AECOM

China Harbour Engineering Company Limited

Contract No. HY/2010/02

Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Works

Monthly EM&A Report for February 2014

[03/2014]

	Name	Signature
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Ref.: HYDHZMBEEM00_0_2378L.14 24 October 2014

Engineer's Representative By Fax (3698 5999) and By Post
Ove Arup & Partners
Chief Resident Engineer's Office
5 Ying Hei Road, Tung Chung, Lantau
Hong Kong

Attention: Mr. Roger Marechal

Dear Sirs,

Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

Contract No. HY/2010/02 HZMB HKBCF – Reclamation Work
Submission of Revised Pages for Monthly EM&A Report for February (Rev.0)

Reference is made to the Environmental Team's submission of the Revised Pages for Monthly Environmental Monitoring & Audit Report for February 2014 (letter ref: 60249820/C/RMKY14102401 dated 24 October 2014) copied to us by E-mail on 24 October 2014.

We are pleased to inform you that we have no adverse comment on the revised pages for Monthly EM&A Report.

ET is reminded to ensure all information reported are true, valid and correct before sending to this office for review.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,

Raymond Dai
Independent Environmental Checker

c.c.	HyD	Mr. Matthew Fung	(By Fax: 3188 6614)
	HyD	Mr. Wai-ping Lee	(By Fax: 3188 6614)
	AECOM	Ms. Echo Leong	(By Fax: 2317 7609)
	CHEC	Mr. Lim Kim Chuan	(By Fax: 2578 0413)

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ENVIRON Hong Kong Limited 英環香港有限公司
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Ref.: HYDHZMBEEM00_0_1783L.14 14 March 2014

Engineer's Representative
Ove Arup & Partners
Chief Resident Engineer's Office
5 Ying Hei Road, Tung Chung, Lantau
Hong Kong

By Fax (3698 5999) and By Post

Attention: Mr. Roger Marechal

Dear Mr. Marechal,

Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

Contract No. HY/2010/02
Hong Kong – Zhuhai – Macao Bridge
Hong Kong Boundary Crossing Facilities – Reclamation Work
Monthly Environmental Monitoring & Audit Report for February 2014

Reference is made to the Environmental Team's submission of the Monthly Environmental Monitoring & Audit Report for February 2014 (letter ref. 60249820/C/RMKY14031401 dated 14 March 2014) copied to us by E-mail on 14 March 2014.

We are pleased to inform you that we have no adverse comment on the captioned Monthly EM&A Report. We write to verify the captioned report in accordance with Condition 5.4 of EP-353/2009/G and Condition 4.4 of EP-354/2009/B (for TM-CLKL Southern Landfall Reclamation only).

ET is reminded to closely monitor the condition of site mitigation measures and the implementation of EM&A programme in accordance with the EP.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,

Raymond Dai
Independent Environmental Checker

c.c.	HyD	Mr. Matthew Fung	(By Fax: 3188 6614)
	HyD	Mr. Wai-ping Lee	(By Fax: 3188 6614)
	AECOM	Ms. Echo Leong	(By Fax: 2317 7609)
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EXECUTIVE SUMMARY

Contract No. HY/2010/02 – Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Work (here below, known as "the Project") mainly comprises reclamation at the northeast of the Hong Kong International Airport of an area of about 130-hectare for the construction of an artificial island for the development of the Hong Kong Boundary Crossing Facilities (HKBCF), and about 19-hectare for the southern landfall of the Tuen Mun - Chek Lap Kok Link (TMCLKL). It is a designated project and is governed by the current permits for the Project, i.e. the amended Environmental Permits (EPs) issued on 06 August 2013 (EP-353/2009/G) and 28 January 2014 (EP-354/2009/B) (for TMCLKL Southern Landfall Reclamation only).

Ove Arup & Partners Hong Kong Limited (Arup) was appointed by Highways Department (HyD) as the consultants for the design and construction assignment for the Project's reclamation works (i.e. the Engineer for the Project).

China Harbour Engineering Company Limited (CHEC) was awarded by HyD as the Contractor to undertake the construction work of the Project.

ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) for the Project.

AECOM Asia Co. Ltd. (AECOM) was appointed by CHEC to undertake the role of Environmental Team for the Project for carrying out the environmental monitoring and audit (EM&A) works.

The construction phase of the Project under the EPs was commenced on 12 March 2012 and will be tentatively completed by early Year 2016. The EM&A programme, including air quality, noise, water quality and dolphin monitoring and environmental site inspections, was commenced on 12 March 2012.

This report documents the findings of EM&A works conducted in the period between 1 and 28 February 2014. As informed by the Contractor, major activities in the reporting period were:-

Marine-based Works

- Cellular structure installation
- Connecting arc cell installation
- Laying geo-textile
- Sand blanket laying
- Sand filling
- Maintenance of silt curtain & silt screen at sea water intake of HKIA
- Stone column installation
- Band drain installation
- Backfill cellular structure
- Geotechnical Instrumentation works
- Construction of temporary seawall
- Ground investigation
- Surcharge laying
- Precast Yard setup
- Seawall blocks for temporary construction
- Construction of temporary assess from Portion D to Portion A
- Construction of temporary pier at Portion A
- Sand Drain
- Vibro-compaction on surcharge

Land-based Works

- Maintenance works of Site Office at Works Area WA2
- Maintenance works of Public Works Regional Laboratory at Works Area WA3
- Geo-textile fabrication at Works Area WA2
- Installed sand bag at Works Area WA2
- Silt curtain fabrication at Works Area WA4
- Maintenance of Temporary Marine Access at Works Area WA2

A summary of monitoring and audit activities conducted in the reporting period is listed below:

24-hour Total Suspended Particulates (TSP) monitoring	5 sessions
1-hour TSP monitoring	5 sessions
Noise monitoring	4 sessions
Impact water quality monitoring	13 sessions
Impact dolphin monitoring	2 surveys
Joint Environmental site inspection	4 sessions

Breaches of Action and Limit Levels for Air Quality

For 1-hr TSP an 24-hr TSP monitoring, no exceedance was recorded at all monitoring stations in the reporting period.

Breaches of Action and Limit Levels for Noise

For construction noise, no exceedance was recorded at all monitoring stations in the reporting period.

Breaches of Action and Limit Levels for Water Quality

One (1) Action Level Exceedance for Water Quality was recorded at IS(Mf)16 during Mid-flood tide on 21 Feb 14. After investigation, the action level exceedance recorded at IS(Mf)16 was considered as non-project related. No Limit Level Exceedance for Water Quality was recorded in the reporting period.

Impact Dolphin Monitoring

A total of two dolphin sightings were recorded during the two surveys, both were made on 17 February 2014. Two sightings were “on effort” (which are all under favourable condition). A total of ten individuals were sighted from the two impact dolphin surveys in the reporting period. Sighting details are summarised and plotted in Appendix K and Figure 5c, respectively.

Behaviour: Of the two sightings made one was recorded as feeding and one as travelling. The locations of sighting with different behaviour are mapped in Figure 5d.

Two action level exceedances of dolphin monitoring were noted. The investigation is undergoing and the investigation results will be reported in the quarterly EM&A report (Dec 13 – Feb 14).

Complaint, Notification of Summons and Successful Prosecution

No complaints, notification of summons and successful prosecution were received in the reporting period.

Reporting Change

There was no reporting change required in the reporting period.

Future Key Issues

Key issues to be considered in the coming month included:-

- Site runoff should be properly collected and treated prior to discharge;
- Minimize loss of sediment from filling works;
- Regular review and maintenance of silt curtain systems, drainage systems and desilting facilities;
- Exposed surfaces/soil stockpiles should be properly treated to avoid generation of silty surface run-off during rainstorm;
- Regular review and maintenance of wheel washing facilities provided at all site entrances/exits;
- Conduct regular inspection of various working machineries and vessels within works areas to avoid any dark smoke emission;
- Suppress dust generated from work processes with use of bagged cements, earth movements, excavation activities, exposed surfaces/soil stockpiles and haul road traffic;
- Quieter powered mechanical equipment should be used;
- Provision of proper and effective noise control measures for operating equipment and machinery on-site, such as erection of movable noise barriers or enclosure for noisy plants;
- Closely check and replace the sound insulation materials regularly;
- Better scheduling of construction works to minimize noise nuisance;
- Properly store and label oil drums and chemical containers placed on site;
- Proper chemicals, chemical wastes and wastes management;
- Maintenance works should be carried out within roofed, paved and confined areas;
- Collection and segregation of construction waste and general refuse on land and in the sea should be carried out properly and regularly; and
- Proper protection and regular inspection of existing trees, transplanted/retained trees.

1 INTRODUCTION

1.1 Background

1.1.1 Contract No. HY/2010/02 – Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Work (here below, known as "the Project") mainly comprises reclamation at the northeast of the Hong Kong International Airport of an area of about 130-hectare for the construction of an artificial island for the development of the Hong Kong Boundary Crossing Facilities (HKBCF), and about 19-hectare for the southern landfall of the Tuen Mun - Chek Lap Kok Link (TMCLKL).

1.1.2 The environmental impact assessment (EIA) reports (Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – EIA Report (Register No. AEIAR-145/2009) (HKBCFEIA) and Tuen Mun – Chek Lap Kok Link – EIA Report (Register No. AEIAR-146/2009) (TMCLKLEIA), and their environmental monitoring and audit (EM&A) Manuals (original EM&A Manuals), for the Project were approved by Environmental Protection Department (EPD) in October 2009.

1.1.3 EPD subsequently issued the Environmental Permit (EP) for HKBCF in November 2009 (EP-353/2009) and the Variation of Environmental Permit (VEP) in June 2010 (EP-353/2009/A), November 2010 (EP-353/2009/B), November 2011 (EP-353/2009/C), March 2012 (EP-353/2009/D), October 2012 (EP-353/2009/E), April 2013 (EP-353/2009/F) and August 2013 (EP-353/2009/G). Similarly, EPD issued the Environmental Permit (EP) for TMCLKL in November 2009 (EP-354/2009) and the Variation of Environmental Permit (VEP) in December 2010 (EP-354/2009/A) and January 2014 (EP-354/2009/B).

1.1.4 The Project is a designated project and is governed by the current permits for the Project, i.e. the amended EPs issued on 6 August 2013 (EP-353/2009/G) and 28 January 2014 (EP-354/2009/B) (for TMCLKL Southern Landfall Reclamation only).

1.1.5 A Project Specific EM&A Manual, which included all project-relation contents from the original EM&A Manuals for the Project, was issued in May 2012.

1.1.6 Ove Arup & Partners Hong Kong Limited (Arup) was appointed by Highways Department (HyD) as the consultants for the design and construction assignment for the Project's reclamation works (i.e. the Engineer for the Project).

1.1.7 China Harbour Engineering Company Limited (CHEC) was awarded by HyD as the Contractor to undertake the construction work of the Project.

1.1.8 ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) for the Project.

1.1.9 AECOM Asia Co. Ltd. (AECOM) was appointed by CHEC to undertake the role of Environmental Team for the Project for carrying out the EM&A works.

1.1.10 The construction phase of the Project under the EPs was commenced on 12 March 2012 and will be tentatively completed by early Year 2016.

1.1.11 According to the Project Specific EM&A Manual, there is a need of an EM&A programme including air quality, noise, water quality and dolphin monitoring and environmental site inspections. The EM&A programme of the Project commenced on 12 March 2012.

1.2 Scope of Report

1.2.1 This is the twenty-forth monthly EM&A Report under the Contract No.HY/2010/02 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Works. This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for the Project in February 2014.

1.3 Project Organization

1.3.1 The project organization structure is shown in Appendix A. The key personnel contact names and numbers are summarized in Table 1.1.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Engineer's Representative (ER) (Ove Arup & Partners Hong Kong Limited)	Chief Resident Engineer	Roger Marechal	3698 5700	2698 5999
IEC / **ENPO** (ENVIRON Hong Kong Limited)	Independent Environmental Checker	Raymond Dai	3465 2888	3465 2899
	Environmental Project Office Leader	Y. H. Hui	3465 2868	3465 2899
Contractor (China Harbour Engineering Company Limited)	Environmental Officer	Richard Ng	36932253	2578 0413
	24-hour Hotline	Alan C.C. Yeung	9448 0325	--
ET (AECOM Asia Company Limited)	ET Leader	Echo Leong	3922 9280	2317 7609

1.4 Summary of Construction Works

1.4.1 The construction phase of the Project under the EP commenced on 12 March 2012.

1.4.2 As informed by the Contractor, details of the major works carried out in this reporting period are listed below:-

Marine-based Works

- Cellular structure installation
- Connecting arc cell installation
- Laying geo-textile
- Sand blanket laying
- Sand filling
- Maintenance of silt curtain & silt screen at sea water intake of HKIA
- Stone column installation
- Band drain installation
- Backfill cellular structure
- Geotechnical Instrumentation works
- Construction of temporary seawall
- Ground investigation
- Surcharge laying
- Precast Yard setup
- Seawall blocks for temporary construction
- Construction of temporary assess from Portion D to Portion A
- Construction of temporary pier at Portion A

- Sand Drain
- Vibro-compaction on surcharge

Land-based Works

- Maintenance works of Site Office at Works Area WA2
- Maintenance works of Public Works Regional Laboratory at Works Area WA3
- Geo-textile fabrication at Works Area WA2
- Installed sand bag at Works Area WA2
- Silt curtain fabrication at Works Area WA4
- Maintenance of Temporary Marine Access at Works Area WA2

1.4.3 The 3-month rolling construction programme of the Project is shown in Appendix B.

1.4.4 The general layout plan of the Project site showing the detailed works areas is shown in Figure 1.

1.4.5 The environmental mitigation measures implementation schedule are presented in Appendix C.

1.5 Summary of EM&A Programme Requirements

1.5.1 The EM&A programme required environmental monitoring for air quality, noise, water quality, marine ecology and environmental site inspections for air quality, noise, water quality, waste management, marine ecology, and landscape and visual impact. The EM&A requirements for each parameter described in the following sections include:-

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming month;
- Action and Limit levels for all environmental parameters;
- Event / Action Plan;
- Environmental mitigation measures, as recommended in the Project EIA reports; and
- Environmental requirement in contract documents.

2 AIR QUALITY MONITORING

2.1 Monitoring Requirements

2.1.1 In accordance with the Project Specific EM&A Manual, baseline 1-hour and 24-hour Total Suspended Particulates (TSP) levels at 4 air quality monitoring stations were established. Impact 1-hour TSP monitoring was conducted for at least three times every 6 days, while impact 24-hour TSP monitoring was carried out for at least once every 6 days. The Action and Limit level of the air quality monitoring is provided in Appendix D.

2.2 Monitoring Equipment

2.2.1 24-hour TSP air quality monitoring was performed using High Volume Sampler (HVS) located at each designated monitoring station. The HVS meets all the requirements of the Project Specific EM&A Manual. Portable direct reading dust meters were used to carry out the 1-hour TSP monitoring. Brand and model of the equipment is given in Table 2.1.

Table 2.1 Air Quality Monitoring Equipment

Equipment	Brand and Model
Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3 and LD-3B)
High Volume Sampler (24-hour TSP)	Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Air Sampler (Model No. TE-5170)

2.3 Monitoring Locations

2.3.1 Monitoring locations AMS2 and AMS7 were set up at the proposed locations in accordance with Project Specific EM&A Manual. For AMS6 (Dragonair/CNAC (Group) Building), permission on setting up and carrying out impact monitoring works was sought, however, access to the premise has not been granted yet on this report issuing date. For monitoring location AMS3 (Ho Yu College), as proposed in the Project Specific EM&A Manual, approval for carrying out impact monitoring could not be obtained from the principal of the school. Permission on setting up and carrying out impact monitoring works at nearby sensitive receivers, like Caribbean Coast and Coastal Skyline, was also sought. However, approvals for carrying out impact monitoring works within their premises were not obtained. Impact air quality monitoring was conducted at site boundary of the site office area in Works Area WA2 (AMS3B) respectively. Same baseline and Action Level for air quality, as derived from the baseline monitoring data recorded at Ho Yu College, was adopted for this alternative air quality location.

2.3.2 Reference is made to ET's proposal of the omission of air monitoring station (AMS 6) dated on 1 November 2012 and EPD's letter dated on 19 November 2012 regarding the conditional approval of the proposed omission of air monitoring station (AMS 6) for Contract No. HY/2010/02. The aforesaid omission of Monitoring Station AMS6 is effective since 19 November 2012.

2.3.3 Figure 2 shows the locations of monitoring stations. Table 2.2 describes the details of the monitoring stations.

Table 2.2 Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Location	Description
AMS2	Tung Chung Development Pier	Rooftop of the premise
AMS3B	Site Boundary of Site Office Area at Works Area WA2	On ground at the area boundary
AMS6*	Dragonair/CNAC (Group) Building	On ground at boundary of the premise
AMS7	Hong Kong SkyCity Marriott Hotel	On ground at boundary of the premise

#Remarks: Reference is made to EPD conditional approval of the omission of air monitoring station (AMS 6) for the project. The omission will be effective on 19 November 2012.

2.4 Monitoring Parameters, Frequency and Duration

2.4.1 Table 2.3 summarizes the monitoring parameters, frequency and duration of impact TSP monitoring.

Table 2.3 Air Quality Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
1-hour TSP	Three times every 6 days while the highest dust impact was expected
24-hour TSP	Once every 6 days

2.5 Monitoring Methodology

2.5.1 24-hour TSP Monitoring

(a) The HVS was installed in the vicinity of the air sensitive receivers. The following criteria were considered in the installation of the HVS.

(i) A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
(ii) No two samplers should be placed less than 2 meters apart.
(iii) The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
(iv) A minimum of 2 meters separation from walls, parapets and penthouse for rooftop sampler.
(v) A minimum of 2 meters separation from any supporting structure, measured horizontally is required.
(vi) No furnace or incinerator flues nearby.
(vii) Airflow around the sampler was unrestricted.
(viii) Permission was obtained to set up the samplers and access to the monitoring stations.
(ix) A secured supply of electricity was obtained to operate the samplers.
(x) The sampler was located more than 20 meters from any dripline.
(xi) Any wire fence and gate, required to protect the sampler, did not obstruct the monitoring process.
(xii) Flow control accuracy was kept within ±2.5% deviation over 24-hour sampling period.

(b) Preparation of Filter Papers

(i) Glass fibre filters, G810 were labelled and sufficient filters that were clean and without pinholes were selected.
(ii) All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C; the relative humidity (RH) was < 50% and not variable by more than ±5%. A convenient working RH was 40%.

(iii) All filter papers were prepared and analysed by ALS Technichem (HK) Pty Ltd., which is a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes.

(c) Field Monitoring

(i) The power supply was checked to ensure the HVS works properly.
(ii) The filter holder and the area surrounding the filter were cleaned.
(iii) The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
(iv) The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
(v) The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied was sufficient to avoid air leakage at the edges.
(vi) Then the shelter lid was closed and was secured with the aluminum strip.
(vii) The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
(viii) A new flow rate record sheet was set into the flow recorder.
(ix) On site temperature and atmospheric pressure readings were taken and the flow rate of the HVS was checked and adjusted at around 1.1 m^3/min, and complied with the range specified in the updated EM&A Manual (i.e. 0.6-1.7 m^3/min).
(x) The programmable digital timer was set for a sampling period of 24 hrs, and the starting time, weather condition and the filter number were recorded.
(xi) The initial elapsed time was recorded.
(xii) At the end of sampling, on site temperature and atmospheric pressure readings were taken and the final flow rate of the HVS was checked and recorded.
(xiii) The final elapsed time was recorded.
(xiv) The sampled filter was removed carefully and folded in half length so that only surfaces with collected particulate matter were in contact.
(xv) It was then placed in a clean plastic envelope and sealed.
(xvi) All monitoring information was recorded on a standard data sheet.
(xvii) Filters were then sent to ALS Technichem (HK) Pty Ltd. for analysis.

(d) Maintenance and Calibration

(i) The HVS and its accessories were maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
(ii) 5-point calibration of the HVS was conducted using TE-5025A Calibration Kit prior to the commencement of baseline monitoring. Bi-monthly 5-point calibration of the HVS will be carried out during impact monitoring.
(iii) Calibration certificate of the HVSs are provided in Appendix E.

2.5.2 1-hour TSP Monitoring

(a) Measuring Procedures

The measuring procedures of the 1-hour dust meter were in accordance with the Manufacturer's Instruction Manual as follows:-

(i) Turn the power on.
(ii) Close the air collecting opening cover.
(iii) Push the "TIME SETTING" switch to [BG].
(iv) Push "START/STOP" switch to perform background measurement for 6 seconds.
(v) Turn the knob at SENSI ADJ position to insert the light scattering plate.
(vi) Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
(vii) Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes 1 minute.
(viii) Pull out the knob and return it to MEASURE position.
(ix) Push the "TIME SETTING" switch the time set in the display to 3 hours.
(x) Lower down the air collection opening cover.
(xi) Push "START/STOP" switch to start measurement.

(b) Maintenance and Calibration

(i) The 1-hour TSP meter was calibrated at 1-year intervals against a continuous particulate TEOM Monitor, Series 1400ab. Calibration certificates of the Laser Dust Monitors are provided in Appendix E.

(ii) 1-hour validation checking of the TSP meter against HVS is carried out on half-year basis at the air quality monitoring locations.

2.6 Monitoring Schedule for the Reporting Month

2.6.1 The schedule for air quality monitoring in February 2014 is provided in Appendix F.

2.7 Results and Observations

2.7.1 The monitoring results for 1-hour TSP and 24-hour TSP are summarized in Table 2.4 and 2.5 respectively. Detailed impact air quality monitoring results are presented in Appendix G.

