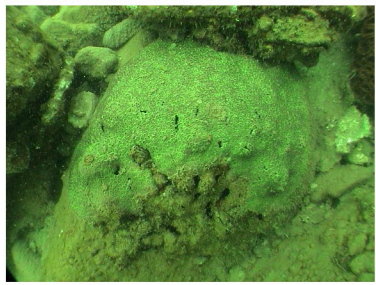
B-37

B-38





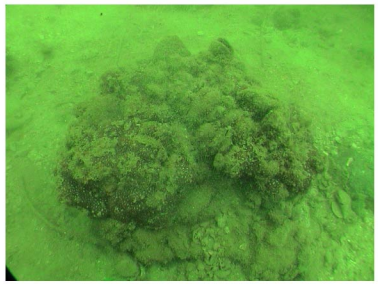
B-39



B-40

Baseline in April 06 | Month Nine (Sep 06)

B-41

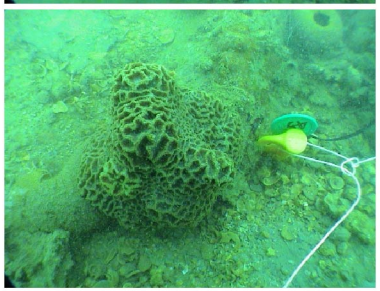


B-42

B-43

B-44

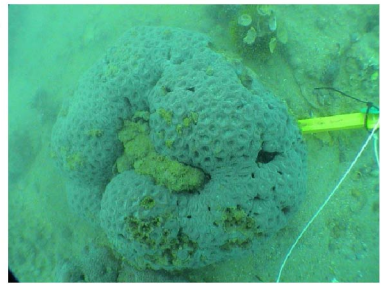
B-45

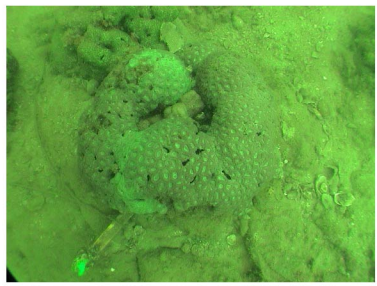


Baseline in April 06 | Month Nine (Sep 06)

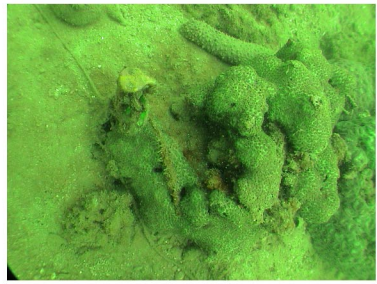
B-46

B-47





B-48



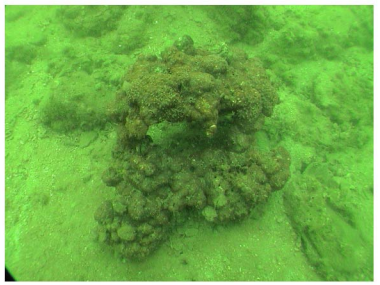
B-49

B-50

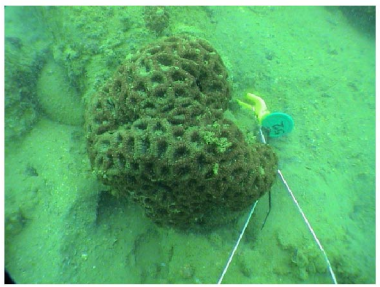
Baseline in April 06

Month Nine (Sep 06)

B-51



B-52



B-53

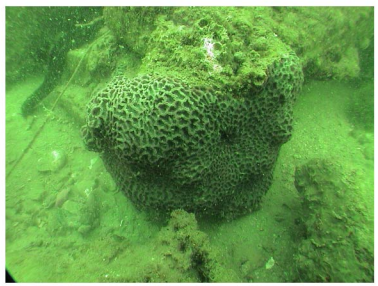
B-54

B-55

Baseline in April 06

Month Nine (Sep 06)

B-56



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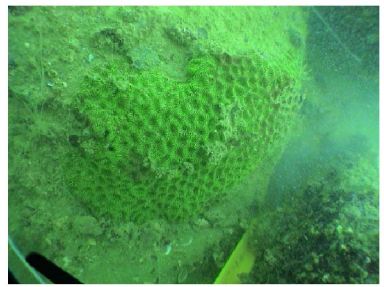

B-58

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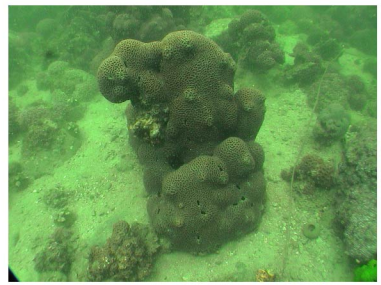
B-60

Baseline in Dec 05

Month Nine (Sep 06)

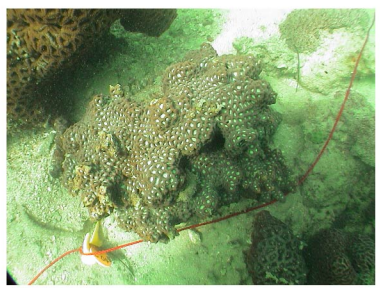
C-01

C-02



C-03

C-04



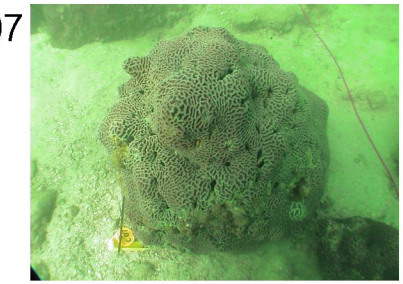
C-05

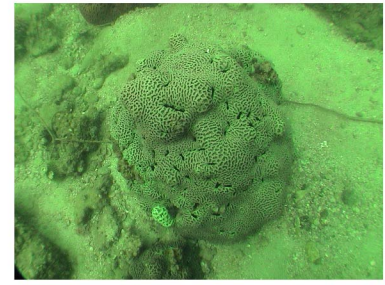
Baseline in Dec 05

Month Nine (Sep 06)