Table 2.4 Summary of 1-hour TSP Monitoring Results in the Reporting Period

	Average ($\mu g/m^3$)	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AMS2	82	77 – 85	374	500
AMS3B	81	77 – 85	368	500
AMS7	81	75 – 85	370	500

Table 2.5 Summary of 24-hour TSP Monitoring Results in the Reporting Period

	Average ($\mu g/m^3$)	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AMS2	65	46 – 85	176	260
AMS3B	86	49 – 130	167	260
AMS7	72	47 – 96	183	260

2.7.2 No Action or Limit Level Exceedance of 1-hr TSP and 24-hr TSP was recorded in the reporting month.

2.7.3 The major dust source in the reporting period included construction activities from the Project, construction activities by other contacts, as well as nearby traffic emissions.

2.7.4 The event action plan is annexed in Appendix L.

2.7.5 Meteorological information collected from the wind station during the monitoring periods on the monitoring dates, as shown in Figure 2, including wind speed and wind direction, is annexed in Appendix H.

3 NOISE MONITORING

3.1 Monitoring Requirements

3.1.1 In accordance with the Project Specific EM&A Manual, impact noise monitoring was conducted for at least once per week during the construction phase of the Project. The Action and Limit level of the noise monitoring is provided in Appendix D.

3.2 Monitoring Equipment

3.2.1 Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in Table 3.1.

Table 3.1 Noise Monitoring Equipment

Equipment	Brand and Model
Integrated Sound Level Meter	Rion NL-31 & B&K2238
Acoustic Calibrator	Rion NC-73

3.3 Monitoring Locations

3.3.1 Monitoring locations NMS2 was set up at the proposed locations in accordance with Project Specific EM&A Manual. However, for monitoring location NMS3 (Ho Yu College), as proposed in the Project Specific EM&A Manual, approval for carrying out impact monitoring could not be obtained from the principal of the school. Permission on setting up and carrying out impact monitoring works at nearby sensitive receivers, like Caribbean Coast and Coastal Skyline, was also sought. However, approvals for carrying out impact monitoring works within their premises were not obtained. Impact noise monitoring was conducted at site boundary of the site office area in Works Area WA2 (NMS3B) respectively. Same baseline noise level (as derived from the baseline monitoring data recorded at Ho Yu College) and Limit Level were adopted for this alternative noise monitoring location.

3.3.2 Figure 2 shows the locations of the monitoring stations. Table 3.2 describes the details of the monitoring stations.

Table 3.2 Locations of Impact Noise Monitoring Stations

Monitoring Station	Location	Description
NMS2	Seaview Crescent Tower 1	Free-field on the rooftop of the premise
NMS3B	Site Boundary of Site Office Area at Works Area WA2	Free-field on ground at the area boundary.

3.4 Monitoring Parameters, Frequency and Duration

3.4.1 Table 3.3 summarizes the monitoring parameters, frequency and duration of impact noise monitoring.

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

Parameter	Frequency and Duration
30-mins measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq}, L_{10} and L_{90} would be recorded.	At least once per week

3.5 Monitoring Methodology

3.5.1 Monitoring Procedure

(a) The sound level meter was set on a tripod at a height of 1.2 m above the ground for free-field measurements at NMS2. A correction of +3 dB(A) shall be made to the free field measurements.

(b) All measurement at NMS3A were free field measurements in the reporting month at NMS3A. A correction of +3 dB(A) shall be made to the free field measurements.

(c) The battery condition was checked to ensure the correct functioning of the meter.

(d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:-

(i) frequency weighting: A
(ii) time weighting: Fast
(iii) time measurement: $L_{eq(30\text{-minutes})}$ during non-restricted hours i.e. 07:00 – 1900 on normal weekdays.

(e) Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator for 94dB(A) at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.

(f) During the monitoring period, the L_{eq}, L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.

(g) Noise measurement was paused during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible. Observations were recorded when intrusive noise was unavoidable.

(h) Noise monitoring was cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind with gusts exceeding 10m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.5.2 Maintenance and Calibration

(a) The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.

(b) The meter and calibrator were sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.

(c) Calibration certificates of the sound level meters and acoustic calibrators are provided in Appendix E.

3.6 Monitoring Schedule for the Reporting Month

3.6.1 The schedule for construction noise monitoring in February 2014 is provided in Appendix F.

3.7 Monitoring Results

3.7.1 The monitoring results for construction noise are summarized in Table 3.4 and the monitoring data is provided in Appendix I.

Table 3.4 Summary of Construction Noise Monitoring Results in the Reporting Period

	Average, dB(A), $L_{eq\ (30\ mins)}$	Range, dB(A), $L_{eq\ (30\ mins)}$	Limit Level, dB(A), $L_{eq\ (30\ mins)}$
NMS2	67	65 – 67*	75
NMS3B	67	61 – 67*	70^

*+3dB(A) Façade correction included
^ Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period.

3.7.2 No Action or Limit Level Exceedance of construction noise was recorded in the reporting month.

3.7.3 Major noise sources during the noise monitoring included construction activities of the Project, construction activities by other contracts and nearby traffic noise.

3.7.4 The event action plan is annexed in Appendix L.

4 WATER QUALITY MONITORING

4.1 Monitoring Requirements

4.1.1 Impact water quality monitoring was carried out to ensure that any deterioration of water quality was detected, and that timely action was taken to rectify the situation. For impact water quality monitoring, measurements were taken in accordance with the Project Specific EM&A Manual. Appendix D shows the established Action/Limit Levels for the environmental monitoring works.

4.2 Monitoring Equipment

4.2.1 Table 4.1 summarises the equipment used in the impact water quality monitoring programme.

Table 4.1 Water Quality Monitoring Equipment

Equipment	Brand and Model
Dissolved Oxygen (DO) and Temperature Meter, Salinity Meter and Turbidimeter	YSI Model 6820
pH Meter	YSI Model 6820 or Thermo Orion 230A+
Positioning Equipment	JRC DGPS 224 Model JLR-4341 with J-NAV 500 Model NWZ4551
Water Depth Detector	Eagle Cuda-168
Water Sampler	Kahlsio Water Sampler (Vertical) 2.2 L with messenger

4.3 Monitoring Parameters, Frequency and Duration

4.3.1 Table 4.2 summarises the monitoring parameters, frequency and monitoring depths of impact water quality monitoring as required in the Project Specific EM&A Manual.

Table 4.2 Impact Water Quality Monitoring Parameters and Frequency

Monitoring Stations	Parameter, unit	Frequency	No. of depth
Impact Stations: IS5, IS(Mf)6, IS7, IS8, IS(Mf)9, IS10, IS(Mf)11, IS(Mf)16, IS17 *Control/Far Field Stations:* CS(Mf)3, CS(Mf)5, CS4, CS6, CSA *Sensitive Receiver Stations:* SR3-SR7, SR10A&SR10B	• Depth, m • Temperature, ^{o}C • Salinity, ppt • Dissolved Oxygen (DO), mg/L • DO Saturation, % • Turbidity, NTU • pH • Suspended Solids (SS), mg/L	Three times per week during mid-ebb and mid-flood tides (within ± 1.75 hour of the predicted time)	3 (1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth is less than 6 m, in which case the mid-depth station may be omitted. Should the water depth be less than 3 m, only the mid-depth station will be monitored).

4.4 Monitoring Locations

4.4.1 In accordance with the Project Specific EM&A Manual, twenty-one stations (9 Impact Stations, 7 Sensitive Receiver Stations and 5 Control/Far Field Stations) were designated for impact water quality

monitoring. The nine Impact Stations (IS) were chosen on the basis of their proximity to the reclamation and thus the greatest potential for water quality impacts, the seven Sensitive Receiver Stations (SR) were chosen as they are close to the key sensitive receives and the five Control/ Far Field Stations (CS) were chosen to facilitate comparison of the water quality of the IS stations with less influence by the Project/ ambient water quality conditions.

4.4.2 Due to safety concern and topographical condition of the original locations of SR4 and SR10B, alternative impact water quality monitoring stations, naming as SR4 (N) and SR10B (N), were adopted, which are situated in vicinity of the original impact water quality monitoring stations (SR4 and SR10B) and could be reachable.

4.4.3 Same baseline and Action Level for water quality, as derived from the baseline monitoring data recorded, were adopted for these alternative impact water quality monitoring stations.

4.4.4 The locations of these monitoring stations are summarized in Table 4.3 and depicted in Figure 3.

Table 4.3 Impact Water Quality Monitoring Stations

Station	Description	East	North
IS5	Impact Station (Close to HKBCF construction site)	811579	817106
IS(Mf)6	Impact Station (Close to HKBCF construction site)	812101	817873
IS7	Impact Station (Close to HKBCF construction site)	812244	818777
IS8	Impact Station (Close to HKBCF construction site)	814251	818412
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850
IS10	Impact Station (Close to HKBCF construction site)	812577	820670
IS(Mf)11	Impact Station (Close to HKBCF construction site)	813562	820716
IS(Mf)16	Impact Station (Close to HKBCF construction site)	814328	819497
IS17	Impact Station (Close to HKBCF construction site)	814539	820391
SR3	Sensitive receivers (San Tau SSSI)	810525	816456
SR4(N)	Sensitive receivers (Tai Ho)	814705	817859
SR5	Sensitive receivers (Artificial Reef in NE Airport)	811489	820455
SR6	Sensitive receivers (Sha Chau and Lung Kwu Chau Marine Park)	805837	821818
SR7	Sensitive receivers (Tai Mo Do)	814293	821431
SR10A	Sensitive receivers (Ma Wan FCZ)1	823741	823495
SR10B(N)	Sensitive receivers (Ma Wan FCZ)2	823683	823187
CS(Mf)3	Control Station	809989	821117
CS(Mf)5	Control Station	817990	821129
CS4	Control Station	810025	824004
CS6	Control Station	817028	823992
CSA	Control Station	818103	823064

4.5 Monitoring Methodology

4.5.1 Instrumentation

(a) The in-situ water quality parameters, viz. dissolved oxygen, temperature, salinity, turbidity and pH, were measured by multi-parameter meters (i.e. Model YSI 6820 CE-C-M-Y) and pH meter (i.e. Thermo Orion 230A+) respectively.

4.5.2 Operating/Analytical Procedures

(a) Digital Differential Global Positioning Systems (DGPS) were used to ensure that the correct location was selected prior to sample collection.

(b) Portable, battery-operated echo sounders were used for the determination of water depth at each designated monitoring station.

(c) All in-situ measurements were taken at 3 water depths, 1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth was less than 6 m, in which case the mid-depth station was omitted. Should the water depth be less than 3 m, only the mid-depth station was monitored.

(d) At each measurement/sampling depth, two consecutive in-situ monitoring (DO concentration and saturation, temperature, turbidity, pH, salinity) and water sample for SS. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of DO or turbidity parameters was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.

(e) Duplicate samples from each independent sampling event were collected for SS measurement. Water samples were collected using the water samplers and the samples were stored in high-density polythene bottles. Water samples collected were well-mixed in the water sampler prior to pre-rinsing and transferring to sample bottles. Sample bottles were pre-rinsed with the same water samples. The sample bottles were then be packed in cool-boxes (cooled at $4^{o}C$ without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. for the analysis of suspended solids concentrations. The laboratory determination work would be started within 24 hours after collection of the water samples. ALS Technichem (HK) Pty Ltd. is a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes. For QA/QC procedures, one duplicate samples of every batch of 20 samples was analyzed.

(f) The analysis method and reporting and detection limit for SS is shown in Table 4.4.

Table 4.4 Laboratory Analysis for Suspended Solids

Parameters	Instrumentation	Analytical Method	Reporting Limit	Detection Limit
Suspended Solid (SS)	Weighting	APHA 2540-D	0.5mg/L	0.5mg/L

(g) Other relevant data were recorded, including monitoring location / position, time, water depth, tidal stages, weather conditions and any special phenomena or work underway at the construction site in the field log sheet for information.

4.5.3 Maintenance and Calibration

(a) All in situ monitoring instruments would be calibrated and calibrated by ALS Technichem (HK) Pty Ltd. before use and at 3-monthly intervals throughout all stages of the water quality monitoring programme. Calibration details are provided in Appendix E.

(b) The dissolved oxygen probe of YSI 6820 was calibrated by wet bulb method. Before the calibration routine, the sensor for dissolved oxygen was thermally equilibrated in water-saturated air. Calibration cup is served as a calibration chamber and it was loosened from airtight condition before it is used for the calibration. Calibration at ALS Technichem (HK) Pty Ltd. was carried out once every three months in a water sample with a known concentration of dissolved oxygen. The sensor was immersed in the water and after thermal equilibration, the known mg/L value was keyed in and the calibration was carried out automatically.

(c) The turbidity probe of YSI 6820 is calibrated two times a month. A zero check in distilled water was performed with the turbidity probe of YSI 6820 once per monitoring day. The probe will be calibrated with a solution of known NTU at ALS Technichem (HK) Pty Ltd. once every three months.

4.6 Monitoring Schedule for the Reporting Month

4.6.1 The schedule for impact water quality monitoring in February 2014 is provided in Appendix F.

4.6.2 As informed by the Contractor, marine works was conducted at HKBCF on 1 Feb 14, the impact water quality monitoring work scheduled on 31 Jan 14 at mid Flood tide 08:04 and Mid-ebb 13:36 was rescheduled to 1 Feb 14 mid Flood tide 08:43 and Mid-ebb tide 14:19. The monitoring results recorded on 1 Feb 14 is reported in the EM&A report for Feb 14.

4.7 Results and Observations

4.7.1 Impact water quality monitoring was conducted at all designated monitoring stations in the reporting month. Except Impact water quality monitoring at sampling location IS(Mf)9. Sampling location IS(Mf)9 was found enclosed by silt curtain during the reporting month. Samples were taken about 140 meters away from IS(Mf)9. The sampling location's coordination (East 813226, North 818708) was recorded. The Contractor was advised to take corrective actions to the temporary arrangement of the perimeter silt curtain as soon as possible.

4.7.2 Impact water quality monitoring results and graphical presentations are provided in Appendix J.

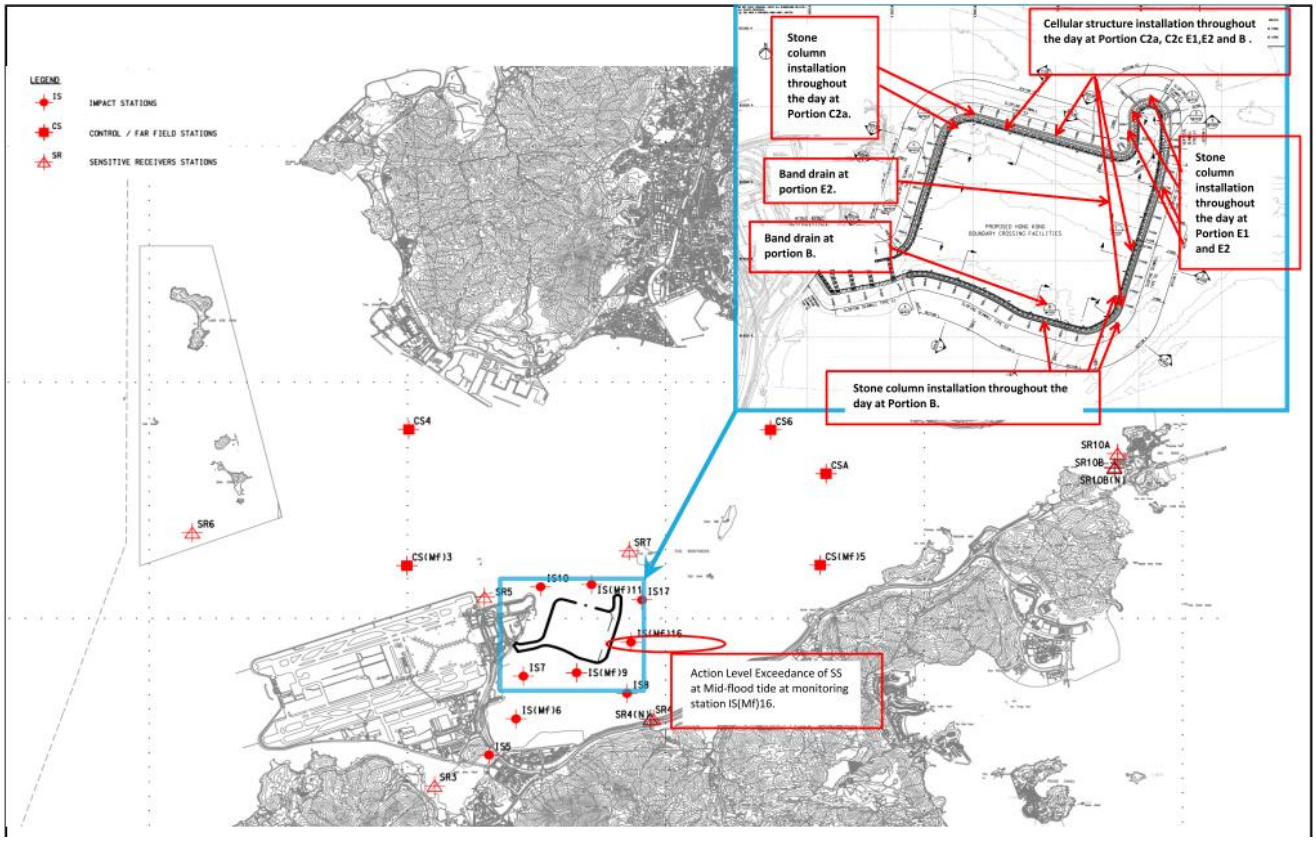
4.7.3 One (1) Action Level Exceedance for Water Quality was recorded at IS(Mf)16 during Mid-flood tide on 21 Feb 14. No Limit Level Exceedance for Water Quality was recorded in the reporting period.

Table 4.5 Summary of Water Quality Exceedances

Station	Exceedance Level	DO (S&M)		DO (Bottom)		Turbidity		SS		Total	
		Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood
IS5	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS(Mf)6	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS7	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS8	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS(Mf)9	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS10	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS(Mf)11	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
IS(Mf)16	Action	0	0	0	0	0	0	0	**1**	0	**1**
	Limit	0	0	0	0	0	0	0	0	0	0
IS17	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR3	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR4(N)	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR5	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR6	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR7	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR10A	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
SR10B (N)	Action	0	0	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0	0	0
Total	**Action**	0	0	0	0	0	0	0	**1**	**1**	
	Limit	0	0	0	0	0	0	0	0	0	

Note: S: Surface; and
M: Mid-depth.

4.7.4 One (1) Action Level Exceedance of measured Suspended Solids at 28.5 mg/L for Water Quality was recorded at IS(Mf)16 during Mid-flood tide on 21 Feb 14.



4.7.4.1 For active works carried out on 21 Feb 14, please refer to the above layout map.

4.7.4.2 Same type of works was carried out at the same location on 19, 21 and 24 Feb 14 but Suspended Solids values recorded at IS(Mf)16 on 19 and 24 Feb 14 are all below the Action and Limit Level during the same tide on the same day.

4.7.4.3 Location of IS(Mf)16 is located upstream to active works during mid flood tide, therefore it is unlikely that the exceedance was caused by active works which is located downstream to IS(Mf)16.

4.7.4.4 Suspended Solids values recorded at Impact Station nearest to monitoring station IS(Mf)16 such as IS17 and IS(Mf)9 are all below the Action and Limit Level during the same tide on the same day. This indicates that the SS level near IS(Mf)16 was not adversely affected.

4.7.4.5 Turbidity (in NTU) recorded at Impact Station IS(Mf)16, IS17 and IS(Mf)9 are all below the Action and Limit Level during the same tide on the same day. This indicates that the turbidity (in NTU) at the area close to IS(Mf)16 was not adversely affected.

4.7.4.6 Mitigation measures such as localised silt curtain for stone column installation was implemented on 21 Feb 14.

4.7.4.7 With refer to the daily silt curtain integrity checking record of 21 Feb 14, no defects was observed along the part of the perimeter silt curtain located east of HKBCF-reclamation site which is next to IS(Mf)16. For the condition of the perimeter silt curtain condition near monitoring station IS(Mf)16, please refer to the photo record below:

4.7.4.8 The exceedance was likely due to local effects in the vicinity of IS(Mf)16.

4.7.4.9 The exceedance is considered as non-project related.

4.7.4.10 Nevertheless, the Contractor was reminded to ensure provision of ongoing maintenance to the silt curtains and to carry out maintenance work once defects were found.

4.7.4.11 Maintenance work of the silt curtain was carried out by the Contractor on a daily basis except Sunday and public holiday.

4.7.5 The event action plan is annexed in Appendix L.

5 DOLPHIN MONITORING

5.1 Monitoring Requirements

5.1.1 Vessel based surveys for the Chinese White Dolphin (CWD), *Sousa chinensis,* are to be conducted by a dedicated team comprising a qualified marine mammal ecologist and experienced marine mammal observers (MMOs). The purpose of the surveys are to evaluate the impact of the HKCBF reclamation and, if deemed detrimental, to take appropriate action as per the EM&A manual.

5.1.2 This 'Impact Monitoring' follows several months of 'Baseline Monitoring' so similar survey methodologies have been adopted to facilitate comparisons between datasets. Further, the data collected are compatible with, and are available for, incorporation into the data set managed by the Agriculture, Fisheries and Conservation Department (AFCD) as part of Hong Kong's long term Marine Mammal Monitoring Programme.

5.2 Monitoring Equipment

5.2.1 Table 5.1 summarises the equipment used for the impact dolphin monitoring.

Table 5.1 Dolphin Monitoring Equipment

Equipment	Model
Commercially licensed motor vessel	15m in length with a 4.5m viewing platform
Global Positioning System (GPS) x2	Integrated into T7000 Garmin GPS Map 78C
Computers (T7000 Tablet, Intel Atom)	Windows 7/MSO 13 Logger
Camera	Nikon D90 300m 2.8D fixed focus Nikon D90 20-400m zoom lens
Laser Rangefinder	Infinitor LRF1000/ Kings 950
Marine Binocular x3	Nexus 7 x 50 marine binocular with compass and reticules Fujinon 7 x 50 marine binocular with compass and reticules

5.3 Monitoring Frequency and Conditions

5.3.1 Dolphin monitoring is conducted twice per month in each survey area.

5.3.2 Dolphin monitoring is conducted only when visibility is good (e.g., over 1km) and the sea condition is at a Beaufort Sea State of 4 or better.

5.3.3 When thunder storm, black rain or typhoon warnings are in force, all survey effort is stopped.

5.4 Monitoring Methodology and Location

5.4.1 The impact dolphin monitoring is vessel-based and combines line-transect and photo-ID methodology. The survey follows pre-set and fixed transect lines in the two areas defined by AFCD as:

5.4.2 Northeast Lantau survey area; and

5.4.3 Northwest Lantau survey area.

5.4.4 The co-ordinates for the transect lines and layout map have been provided by AFCD and are shown in Table 5.2 and Figure 4.

Table 5.2 Impact Dolphin Monitoring Line Transect Co-ordinates (Provided by AFCD)

	HK Grid System		Long Lat in WGS84	
ID	X	Y	Long	Lat
1	804671	814577	113.870308	22.269741
1	804671	831404	113.869975	22.421696
2	805475	815457	113.878087	22.277704
2	805477	826654	113.877896	22.378814
3	806464	819435	113.887615	22.313643
3	806464	822911	113.887550	22.345030
4	807518	819771	113.897833	22.316697
4	807518	829230	113.897663	22.402113
5	808504	820220	113.907397	22.320761
5	808504	828602	113.907252	22.396462
6	809490	820466	113.916965	22.323003
6	809490	825352	113.916884	22.367128
7	810499	820690	113.926752	22.325043
7	810499	824613	113.926688	22.360464
8	811508	820847	113.936539	22.326475
8	811508	824254	113.936486	22.357241
9	812516	820892	113.946329	22.326894
9	812516	824254	113.946279	22.357255
10*	813525	818270	113.956156	22.303225
10*	813525	824657	113.956065	22.360912
11	814556	818449	113.966160	22.304858
11	814556	820992	113.966125	22.327820
12	815542	818807	113.975726	22.308109
12	815542	824882	113.975647	22.362962
13	816506	819480	113.985072	22.314192
13	816506	824859	113.985005	22.362771
14	817537	820220	113.995070	22.320883
14	817537	824613	113.995018	22.360556
15	818568	820735	114.005071	22.325550
15	818568	824433	114.005030	22.358947
16	819532	821420	114.014420	22.331747
16	819532	824209	114.014390	22.356933
17	820451	822125	114.023333	22.338117
17	820451	823671	114.023317	22.352084
18	821504	822371	114.033556	22.340353
18	821504	823761	114.033544	22.352903
19	822513	823268	114.043340	22.348458
19	822513	824321	114.043331	22.357971
20	823477	823402	114.052695	22.349680
20	823477	824613	114.052686	22.360610
21	805476	827081	113.877878	22.382668
21	805476	830562	113.877811	22.414103
22	806464	824033	113.887520	22.355164
22	806464	829598	113.887416	22.405423
23	814559	821739	113.966142	22.334574
23	814559	824768	113.966101	22.361920

*****Remark: Due to the presence of deployed silt curtain systems at the site boundaries of the Project, some of the transect lines shown in Figure 5 could not be fully surveyed during the regular survey. Transect 10 is reduced from 6.4km to approximately 3.6km in length due to the HKBCF construction site. Therefore the total transect length for both NEL and NWL combined is reduced to approximately 111km.

5.5 Monitoring Procedures

5.5.1 The study area incorporates 23 transects which are to be surveyed twice per month. Each survey day lasts approximately 9 hours.

5.5.2 The survey vessel departs from Tung Chung Development Pier, Tsing Yi Public Pier or the nearest safe and convenient pier.

5.5.3 When the vessel reaches the start of a transect line, “on effort” survey begins. Areas between transect lines and traveling to and from the study area are defined as “off effort”.

5.5.4 The transect line is surveyed at a speed of 6-8 knots (11-14 km/hr). For the sake of safety, the speed was sometimes a bit slower to avoid collision with other vessels. During some periods, tide and current flow in the survey areas exceeds 7 knots which can affect survey speed. There are a minimum of four marine mammal observers (MMOs) present on each survey, rotating through four positions, observers (2), data recorder (1) and ‘rest’ (1). Rotations occur every 30 minutes or at the end of dolphin encounters. The data recorder records effort, weather and sightings data directly onto the programme Logger and is not part of the observer team. The observers search with naked eye and binoculars between 90° and 270° abeam (bow being 0°).

5.5.5 When a group of dolphins is sighted, position, bearing and distance data are recorded immediately onto the computer and, after a short observation, an estimate made of group size. These parameters are linked to the time-GPS-ships data which are automatically stored in the programme Logger throughout the survey period. In this manner, information on heading, position, speed, weather, effort and sightings are stored in a format suitable for use with DISTANCE software for subsequent line transect analyses.

5.5.6 Once the vessel leaves the transect line, it is deemed to be “off effort”. The dolphins are approached with the purpose of taking high resolution pictures for proper photo-identification of individual CWD. Attempts to photograph all dolphins in the group are made. Both the left and right hand sides of the dorsal fin area of each dolphin in the group are photographed, if possible. On finishing photographing, the vessel will return to the transect line at the point of departure and “on effort” survey is resumed.

5.5.7 Sightings which are made while on the transect line are referred to as "on effort sightings", while not on the actual transect line are referred to as an “opportunistic sightings” (e.g. another group of dolphins is sighted while travelling back to the transect line). Only “on effort sightings” can be used in analyses which require effort or rate quantification, e.g., encounter rate per 100km searched. This is also how “on effort sightings” are treated in the baseline report. “Opportunistic sightings” provide additional information on individual habitat use and population distribution and they are noted accordingly.

5.5.8 As time and GPS data are automatically logged throughout the survey and are linked to sightings data input, start and end times of encounters and deviation from the transect lines are recorded and can be subsequently reviewed.

5.6 Monitoring Schedule for the Reporting Month

5.6.1 The schedule for dolphin monitoring in February 2014 is provided in Appendix F.

5.7 Results and Observations

5.7.1 Dolphin surveys were conducted on 10, 11, 17 and 20 February 2014. In summary, a total of 223.4km of survey was conducted. 38.1km effort was conducted in February 2014 under sea condition Beaufort 4, nearly 82.85% of “on effort” survey was conducted under favourable conditions (Beaufort Sea State 3 or better), i.e. 185.3km. The details are shown below:-

5.7.2 The effort summary and sightings data are shown in Tables 5.3 and 5.4, respectively. The survey efforts conducted in February 2014 are plotted in Figure 5a-c. For Table 5.3, only on-effort information is included. Transects conducted in all Beaufort Sea State are included. Compared to previous monthly reports, the whole number Beaufort Sea State scale is used so as to ease comparison with other dolphin monitoring reports.

Table 5.3 Impact Dolphin Monitoring Survey Effort Summary, Effort by Area and Beaufort Sea State

Survey	Date	Area	Beaufort	Effort (km)	Total Distance Travelled (km)
1	10/02/2014	NWL	1	0.3	**68.0**
	10/02/2014	NWL	2	4.9	
	10/02/2014	NWL	3	37.8	
	10/02/2014	NWL	4	25	
	11/02/2014	NWL	3	3.7	**43.7**
	11/02/2014	NWL	4	2.4	
	11/02/2014	NEL	1	1.4	
	11/02/2014	NEL	3	26.9	
	11/02/2014	NEL	4	9.3	
2	17/02/2014	NWL	2	15.7	**59.4**
	17/02/2014	NWL	3	42.3	
	17/02/2014	NWL	4	1.4	
	20/02/2014	NWL	1	0.1	**52.3**
	20/02/2014	NWL	3	14.7	
	20/02/2014	NEL	1	0.1	
	20/02/2014	NEL	2	11	
	20/02/2014	NEL	3	26.4	
TOTAL in February 2014					**223.4**

*Remark: Surveys conduct under Beaufort Sea State 3 or below are considered as under favourable condition.

Table 5.4 Impact Dolphin Monitoring Survey Details in February 2014

Date	Location	No. Sightings "on effort"	No. Sightings "opportunistic"
10/02/2014	NW L	0	0
	NEL	0	0
11/02/2014	NW L	0	0
	NEL	0	0
17/02/2014	NW L	2	0
	NEL	0	0
20/02/2014	NW L	0	0
	NEL	0	0
TOTAL in February 2014		**2**	**0**

Table 5.5 The Encounter Rate of Number of Dolphin Sightings & Total Number of Dolphins per Area^

Encounter Rate of Number of Dolphin Sightings (STG)*						
Date	**NEL Track**	**NWL Track**	**NEL Sightings**	**NWL Sightings**	**NEL Encounter Rate**	**NWL Encounter Rate**
10 & 11/02/2014	28.3 km	46.7 km	0	0	0.0	0.0
17 & 20/02/2014	37.5 km	72.8 km	0	2	0.0	2.7
Encounter Rate of Total Number of Dolphins (ANI)**						
Date	**NEL Track**	**NWL Track**	**NEL Dolphins**	**NWL Dolphins**	**NEL Encounter Rate**	**NWL Encounter Rate**
10 & 11/02/2014	28.3 km	46.7 km	0	0	0.0	0.0
17 & 20/02/2014	37.5 km	72.8 km	0	10	0.0	13.7

* Encounter Rate of Number of Dolphin Sightings (STG) presents encounter rates in terms of groups per 100km.
** Encounter Rate of Total Number of Dolphins (ANI) presents encounter rates in terms of individuals per 100km. And the encounter rate is not corrected for individuals, calculation may represent double counting.
^The table is made only for reference to the quarterly STG & ANI, which were adopted for the Event & Action Plan.

5.7.3 A total of two dolphin sightings were recorded during the two surveys, both were made on 17 February 2014. Two sightings were “on effort” (which are all under favourable condition). A total of ten individuals were sighted from the two impact dolphin surveys in the reporting period. Sighting details are summarised and plotted in Appendix K and Figure 5c, respectively.

5.7.4 Behaviour: Of the two sightings made one was recorded as feeding and one as travelling. The locations of sighting with different behaviour are mapped in Figure 5d.

5.7.5 Photo ID analyses for January 2014 is presented in Appendix K.

5.7.6 Noteworthy Observation: Two mother and calf pairs were observed in the same sighting (sighting 910). One mother was identified as HZMB 050 with her calf of approximately 17 months; HZMB 050 was sighted twice in January 2014. The second calf is believed to have been sighted previously in November 2013 (sighting 845), however, images are not clear as close approaches to this mother and calf were not made. The location of sightings and images available are provided in Figure 5e.

5.7.7 When impact monitoring was conducted at the southern parts of transect lines 1, 2 and 12 and the northern end of transect line 10, the view of the area was partially blocked by the working vessels and in water structures of HZMB which were outside the site boundary of HKBCF Reclamation Works.

5.7.8 When monitoring was conducted at line 11, the dredging noted previously was ongoing throughout February 2014.

5.7.9 In addition, two new projects (vessels/structures) which were outside the site boundary of HKBCF Reclamation Works were noted at the southern end of transect line 5 and between the northern sections of transect lines 9 and 10 which restricted the view of the observers.

5.7.10 All areas where visibility is limited is noted in the survey effort log so that it can be accounted for in any subsequent analyses. Some of these obstructions will become permanent and some will be temporary as the HZMB is built and other projects progress It is advised that the impact monitoring surveys should be completed as close to the predefined line as possible (as per Figure 4 of this report).

5.7.11 Route travelled shifted slightly to the east at the northern end of transect line 11 due works at HKBCF in Feb 2014. Survey will be taken as close to transect 11 as possible. According to the review provided by the dolphin specialist in the investigation in Jan 2014, the shift in the transect line is insignificant and will not affect the overall dolphin survey, analysis or dolphin behavior.

5.7.12 Two action level exceedances of dolphin monitoring were noted. The investigation is undergoing and the investigation results will be reported in the quarterly EM&A report (Dec 13 – Feb 14).

5.7.13 The event action plan is annexed in Appendix L.

6 ENVIRONMENTAL SITE INSPECTION AND AUDIT

6.1 Site Inspection

6.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. In the reporting month, 4 site inspections were carried out on 6, 13, 19 and 27 February 2014.

6.1.2 Oil was discovered on sea near the pontoon pier at Works Area WA2 of this Contract at 11:30 on 6 Feb 2014. After the joint inspection with RSS and the Contractor, the source was identified as a discrete, non-continuous source with approximately less than 30m^2. No sign of project related spillage was observed on during the inspection jointly with RSS and the Contractor. Following the spill response plan, relevant parties was informed of the incident and the Contractor used absorption booms to contain and remove the floating oil from water and material used for such was collected by disposal bags as part of the spill kits item. After investigation, the spillage incident was considered as non-project related.

6.1.3 Particular observations during the site inspections are described below:

Air Quality

6.1.4 An idle air compressor was observed without drip tray on steel cell. The Contractor was reminded to provide mitigation measures such as drip tray to air compressor prior to operation. An idle air compressor was observed without drip tray on steel cell. The Contractor provided mitigation measures such as drip tray to air compressor prior to operation. (Closed)

6.1.5 Dark smoke was observed generating from an excavator and a loader at works area of Portion A. The machine was turned off. The Contractor is reminded to provide maintenance to the machineries used on-site so that emission of dark smoke could be effectively prevented. (Reminder)

6.1.6 Exposed sand was observed at Works Area of Portion A. The Contractor was advised to implement effective dust control measures. The Contractor provided dust control measures. The Contractor is reminded to control measures to exposed sand at other area to keep the surface wet. (Closed)

Noise

6.1.7 No adverse observation was identified in the reporting month.

Water Quality

6.1.8 Localized silt curtain was not observed near stone column installation point. The Contractor was advised to provide localized silt curtain near stone column installation point. Localized silt curtain was provided near stone column installation point. (Closed)

6.1.9 Oil stain was observed on barge surface of SHB205. The Contractor was advised to clear the oil stain using absorbent material and disposed the absorbent material as chemical waste. The Contractor cleared the oil stain using absorbent material and disposed the absorbent material as chemical waste. (Closed)

6.1.10 Gap was observed between the bunding and the barge surface. The Contractor was reminded to properly seal the gap between the bunding and barge surface to prevent potential oil leakage. The Contractor sealed the gap between the bunding and barge surface to prevent potential oil leakage. (Closed)

6.1.11 Oil drums were observed without drip tray on works area at Portion A and on barge 天駿 3. The Contractor was reminded to provide mitigation measures such as drip tray to oil drums. The Contractor provided mitigation measures such as drip trays to oil drums works area at Portion A and on barge 天駿 3 to prevent potential oil leakage. (Closed)

6.1.12 Generators were observed without drip tray at Works Area of Portion A. The Contractor was reminded to provide mitigation measures such as drip tray to air compressor prior to operation. The Contractor provided mitigation measures such as drip trays to generators to prevent potential oil leakage. (Closed)

Chemical and Waste Management

6.1.13 Construction waste such as band drain was observed along the northern edge of works area at Portion A and on edge of temporary rock bund. The Contractor was advice to properly store and disposes construction waste such as band drain. The Contractor properly store and dispose construction waste such as band drain observed at the edge of the temporary rock bund. (Closed)

6.1.14 Litter was observed at the edge of the works area of Portion A and in the water within and adjacent to the works site between steel cell# 37 and steel cell# 38. The Contractor was reminded to clear the litter was observed presented in the water within and adjacent to the works site regularly. The Contractor cleared the litter was observed presented in the water within and adjacent to the works site. (Closed)

6.1.15 General refuse and litter was observed stored at the edge of the works area of Portion A. The Contractor was reminded to regularly collect and dispose the general refuse regular. The Contractor kept the site clean and tidy by collecting and disposing general refuse within the site regularly. (Closed)

6.1.16 Bags of general refuses were observed stored on barge surface. The Contractor was reminded to regularly collect and dispose the general refuse regular. (Reminder)

Landscape and Visual Impact

6.1.17 No relevant works was carried out in the reporting month.

Others

6.1.18 Rectifications of remaining identified items are undergoing by the Contractor. Follow-up inspections on the status on provision of mitigation measures will be conducted to ensure all identified items are mitigated properly.

6.2 Advice on the Solid and Liquid Waste Management Status

6.2.1 The Contractor had registered as a chemical waste producer for this Project. Receptacles were available for general refuse collection and sorting.

6.2.2 As advised by the Contractor, 1,064,595.7 m^3 of fill were imported for the Project use in the reporting period. 0.252 tonnes of paper/cardboard packaging and 52 m^3 of general refuse were generated and disposed of in the reporting period. Monthly summary of waste flow table is detailed in Appendix M.

6.2.3 The Contractor is advised to properly maintain on site C&D materials and wastes storage, collection, sorting and recording system, dispose of C&D materials and wastes at designated ground and maximize reuse / recycle of C&D materials and wastes. The Contractor is reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

6.2.4 The Contractor is reminded that chemical waste should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labeling and Storage of Chemical Wastes.

6.3 Environmental Licenses and Permits

6.3.1 The environmental licenses and permits for the Project and valid in the reporting month is summarized in Table 6.1.

Table 6.1 Summary of Environmental Licensing and Permit Status

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
EIAO	Environmental Permit	EP-353/2009/G	06/08/2012	N/A	HyD	Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities
		EP-354/2009/B	28/01/2014	N/A		Tuen Mun – Chek Lap Kok Link (TMCLKL Southern Landfall Reclamation only)
APCO	NA notification	--	30/12/2011	--	CHEC	Works Area WA2 and WA3
APCO	NA notification	--	17/01/2012	--	CHEC	Works Area WA4
WDO	Chemical Waste Producer Registration	5213-951-C1186-21	30/3/2012	N/A	CHEC	Chemical waste produced in Contract HY/2010/02
WDO	Chemical Waste Producer Registration	5213-974-C3750-01	31/10/2012	--	CHEC	Registration as Chemical Waste Producer at To Kau Wan(WA4)
WDO	Chemical Waste Producer Registration	5213-839-C3750-02	13/09/2012	--	CHEC	Registration as Chemical Waste Producer at TKO 137(FB)
WDO	Billing Account for Disposal of Construction Waste	7014181	05/12/2011	N/A	CHEC	Waste disposal in Contract HY/2010/02
NCO	Construction Noise Permit	GW-RW0888-13	27/12/2013	26/06/2014	CHEC	Works Area WA4 in Contract HY/2010/02
NCO	Construction Noise Permit	GW-RS0012-14	11/01/2014	10/04/2014	CHEC	Reclamation Works in Contract HY/2010/02
NCO	Construction Noise Permit	GW-RE1345-13	31/12/2013	30/06/2014	CHEC	Section of TKO Fill Bank under Contract HY/2010/02

6.4 Implementation Status of Environmental Mitigation Measures

6.4.1 In response to the site audit findings, the Contractors carried out corrective actions.

6.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in Appendix C. Most of the necessary mitigation measures were implemented properly.

6.4.3 Training of marine travel route for marine vessels operator was given to relevant staff and relevant records were kept properly.

6.4.4 Regarding the implementation of dolphin monitoring and protection measures (i.e. implementation of Dolphin Watching Plan, Dolphin Exclusion Zone and Silt Curtain integrity Check), regular checking

were conducted by the experienced MMOs within the works area to ensure no dolphin was trapped by the enclosed silt curtain systems. Any dolphin spotted within the enclosed silt curtain systems was reported and recorded. Relevant procedures were followed and measures were well implemented. Silt curtain systems were also inspected timely in accordance to the submitted plan. All inspection records were kept properly.

6.4.5 Acoustic decoupling measures on noisy plants on construction vessels were checked regularly and the Contractor was reminded to ensure provision of ongoing maintenance to noisy plants and to carry out improvement work once insufficient acoustic decoupling measures were found.

6.5 Summary of Exceedances of the Environmental Quality Performance Limit

6.5.1 For 1-hr TSP and 24-hr TSP, no exceedance was recorded at all monitoring stations in the reporting period.

6.5.2 For construction noise, no exceedance was recorded at all monitoring stations in the reporting period.

6.5.3 One (1) Action Level Exceedance for Water Quality was recorded at IS(Mf)16 during Mid-flood tide on 21 Feb 14. After investigation, the action level exceedance recorded at IS(Mf)16 was considered as non-project related. No Limit Level Exceedance for Water Quality was recorded in the reporting period.

6.5.4 Two action level exceedances of dolphin monitoring were noted. The investigation is undergoing and the investigation results will be reported in the quarterly EM&A report (Dec 13 – Feb 14).

6.5.5 Cumulative statistics on exceedance is provided in Appendix N.

6.6 Summary of Complaints, Notification of Summons and Successful Prosecutions

6.6.1 No complaint, notification of summons and successful prosecutions was received in the reporting period.

6.6.2 Statistics on complaints, notifications of summons and successful prosecutions are summarized in Appendix N.

7 FUTURE KEY ISSUES

7.1 Construction Programme for the Coming Months

7.1.1 As informed by the Contractor, the major works for the Project in Mar 2014 and Apr 2014 will be:-

Marine-based Works

- Cellular structure installation
- Connecting arc cell installation
- Laying geo-textile
- Sand blanket laying
- Sand filling
- Maintenance of silt curtain & silt screen at sea water intake of HKIA
- Stone column installation
- Band drain installation
- Backfill cellular structure
- Geotechnical Instrumentation works
- Construction of temporary seawall
- Access road for delivery of public fill material
- Ground investigation
- Surcharge laying
- Construction of temporary pier at Portion A
- Precast Yard setup
- Seawall blocks for temporary construction
- Construction of temporary assess from Portion D to Portion A
- Vibro-compaction on surcharge
- Capping Beams structures

Land-based Works

- Maintenance works of Site Office at Works Area WA2
- Maintenance works of Public Works Regional Laboratory at Works Area WA3
- Geo-textile fabrication at Works Area WA2
- Installed sand bag at Works Area WA2
- Maintenance of Temporary Marine Access at Works Area WA2

7.2 Key Issues for the Coming Month

7.2.1 Key issues to be considered in the coming months:-

- Site runoff should be properly collected and treated prior to discharge;
- Minimize loss of sediment from filling works;
- Regular review and maintenance of silt curtain systems, drainage systems and desilting facilities;
- Exposed surfaces/soil stockpiles should be properly treated to avoid generation of silty surface run-off during rainstorm;
- Regular review and maintenance of wheel washing facilities provided at all site entrances/exits;
- Conduct regular inspection of various working machineries and vessels within works areas to avoid any dark smoke emission;
- Suppress dust generated from work processes with use of bagged cements, earth movements, excavation activities, exposed surfaces/soil stockpiles and haul road traffic;
- Quieter powered mechanical equipment should be used;
- Provision of proper and effective noise control measures for operating equipment and machinery on-site, such as erection of movable noise barriers or enclosure for noisy plants;
- Closely check and replace the sound insulation materials regularly;
- Better scheduling of construction works to minimize noise nuisance;
- Properly store and label oil drums and chemical containers placed on site;
- Proper chemicals, chemical wastes and wastes management;
- Maintenance works should be carried out within roofed, paved and confined areas;
- Collection and segregation of construction waste and general refuse on land and in the sea should be carried out properly and regularly; and
- Proper protection and regular inspection of existing trees, transplanted/retained trees.