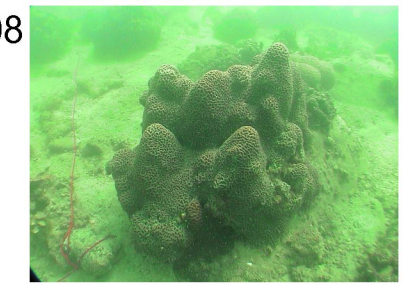
C-06

C-07



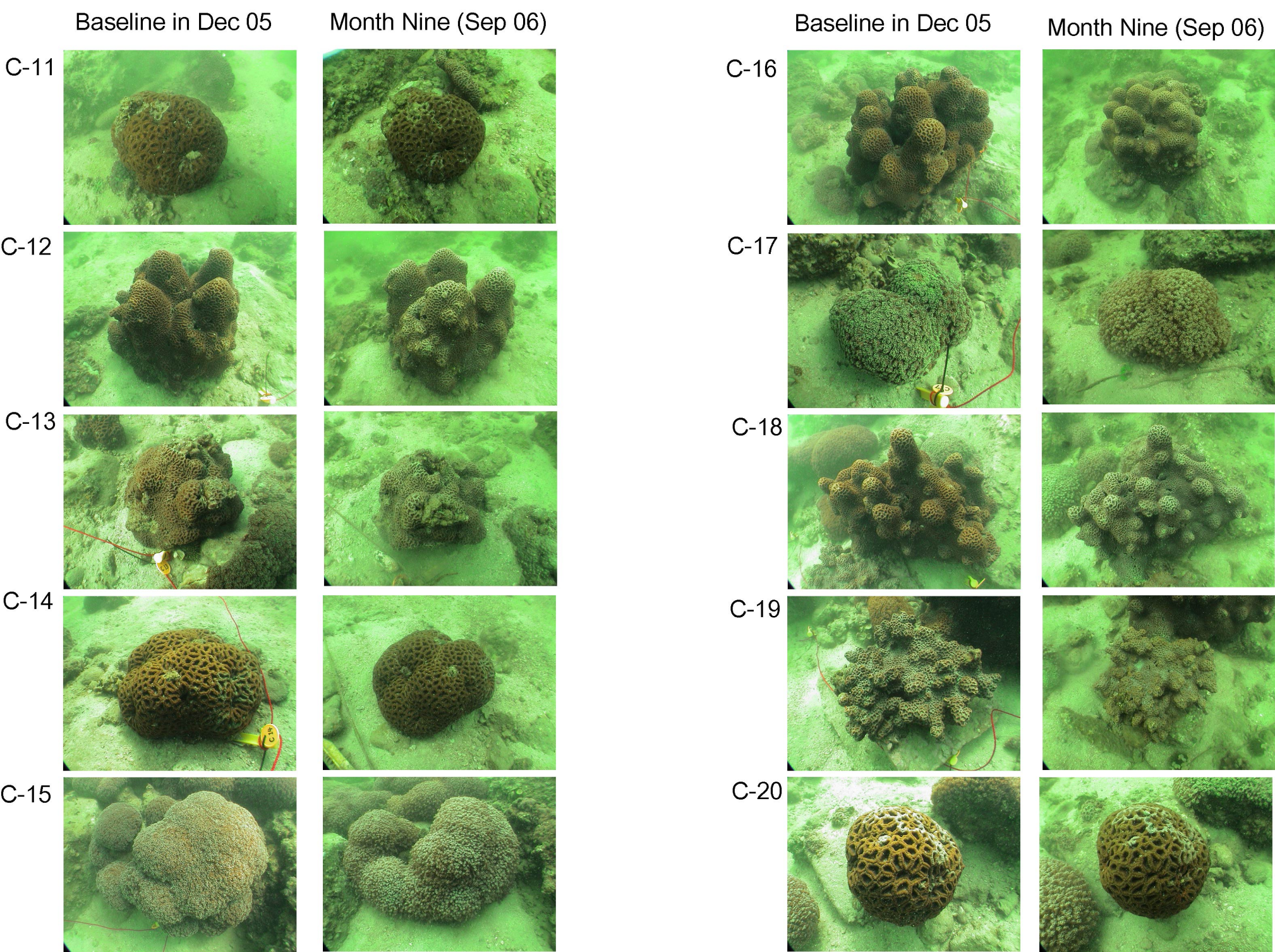


C-08



C-09

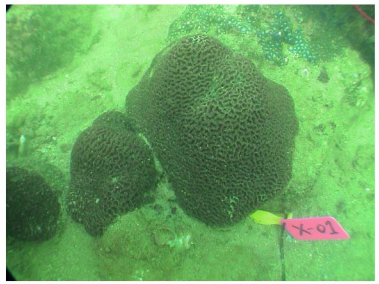
C-10


Baseline in Dec 05
Month Nine (Sep 06)
C-11
C-12
C-13
C-14
C-15
Baseline in Dec 05
Month Nine (Sep 06)
C-16
C-17
C-18
C-19
C-20

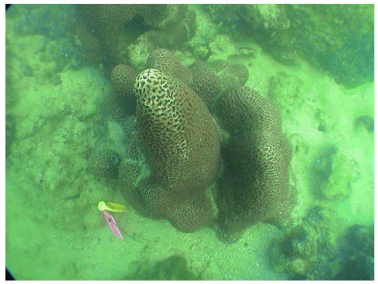
Baseline in Dec 05

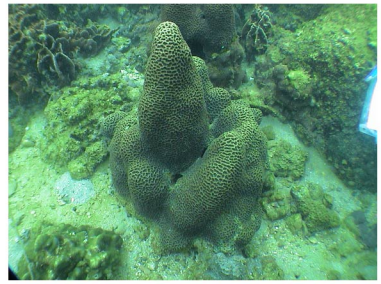
Month Nine (Sep 06)

X-01



X-02





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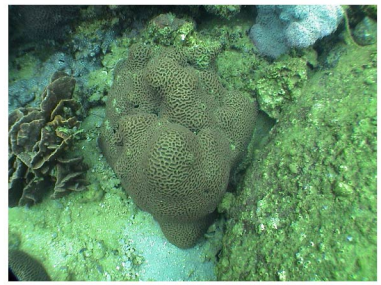
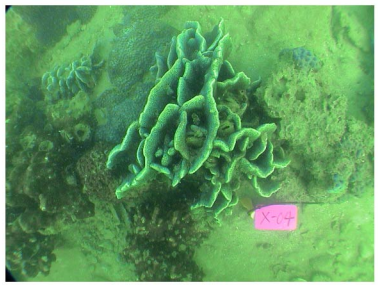


X-04



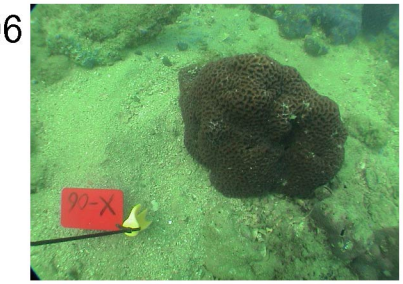
X-05

Lost

Baseline in Dec 05

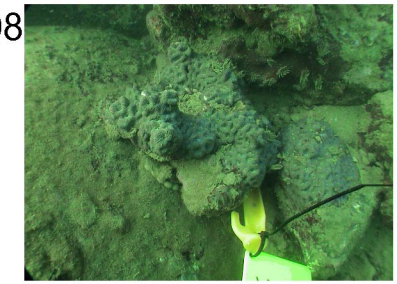
Month Nine (Sep 06)

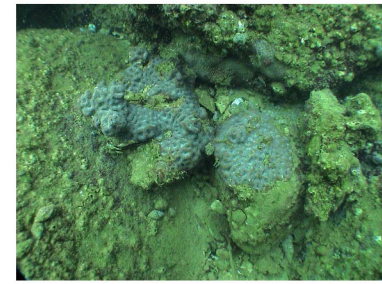
X-06



X-07

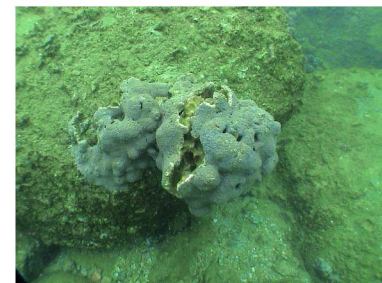
X-08





X-09

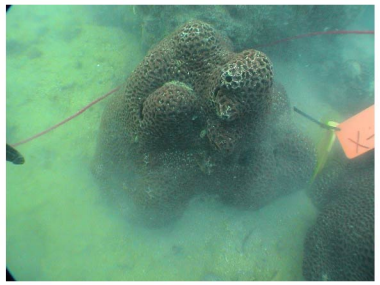
X-10

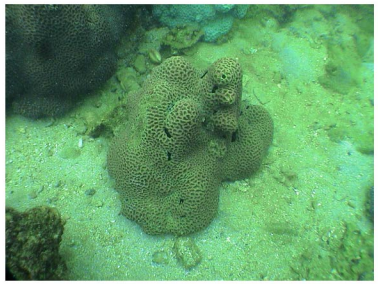


Baseline in Dec 05

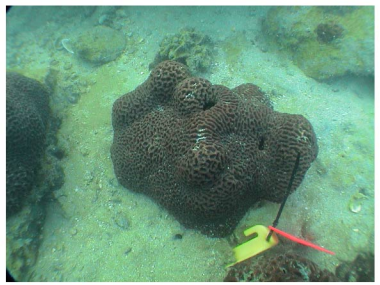
Month Nine (Sep 06)

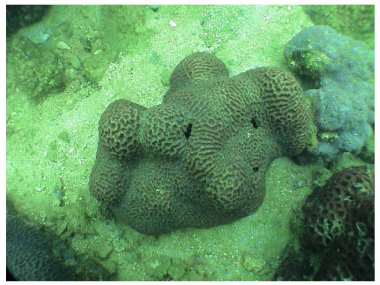
X-11



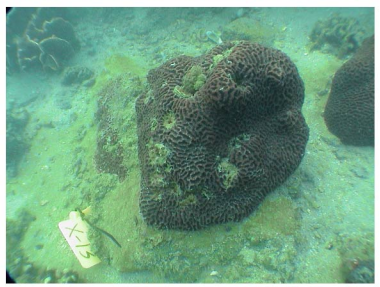


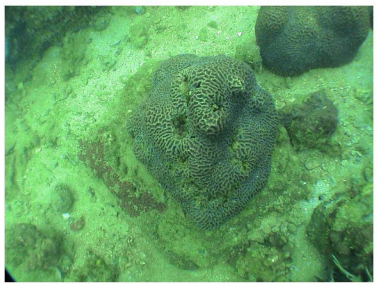
X-12



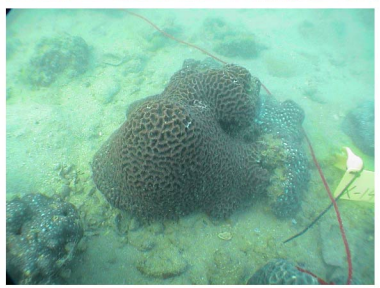


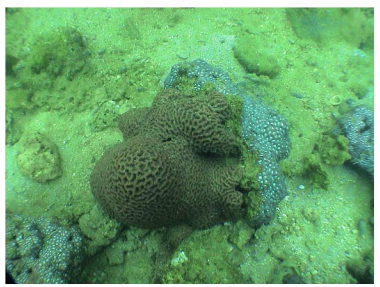
X-13



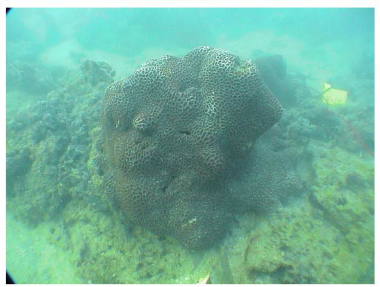


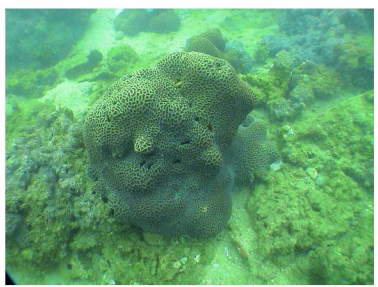
X-14





X-15

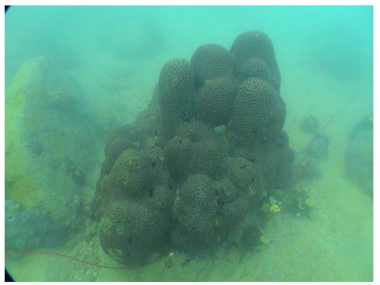




Baseline in Dec 05

Month Nine (Sep 06)