7.3 Monitoring Schedule for the Coming Month

7.3.1 The tentative schedule for environmental monitoring in March 2014 is provided in Appendix F.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

8.1.1 The construction phase and EM&A programme of the Project commenced on 12 March 2012.

8.1.2 For 1-hr TSP and 24-hr TSP, no exceedance was recorded at all monitoring stations in the reporting period.

8.1.3 For construction noise, no exceedance was recorded at all monitoring stations in the reporting period.

8.1.4 One (1) Action Level Exceedance for Water Quality was recorded at IS(Mf)16 during Mid-flood tide on 21 Feb 14. After investigation, the action level exceedance recorded at IS(Mf)16 was considered as non-project related. No Limit Level Exceedance for Water Quality was recorded in the reporting period.

8.1.5 A total of two dolphin sightings were recorded during the two surveys, both were made on 17 February 2014. Two sightings were “on effort” (which are all under favourable condition). A total of ten individuals were sighted from the two impact dolphin surveys in the reporting period. Sighting details are summarised and plotted in Appendix K and Figure 5c, respectively.

8.1.6 Behaviour: Of the two sightings made one was recorded as feeding and one as travelling. The locations of sighting with different behaviour are mapped in Figure 5d.

8.1.7 Two action level exceedances of dolphin monitoring were noted. The investigation is undergoing and the investigation results will be reported in the quarterly EM&A report (Dec 13 – Feb 14).

8.1.8 Environmental site inspection was carried out 4 times in February 2014. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site audits.

8.1.9 No complaint, notification of summons and successful prosecution was received in the reporting period.

8.2 Recommendations

8.2.1 According to the environmental site inspections performed in the reporting month, the following recommendations were provided:

Air Quality Impact

- All working plants and vessels on site should be regularly inspected and properly maintained to avoid dark smoke emission.
- All vehicles should be washed to remove any dusty materials before leaving the site.
- Haul roads should be sufficiently dampened to minimize fugitive dust generation.
- Wheel washing facilities should be properly maintained and reviewed to ensure properly functioning.
- Temporary exposed slopes and open stockpiles should be properly covered.
- Enclosure should be erected for cement debagging, batching and mixing operations.
- Water spraying should be provided to suppress fugitive dust for any dusty construction activity.

Construction Noise Impact

- Quieter powered mechanical equipment should be used as far as possible.
- Noisy operations should be oriented to a direction away from sensitive receivers as far as possible.
- Proper and effective noise control measures for operating equipment and machinery on-site should be provided, such as erection of movable noise barriers, enclosure for noisy plants or enhancement works to provide sufficient acoustic decoupling measure(s). Closely check and replace the sound insulation materials regularly
- Vessels and equipment operating should be checked regularly and properly maintained.
- Noise Emission Label (NEL) shall be affixed to the air compressor and hand-held breaker operating within works area.
- Acoustic decoupling measures should be properly implemented for all existing and incoming construction vessels with continuous and regularly checking to ensure effective implementation of acoustic decoupling measures.

Water Quality Impact

- Regular review and maintenance of silt curtain systems, drainage systems and desilting facilities in order to make sure they are functioning effectively.
- Construction of seawall should be completed as early as possible.
- Regular inspect and review the loading process from barges to avoid splashing of material.
- Silt, debris and leaves accumulated at public drains, wheel washing bays and perimeter u-channels and desilting facilities should be cleaned up regularly.
- Silty effluent should be treated/ desilted before discharged. Untreated effluent should be prevented from entering public drain channel.
- Proper drainage channels/bunds should be provided at the site boundaries to collect/intercept the surface run-off from works areas.
- Exposed slopes and stockpiles should be covered up properly during rainstorm.

Chemical and Waste Management

- All types of wastes, both on land and floating in the sea, should be collected and sorted properly and disposed of timely and properly. They should be properly stored in designated areas within works areas temporarily.
- All chemical containers, batteries and oil drums should be properly stored and labelled.
- All plants and vehicles on site should be properly maintained to prevent oil leakage. Proper measures, like drip trays and/or bundings, should be provided for retaining leaked oil/chemical from plants.
- All kinds of maintenance works should be carried out within roofed, paved and confined areas.
- All drain holes of the drip trays utilized within works areas should be properly plugged to avoid any oil and chemical waste leakage.
- Oil stains on soil surface, accumulated oil mixture and empty chemical containers should be cleared and disposed of as chemical waste.
- Regular review should be conducted for working barges and patrol boats to ensure sufficient measures and spill control kits were provided on working barges and patrol boats to avoid any spreading of leaked oil/chemicals.

Landscape and Visual Impact

- All existing, retained/transplanted trees at the works areas should be properly fenced off and regularly inspected.

812000 E 813000 E 814000 E 815000 E 816000 E 817000 E 818000 E 819000 E 820000 E 821000 E 822000 E 823000 E

825000 N 824000 N 823000 N 822000 N 821000 N 820000 N 819000 N 818000 N 817000 N 816000 N 815000 N

N

THE SITE

PROPOSED HONG KONG BOUNDARY CROSSING FACILITIES

HONG KONG INTERNATIONAL AIRPORT

SIU HO WAN WIND PROFILER

SIU HO WAN ANEMOMETER STATION

WORKS AREA WA4

WORKS AREA WA3

WORKS AREA WA2

TUNG CHUNG

THE BROTHERS

TO KAU WAN

SIU HO WAN

PENG CHAU

HONG KONG INTERNATIONAL AIRPORT

HKBCF

HONG KONG DISNEYLAND

TUNG CHUNG

KEY PLAN

NOTES

1. ALL COORDINATES ARE RELATED TO HONG KONG 1980 GRID.
2. ALL LEVELS ARE IN METRES ABOVE HONG KONG PRINCIPAL DATUM (mPD).
3. REFER TO DRG NO. 211036/SL/1002 FOR THE DEFINITION OF SETTING OUT LINE (SOL) FOR THE HONG KONG BOUNDARY CROSSING FACILITIES (HKBCF) RECLAMATION SITE.
4. REFER TO DRG NO. 211036/SL/1004 FOR DETAILS OF SITE BOUNDARY.
5. FOR EXTENT OF SORTING FACILITIES AT FILL BANK AT TSEUNG KWAN O AREA 137 REFER TO DRG NO. 211036/SL/1015.

LEGEND

SITE BOUNDARY

SETTING OUT LINE (SOL)

WORKS AREA BOUNDARY

Rev	Description	By	Date
-	FOR CONSTRUCTION	HYJL	11/11

Consultant

ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited

Supported By :
- Ecosystems Ltd.
- EDA Marine Ltd.
- Geotechnical Consulting Group (Asia) Ltd.
- Hong Kong Cetacean Research Project
- InteliBuild Technyx Asia Limited
- Tony Gee and Partners LLP

Contract No. and Title:

Contract No. HY/2010/02
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities
- Reclamation Works

Drawing title

KEY PLAN

Drawing no. 211036/SL/1001 Rev. -

Drawn	Date	Checked	Approved
RL	11/09	KKY	DML

Scale 1:20000 @A1 1:40000 @A3 Status WORKING

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

Printed by : 12/17/2011
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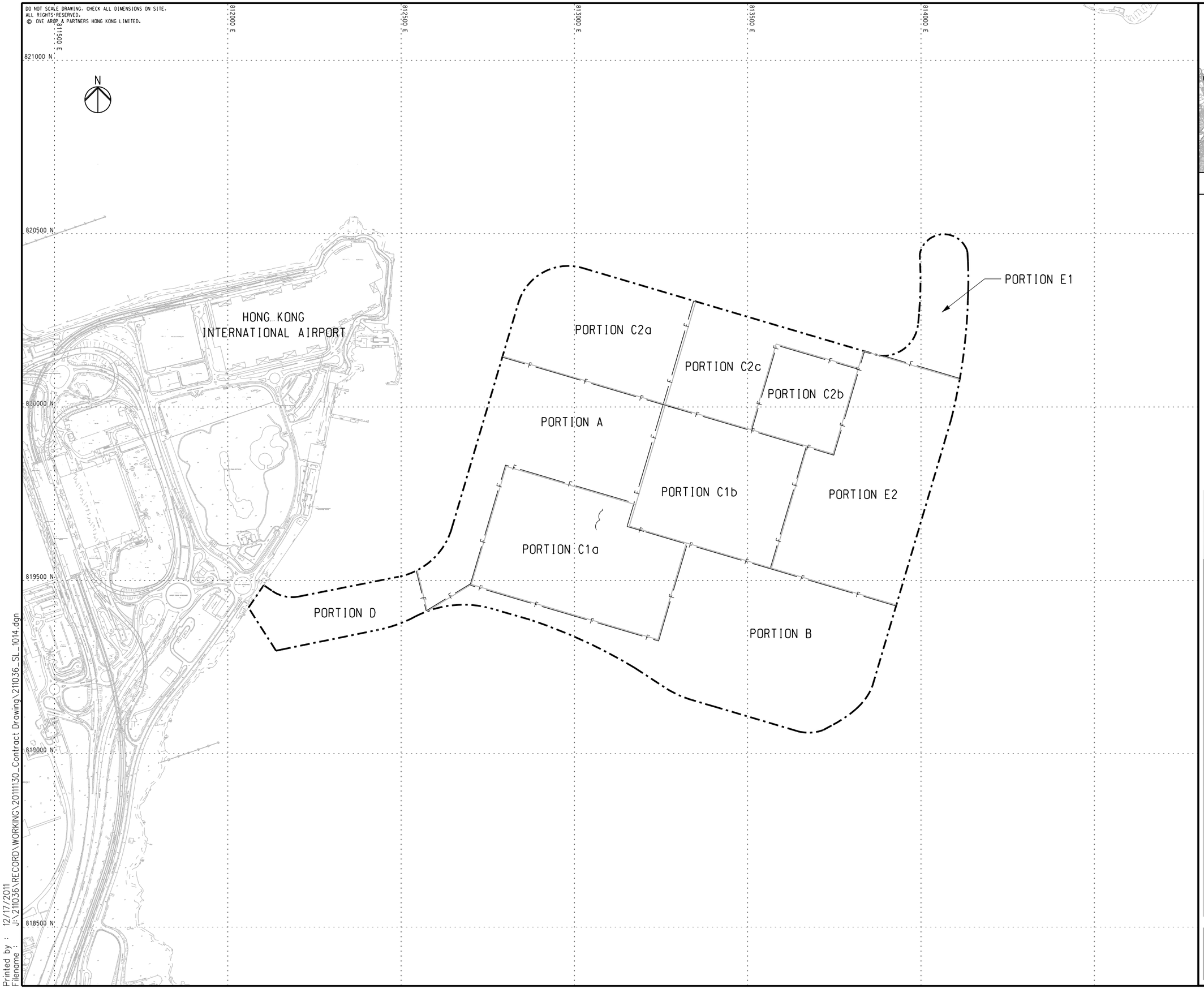

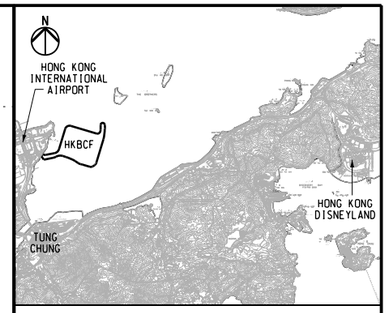

KEY PLAN

NOTES

1. FOR LEGENDS AND NOTES FOR CHAIN LINK FENCE AND GATE REFER TO DRG NO. 211036/SL/1013.
2. THE ERECTION OF CHAIN LINK FENCE AND GATES SHALL BE COMPLETED BY THE HANDOVER DATE OF EACH PORTION OF SITE, OR AS INSTRUCTED BY THE ENGINEER.
3. FOR SETTING OUT COORDINATES OF DIFFERENT PORTIONS OF SITE REFER TO DRG NO. 211036/SL/1003.
4. ACCESS POINTS BETWEEN PORTIONS SHALL BE PROVIDED BY THE CONTRACTOR. AND THE LOCATIONS SHALL BE AGREED WITH THE ENGINEER ON SITE.
5. FOR HOARDING AND FENCE AT FILL BANK AT TSEUNG KWAN O AREA 137 REFER TO DRG NO. 211036/SL/1015.

LEGEND

- SETTING OUT LINE (SOL)
- WORKS AREA BOUNDARY
- PORTIONS BOUNDARY LINE

Rev	Description	By	Date
-	FOR CONSTRUCTION	HYJL	11/11

Consultant

ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited

Supported By :
- Ecosystems Ltd.
- EDA Marine Ltd.
- Geotechnical Consulting Group (Asia) Ltd.
- Hong Kong Cetacean Research Project
- InteliBuild Technyx Asia Limited
- Tony Gee and Partners LLP

Contract No. and Title:
Contract No. HY/2010/02
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities
- Reclamation Works

Drawing title
WORKS AREA LAYOUT
AND HORADING PLAN
(SHEET 2 OF 3)

Drawing no.	Rev.
211036/SL/1014	-

Drawn	Date	Checked	Approved
RL	06/10	KKY	DML

Scale 1:5000 @A1 1:10000 @A3
Status WORKING

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge
Hong Kong Project Management Office

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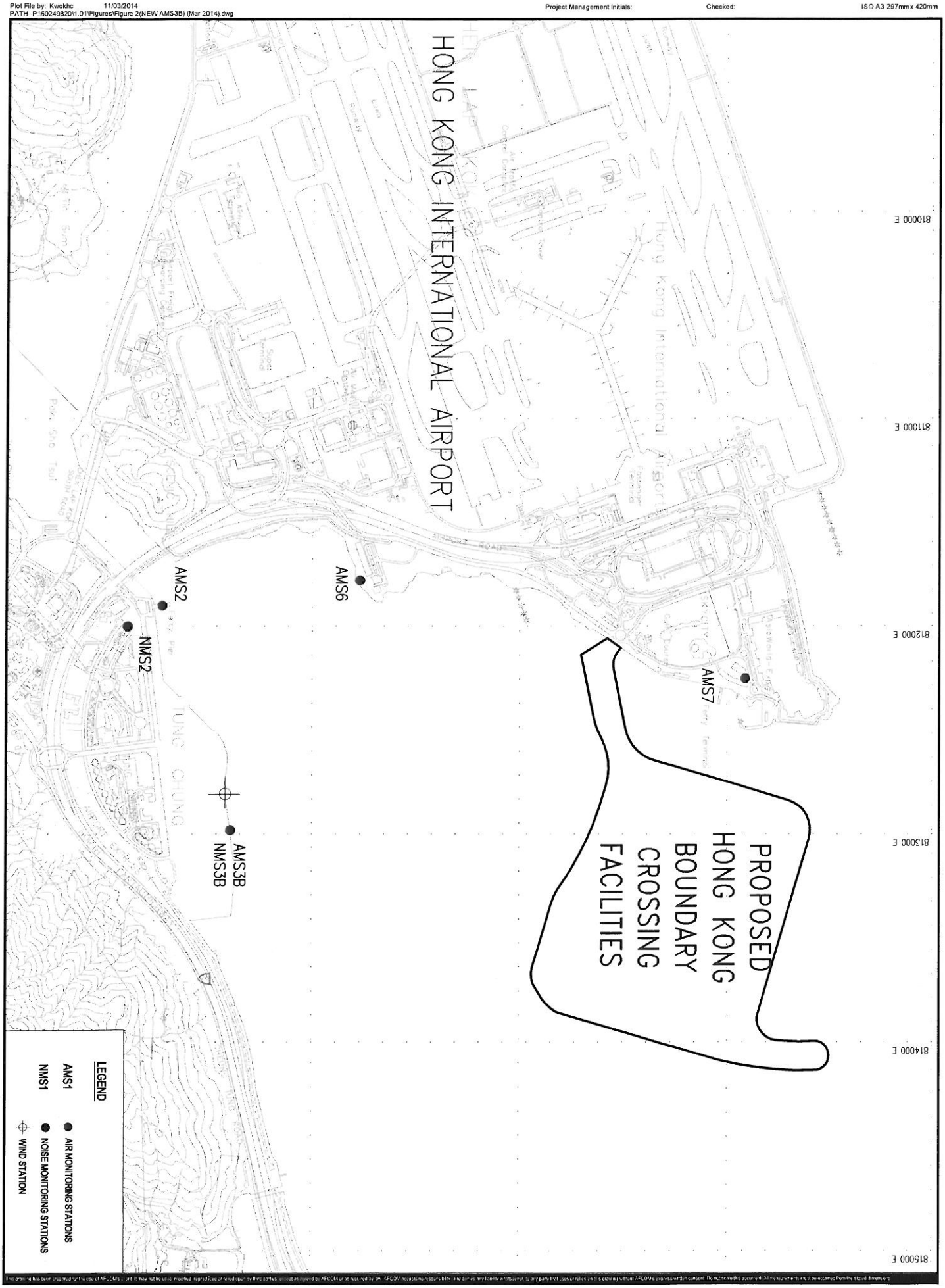

HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: - Date: MARCH 2014

AIR QUALITY AND NOISE MONITORING STATIONS FOR HKBCF

AECOM

Figure 2

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13/04/2012

Project Management Initials:

Checked:

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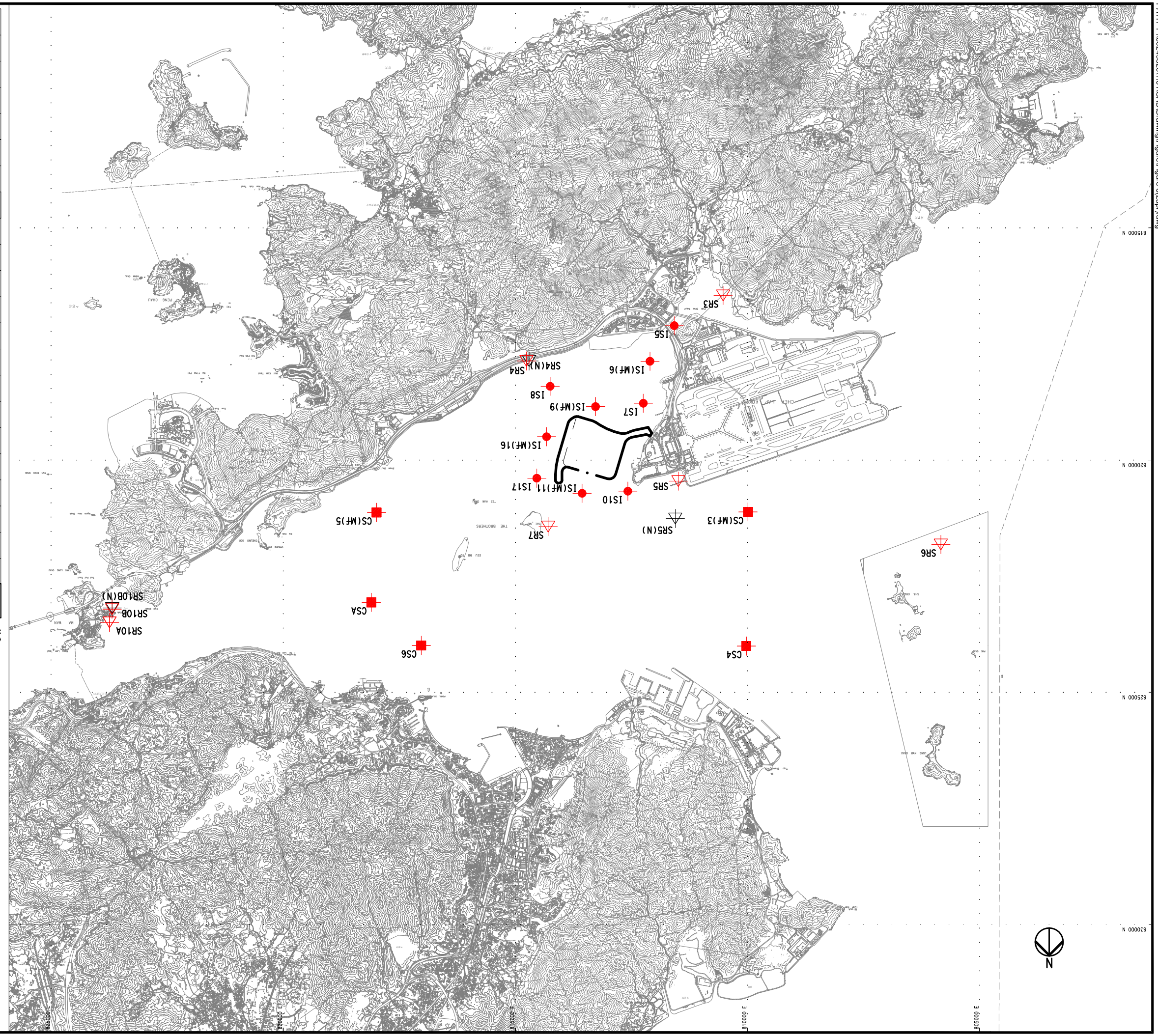


MONITORING STATIONS	CO-ORDINATES	
	EASTING	NORTHING
IS5	811579	817106
IS(MF)6	812101	817873
IS7	812244	818777
IS8	814251	818412
IS(MF)9	813273	818850
IS10	812577	820670
IS(MF)11	813562	820716
IS(MF)16	814328	819497
IS17	814539	820391
SR3	810525	816456
SR4(N)	814705	817859
SR5	811489	820455
SR5(N)	811555	821258
SR6	805837	821818
SR7	814293	821431
SR10A	823741	823495
SR10B(N)	823683	823187
CS(MF)3	809989	821117
CS(MF)5	817990	821129
CS4	810025	824004
CS6	817028	823992
CSA	818103	823064

SETTING OUT SCHEDULE

LEGEND

IS — IMPACT STATIONS

CS — CONTROL / FAR FIELD STATIONS

SR — SENSITIVE RECEIVERS STATIONS

SR — SENSITIVE RECEIVERS STATIONS (RELOCATED)

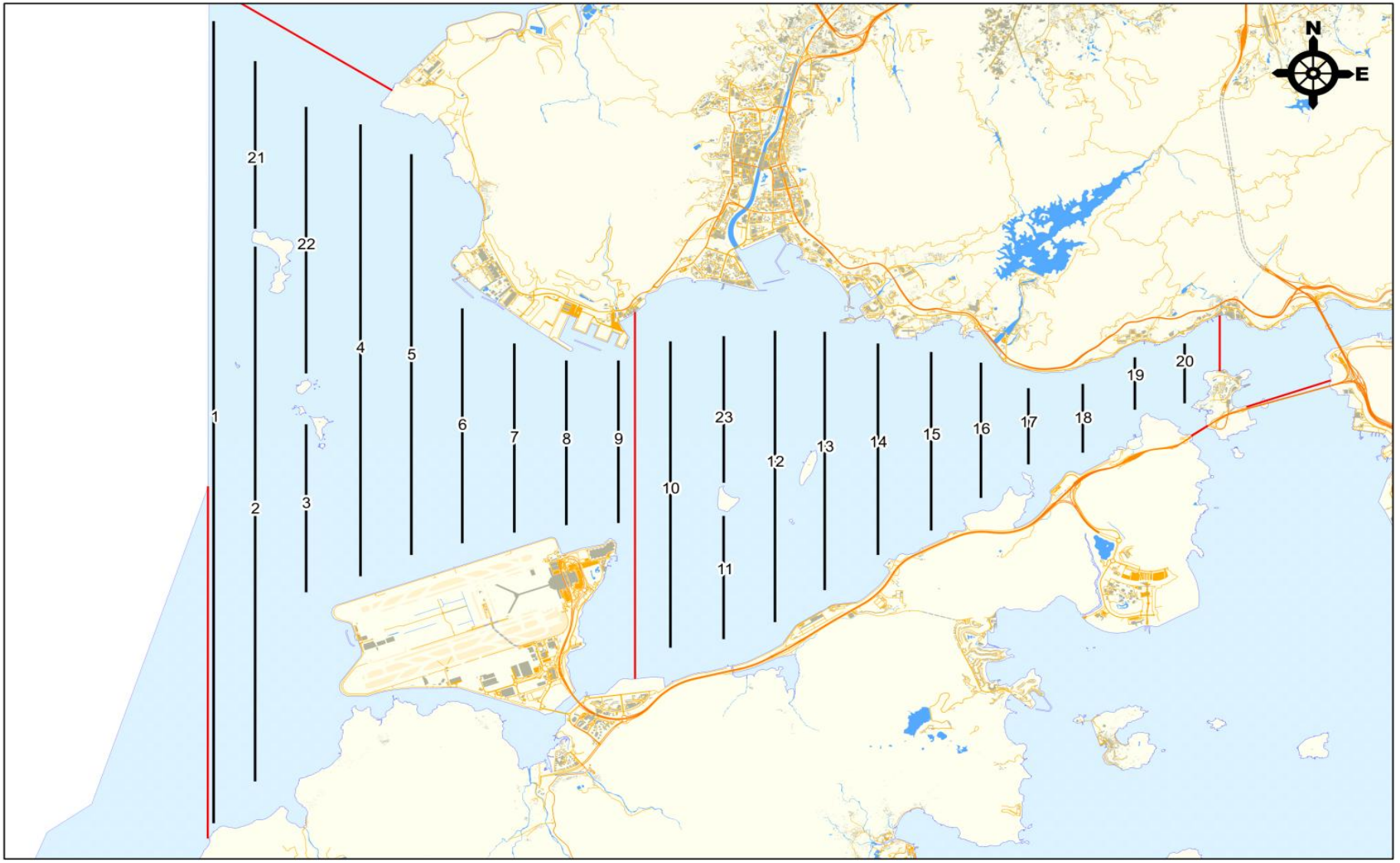
HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

Project No.: 60249820 Date: APR 2012

IMPACT WATER QUALITY MONITORING STATIONS

AECOM

Figure 3



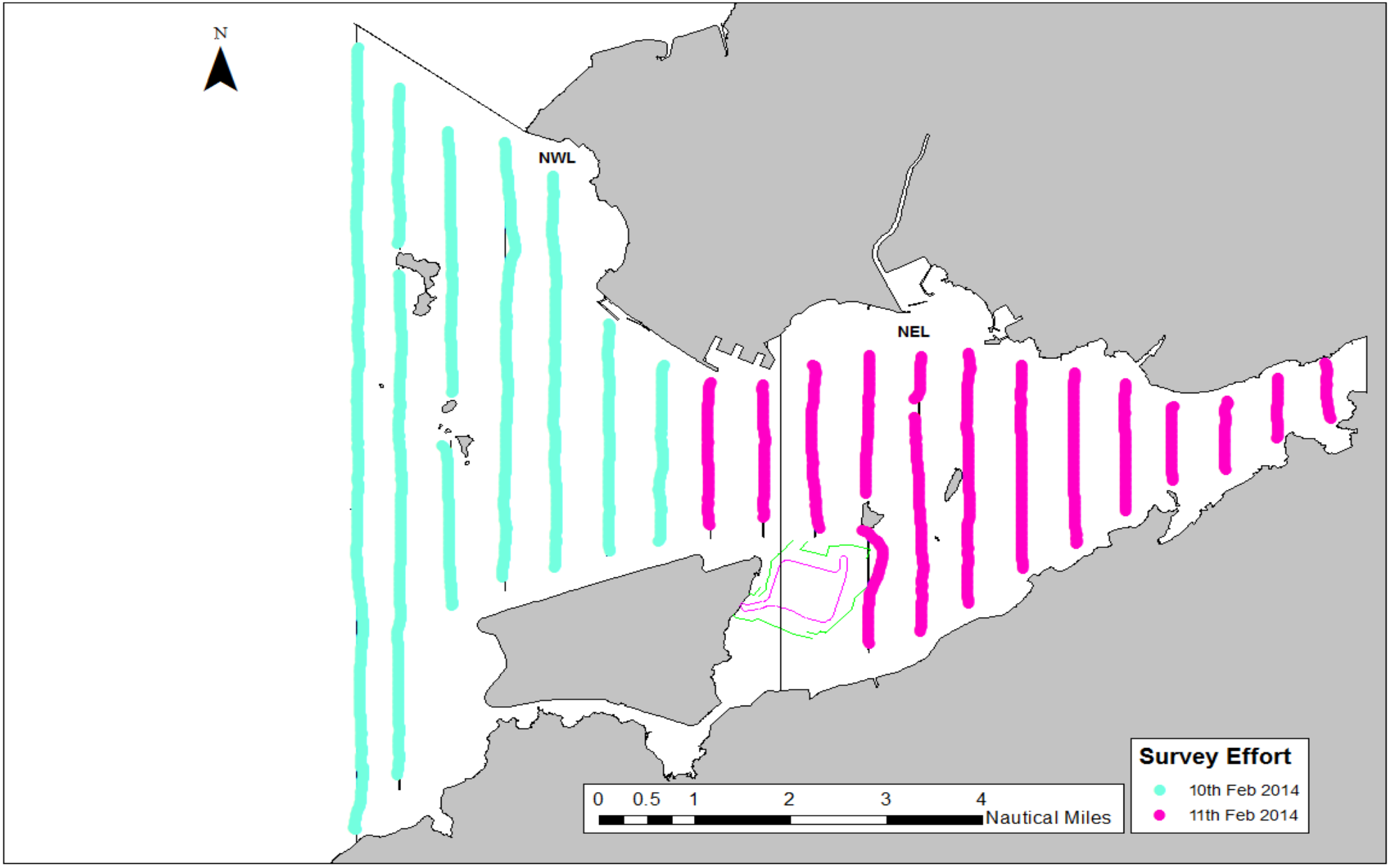
***Remark: Transect 10 is now 3.6km in length due to the HKBCF construction site. The total transect length for both NEL and NWL combined is 111km.**

HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: 60249820 Date: January 13

Impact Dolphin Monitoring
Line Transect Layout Map

AECOM

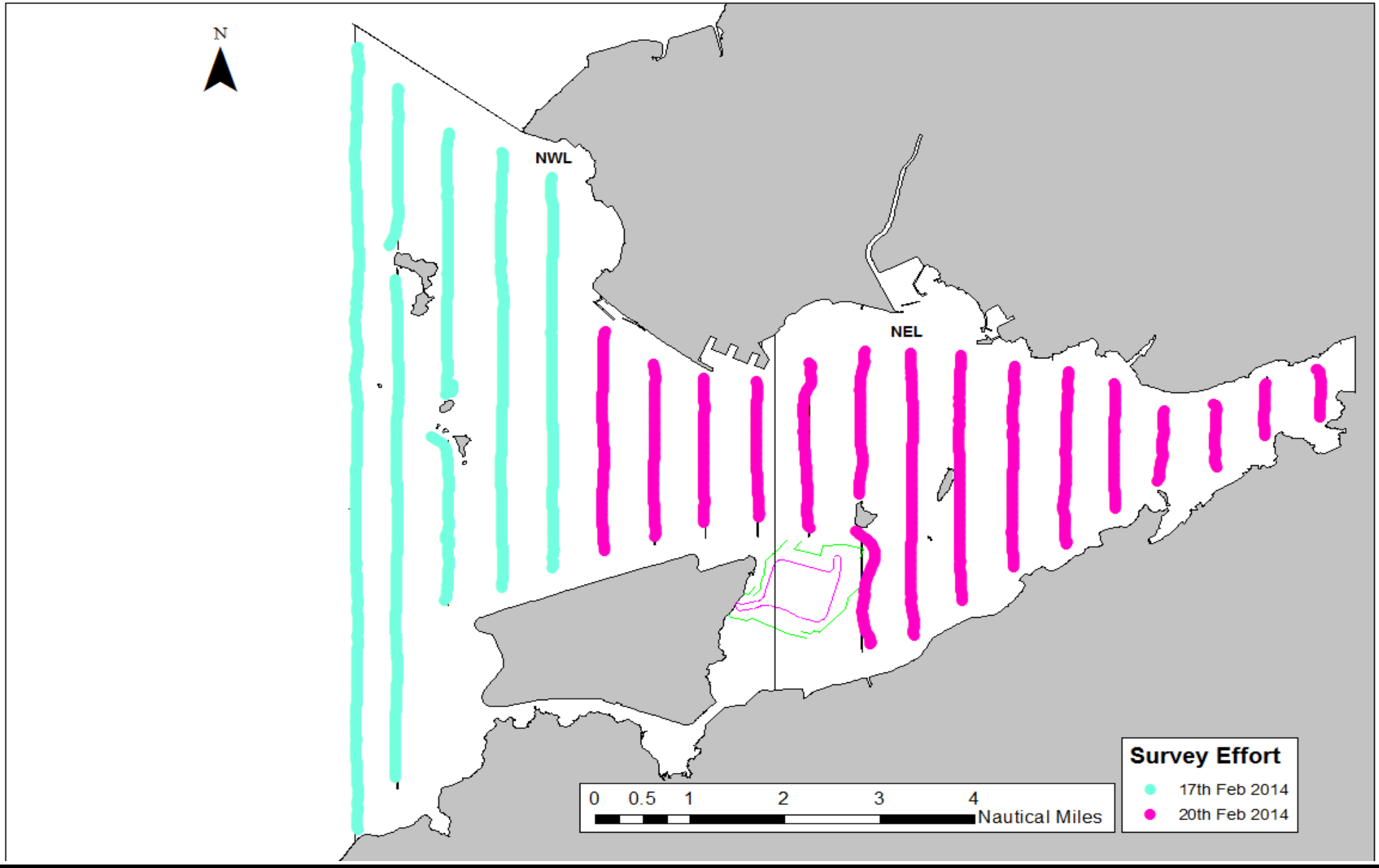
Figure 4



HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: 60249820 **Date: March 2014**

Impact Dolphin Monitoring Survey Efforts
on 6 and 7 February 2014

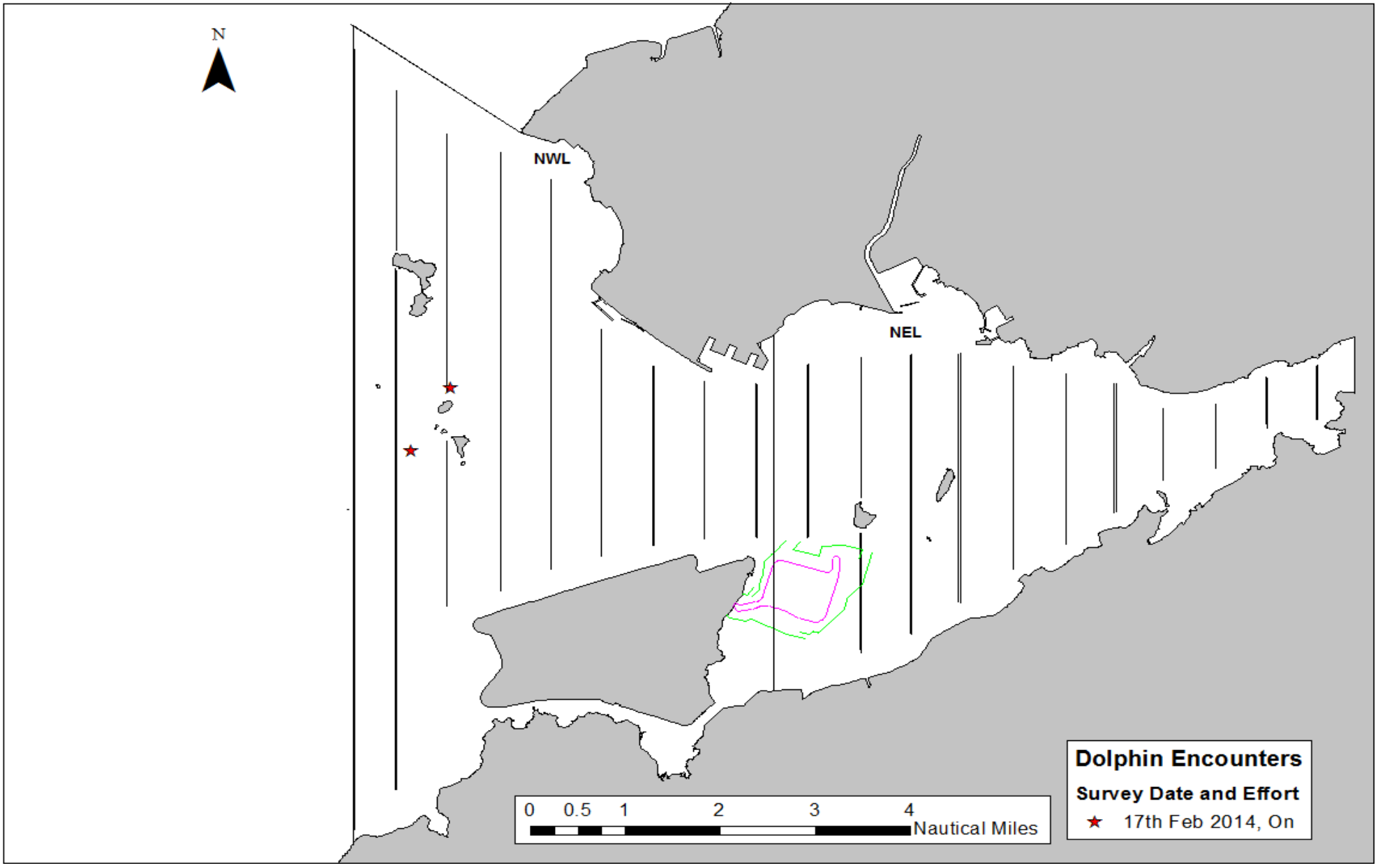
Figure 5a



HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: 60249820 **Date: March 2014**

Impact Dolphin Monitoring Survey Efforts
on 9 and 10 February 2014

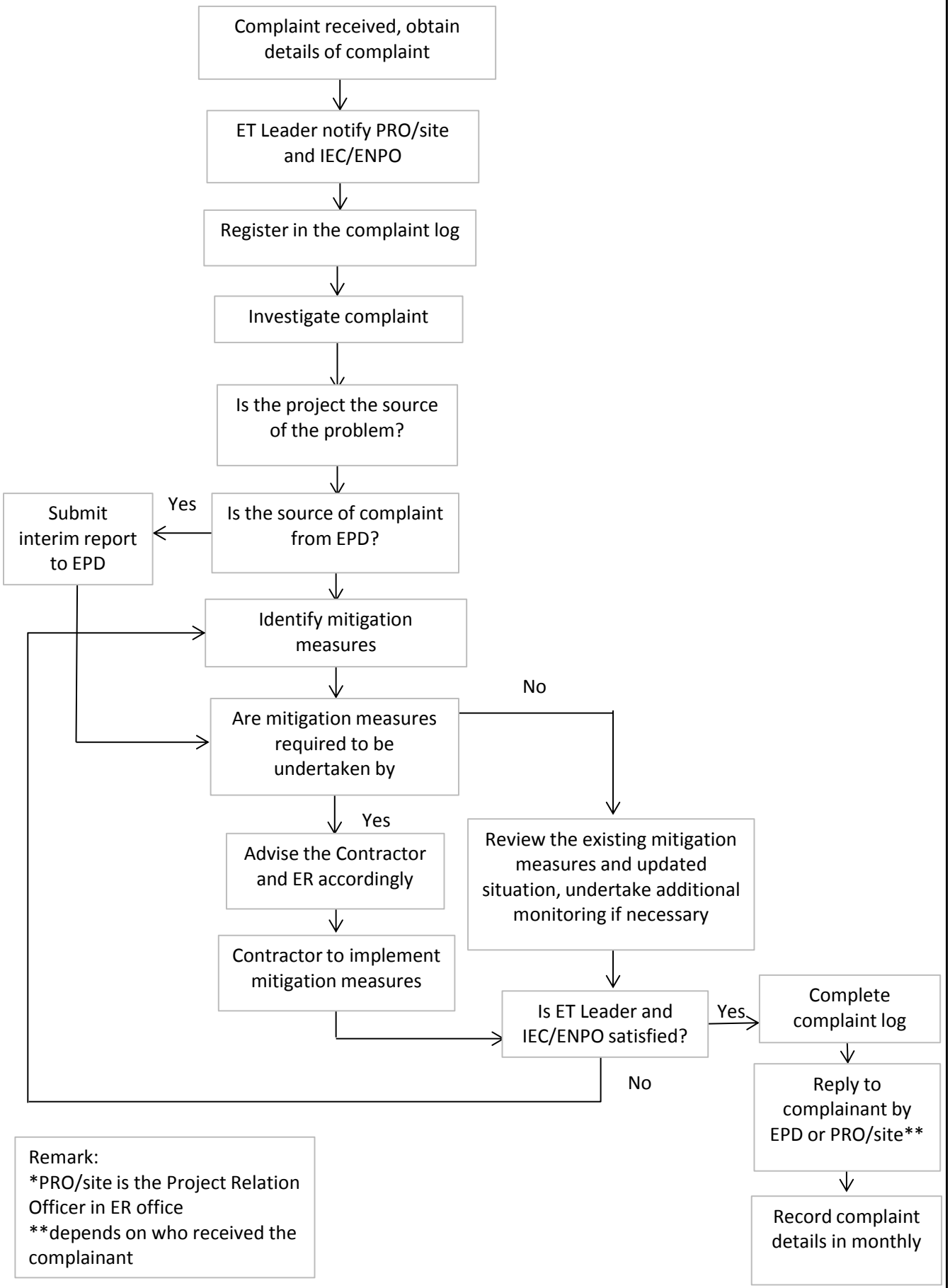
Figure 5b



HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: 60249820 **Date: March 2014**