X-16



X-17

X-18

X-19

X-20

Table 3-1 Conditions of tagged corals at Site B2

Code of tagged corals	Species*	Baseline Survey (Dec 2005 or Apr 2006)			Month Nine (Sept 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
Within the Temporary Barging Point Area							
B-11	*Turbinaria peltata*	0	0	0	0	0	0
B-12	*Plesiastrea versipora*	0	0	0	0	0	0
B-13	*Plesiastrea versipora*	0	0	0	**30**	0	0
B-14	*Goniastrea aspera*	0	0	0	0	3	0
B-15	*Lithophyllon undulatum*	0	0	0	0	10	0
B-16	*Favia speciosa*	0	0	0	0	0	0
B-17	*Favia speciosa*	0	0	0	0	0	0
B-18	*Turbinaria peltata*	0	0	0	0	0	0
B-19	*Favia speciosa*	0	0	0	70	0	0
B-20	*Favia speciosa*	0	0	0	0	0	0
To the North of the Temporary Barging Point Area							
B-21	*Favia speciosa*	0	0	0	0	0	0
B-22	*Cyphastrea serailia*	0	0	0	0	0	0
B-23	*Favia speciosa*	0	0	0	0	0	0
B-24	*Favia speciosa*	0	0	0	0	0	0
B-25	*Favites abdita*	0	0	0	0	0	0
B-26	*Cyphastrea serailia*	0	0	0	0	0	0
B-27	*Favia speciosa*	0	0	0	0	0	0
B-28	*Goniopora columna*	0	0	0	0	0	0
B-29	*Cyphastrea serailia*	0	0	0	0	0	0
B-30	*Favia speciosa*	0	0	0	0	0	0
B-31	*Platygyra acuta*	5	0	0	0	0	0
B-32	*Favia speciosa*	3	0	0	0	0	0
B-33	*Turbinaria peltata*	0	0	0	0	0	0
B-34	*Cyphastrea serailia*	0	0	0	0	5	0
B-35	*Cyphastrea serailia*	0	0	0	0	0	0
B-36	*Platygyra acuta*	0	0	0	0	0	0
B-37	*Favia speciosa*	0	0	0	0	0	0
B-38	*Cyphastrea serailia*	0	0	0	0	0	0

Code of tagged corals	Species*	Baseline Survey (Dec 2005 or Apr 2006)			Month Nine (Sept 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
B-39	*Cyphastrea serailia*	0	0	0	0	0	0
B-40	*Favia speciosa*	0	0	0	0	0	0
To the south of the Temporary Barging Point Area							
B-41	*Leptastrea pruinosa*	0	0	0	0	0	0
B-42	*Goniastrea aspera*	0	0	0	**90**	0	0
B-43	*Favia speciosa*	0	0	0	0	0	0
B-44	*Cyphastrea serailia*	0	0	0	0	10	0
B-45	*Platygyra acuta*	0	0	0	0	0	0
B-46	*Favia speciosa*	0	0	0	0	0	0
B-47	*Favites abdita*	0	0	0	5	0	0
B-48	*Cyphastrea serailia*	0	0	0	0	0	0
B-49	*Goniopora columna*	0	0	0	0	0	0
B-50	*Favia speciosa*	0	0	0	0	0	0
B-51	*Psammocora superficialis*	0	0	0	0	3	0
B-52	*Favia speciosa*	0	0	0	10	0	0
B-53	*Favia speciosa*	0	0	0	10	0	0
B-54	*Favia speciosa*	0	0	0	0	0	0
B-55	*Goniastrea aspera*	0	0	0	0	0	0
B-56	*Platygyra carnosus*	0	0	0	0	0	0
B-57	*Goniastrea aspera*	0	0	0	0	0	0
B-58	*Favia speciosa*	5	0	0	60	0	0
B-59	*Favia speciosa*	0	0	0	Lost	Lost	Lost
B-60	*Favia speciosa*	5	0	0	Lost	Lost	Lost

*** Damaged corals were bold.**

Table 3-2 Conditions of tagged corals at Site C

Code of tagged corals	Species	Baseline Survey (December 2005)			Month Nine (Sept 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
C-01	*Platygyra carnosus*	0	0	0	0	0	0
C-02	*Platygyra carnosus*	0	0	0	0	0	0
C-03	*Favia speciosa*	0	0	0	0	0	0
C-04	*Favites abdita*	0	0	0	**100**	0	0
C-05	*Turbinaria peltata*	0	0	0	0	0	0
C-06	*Favia speciosa*	0	0	0	0	0	0
C-07	*Platygyra acuta*	0	0	0	0	0	0
C-08	*Platygyra acuta*	0	0	0	0	0	0
C-09	*Favia speciosa*	0	0	0	0	0	0
C-10*	*Platygyra acuta*	0	0	0	0	0	0
C-11	*Favia speciosa*	0	0	0	0	0	0
C-12	*Platygyra acuta*	0	0	0	0	0	0
C-13	*Platygyra carnosus*	0	0	0	0	0	0
C-14	*Favia speciosa*	0	0	0	0	0	0
C-15	*Goniopora columna*	0	0	0	0	0	0
C-16	*Platygyra carnosus*	0	0	0	0	0	0
C-17	*Goniopora columna*	0	0	0	0	0	0
C-18	*Platygyra carnosus*	0	0	0	0	0	0
C-19	*Favites pentagona*	0	0	0	0	0	0
C-20	*Favia speciosa*	0	0	0	0	0	0

***C-10 had sign of anchor damages.**

Table 3-3 Conditions of tagged corals at Control Site

Code of tagged corals	Species	Baseline Survey (December 2005)			Month Nine (Sept 2006)		
		Mortality (%)	Sedimentation (%)	Bleaching (%)	Mortality (%)	Sedimentation (%)	Bleaching (%)
X-01	*Platygyra carnosus*	0	0	0	0	0	0
X-02	*Platygyra carnosus*	0	0	0	0	0	0
X-03	*Platygyra carnosus*	0	0	0	0	0	0
X-04	*Pavona decussata*	0	0	0	0	0	0
X-05	*Hydnophora exesa*	0	0	0	Lost	Lost	Lost
X-06	*Platygyra carnosus*	0	0	0	0	0	0
X-07	*Platygyra carnosus*	0	0	0	0	0	0
X-08	*Favites abdita*	0	0	0	0	0	0
X-09	*Cyphastrea serailia*	0	0	0	0	0	0
X-10	*Cyphastrea serailia*	0	0	0	0	0	0
X-11	*Platygyra carnosus*	0	0	0	0	0	0
X-12	*Platygyra acuta*	0	0	0	0	0	0
X-13	*Platygyra acuta*	0	0	0	0	0	0
X-14	*Platygyra acuta*	0	0	0	0	0	0
X-15	*Platygyra acuta*	0	0	0	0	0	0
X-16	*Platygyra acuta*	0	0	0	0	0	0
X-17	*Favia speciosa*	0	0	0	0	0	0
X-18	*Platygyra acuta*	0	0	0	0	0	0
X-19	*Goniastrea aspera*	0	0	0	0	0	0
X-20	*Cyphastrea serailia*	0	0	0	0	0	0

Annex E
Implementation status on Environmental Protection Requirements

IMPLEMENTATION SCHEDULE OF THE PROPOSED MITIGATION MEASURES

Table 1 Implementation Schedule of Air Quality Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages**			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Air Quality - Construction Phase									
4.7.1		In order that nuisance to air sensitive receivers is minimized, it is important to minimize dust emissions from construction activities including cut and fill operations and trucks movements on haul road. Dust control techniques should be considered to control dust to a level not exceeding the AQOs as well as the 1-hour TSP guideline level. These measures include: • Adoption of good site practices; • Avoid practices likely to raise dust level; • Frequent cleaning and damping down of stockpiles, dusty areas of the Site and the haul roads; • Reduce the speed of the vehicles (say 10 kph) on the haul road; • Reducing drop height during material handling; • Provision of wheel-washing facilities for Site vehicles leaving the Site; • Regular plant maintenance to minimize exhaust emission; • If concrete batching plant or rock crushing plant is planned to used, a license from EPD may be required depending on the total silo capacity since they are specified processes under the APCO. Modern plant should be designed to limit emissions	Work site / during construction	All contractors		√		EIAO-TM, APCO, Air Pollution Control (Construction Dust) Regulation	Insufficient Insufficient Insufficient √ √ √ Insufficient As confirmed by Contractor, the concrete batching plant is not a specific process.
4.7.2		Providing watering four times a day for dust suppression.							Insufficient