Impact Dolphin Monitoring Survey
Sightings in February 2014

Figure 5c

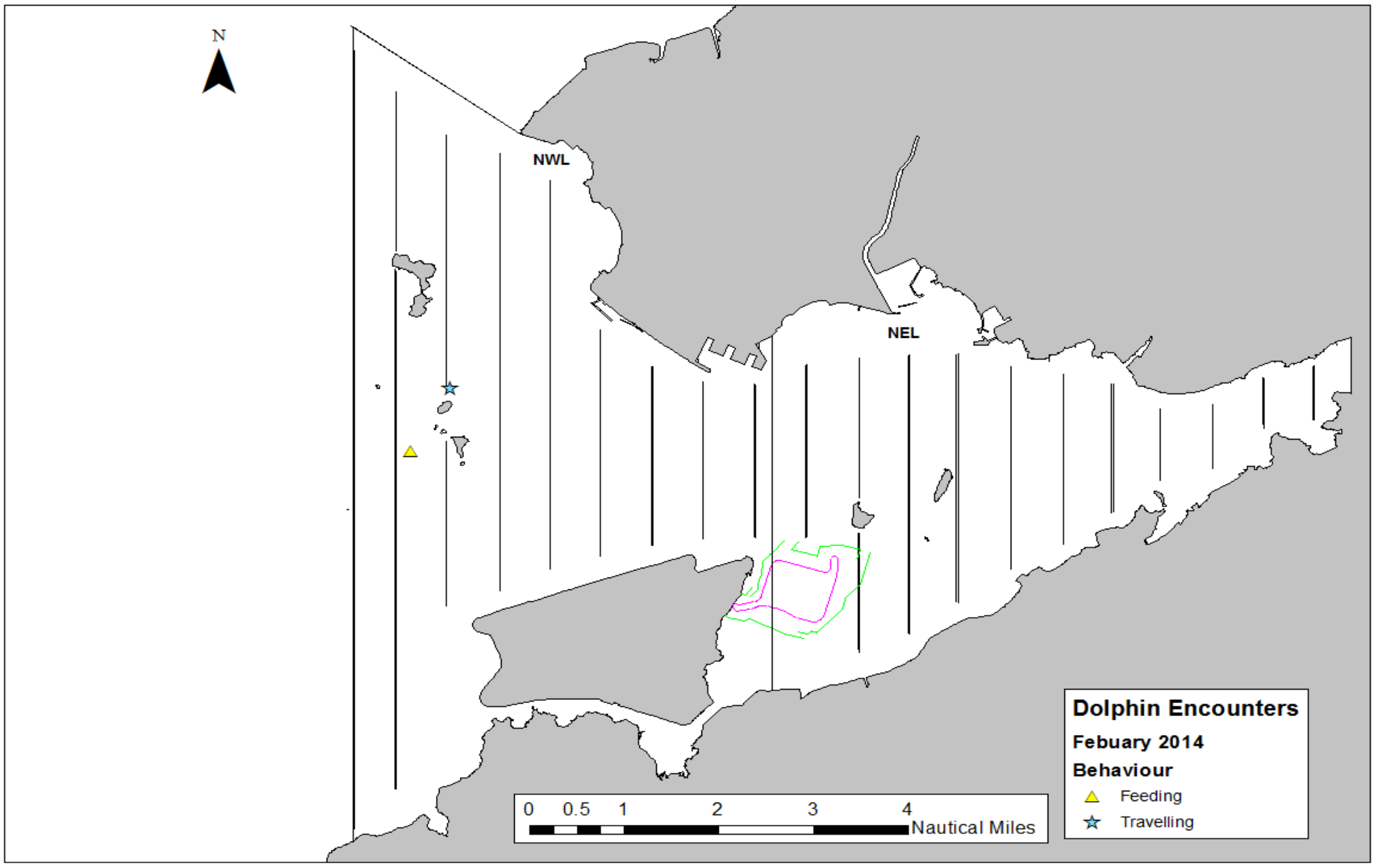


HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

AECOM

Environmental Complaint Handling Procedure

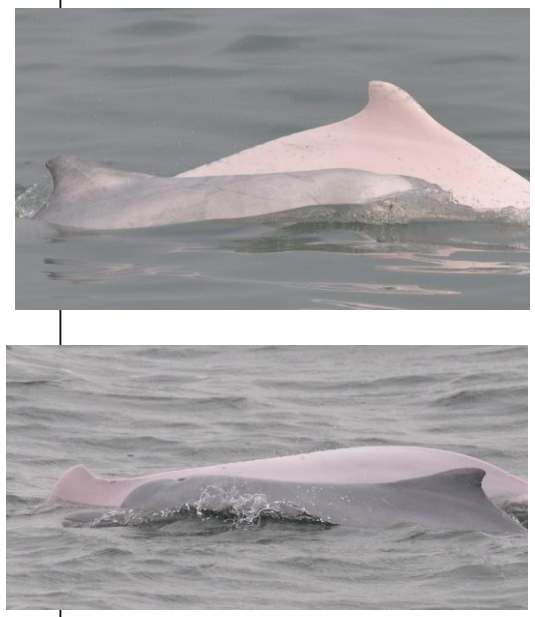
Project No.: 60249820 **Date: July 2012** **Figure 6**



HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: 60249820 **Date: March 2014**

Impact Dolphin Monitoring Survey
Behaviour Map in February 2014

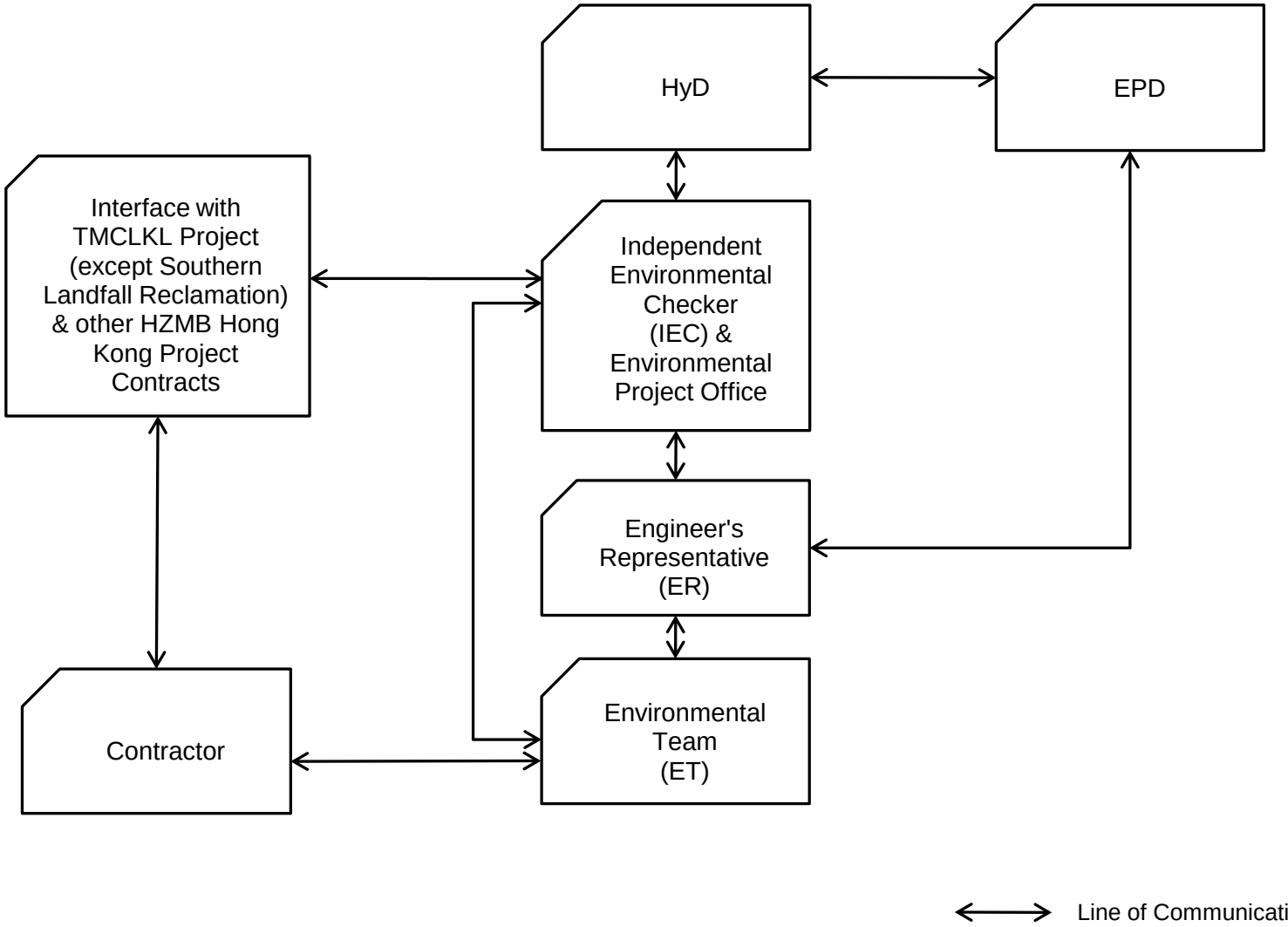
Figure 5d



HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS
Project No.: 60249820 **Date: March 2014**

Impact Dolphin Monitoring Survey Calf
Map in February 2014

Figure 5e



HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
--RECLAMATION WORKS
Project No.: 60249820 Date: April 2013

Project Organisation for Environmental Works

AECOM

Appendix A

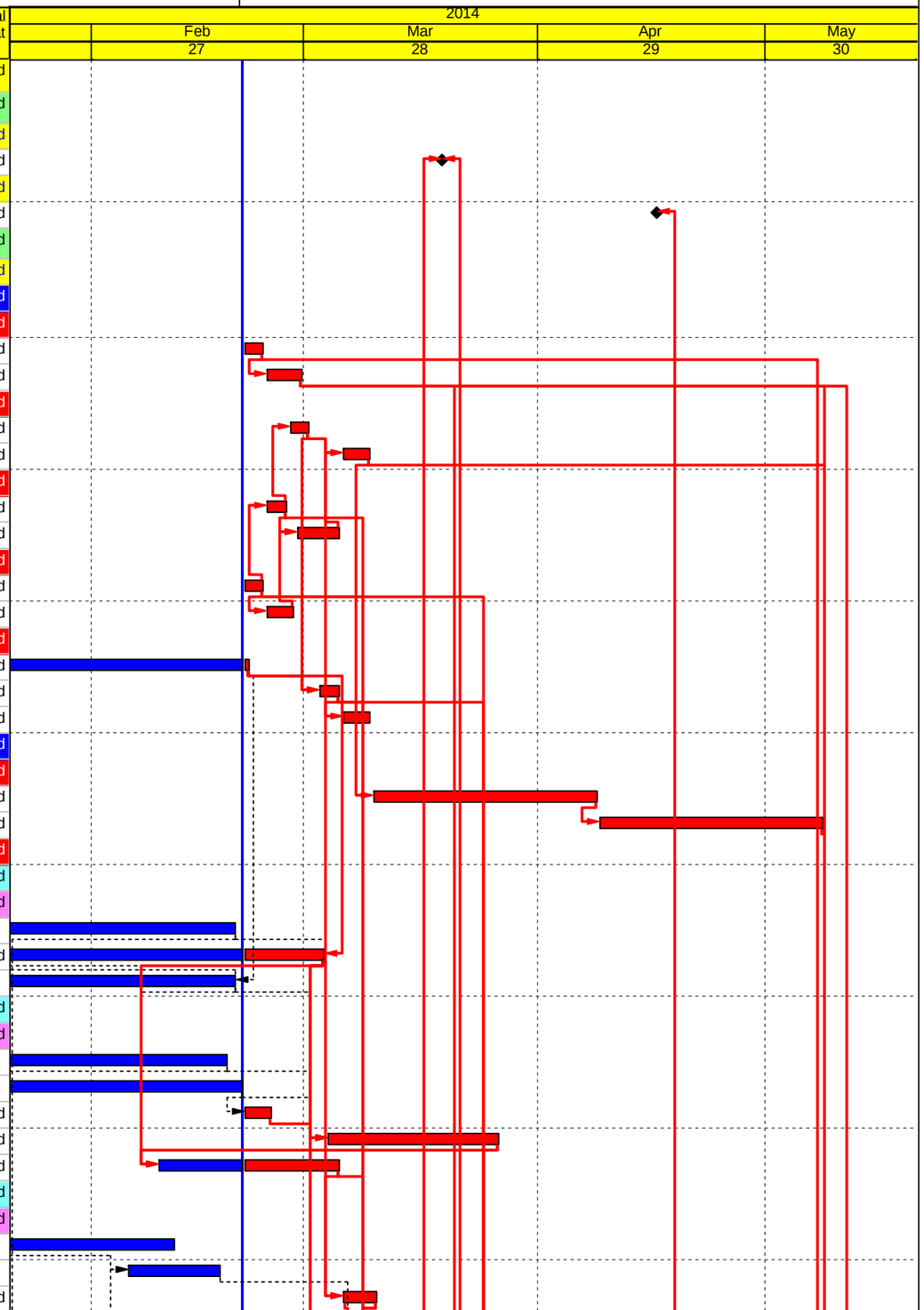
Contract No. HY/2010/02 Hong Kong - Zhuhai - Macao Bridge

Hong Kong Boundary Corssing Facilities - Reclamation Works

EMandA Monthly Report Programme

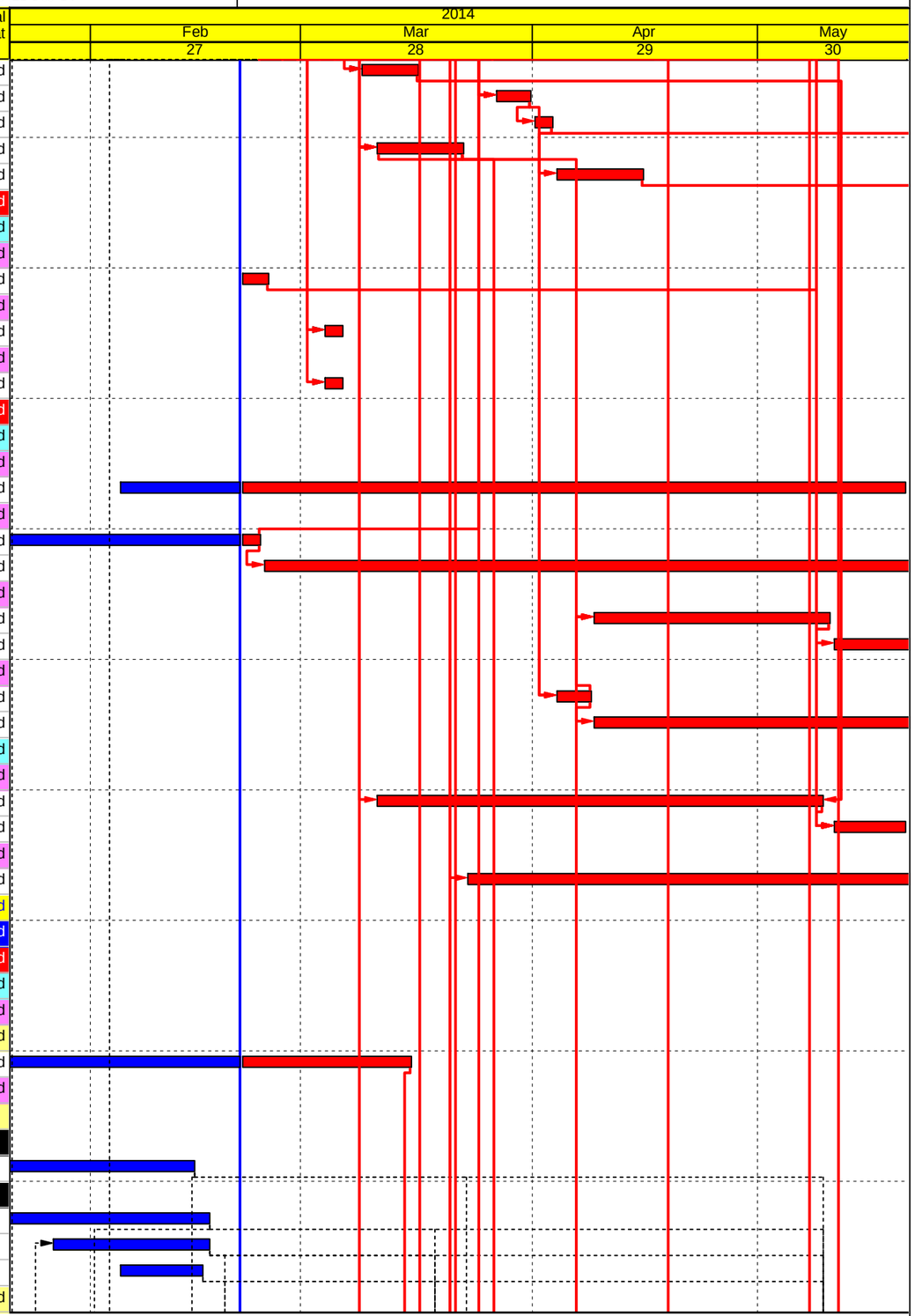
Data Date :21-Feb-14

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
27th Monthly Progress Report Status as on 21Feb2014		1129d	30-Nov-11 A	01-Jan-15	817d
Contract Key Dates		29d	19-Mar-14	16-Apr-14	-28d
Key Dates for achievement of Stages and completion of Sections		0d	19-Mar-14	19-Mar-14	-108d
G1050	KD-3, Achievement of Stage 3 (730days+EOT 2days, 30Nov2013)	0d		19-Mar-14*	-108d
Vacation of Site		0d	16-Apr-14	16-Apr-14	-28d
G1290	Works Area WA2 (Zone B) revised handover date on 19Mar2014	0d		16-Apr-14*	-28d
Work Zone, as defined in PS Clause 1.03(6)		752d	11-Dec-12 A	01-Jan-15	817d
Portion A		330d	12-Nov-13 A	07-Oct-14	-165d
Optimizing Rubble Mound Seawalls		45d	16-Jan-14 A	09-Mar-14	-51d
Seawall Portion A at C118 - C121, 170m		8d	21-Feb-14	28-Feb-14	-95d
RFA1-009	PA at C121 - C118 Rockfill (Cat1) upto +6.0mPD & geotextile laying 6,460m3	3d	21-Feb-14	23-Feb-14	-95d
RFA1-010	PA at C121 - C118 UnderLayer (Cat0) 0mPD 10,200m3	5d	24-Feb-14	28-Feb-14	-95d
Seawall Portion A at C122 - C124, 130m		10d	27-Feb-14	09-Mar-14	-117d
RFA2-009	PA at C122 - C124 Rockfill (Cat1) upto +6.0mPD & geotextile laying 4,940m3	3d	27-Feb-14	01-Mar-14	-177d
RFA2-010	PA at C122 - C124 UnderLayer 0mPD 7,800m3	4d	06-Mar-14	09-Mar-14	-117d
Seawall Portion A at C125 - C128, 170m		9d	24-Feb-14	05-Mar-14	-117d
RFA3-009	PA at C125 - C128 Rockfill (Cat1) upto +6.0mPD & geotextile laying 6,460m3	3d	24-Feb-14	26-Feb-14	-177d
RFA3-010	PA at C125 - C128 UnderLayer 0mPD 10,200m3	5d	28-Feb-14	05-Mar-14	-117d
Seawall Portion A at C129 - C131, 130m		7d	21-Feb-14	27-Feb-14	-117d
RFA4-009	PA at C129 - C131 Rockfill (Cat1) upto +6.0mPD & geotextile laying 4,940m3	3d	21-Feb-14	23-Feb-14	-177d
RFA4-010	PA at C129 - C131 UnderLayer 0mPD 7,800m3	4d	24-Feb-14	27-Feb-14	-117d
Seawall Portion A at C132 - C134, 115m		45d	16-Jan-14 A	09-Mar-14	-51d
RFA5-008	PA at C132 - C134 Rockfill (Cat1) for platform upto +2.5mPD 10,695m3	5d	16-Jan-14 A	21-Feb-14	-167d
RFA5-009	PA at C132 - C134 Rockfill (Cat1) upto +6.0mPD & geotextile laying 4370m3	3d	03-Mar-14	05-Mar-14	-175d
RFA5-010	PA at C132 - C134 UnderLayer 0mPD 7,800m3	4d	06-Mar-14	09-Mar-14	-51d
Portion A		330d	12-Nov-13 A	07-Oct-14	-165d
Temporary Pier		60d	10-Mar-14	08-May-14	-130d
TP0010	Construction of Temporary Piers	30d	10-Mar-14	08-Apr-14	-130d
TP0020	Construction of Conveyors for public fill	30d	09-Apr-14	08-May-14	-130d
Reclamation		155d	12-Nov-13 A	15-Apr-14	-126d
Portion A Marine Fill upto +2.5mPD		48d	17-Dec-13 A	03-Mar-14	-151d
Land Portion A		48d	17-Dec-13 A	03-Mar-14	-151d
MFA0-0	Marine Fill Type A Sand 100% at PA Edge Area at C118 - C121 210,010m3 10,000m3/d	35d	17-Dec-13 A	20-Feb-14 A	
MFA0-0	Marine Fill Type A Sand 100% at PA Edge Area at C127 - C134 265,005m3 30,000m3/d	39d	20-Dec-13 A	03-Mar-14	-151d
MFA0-0	Marine Fill Type A Sand 100% at PA 265,005m3 10,000m3/day other areas	24d	12-Jan-14 A	20-Feb-14 A	
Portion A Land Band Drain		149d	12-Nov-13 A	26-Mar-14	-167d
Land Portion A 233,590nrs		149d	12-Nov-13 A	26-Mar-14	-167d
VBDA0-	Vertical Band Drains 32,115nrs by Land plant at PA PCB West 3,000nrs/day	74d	12-Nov-13 A	19-Feb-14 A	
VBDA0-	GI Works for CLP Substation	29d	10-Jan-14 A	21-Feb-14 A	
VBDA0-	GI Works for CLP Substation - Removal of plant and equipment	4d	21-Feb-14	24-Feb-14	-160d
VBDA0-	Vertical Band Drains 66,700nrs by Land plant at PA Stg3 3,000nrs/day w CLP substation	22d	04-Mar-14	26-Mar-14	-151d
VBDA0-	Vertical Band Drains 36,915nrs by Land plant at PA Edge Side 3,000nrs/day	12d	10-Feb-14 A	05-Mar-14	-180d
Portion A Earthwork Fill upto +5.5mPD		120d	17-Dec-13 A	15-Apr-14	-126d
Land Portion A		120d	17-Dec-13 A	15-Apr-14	-126d
EFA0-0	Earthwork Fill Type D Sand 100% at PA (PCB West) 283,185m3 30,000m3/day	41d	17-Dec-13 A	12-Feb-14 A	
EFA0-0	Compaction at PA (PCB West)	12d	06-Feb-14 A	18-Feb-14 A	
EFA0-0	Earthwork Fill Type D Sand 100% at PA at C122 - C126 Edge Area 146,046m3 30,000m	5d	06-Mar-14	10-Mar-14	-180d