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation; N/A = Not applicable

Table 2 Implementation Schedule of Water Quality Control Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
Water Quality – Construction phase									
6.11.4		Proposed 18 holes Golf Course Layout Design 20m buffer zones on both sides of the streams will be demarcated as a preventative mitigation measure to reduce the disturbance during construction phase of the golf course except for the portions of Streams A which is of low ecological value and an old tributary of Stream B. On one side of part of the Stream B, the buffer zone would be reduced to 5m.	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	Stream A, Stream B2, partially Stream B1 and partially Stream C buffer zones fencing were provided.
6.11.5		For the construction activity which is unavoidable near natural streams (within the buffer zone), mainly the construction of crossings, preventative mitigation measures during the construction stage should be follow by the Contractor, they are shown as follows: • The proposed works site inside or in the proximity of natural streams should be temporarily isolated, through by placement of sandbags or silt curtains and properly supported by props, to prevent adverse impacts on the stream water qualities; • The natural bottom and existing flow in the stream should be preserved to avoid disturbance to the stream habitats; • No direct and indirect discharge into the natural stream is allowed from any construction work activities; • Stockpiling of construction material, if any, should be properly covered and located away from any natural stream; • Monitor rain forecast closely and cover any exposed spoil when rainstorms are forecated. Debris should be properly disposed of before rainstorm to avoid any inadvertent wash away into the stream; and • Removal of existing vegetation alongside the stream should be avoided. When disturbance to vegetation is unavoidable, all disturbed areas should be hydroseeded or planted with suitable vegetation to blend in with the natural environmental upon completion of works.							Temporary bridges at no.9 and no. 10 were constructed at Streams A, B2 & B1 within the buffer zone areas. The Contractor was reminded to ensure no discharge/runoff to the Streams A, B & C from the construction activity especially within the buffer zone areas. Haul roads formation at Holes 10 to 16 except Hole 13 were formed. Permanent bridge (precast in concrete) no. 5 was started to construct at downstream of freshwater inland marsh. The

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
									Contractor was reminded to provide sufficient mitigation measures during construction to prevent runoff from the bridge.
6.11.13		Runoff and Drainage Management ◆ **Diversion of upstream flows around the works areas for stream crossings and underground pipes**: To minimize the impact of upstream runoff on the Works area by preventing storm flows reaching the work areas. This will be done through provision of upstream cut-off drains to intercept the flows and divert them around the Works area. It would convey flows to downstream stream courses, or other elements of temporary drainage systems (such as storage facilities). ◆ **Temporary covering the works areas during severe storm events**: Significant rainstorm events can be reasonably well forecast and when heavy rain is predicted, mitigation measures should be provided for the vulnerable areas by using tarpaulins, plastic sheets or other temporary covering to protect works area and minimize damage and erosion. It is recommended not to cover the newly establishment grass areas, and if unavoidable, this should only to be done on a short term basis (less than 24 hours). ◆ **Silt traps and sedimentation tanks for main discharge routes form works area**: Sufficient and suitably sized silt traps and/or sedimentation tanks should be provided at the downstream ends of the systems to remove suspended solids prior to discharge. The discharge water quality shall be compliant with the *TM on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters* under the WPCO. The required volume	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	The latest temporary drainage plan was included Holes 11-16 for ER's approval. The temporary drainage plan will be updated by the Contractor throughout the construction phase to cope with the change of site conditions. The submitted drainage plan is the mitigation measures for the silty runoff mainly which has not included the recycling the runoff during the turf establishment. The implementation of temporary preventative measure for silty runoff were installation of silt fence along the site boundary (low lying area, provide some sedimentation basins