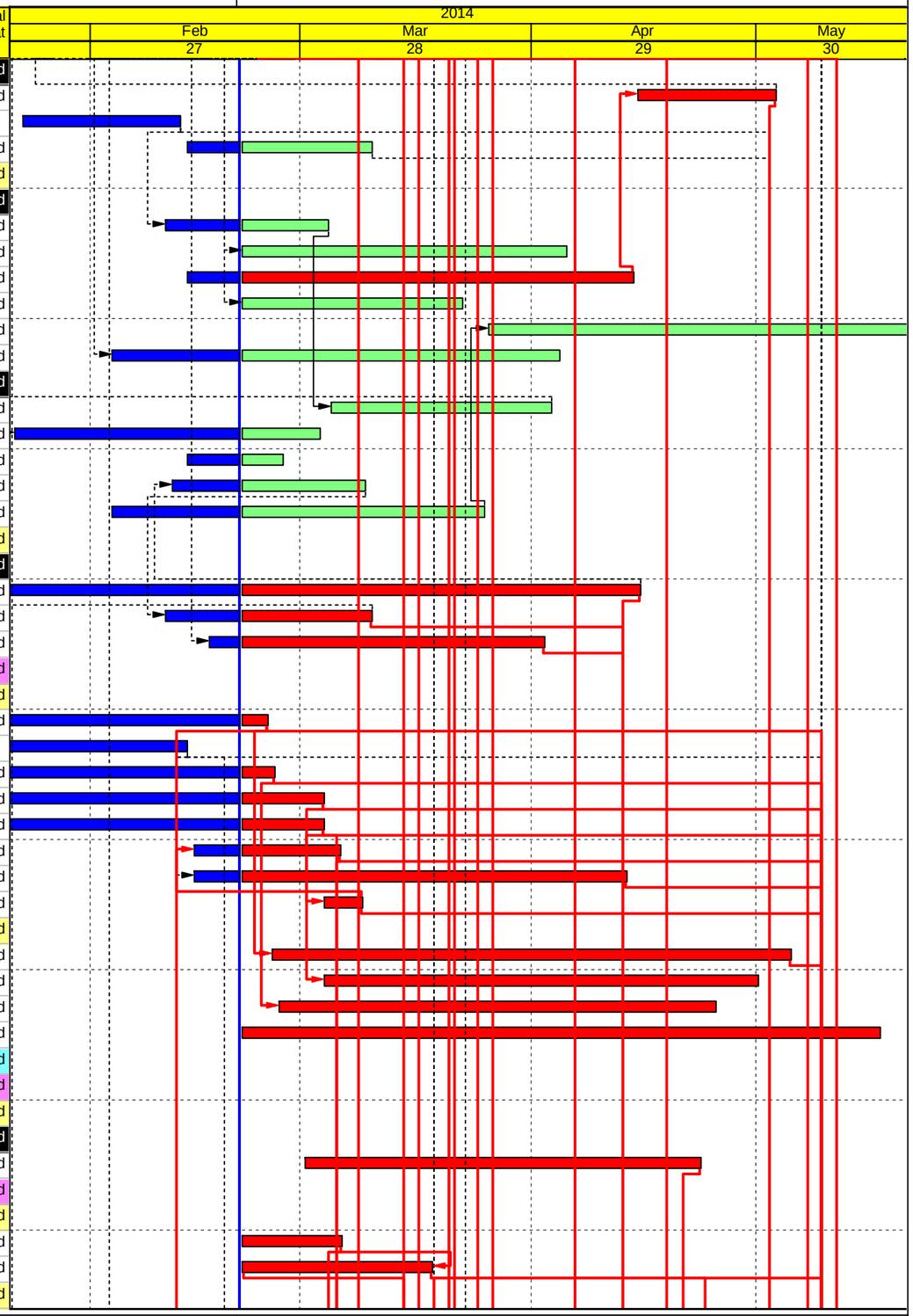
Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
EFA0-0	Compaction at PA at C118 - C126 Edge Area	8d	09-Mar-14	16-Mar-14	-107d
EFA0-0	Earthwork Fill Type D Sand 100% at PA at C127 - C134 Edge Area 120,000m3 30,000m	4d	27-Mar-14	31-Mar-14	-151d
EFA0-0	Compaction at PA at C127 - C134 Edge Area CLP substation	3d	01-Apr-14	03-Apr-14	-167d
EFA0-0	Earthwork Fill Type D Sand 100% at PA other area 335,949m3 30,000m3/day	11d	11-Mar-14	22-Mar-14	-180d
EFA0-1	Compaction at PA at C127 - C134 other area	12d	04-Apr-14	15-Apr-14	-126d
Portion A Instrumentation		12d	21-Feb-14	06-Mar-14	-48d
Portion A Instrumentation - SD		12d	21-Feb-14	06-Mar-14	-48d
SD-24 C123		3d	21-Feb-14	24-Feb-14	-45d
CTSD-:	Installation of SD-24 (C123) PA	3d	21-Feb-14	24-Feb-14	-45d
SD-25 C128		3d	04-Mar-14	06-Mar-14	-48d
CTSD-:	Installation of SD-25 (C128) PA	3d	04-Mar-14	06-Mar-14	-48d
SD-26 C133		3d	04-Mar-14	06-Mar-14	-48d
CTSD-:	Installation of SD-26 (C133) PA	3d	04-Mar-14	06-Mar-14	-48d
Portion A Surcharge		265d	16-Jan-14 A	07-Oct-14	-165d
Main Reclamation Areas		265d	16-Jan-14 A	07-Oct-14	-165d
PCB East		105d	05-Feb-14 A	20-May-14	-32d
SURA0	Surcharge Period at PA PCB East 3.5mths (8-4.5=3.5mths)	105d	05-Feb-14 A	20-May-14	-32d
PCB West		144d	16-Jan-14 A	08-Jun-14	-51d
SURA0	Sand Surcharge Laying upto +11.5mPD & compaction upto +8.5mPD at PA PCB West 2	14d	16-Jan-14 A	23-Feb-14	-122d
SURA0	Surcharge Period at PA PCB West 3.5mths (8-4.5=3.5mths)	105d	24-Feb-14	08-Jun-14	-51d
at C122 - C126 other than PCB Area		182d	09-Apr-14	07-Oct-14	-167d
SURA0	Surcharge Laying upto +11.5mPD & compaction upto +8.5mPD on Main Area at PA 644,	30d	09-Apr-14	10-May-14	-151d
SURA0	Surcharge Period on Main Area at PA 6mth (8-2-1=5mths)	150d	11-May-14	07-Oct-14	-167d
at C127 - C134 for Power Substation Area		155d	04-Apr-14	05-Sep-14	-133d
SURA0	Surcharge Laying upto +11.5mPD & compaction upto +8.5mPD on Main Area at PA CLP	4d	04-Apr-14	08-Apr-14	-151d
SURA0	Surcharge Period on Main Area at PA CLP substation 6mth (8-2-1=5mths)	150d	09-Apr-14	05-Sep-14	-133d
Edge Areas		72d	11-Mar-14	21-May-14	-132d
at C125 - C119		71d	11-Mar-14	20-May-14	-132d
SUEA0-	Pause Period on Edge Area at PA 2mths	60d	11-Mar-14	09-May-14	-131d
SUEA0-	Surcharge Laying & compaction upto 8.5mPD on Edge Area at PA 90,469m3 10,000m3/	9d	11-May-14	20-May-14	-118d
at C134 - C126		60d	23-Mar-14	21-May-14	-132d
SUEA0-	Pause Period on Edge Area at PA 2mths	60d	23-Mar-14	21-May-14	-132d
Portion B, C & E		497d	02-Oct-13 A	01-Jan-15	817d
Portion B, C & E		497d	02-Oct-13 A	01-Jan-15	817d
Seawall		242d	22-Oct-13 A	20-Jun-14	17d
Ground Treatment		187d	11-Nov-13 A	04-Jun-14	31d
Stone Columns for Rubble Mound Seawall by Marine Plant		113d	11-Nov-13 A	15-Mar-14	-115d
Portion C2a C113 - C117 5Cells 3,258Nos		113d	11-Nov-13 A	15-Mar-14	-115d
SC0A-	PC2A Stone Columns outermost C113 - C115 5cells 1,614nrs (19nrs/day) FTB17	113d	11-Nov-13 A	15-Mar-14	-115d
Stone Columns Outside cellular Structures by Marine Plant		187d	11-Nov-13 A	04-Jun-14	31d
Seawall Portion B at K028 - K052 25cells 4,910nrs		137d	24-Dec-13 A	17-Feb-14 A	
K028 - K040		75d	24-Dec-13 A	15-Feb-14 A	
SCOI	PB Stone Columns K032 - K036 Row 12-14 233nrs (6nrs/day) AP5	75d	24-Dec-13 A	15-Feb-14 A	
K041 - K046		86d	21-Jan-14 A	17-Feb-14 A	
SCOI	PB Stone Columns K041 - K043 Row 01-11 233nrs (14nrs/day) FTB19	13d	21-Jan-14 A	17-Feb-14 A	
SCOI	PB Stone Columns K044 - K046 Row 01-11 125nrs (14nrs/day) FTB20	13d	27-Jan-14 A	17-Feb-14 A	
SCOI	PB Stone Columns K044 - K046 Row 12-14 142nrs (8nrs/day) FTB16	18d	05-Feb-14 A	16-Feb-14 A	
Seawall Portion E2 at K053 - C067 2,252nrs		67d	23-Jan-14 A	03-May-14	-32d



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
	K053 - C067	67d	23-Jan-14 A	03-May-14	-32d
SCOI	PE2 Stone Columns K053 - K056 Row 01-11 251nrs (14nrs/day) FTB20	18d	15-Apr-14*	03-May-14	-32d
SCOI	PE2 Stone Columns K057 - K067 Row 01-11 232nrs (14nrs/day) FTB19	16d	23-Jan-14 A	13-Feb-14 A	
SCOI	PE2 Stone Columns K057 - K067 Row 12-14 138nrs (6nrs/day) AP6	23d	14-Feb-14 A	10-Mar-14	18d
	Seawall Portion E1 at C068 - C091 24cells 6,428nrs	96d	22-Jan-14 A	04-Jun-14	31d
	C068 - C079	96d	04-Feb-14 A	04-Jun-14	31d
SCOI	PE1 Stone Columns C068 - C071 Row 01-11 273nrs (14nrs/day) FTB19	20d	11-Feb-14 A	04-Mar-14	39d
SCOI	PE1 Stone Columns C068 - C078 Row 12-14 325nrs (8nrs/day) FTB16	41d	21-Feb-14	05-Apr-14	86d
SCOI	PE1 Stone Columns C072 - C075 Row 01-11 769nrs (14nrs/day) FTB20	55d	14-Feb-14 A	14-Apr-14	-32d
SCOI	PE1 Stone Columns C076 - C076 Row 01-11 385nrs (14nrs/day) FTB20	28d	21-Feb-14	22-Mar-14	99d
SCOI	PE1 Stone Columns C077 - C077 Row 01-11 390nrs (6nrs/day) AP7	65d	26-Mar-14	04-Jun-14	31d
SCOI	PE1 Stone Columns C078 - C079 Row 01-11 780nrs (14nrs/day) FTB19	56d	04-Feb-14 A	04-Apr-14	77d
	C080 - C091	93d	22-Jan-14 A	03-Apr-14	39d
SCOI	PE1 Stone Columns C080 - C080 Row 01-11 390nrs (14nrs/day) FTB19	28d	05-Mar-14	03-Apr-14	39d
SCOI	PE1 Stone Columns C081 - C083 Row 01-11 479nrs (14nrs/day) FTB18	34d	22-Jan-14 A	03-Mar-14	68d
SCOI	PE1 Stone Columns C084 - C084 Row 01-11 94nrs (8nrs/day) FTB16	6d	14-Feb-14 A	26-Feb-14	72d
SCOI	PE1 Stone Columns C085 - C090 Row 01-11 284nrs (18nrs/day) FTB18	16d	12-Feb-14 A	09-Mar-14	62d
SCOI	PE1 Stone Columns C079 - C091 Row 12-14 279nrs (6nrs/day) AP7	47d	04-Feb-14 A	25-Mar-14	31d
	Seawall Portion C at C103 - C112 10cells @197nrs/cell 1970nrs	133d	11-Nov-13 A	15-Apr-14	-103d
	Beside of front cellular walls C103-C112 985nrs	133d	11-Nov-13 A	15-Apr-14	-103d
SCO(	PC2a Stone Columns C105 - C106 Row 01-11 276nrs (18nrs/day) FTB18	83d	11-Nov-13 A	15-Apr-14	-103d
SCO(	PC2a Stone Columns C110 - C112 Row 01-11 368nrs (14nrs/day) FTB18	26d	11-Feb-14 A	10-Mar-14	-70d
SCO(	PC2a Stone Columns C110 - C112 Row 12-14 252nrs (6nrs/day) AP5	42d	17-Feb-14 A	02-Apr-14	-91d
	Stone Columns Inside cells by Land Plant 2,640nrs	158d	25-Nov-13 A	17-May-14	-25d
	Seawall Portion B at K028 - K051 24cells 1,920nrs	135d	25-Nov-13 A	13-Apr-14	-154d
SCIB0	PB Stone Columns inside cells K028 - K030 191nrs (5nrs/day) AP2	57d	25-Nov-13 A	24-Feb-14	-174d
SCIB0	PB Stone Columns inside cells K031 - K032 151nrs (5nrs/day) LB-AP1	73d	25-Nov-13 A	14-Feb-14 A	
SCIB0	PB Stone Columns inside cells K033 - K036 274nrs (3nrs/day) LB-BV1	73d	25-Nov-13 A	25-Feb-14	-111d
SCIB0	PB Stone Columns inside cells K037 - K039 240nrs (3nrs/day) LB-BC1	67d	01-Dec-13 A	04-Mar-14	-116d
SCIB0	PB Stone Columns inside cells K041 - K043 237nrs (5nrs/day) AP3	68d	25-Nov-13 A	04-Mar-14	-141d
SCIB0	PB Stone Columns inside cells K044 - K046 136nrs (5nrs/day) AP3	37d	15-Feb-14 A	06-Mar-14	-144d
SCIB0	PB Stone Columns inside cells K047 - K050 267nrs (5nrs/day) AP1	53d	15-Feb-14 A	13-Apr-14	-154d
SCIB0	PB Stone Columns inside cells K051 - K051 23nrs (5nrs/day) AP3	5d	04-Mar-14	09-Mar-14	-121d
	Seawall Portion E2 at K052 - C060 9cells 720nrs	80d	21-Feb-14	17-May-14	-25d
SCIE2	PE2 Stone Columns inside cells K052 - K055 320nrs (5nrs/day) AP2	64d	25-Feb-14	05-May-14	-174d
SCIE2	PE2 Stone Columns inside cells K056 - C057 160nrs (3nrs/day) LB-BC1	54d	04-Mar-14	01-May-14	-9d
SCIE2	PE2 Stone Columns inside cells K058 - C059 160nrs (3nrs/day) LB-BV1	54d	26-Feb-14	25-Apr-14	-4d
SCIE2	PE2 Stone Columns inside cells C061 - C062 240nrs (3nrs/day) LB-BV2	80d	21-Feb-14	17-May-14	-25d
	Cellular Structures	242d	22-Oct-13 A	20-Jun-14	-1d
	Cellular Main Cells 85cells	48d	01-Mar-14	23-Apr-14	-71d
	Full Guide Frames Method 85cells	48d	01-Mar-14	23-Apr-14	-71d
	Portion E1 C078 & C079 & Portion E2 C065 & C066 4cells	48d	01-Mar-14	23-Apr-14	-71d
CSE2	PE2 Cellular Structure C064 & C065 2cells Type_C 6,195m3	48d	01-Mar-14*	23-Apr-14	-71d
	Connecting Arcs	189d	22-Oct-13 A	11-Jun-14	7d
	Portion B between K028/K029 to K050/K051 23arcs	22d	21-Feb-14	18-Mar-14	-132d
CA00E	PB Connecting Arc K049/K050 & K050/K051 Seaside upper arcs splicing 2nrs (201)	12d	21-Feb-14*	06-Mar-14	-127d
CA00E	PB Final Backfill Cellular Cells & Arcs K040/K041 - K050/K051 Type_C 48413m3	22d	21-Feb-14	18-Mar-14	-132d
	Portion E2 between K051/K052 to C066/C067 16arcs	150d	27-Nov-13 A	11-Jun-14	7d



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

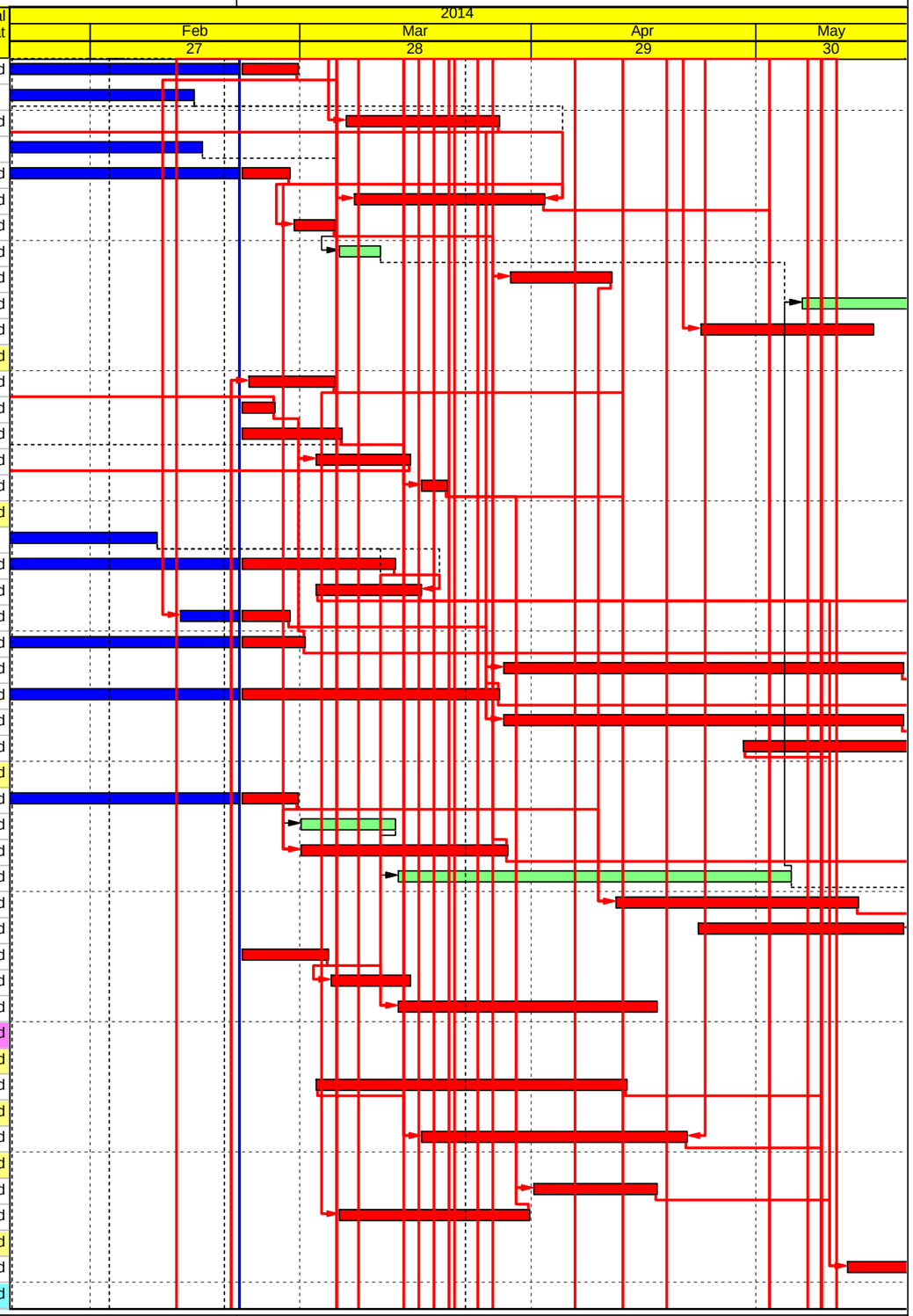
Contract No. HY/2010/02 Hong Kong - Zhuhai - Macao Bridge