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		of the sedimentation tanks will depend on the catchment area served. Multiple tanks in series may also be required where runoff might be expected to be silty. ◆ The design details of the temporary drainage system at turf establishment area follow the same principles of the permanent drainage system. However the component pipes, tanks, lakes and/or pumps may differ in size, shape, location, etc. from that of the permanent system, dependent upon the temporary runoff areas as compared with those of the permanent system. Additionally or alternatively, the temporary drainage system may consist of other methods to control soil erosion and/or to facilitate the collection of surface water runoff. The temporary drainage system will function during the period of time in which the permanent system is not yet completed. This circumstance will arise from the fact that the golf holes, inclusive of the permanent drainage system, will be constructed individually. As a result, the permanent drainage system may not be completed in its entirety until connection is made from each respective golf hole area to the lake/reservoir. As the permanent drainage system is completed for each hole, the corresponding temporary system will be decommissioned and reused elsewhere. The temporary drainage system will be in use until the permanent system is functional in a given area. Once the permanent system is functional in a given area, the temporary system will be decommissioned and, wherever possible, the components re-used in another temporary drainage system installed elsewhere. It is anticipated that the maximum duration of use for the temporary drainage system in any given area will be one-year. The storage tanks and/or lakes will be designed to segregate suspended solids (or pollutants as may be the case in							at Hole 1 low lying areas, cut-off drains provided at Hole 17 and wastewater treatment plant was provided at Hole 1 and near maintenance building. Some of the silt fence areas are poorly maintain which could cause potential runoff to marine and stream courses. The heavy rainstorm occurred in Sept 06 reflected on deficiency of the temporary drainage leading to silty runoff. No turf was establishment yet. The expected turf establishment period will be around Aug 06 at Holes 3, 5 & 8.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		plant/equipment storage and refueling areas) as may be necessary by contract requirements and reuse. ◆ No irrigation, fertilizer and pesticide applications to the turf would be permitted during rainstorm events or when heavy rainstorm is predicted 24 hours before the application. • Runoff from materials storage areas, particularly fuel and chemicals storage area should be separated from the main drainage systems (bunded, if necessary) and provided with dedicated facilities throughout the construction period, such as petrol interceptors.				√			
6.11.14		The Contractor shall follow good site practices and be responsible for the design, construction, operation, and maintenance of all the mitigation measures as specified in *ProPECC PN1/94* on construction site drainage through the construction period. These practices include: • Temporary ditches should be provided to facilitate run-off discharge into appropriate watercourses, via a silt retention pond. • All drainage facilities and erosion and sediment control structures should be inspected monthly and maintained to ensure proper and efficient operation at all times. • Excavation of soil that cannot be avoided during the wet season, and exposed surface or open stockpiles should be covered with tarpaulin or other means. Other measures that need to be implemented before, during and after rainstorms are summarized in *ProPECC PN1/94*. • Exposed soil areas should be minimized to reduce potential for increase siltation and contamination of runoff. • Earthwork final surfaces should be well compacted and subsequent permanent work (turf establishment) should be immediately performed. • The Contractor shall contain within the site all surface runoff generated from the construction works, concreting works, dust control and vehicle washing, etc.	Work site / During the construction period	All Contractor		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	The latest temporary drainage plan was submitted by Contractor to ER for comments. The temporary drainage plan will be updated by the Contractor throughout the construction phase to cope with the change of site conditions. The submitted drainage plan is the mitigation measures for the silty runoff mainly which has not included the recycling the runoff during the turf establishment.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
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		• The Contractor shall arrange other measures, such as provision of sand bags or temporary diversion systems to prevent washing away of soil, silt or debris into any nearby natural streams. Any runoff shall be diverted into appropriate sediment traps before discharging to the nearby drainage system. The discharge water quality shall be compliant with the *TM on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters* under the WPCO. • The Contractor shall observe and comply with the Water Pollution Control Ordinance (WPCO) and its subsidiary regulations by implementing environmental protection measures (such as the use of silt traps) and preventing any point or non-point source of pollution.							
6.11.15 6.11.16		Concrete bridge construction No work is allowed to come into contact with the underlying stream bed during the concrete bridge construction. During the construction of precast concrete bridge, if necessary, precaution measures should be taken to ensure no potentially polluting liquid or solid wastes fall into the stream. This is essential to avoid water quality impacts within ecologically sensitive streams. The Contractor shall good site follow practices, including, but no limited to:: • Construction work area for the precast concrete should be outside the designated stream buffer zone area; • The designated work area for precast concrete work should be covered to minimize the potential water runoff during rain from the construction area; • All water used within the concrete work area should be collected, stored and recycled to reduce resource consumption. Stormwater runoff from the works areas fro precast concreting works should drain under gravity towards a sedimentation basin. The overlying water from the sedimentation basin should be recycled for reuse within	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	One concrete bridge/pipe culvert was under construction at the freshwater inland marsh (no. 5) during the reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
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		the plant. The deposited sediment should be dewatered and the dry matter should require disposal off-site. No water should be discharged outside the boundary of the precast concrete works area; • The use of tarpaulin sheet or other means (water impermeable texture) should be placed beneath precast concrete beam level (must be above the stream bed level) to capture any falling object during installation of precast concrete bridge on the footings or abutments; • Prohibition of any direct and indirect discharge into the streams; • The concrete bridge and footings of abutments must be completely above the high water mark; • All equipment and machinery must be free of leaks or excess oil and grease; • Equipment refueling or servicing or storage of fuel must be undertaken at a minimum of 30 meters from the stream; • Prevent soil and trash from getting into stream during construction by use of silt fence, fiber rolls, gravel bags and other effective means; • All bare soil (abutment slope or temporary stockpile) must be covered with tarpaulin or other means before forecast rain; and • Wash out concrete trucks or pumps only into designated washout pits.							
6.11.19 6.11.20		<u>Dredging during Construction of Desalination Plant's intake and outfall</u> The intake and outfall pipelines will be constructed by dredging the seabed to form a trench and backfilled with a layer of bedding material (quarry run stone) before putting the pipelines in place. Once in place, the pipelines are covered with layers of rock armour on top of the pipelines to protect the pipelines against damage by wave action. The alternative backfilling material is from rock excavated during site formation if suitable. The materials used for the backfilling at the intake and outfall	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	No dredging work for the desalination plant pipelines was carried out. The only work for the desalination plant was the land formation for the desalination plant during the reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
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		pipelines are stone and rock armour only. Transfer of backfilling materials onto the seabed from barge should be conducted by careful grabbing and unloading to seabed (to minimize sediment migration), thereby minimize impacts on water quality to nearby water sensitive receivers. As a preventative measures, silt curtain will also be required during the backfilling activities. The expected backfilling duration is approximate 2 months.							
6.11.21		The Contractor shall use backhoe for dredging works at a water depth of less than 2m and use close grab dredger for works with water depth of more than 2m. The estimated dredging works is about 50m long (where backhoe should be used for water less than 2m deep) and 70m long (where close grab dredger should be used for water more than 2m deep). Only one dredging method should be used at any one time.							
6.11.22		In order to avoid pollution during dredging, transporting and dumping of marine mud. Pollution avoidance measures shall include but not be limited to the following: • The maximum daily dredging rate for closed grab dredger should be $45m^3$/day; • The maximum daily dredging rate for backhoe should be $20m^3$/day; • Silt curtain should be installed for any dredging methods to protect the WSRs; • Closed grabs or sealed grabs should only be used for locations with water depths $\geq$ 2m; • Backhoe should only be used for locations with water depths $\leq$ 2m; • All equipment should be designed and maintained to minimise the risk of silt and other contaminants being released into the water column or deposited in locations other than designated location; • Mechanical grabs should be designed and maintained to avoid spillage and should seal tightly while being lifted; • No trailing suction hopper dredgers would be deployed for the							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		dredging of marine mud; • All vessels should be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • All pipe leakages should be repaired promptly and plant shall not be operated with leaking pipes; • Before moving the vessels which are used for transporting dredged materials excess material should be cleaned from the decks and exposed fittings of vessels and the excess materials should never be dumped into the sea except at the approved locations; • Adequate freeboard should be maintained on barges to ensure that decks are not washed by wave action; • The Contractor should monitor all vessels transporting material to ensure that no dumping outside the approved location takes place. The contractor should keep and produce logs and other records to demonstrate compliance and that journey times are consistent with designated locations and copies of such records should be submitted to the engineer; • All bottom dumping vessels should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • Loading of barges and hoppers should be controlled to prevent splashing of dredged material to the surrounding water, and vessels should not be filled to a level which will cause overflowing of material or polluted water during loading or transportation; and • The engineer may monitor any or all vessels transporting material to check that no dumping outside the approved location nor loss of material during transportation takes place. The contractor should provide all reasonable assistance to the engineer for this purpose.							
6.11.23		In addition, baseline water quality monitoring before commencement of the marine works shall be carried out in the nearby waters to obtain baseline information for subsequence monitoring. Regular and frequent water quality monitoring shall							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		be carried out throughout the whole construction period to ensure the water quality during construction is well within the established environmental guidelines and standards.							
6.11.24		Silt Curtain In order to minimize impacts during the whole construction period of desalination plant's intake and discharge outfall, silt curtains should be utilized to minimize sediment migration. The Contractor shall be responsible for the design, installation and maintenance of the silt curtains to minimize the impacts on the water quality and the protection of water sensitive receivers. The design and specification of the silt curtains shall be submitted by the Contractor to the Engineer for approval. Area of the silt curtain to enclose the works area should be minimized in order to reduce the disturbance of ecological sensitive areas nearby.							
6.11.25		A typical suspended solids reduction of 75% can be achieved with the incorporation of silt curtain. Two-layer silt curtains have generally been used for dredging projects of larger scale to further ensure this reduction. However, as the scale of proposed project is considered small, it is recommended to use single layer silt curtain which can achieve a minimum 75% suspended solids reduction.							
6.11.26		Silt curtains shall be formed from tough, abrasion resistant, permeable membranes, suitable for the purpose, supported on floating booms in such a way as to ensure that the sediment plume shall be restricted to within the limit of the works area.							
6.11.27		The silt curtain shall be formed and installed in such a way that tidal rise and fall are accommodated, with the silt curtains always extending from the surface to the bottom of the water column. The removal and reinstallation of such curtains during typhoon conditions shall be as agreed with the Director of Marine Department.							
6.11.28		The Contractor shall regularly inspect the silt curtains and check							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
		that they are moored and marked to avoid danger to marine traffic. Any damage to the silt curtain shall be repaired by the Contractor promptly and the works shall be stopped until the repair is effected to the satisfaction of the Engineer.							
		<u>General Construction Activities</u>							
6.11.29		Debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering adjacent watercourse. Stockpiles of construction materials should be kept covered when not being used.	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	The Contractor has not yet submitted requested information for ET and ER to review.
6.11.30		Oils and fuels should only be stored/handled in designated areas with pollution prevention facilities. Oil interceptors need to be regularly inspected and cleaned to avoid wash-out of oil during storm conditions.							√
6.11.32		All fuel tanks should be provided with locks and be sited on sealed areas within bunds of capacity equal to 110% of the storage capacity of the largest tank.							Not observed
6.11.33		Good housekeeping practices and staff training are required to minimize careless spillage and keep the work space in a tidy and clean conditions at all times. Accidental spillage of chemicals in the works area would directly affect the aquatic environment. It is recommended that the Contractor should develop management procedures for chemical and implement an emergency plan to deal with chemical spillage in case of an accident.	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	No observed
6.11.34		Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The chemical waste should be transported to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility at Tsing Yi. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes details the requirements to deal with chemical wastes.							No waste disposal recorded for this reporting month.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
6.11.35		<u>On-Site Sewage Effluents</u> In order to prevent sewage effluents affecting water courses, the following mitigation measures should be provided by the Contractor:-							
		• Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site to handle sewage from the workforce;							√. A sewage treatment plant was provided at the site office. No mobile toilets were available on site.
		• The toilet facilities should be more than 30 m from any watercourse;							
		• Temporary storage tank should be provided to collect wastewater from kitchens or canteen, if any;							N/A (no canteen on site)
		• A licensed waste collector should be deployed to clean the chemical toilets on a regular basis which will be and disposed of at government sewage treatment facilities;							Under review
		• Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the project would not cause water pollution problem after undertaking all required measures; and							√
		• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the project.							No observed
6.11.36		<u>Concrete batching plant</u> All water used within the concrete batching plant will be collected, stored and recycled to reduce resource consumption.	Work site / During the construction period	All contractors		√		ProPECC PN 1/94; WPCO; TM-Effluent Standards for Effluents	The concrete batching plant is operating during the reporting month. Temporary

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
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		This includes water used in the concrete batching process, truck cleaning, yard washing and dust suppression spraying. All spent dust suppression effluent will be collected and recycled. To minimize the potential water quality impacts that may generate from the concrete batching plant, a drainage system should be provided in this site. The batching plant area should be channelled to collect concrete washings for further treatment before reuse on-site and prevent concrete washings from directly entering the any stream or seawater. Site runoff should also be collected through the drainage system. To minimize the generation of contaminated site runoff from concrete production area, the concrete batching plant should be sheltered.						Discharged into Drainage and Sewerage Systems, Inland and Coastal Water	drains to cut-off the water from haul road was not observed. Concrete bund was provided at the downstream periphery end of the site to confine the wastewater. There was a sedimentation pit within the concrete batching plant area to collect the wastewater and used as a wheel waste facilities. The collected water will pump to sedimentation columns for recycle.
6.11.37		Concrete washings and site runoff should be pumped to a wastewater treatment system with a sedimentation unit for removal of suspended solids such as waste concrete particles, silt and grit in order to achieve the discharge standards. pH adjustment should also be applied if the pH value of the collected concrete washings and site runoff is higher than the pH range specified in the discharge licence. This can be achieved by adding neutralizing regents, i.e. acidic additive. A discharge licence should be applied from EPD for discharge of effluent from the site. Analysis of effluent quality may be required as one of the licensing conditions of the discharge licence. The Contractor should collect effluent samples at the final discharge point in accordance with the required sampling frequency to test the specified water quality parameters. The quality of the discharged effluent should comply with the discharge licence requirements. It is recommended to reuse the treated effluent for dust suppression and general cleaning on site, wherever possible.							
6.11.38		The drainage system should be maintained on a regular basis to remove the deposits on the channels. The sedimentation and pH adjustment systems should also be checked and maintained by competent persons to ensure that the systems are functioning properly at all times.							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location	Implementation Agent	Implementation Stages**			Relevant Legislation and Guidelines	Implementation Status
					D	C	O		
6.11.39		The deposited sediment will be dewatered and the dry matter will require disposal off-site. The estimated maximum concentrate batching operation period during construction is 20 months.							
6.11.40		Sand, gravel and other bulk materials will be delivered from the production area by conveyor boats or derrick barges to the temporary barging point, and the material will then be loaded onto dump trucks by loaders and delivered to the on-site storage areas.							
6.11.41		Regular environmental inspections should be conducted to check the environmental performance of daily operation. These inspections will ensure proper installation and maintenance of pollution control measures, such as checking of sedimentation basin, wastewater recycling facility and enclosure of stockpiles, and the implementation of other mitigation measures.							

* All recommendations and requirements resulted during the course of EIA/EA Process, including ACE and/or accepted public comment to the proposed project.
** Des - Design, C = Construction, O = Operation
N/A Not applicable

Table 3 Implementation Schedule of Waste Management Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Waste Management - Construction Phase									
7.7.2		Good site practice to minimize solid waste generation, including: ◆ nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility; ◆ training of site personnel in proper waste management and chemical waste handling procedures; ◆ provision of sufficient waste disposal points and regular collection for disposal; ◆ appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; ◆ regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; ◆ a Waste Management Plan should be prepared and should be submitted to the Engineer for approval. One may make reference to ETWB TCW No. 15/2003 for details; and ◆ a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	√ The Contractor was requested to submit the waste generation quantity and disposal from the construction site for ET and ER review.
7.7.4		Good management and control can prevent the generation of significant amounts of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: ◆ segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; ◆ separate labelled bins shall be provided to segregate aluminium cans from other general refuse generated by the work force, and to encourage collection of by individual collectors; ◆ any unused chemicals or those with remaining functional capacity shall be recycled;	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	√ √ √

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
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		• maximising the use of reusable steel formwork to reduce the amount of C&D material; • prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; • proper storage and site practices to minimise the potential for damage or contamination of construction materials; • plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste; • minimize over ordering of concrete, mortars and cement grout by doing careful check before ordering.							√ √ √ √ √
7.7.6 7.7.7		<u>Site Clearance Waste</u> Scrub and other vegetation will be stripped for the tees, fairways, greens and access roads. The normal route for disposal for such material is landfill but in this case it is proposed that vegetation is passed through a "chipper" to break down the material into a medium that can be used as mulch / compost and provide a seed-bank for natural hydroseeding of exposed areas. Non-inert materials should be kept separate and reused on-site as fill in preference to disposal at public filling areas which are operated by CEDD or disposal at landfill.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance ; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	√ The Contractor was reminded to dispose the vegetation stockpiles and construction waste stockpiles properly. The submission from the Contractor on the record was outstanding during the reporting month. √
7.7.8		<u>Excavated Materials</u> Material generated during open cut works, and access route formation will comprise rock and soil and all this material will be reused in the site shaping process. It is anticipated that there will be no material requiring disposal off-site in public filling areas.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous	√

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
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								Provisions) Ordinance; ETWB TCW NO. 15/2003.	
7.7.9		Construction and Demolition (C&D) Material The C&D material generated from the site formation and demolition works should be sorted on-site into inert C&D material and C&D waste. In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material comprising fill material should be reused on-site as backfilling material. C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed of to landfill. A suitable area(s) should be designated within the site for temporary stockpiling of C&D material and to facilitate the sorting process. The stockpiling/sorting area should be located far away from the identified sensitive receivers.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	√
7.7.10		Site fencing Some site fencing may be required. Attention should be paid to WBTC No. 19/2001 which introduce a new policy requiring the use of metallic site hoardings and signboards in order to reduce the amount of timber used on construction sites.	Work site / During the construction period	All Contractors		√		WBTC No. 19/2001	√ Plastic fencing / metallic hoarding was used on site.
7.7.12 7.7.14		Chemical Waste Where the construction processes produce chemical waste, the Contractor must register with EPD as a Chemical Waste Producer. Wastes classified as chemical wastes are listed in the *Waste Disposal (Chemical Waste) (General) Regulation*. These wastes are subject to stringent disposal routes. EPD requires information on the particulars of the waste generation processes including the types of waste produced, their location, quantities and generation rates. A nominated contact person must be provided. Hard standing surfaces draining via oil interceptors shall be provided in works area compounds. Interceptors will be regularly emptied to prevent release of oils and grease into the surface water drainage system after accidental spillages. The interceptor should have a bypass to	Work site / During the construction period	All Contractors		√		Waste Disposal (Chemical Waste) (General) Regulation	Chemical waste storage area was not available on site. Improper storage of chemicals was observed near to the wastewater treatment plant. The chemicals were covered with tarpaulin than putting the chemicals in a

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
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		prevent flushing during periods of heavy rain. Oil and fuel bunkers should be bunded to prevent discharge due to accidental spillages or breaches of tanks. Waste collected from any grease traps should be collected and disposed of by a licensed contractor.							designated and suitable storage area was provided.
7.7.15		Any construction plant which is likely to leak oil, should have absorbent inert material e.g. sand, placed beneath it. This material should be replaced on a regular basis and the contaminated material should be stored in a designated, secure place. Any sand used for soaking oil waste is classified as chemical waste and should be disposed of in accordance with the *Waste Disposal (Chemical Waste) (General) Regulations*.							
7.7.16		Lubricants and waste oils are likely to be generated during the maintenance of vehicles and mechanical equipment. Used lubricants will be collected and stored in individual containers which are fully labelled. The containers should be stored in a designated secure place. If possible such waste should be sent to oil recycling companies; there are also companies which collect empty oil drums for reuse or refill.							
7.7.17		Oil and lubricant wastes are classified as chemical wastes, and if not recycled, should be collected by licensed collector and should be treated at the Chemical Waste Treatment Centre, Tsing Yi, or other sites licensed for disposal of waste oil. A trip ticket system operates to control the movement of such chemical waste and tickets have to be produced upon the request of EPD.							
7.7.18		Some paints and solvents are classified as chemical waste and, if used on site, will be subject to the stringent requirements of the *Waste Disposal (Chemical Waste) (General) Regulation.* Empty paint cans should be recycled or collected as waste. Any dry paint waste should be swept up and collected in containers for disposal.							
7.7.19		No lubricants, oils, solvents or paint products should be allowed to discharge into water courses, either by direct discharge, or as contaminants carried in surface water runoff from the construction site.							

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
7.7.20		Sewage An adequate number of portable toilets should be provided for the on-site construction workforce. The portable toilets shall be maintained in a state that will not deter the workers from using them.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	Portable toilets were not available at remote area to the site office. Site office with provision of flushing toilets for workers and staffs.
7.7.21 7.7.22		General Refuse General refuse should be stored in enclosed bins or compaction units separate from C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. Solid and liquid wastes will be generated by the construction workers during the clearance/construction period. The refuse (mainly non-recyclable materials) will be collected regularly in black refuse bags and delivered to the existing solid waste disposal system and transferred to landfill for disposal.	Work site / During the construction period	All Contractors		√		WDO; Public Health and Municipal Services Ordinance; The Land (Miscellaneous Provisions) Ordinance; ETWB TCW NO. 15/2003.	Temporary stored on site without properly covered and not dispose properly during the reporting month.
7.7.23 7.7.25		Marine Sediments The basic requirements and procedures for dredged mud disposal are specified under the ETWB TCW No. 34/2002. The management of the dredging, use and disposal of marine mud is monitored by the Marine Fill Committee (MFC), while the licensing of marine dumping is the responsibility of the Director of Environmental Protection (DEP). The dredged marine sediments will be loaded onto barges and transported to the designated disposal site. During transportation and disposal of the dredged marine sediments, the following measures should be taken to minimise potential impacts on water quality:	Marine Dredging area / During the construction period	All Contractors		√		ETWB TCW NO. 34/2002.	No dredging works was carried out during the reporting month. No dumping licence was applied by the Contractor.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
		• Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved. • Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP.							

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation; N/A = Not applicable

Table 4 Implementation Schedule of Ecological Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Construction Phase									
8.7.1		Terrestrial Ecology Haul roads would be located on future fairway and cart paths alignments to minimise temporary disturbance of habitats.	Work site / During the construction period	All Contractor		√		-	√
8.6.39		Avoid disturbance of stream bed during the construction of the permanent bridges by using precast unit of the bridge segments transported from other locations and installed to the proposed locations.	Stream crossing/ During the construction period	All Contractor		√		-	√
8.7.4		Good site practice. Construction materials must be stored at locations away the stream courses. Site runoff would be desilted in settling ponds to reduce the potential for suspended sediments, organics and other contaminants to enter stream and marine environment.	Work site / During the construction period	All Contractor		√		-	Part of the site has provided sedimentation basin to control the silty runoff.
8.9	Table 4.1	Streams B, C, and D will be monitored monthly during the construction phase to determine the status of *Caridina trifasciata* (shrimp) and *Nanhaipotamon hongkongensis* (freshwater crab). Stream condition will be recorded with reference to the protective buffer zone. Encroachment onto the buffer zone will be reported to the ER/ET. Sheet piling will be installed at the buffer zone perimeter as needed to prevent further encroachment. Stream sedimentation will be reported to the ER/ET, the agent causing sedimentation will be discovered, and sedimentation will be stopped.	Stream B, C & D/ During the construction phase	All Contractor		√			Monitoring has been carried out during this reporting month. The Contractor was not yet removed the newly deposited rock from rock fill of Hole 17 (by hand) at downstream A during this reporting month.
9.7.22		Marine Ecology The temporary drainage system, which would receive flows from all areas subject to earth works, would collect all site runoff. The collected runoff would be retained for turf grass irrigation.	Work site / During the construction period	All Contractor		√			On-going with enhancement on the effectiveness of temporary drainage system for silty runoff. Turf establishment was not started yet.
9.8.5		Dredging for the two pipelines for the desalination plant would be require 50 days and would be scheduled to the	Dredging area/ during dredging	All Contractor		√			N/A

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
		extent possible from January to April 2006. This would avoid the flowering season for the seagrass *Halophila ovalis*, i.e. November and December (Fong et al. 2005) and the spawning season for corals, i.e. July to October (Lam 2000; Storlazzi, C. D. 2004).	period						
9.8.2	4.2.12	Coral colonies within the silt curtain, in particular the 79 colonies identified during the coral mapping survey, (see Appendix A9.2) would be transplanted. Prior to commencement of any marine construction works for the proposed project, the affected coral colonies would be tagged using plastic labels and a number would be assigned to each. The tagged corals in the dredging area at D2 site will be transplanted to the bedrock area about 80 m south of the ferry pier. All these transplantation works should be conducted by experienced marine ecologist(s) and should be completed before the commencement of marine construction works.	Dredging area/Prior to dredging	All Contractor		√			N/A
9.8.5		Silt curtains will be deployed during dredging for the desalination plant. With the deployment of silt curtains around the dredging area for the desalination plant, adverse water quality impacts associated with the dredging and backfilling would be controlled to acceptable levels.	Dredging area/Prior to dredging	All Contractor		√			N/A
		All anchoring points/structures of the floating pier would be located on the shore and/or at least 40m seaward to avoid the coral colonies at Site B2 which are concentrated within the first 15m seaward from the coastline and none recorded over 35m seaward.	Temporary barging point/ during construction of the barging point	All Contractor		√			Floating pontoon was located at designated location according to EP during the reporting month.
		The location of the floating pier would also be shifted from the original location for barging point at Zone 2 and Zone 3 of the mapping area in Site B2 (see Figure 2 in Appendix A9.2), to Zone 5 to further protect corals. Impacts to corals are not expected.	Temporary barging point/ during the entire construction phase	All Contractor		√			√

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 5 Implementation Schedule of Fisheries Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages**			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
10.8.2		Construction phase In addition to the temporary drainage system which would collect site runoff for re-use for irrigation, site runoff would also be controlled by general site practices during the construction period.	Work site / During the construction period	All Contractor		√		N/A	On-going and not sufficient during the reporting month.
10.8.3		Silt curtains will be deployed during dredging for the desalination plant. With the deployment of silt curtains around the construction area, adverse water quality impacts associated with the dredging and back-filling would be controlled.	Work site / During the construction period	All Contractor		√		N/A	No dredging work for the desalination plant was carried out during the reporting month.
10.7.12		The majority of the heavy construction works, in particular, the cut and fill earth works, would be conducted within the 2005-2006 dry season.	Work site / During the construction period	All Contractor		√		N/A	Master Programme indicates that excavation will carried out throughout the year 2006 to Jul 2007.

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 6 Implementation Schedule of Landscape and Visual Impact Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Landscape and Visual Impact - Construction Phase									
Table 12.13	MC1	Site offices and construction yards: • Site offices and the construction yard shall be decommissioned after construction. • Haul roads shall be decommissioned and restored with hydroseeding works after construction.	All site offices	All contractors		√		EIAO Guidance Note No. 8/2002	To commence
Table 12.13	MC2	Height of site offices: • The height of site offices shall be controlled in order to avoid visual impacts.	All site offices	All contractors		√		EIAO Guidance Note No. 8/2002	Complied. A two-storey high site office painted in green color has been constructed.
Table 12.13	MC3	Hoarding and screening: • Where practical the site offices areas, construction yards and storage areas shall be screened using olive green coated hoarding or vegetation around the peripheries of the works area until the completion of relevant construction phases.	All site office and construction yard areas.	All contractors		√		EIAO Guidance Note No. 8/2002	Complied. Green hoarding erected.
Table 12.13	MC4	Construction plant and building material: • Shall be orderly and carefully stored in order to appear neat and avoid visibility from outside where practical; • Excess materials shall be removed from site as soon as practical; • All construction plant shall be removed from site upon completion of construction works.	In all construction yards.	All contractors		√		EIAO Guidance Note No. 8/2002	Complied.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MC5	Construction light: • To be oriented away from the viewing location of VSRs; and • All lighting shall have frosted diffusers and reflective covers. • While construction at night might be required from time to time, this should be controlled and minimised.	All construction lights.	All contractors		√		EIAO Guidance Note No. 8/2002	No construction lights at present.
Table 12.13	MC6	Vegetation: • Temporary construction sites shall be restored to standards as good as, or better than, the original condition. In this respect, areas that are not covered by golf course grassing works shall be hydro seeded; • The potential for soil erosion shall be reduced at the construction stage by minimizing the extent of vegetation disturbance on site and providing a protective cover over exposed ground; and • No plant or building materials shall be stored under the dripline of retained trees and no vehicle movement or other construction activities like washing, concrete mixing etc shall be carried out under the dripline of trees.	All temporary construction sites.	All contractors		√		EIAO Guidance Note No. 8/2002	Complied. Hydroseeding has been carried out for erosion control. Hydroseeding at site office are dead and shall be re-placed. NOT complied. Building material has been stored under dripline of trees.
Table 12.13	MT1	Compensation for losses: • The tree compensation to tree loss ratio shall be between 1:2 and 1:3; • At least 700 new trees shall have be of light standard or larger size.	As shown on mitigation measures plans.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MT2	The majority of compensation species shall comprise species that already occurs within the LIA boundaries;	General.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MT3	Where practical, trees that require removal shall be transplanted on Site;	General.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: Partial completed of transplantation works on site.
Table 12.13	MT4	New trees shall be planted in groups in order to screen visual impacts and to provide additional shade at the administration building, rain shelters and halfway houses.	As shown on mitigation measure plans.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MT5	Tree Planting on Slopes: • New slopes with a gradient larger than 30^{o} shall have whip tree planting. • Such whip trees shall comprise tree species with shrub-like characteristics, such as *Gordonia axillaries* (大頭茶) and *Raphiolepis indica* (車輪梅).	General.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MT6	Tree planting works at the hill where the desalination plant will be located shall be carefully positioned in order to represent its original profile.	At the desalination plant.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: complied Construction Stage : To commence.
Table 12.13	MT7	Tree Preservation: • No tree shall be transplanted or felled without prior approval by relevant Government departments in accordance with WBTC 24/94, WBTC 14/2002 and ETWB 2/2004; • All trees that are marked for retention shall be fenced off with a 1.2m high fence around the dripline of trees or larger area; • Transplant preparation works shall be carried as soon as possible after commencement of construction. Rootball and crown pruning shall be carried out over at least 1 month.	All areas with existing trees	All contractors	√	√		WBTC 24/94, WBTC 14/2002, ETWB 2/2004	Design Stage: Tree felling approved. Construction Stage : Some trees tags were found missing, some trees were damaged or dead. Tree transplantation commenced.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	MT8	Buffer Areas • For streams the width of the buffer zones will be 20m from the stream bank. The only exception would be the buffer zone in the reach of upper tributary of stream B lying between the two parts of Hole 10, where the buffer will zone will be 5m, the dry tributary of stream B that will be converted to an underground culvert and the secondary tributary of stream A that will also be converted to an underground culvert. • No construction activities will be allowed in the buffer zones, except for site formation works, which are required for the construction of bridge footings.	At streams	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: complied Construction Stage: Commenced.
Table 12.13	MS1	Bulk hydroseeding: • Bulk site formation works shall be followed with bulk hydroseeding as soon as practical.	General.	All contractors		√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: Temporary hydroseeding commence.
Table 12.13	MS2	Grassing: • In the case of golf course areas, grassing shall be carried out as soon as practical after sanding and shaping; and • Sanding, shaping and grassing works shall be phased in sections.	At proposed grassing areas.	All contractors		√		EIAO Guidance Note No. 8/2002	To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
	MS3	Restoration: • In the case of residual areas that were disturbed during construction, which will not be part of the golf course areas, detailed site formation works and shaping shall be followed by hydroseeding and shrub planting as soon as practical; and • The hydroseeding mix shall be composed of the following grass species: Erograstic curvula Lolium Perenne Neyraudia reynaudiana Pennisetum purpureum; and the following shrub / small tree species: Gordonia axillaries, Rhaphiolepis indica and Rhodomyrtus tomentosa.	At all residual areas.	All contractors		√		EIAO Guidance Note No. 8/2002	To commence.
Table 12.13	ME1	Screening: • Bridges and pumping stations shall be screened by tree and shrub planting; and • Retaining wall shall be covered with climber plants.	All bridges and pumping stations.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME2	Abutments of bridges shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape;	All bridges.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME3	Above-ground walls and foundations of pumping stations shall be surfaced with stone of volcanic origin with a colour and texture similar to that of rock in the surrounding landscape.	All pumping stations.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	ME4	Above-ground covers of pumping stations shall have an olive green coating.	All pumping stations.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Table 12.13	ME5	The desalination plant shall be located within the hill behind the pier. Slope cutting of this hill shall have a natural appearance with hydroseeding cover.	As shown on the mitigation measure plans.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: Site formation is being carried out.
Table 12.13	ME6	Water tanks shall be located below surface level. Above-ground components shall be coated in olive green.	All water tanks.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB1	Extensions of the clubhouse shall have a surface cover that is in visual harmony with the clubhouse itself.	All new extensions of the clubhouse.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB2	Shrub planting shall be implemented in front of the new golf cart parking area in order to screen low-level views.	The new golf cart parking area.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB3	Tree and shrub planting shall be implemented on the peripheries of the maintenance building and its extensions.	At the maintenance building.	All contractors	√	√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.
Table 12.13	MB4	Halfway houses and rain shelters shall be surfaced with either stone or beige and olive green paint.	At all halfway houses and rain shelters.	All contractors		√		EIAO Guidance Note No. 8/2002	Design Stage: Complied Construction Stage: To commence.

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** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 7 Implementation Schedule of Cultural Heritage Mitigation Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation Status
					D	C	O		
Construction Phase									
Table 13.4		Wan Chai Archaeological Site - Archaeological Watching Brief	Site formation and construction works	All Contractors		√		EIAO	√ (Part of Hole 2 mainly, Holes 11, 12, 14, 15 & 16 will be carried out starting from next reporting month).
Table 13.4		Grave #1 – Preservation in-situ - Fenced off three metre buffer zone around the grave	Site formation and construction works	All Contractors		√		EIAO	N/A
Table 13.4		Grave #5 - Preservation by record; and recovery of structural elements (if required by AMO)	Construction phase (prior to commencement of works)	All Contractors		√		EIAO	N/A
Table 13.4		Grave #20 - Preservation by record; and recovery of structural elements (if required by AMO)	Construction phase (prior to commencement of works)	All Contractors		√		EIAO	N/A
Table 13.4		Any, as of yet unidentified graves at Kap Lo Kok. If a grave is found works will stop in the immediate vicinity of the grave until it can be inspected by AMO staff.	Site formation and construction works	All Contractors		√		EIAO	√

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation
N/A Not applicable

Table 8 Implementation Schedule of Land Contamination Mitigation Measures

EIA Ref	EM&A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation status
					D	C	O		
Land Contamination - Construction Phase									
11.9.2		Since the exact cut areas on site during construction by the Contractor have not been determined at this stage, the Contractor should implement the suitable precautions and preventive measures for the discovery of buried or abandoned ordnance during the construction. Moreover, it is recommended that standard good practice should be implemented during the construction phase in order to minimize any potential exposure to contaminated soils or groundwater. These measures include: • The Contractor should sweep the area of intended excavation with a metal detector to check any ordnance underneath the ground prior to any excavation. • For any detection of metals under the ground, the Contractor should cease work immediately before confirming the identity of the cause. For any suspect of artillery ordnance, Hong Kong Police Force should be informed. • The use of bulk earth-moving excavator equipment would minimise construction workers' potential contact with the contaminated materials; • Exposure to any contaminated materials can be minimised by the wearing of appropriate clothing and personal protective equipment such as gloves (when interacting directly with suspected contaminated material), providing adequate hygiene and washing facilities and preventing smoking and eating during such activities; • Stockpiling of contaminated soil should be avoided. If this cannot be avoided, the stockpile of contaminated materials should be segregated from the uncontaminated ones. Moreover, the contaminated materials should be properly covered with waterproof material (e.g. tarpaulin sheet) to avoid leaching of contaminants, especially during rainy season. • Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates should be sealed to prevent any leakage during transport or during wet	Work site / During the construction period	All Contractors		√		Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 35); Water Pollution Control Ordinance (Cap 358).	CAR and RAP was approved on 18th August 2006. The pilot trial of the remedial work was started during the reporting month. Full scale remediation work will be carried out at the next reporting month. A final site remediation report (FSRR) will be prepared by the Contractor after the completion of the remediation work on site.

EIA Ref	EM& A Ref	Environmental Protection Measures*	Location / Timing	Implementation Agent	Implementation Stages **			Relevant Legislation & Guidelines	Implementation status
					D	C	O		
		conditions; • Only licensed waste haulers should be used to collect and transport any contaminated material to an appropriate disposal site and procedures should be developed to ensure that illegal disposal of waste does not occur; • Necessary waste disposal permits should be obtained, as required, from the appropriate authorities, in accordance with the *Waste Disposal Ordinance (Cap 354)*, *Waste Disposal (Chemical Waste) (General) Regulation (Cap 35)*, as required; • Records of the quantities of wastes generated and disposed of should be maintained; • Adequate washing facilities should be provided on site; and • In accordance with good construction practice, silt traps should be used to reduce the impact to drainage caused by suspended solids arising from disturbed ground, or any construction materials such as cement and gravel. Groundwater should be disposed of in accordance with the *Water Pollution Control Ordinance (Cap 358)*.							
11.11.1		Based on preliminary site investigation, the site is considered as a potentially land contaminated site as hotspots of contamination of lead and sulphur were identified. Further investigation for land contamination at this site is therefore required and is detailed in the Contamination Assessment Plan (CAP) of this section to be undertaken prior to commencement of excavation works. A Contamination Assessment Report (CAR) should be prepared and if the results of the site investigation reveal contamination at the subject site, a Remediation Action Plan (RAP) should also be prepared and submitted together with the CAR to EPD for approval.	Work site / During the construction period	All Contractors		√		Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 35); Water Pollution Control Ordinance (Cap 358).	Same as above.

* All recommendations and requirements resulted during the course of EIA Process, including ACE and/or accepted public comment to the proposed project.
** D=Design, C=Construction, O=Operation; N/A Not applicable

Annex F
Status of Licensing & Permitting

Summary of Environmental Licensing and Permit Status

Permit/licence/notification form title	Submission date	Status	Registration No./ Remarks
Application for a construction noise permit for the use of powered mechanical equipment for the purpose of carrying out construction work other than percussive pilling and/or the carrying out of prescribed construction work.	21st Jan 2006	Approved on 16th February 2006	GW-RE0012-06 (valid until 3rd July 2006), supersede by GW-RE0067-06.
Application for a construction noise permit for the use of powered mechanical equipment for the purpose of carrying out construction work other than percussive pilling and/or the carrying out of prescribed construction work.	6th Apr 2006	Approved on 9th Jun 06 (supersede the GW-RE0067-06)	GW-RE0157-06 (valid until 28th Nov 2006)
Notification of the air pollution control (construction dust) regulation	21st Jan 2006	Acknowledge receipt from EPD on 27th February 2006	Ref. no.: 001006902
Registration as a chemical waste producer	10th Jan 2006	Register on 7th February 2006	WPN-5213-813-C1186-04
Application for a permit to dump material at sea under the Dumping at Sea Ordinance	10th Jan 2006	Deferred by CHEC on 17th March 2006 (CHEC/KSC3.9.1/0459)	No dredging work will be carried out between May to December 2006.
Application of exemption account for the construction waste charging scheme	12th Jan 2006	Approved on 16th January 2006	A/C no. 5005322 (valid until 2nd August 2007)
Application for a licence for production pursuant to Section 14 of Air pollution Control Ordinance	2nd Mar 2006	The total silo capacity for the cement works was 45 tonnes which is lower than 50 tonnes. It is not a specified process, application is not required.	EPD letter refer. no.: EP640/EA/SK/015
Application for a licence under Water Pollution Ordinance – Construction Site	18th Mar 2006	Approved on 12th Sept 2006 (CHEC/KSC3/9.1/0414)	EPD letter refer. No: EP640/W4/J1003