Hong Kong Boundary Corssing Facilities - Reclamation Works

EMandA Monthly Report Programme

Data Date :21-Feb-14

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CAE2-	PE2 Connecting Arc K051/K052 - C061/C062 Seaside lower arcs 11nrs	43d	06-Dec-13 A	28-Feb-14	-48d
CAE2-	PE2 Connecting Arc K051/K052 - K053/K054 Landside upper arcs splicing 3nrs (201)	43d	28-Dec-13 A	15-Feb-14 A	
CAE2-	PE2 Connecting Arc K051/K052 - K053/K054 Seaside upper arcs splicing 3nrs (201)	18d	07-Mar-14	27-Mar-14	-97d
CAE2-	PE2 Connecting Arc K056/C057 & C057/C058 Landside upper arcs splicing 2nrs (HF)	12d	27-Nov-13 A	16-Feb-14 A	
CAE2-	PE2 Connecting Arc K056/C057 & C057/C058 Seaside upper arcs splicing 2nrs (HF)	12d	14-Dec-13 A	27-Feb-14	-61d
CAE2-	PE2 Final backfill cellular cells & Arcs K051/K052 to C061/C062 Type_C 48,652m3	22d	08-Mar-14	02-Apr-14	-54d
CAE2-	PE2 Connecting Arc C062/C063 - C066/C067 Landside lower arcs 5nrs	5d	28-Feb-14	05-Mar-14	-42d
CAE2-	PE2 Connecting Arc C062/C063 - C066/C067 Seaside lower arcs 5nrs	5d	06-Mar-14	11-Mar-14	51d
CAE2-	PE2 Connecting Arc C062/C063 & C066/C067 Landside upper arcs splicing 2nrs (HF)	12d	29-Mar-14	11-Apr-14	-62d
CAE2-	PE2 Connecting Arc C062/C063 - C066/C067 Seaside upper arcs splicing 5nrs (205)	30d	07-May-14	11-Jun-14	7d
CAE2-	PE2 Connecting Arc C063/C064 - C065/C066 Landside upper arcs splicing 3nrs (HF)	18d	23-Apr-14	16-May-14	-64d
Portion C2a between C103/104 to C111/C112 9arcs		24d	21-Feb-14	20-Mar-14	-71d
CAC2a	PC2a Final backfill cellular cells & Arcs C107/108 - C111/112 5arcs Type_C 32,309m3	10d	22-Feb-14	05-Mar-14	-67d
CAC2a	PC2a Connecting Arc C103/C104 - C106/C107 Seaside lower arcs 4nrs	4d	21-Feb-14	25-Feb-14	-67d
CAC2a	PC2a Connecting Arc C105/C106 & C106/C107 Landside upper arcs splicing 2nrs (205)	12d	21-Feb-14	06-Mar-14	-63d
CAC2a	PC2a Connecting Arc C105/C106 & C106/C107 Seaside upper arcs splicing 2nrs (401)	12d	03-Mar-14	15-Mar-14	-71d
CAC2a	PC2a Final backfill cellular cells & Arcs C103/104 - C106/C107 Type_C 27,326m3	4d	17-Mar-14	20-Mar-14	-71d
Portion C2c between C091/C092 to C102/C103 12arcs		119d	25-Dec-13 A	23-May-14	-94d
CAC2c	PC2c Connecting Arc C100/C101 - C104/C105 Landside upper arcs splicing 5nrs (205)	30d	31-Dec-13 A	10-Feb-14 A	
CAC2c	PC2c Connecting Arc C101/C102 - C104/C105 Seaside upper arcs splicing 4nrs (401)	25d	13-Jan-14 A	13-Mar-14	-43d
CAC2c	PC2c Final backfill cellular cells & Arcs C100/C101 to C104/C105 Type_C 84,830m3	12d	03-Mar-14	17-Mar-14	-39d
CAC2c	PC2c Connecting Arc C091/C092 - C096/C097 Seaside lower arcs 6nrs	6d	13-Feb-14 A	27-Feb-14	-73d
CAC2c	PC2c Connecting Arc C094/C095 - C099/C100 Landside upper arcs splicing 6nrs (401)	28d	25-Dec-13 A	01-Mar-14	-71d
CAC2c	PC2c Connecting Arc C094/C095 - C100/C101 Seaside upper arcs splicing 7nrs (WC1)	42d	28-Mar-14	20-May-14	-94d
CAC2c	PC2c Connecting Arc C088/C089 - C093/C094 Landside upper arcs splicing 6nrs (WC1	42d	07-Jan-14 A	27-Mar-14	-94d
CAC2c	PC2c Connecting Arc C087/C088 - C093/C094 Seaside upper arcs splicing 7nrs (210)	42d	28-Mar-14	20-May-14	-97d
CAC2c	PC2c Final backfill cellular cells & Arcs C0087/C088 to C099/C100 Type_C 82,397m3	20d	29-Apr-14	23-May-14	-94d
Portion E1 between C073/C074 to C090/C091 18arcs		171d	22-Oct-13 A	20-May-14	-4d
CAE1-	PE1 Connecting Arc C080/C081 - C090/C091 Landside lower arcs 11nrs	82d	22-Oct-13 A	28-Feb-14	-62d
CAE1-	PE1 Connecting Arc C080/C081 - C090/C091 Seaside lower arcs 11nrs	11d	01-Mar-14	13-Mar-14	3d
CAE1-	PE1 Connecting Arc C084/C085 - C087/C088 Landside upper arcs splicing 4nrs (HF)	24d	01-Mar-14	28-Mar-14	-62d
CAE1-	PE1 Connecting Arc C080/C081 - C086/C087 Seaside upper arcs splicing 7nrs (205)	42d	14-Mar-14	05-May-14	3d
CAE1-	PE1 Connecting Arc C080/C081 - C083/C084 Landside upper arcs splicing 4nrs (HF)	24d	12-Apr-14	14-May-14	-62d
CAE1-	PE1 Final backfill cellular cells & Arcs C080/C081 to C090/C091 Type_C 91,454.5 m3	22d	23-Apr-14	20-May-14	-4d
CAE1-	PE1 Connecting Arc C067/C068 - C076/C077 Landside lower arcs 10nrs	10d	21-Feb-14	04-Mar-14	-35d
CAE1-	PE1 Connecting Arc C067/C068 - C076/C077 Seaside lower arcs 10nrs	10d	05-Mar-14	15-Mar-14	-19d
CAE1-	PE1 Connecting Arc C067/C068 - C071/C072 Landside upper arcs splicing 5nrs (401)	30d	14-Mar-14	17-Apr-14	-43d
Capping Beams		102d	03-Mar-14	20-Jun-14	-78d
Portion B between K028 to K040 Capping Beams		39d	03-Mar-14	13-Apr-14	-156d
CB025	PB Capping Beams structure K028 - K040 13cells	39d	03-Mar-14*	13-Apr-14	-156d
Portion B between K041 to C051 Capping Beams		33d	17-Mar-14	21-Apr-14	-156d
CB025	PB Capping Beams structure K041 - K051 11cells	33d	17-Mar-14*	21-Apr-14	-156d
Portion C2a between C112 to C103 Capping Beams		40d	06-Mar-14	17-Apr-14	-75d
CBC2a	PC2a Capping Beams structure C106 to C103 4cells	16d	01-Apr-14	17-Apr-14	-75d
CBC2a	PC2a Capping Beams structure C112 to C107 6cells	24d	06-Mar-14	31-Mar-14	-75d
Portion C2c between C102 to C091 Capping Beams		36d	13-May-14	20-Jun-14	-78d
CBC2c	PC2c Capping Beams structure C102 to C091 12cells	36d	13-May-14	20-Jun-14	-78d
Optimizing Rubble Mound Seawalls		103d	25-Jan-14 A	20-May-14	-48d

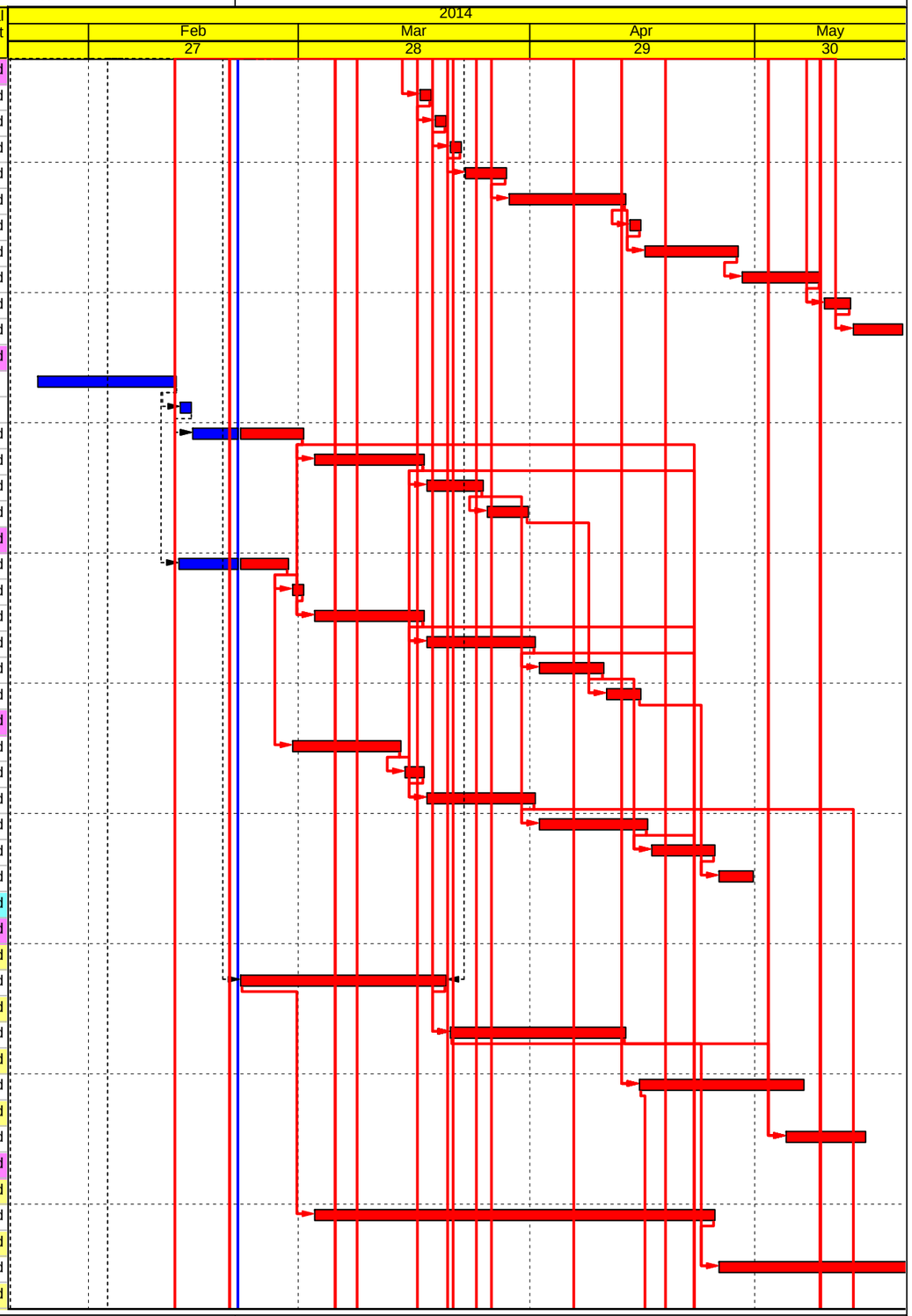


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

27th Monthly Progress Report Status as on 21Feb2014

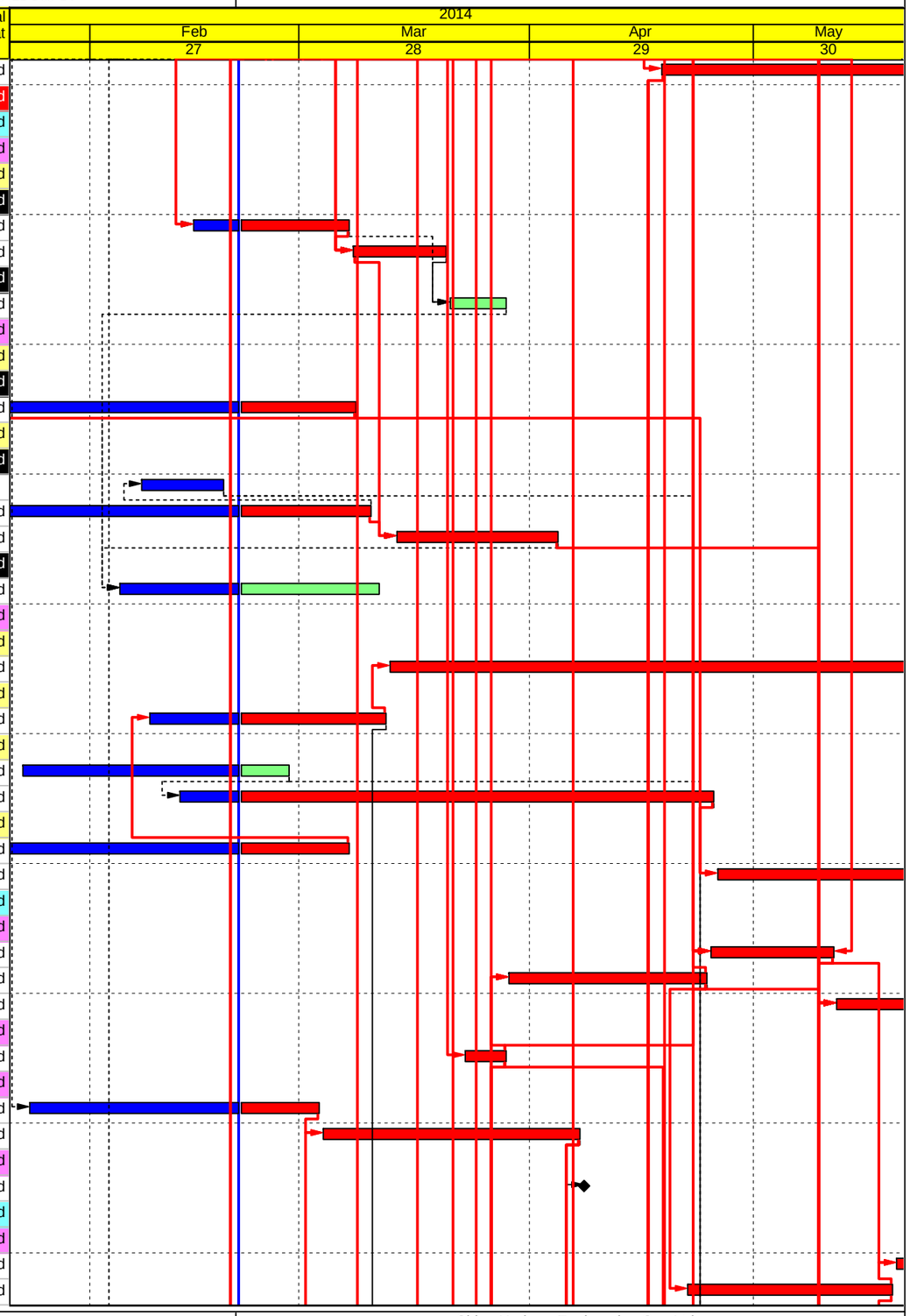
China Harbour Engineering Co., Ltd

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Seawall Portion C2a at C117 - C113		60d	17-Mar-14	20-May-14	-48d
RFC2a-	PC2a at C117 - C113 Geotextile Type 1 above stone blanket 17,800m2	2d	17-Mar-14	18-Mar-14	-115d
RFC2a-	PC2a at C117 - C113 sound survey	2d	19-Mar-14	20-Mar-14	-115d
RFC2a-	PC2a at C117 - C113 settlement markers install	2d	21-Mar-14	22-Mar-14	-115d
RFC2a-	PC2a at C117 - C113 Filter Layer (Cat0 Fill 1m) under the Rubble Mound 23,430m3	6d	23-Mar-14	28-Mar-14	-115d
RFC2a-	PC2a at C117 - C113 Rockfill (Cat1) upto -3.0mPD 27,930m3	14d	29-Mar-14	13-Apr-14	-115d
RFC2a-	PC2a at C117 - C113 Sand Blanket behind upto -4.0mPD	2d	14-Apr-14	15-Apr-14	-115d
RFC2a-	PC2a at C117 - C113 Rockfill (Cat1), filter layer & geotextile +2.5mPD 21,060m3	12d	16-Apr-14	28-Apr-14	-115d
RFC2a-	PC2a at C117 - C113 Rockfill (Cat1) for platform upto +2.5mPD 19,530m3	10d	29-Apr-14	09-May-14	-100d
RFC2a-	PC2a at C117 - C113 Rockfill (Cat1 Fill) upto +6.0mPD & geotextile laying 7,980m3	4d	10-May-14	13-May-14	-66d
RFC2a-	PC2a at C117 - C113 UnderLayer (0mPD 12,600m3	6d	14-May-14	20-May-14	-48d
Seawall Portion B at K013 - K017		57d	25-Jan-14 A	31-Mar-14	-36d
RFB1-C	PB at K013 - K017 Rockfill (Cat1) upto -3.0mPD 6,660m3	14d	25-Jan-14 A	12-Feb-14 A	
RFB1-C	PB at K013 - K017 Sand Blanket behind upto -4.0mPD	2d	13-Feb-14 A	14-Feb-14 A	
RFB1-C	PB at K013 - K017 Rockfill (Cat1) , filter layer & geotextile +2.5mPD 5,040m3	14d	15-Feb-14 A	01-Mar-14	-173d
RFB1-C	PB at K013 - K017 Rockfill (Cat1) platform upto +2.5mPD 4,680m3	14d	03-Mar-14	17-Mar-14	-173d
RFB1-C	PB at K013 - K017 Rockfill (Cat1 Fill) upto +6.0mPD & geotextile laying 1,620m3	8d	18-Mar-14	25-Mar-14	-56d
RFB1-C	PB at K013 - K017 UnderLayer 0mPD	5d	26-Mar-14	31-Mar-14	-36d
Seawall Portion B at K018 - K022		43d	13-Feb-14 A	15-Apr-14	-45d
RFB2-C	PB at K018 - K022 Rockfill (Cat1) upto -3.0mPD 6660m3	14d	13-Feb-14 A	27-Feb-14	-173d
RFB2-C	PB at K018 - K022 Sand Blanket behind upto -4.0mPD	2d	28-Feb-14	01-Mar-14	-173d
RFB2-C	PB at K018 - K022 Rockfill (Cat1) , filter layer & geotextile +2.5mPD 5040m3	14d	03-Mar-14	17-Mar-14	-173d
RFB2-C	PB at K018 - K022 Rockfill (Cat1) for platform upto +2.5mPD 4680m3	14d	18-Mar-14	01-Apr-14	-173d
RFB2-C	PB at K018 - K022 Rockfill (Cat1) upto +6.0mPD & geotextile laying 1620m3	8d	02-Apr-14	10-Apr-14	-62d
RFB2-C	PB at K018 - K022 UnderLayer 0mPD	5d	11-Apr-14	15-Apr-14	-45d
Seawall Portion B at K023 - K027		57d	28-Feb-14	30-Apr-14	-54d
RFB3-C	PB at K023 - K027 Rockfill (Cat1) upto -3.0mPD 6660m3	14d	28-Feb-14	14-Mar-14	-173d
RFB3-C	PB at K023 - K027 Sand Blanket behind upto -4.0mPD	2d	15-Mar-14	17-Mar-14	-173d
RFB3-C	PB at K023 - K027 Rockfill (Cat1) , filter layer & geotextile +2.5mPD 5040m3	14d	18-Mar-14	01-Apr-14	-173d
RFB3-C	PB at K023 - K027 Rockfill (Cat1) for platform upto +2.5mPD 4680m3	14d	02-Apr-14	16-Apr-14	-173d
RFB3-C	PB at K023 - K027 Rockfill (Cat1) upto +6.0mPD & geotextile laying 1620m3	8d	17-Apr-14	25-Apr-14	-68d
RFB3-C	PB at K023 - K027 UnderLayer 0mPD	5d	26-Apr-14	30-Apr-14	-54d
Conforming Sloping Seawalls		103d	21-Feb-14	11-Jun-14	-57d
Geotextile		78d	21-Feb-14	15-May-14	-32d
Seawall Portion B at K028 - K040		26d	21-Feb-14	20-Mar-14	-144d
SGB2-	PB Geotextile at K028 - K040	26d	21-Feb-14	20-Mar-14	-144d
Seawall Portion B at K041 - K051		22d	21-Mar-14	13-Apr-14	-120d
SGB3-	PB Geotextile at K041 - K051	22d	21-Mar-14	13-Apr-14	-120d
Seawall Portion C2a at C112 - C103 10cells		20d	15-Apr-14	07-May-14	-83d
SGC2-	PC2a Geotextile at C112 - C103 10cells	20d	15-Apr-14	07-May-14	-83d
Seawall Portion E2 at K052 - C067 16cells		11d	05-May-14	15-May-14	-32d
SGE2-	PE2 Geotextile at K052 - K062 11cells	11d	05-May-14	15-May-14	-32d
Rockfill		94d	03-Mar-14	11-Jun-14	-93d
Seawall Portion B at K028 - K040		50d	03-Mar-14	25-Apr-14	-150d
RFB1-	PB Rockfill at K028 - K040 Rockfill 13cells	50d	03-Mar-14*	25-Apr-14	-150d
Seawall Portion B at K041 - K051		44d	26-Apr-14	11-Jun-14	-150d
RFB3-	PB Rockfill at K041 - K051 Rockfill 11cells	44d	26-Apr-14	11-Jun-14	-150d
Seawall Portion C2a at C112 - C103 10cells		40d	18-Apr-14	31-May-14	-83d



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
RFC2a	PC2a Rockfill at C112 - C103 Rockfill 10cells	40d	18-Apr-14*	31-May-14	-83d
Reclamation		335d	02-Oct-13 A	23-Jul-14	979d
Ground Treatment		335d	02-Oct-13 A	23-Jul-14	979d
Geotextile		30d	15-Feb-14 A	28-Mar-14	1016d
Existing Seabed above -5mPD		30d	15-Feb-14 A	28-Mar-14	1016d
Land Portion B		22d	15-Feb-14 A	20-Mar-14	-145d
GERI	PB Geotextile for sand blanket at K028 - K040	12d	15-Feb-14 A	07-Mar-14	-145d
GERI	PB Geotextile for sand blanket at K041 - K051	12d	08-Mar-14	20-Mar-14	-145d
Land Portion E2 Southern Part		8d	21-Mar-14	28-Mar-14	1016d
GERI	PE2 Geotextile for sand blanket Southern (seabed above -5mPD)	8d	21-Mar-14	28-Mar-14	1016d
Sand Blankets		167d	01-Nov-13 A	04-Apr-14	15d
Existing Seabed below -5mPD		95d	01-Nov-13 A	08-Mar-14	-92d
Land Portion E2 Northern Part		95d	01-Nov-13 A	08-Mar-14	-92d
SABF	Sand Blankets at PE2 142,000m3 5,000m3/day North	95d	01-Nov-13 A	08-Mar-14	-92d
Existing Seabed Above -5mPD		167d	01-Nov-13 A	04-Apr-14	15d
Land Portion B		155d	01-Nov-13 A	04-Apr-14	-146d
SABF	Sand Blankets at PB Edge K013 - K027 171,900m3 5,000m3/day	35d	08-Feb-14 A	19-Feb-14 A	
SABF	Sand Blankets at PB Main K028 - K051 200,550m3 5,000m3/day	95d	01-Nov-13 A	10-Mar-14	-143d
SABF	Sand Blankets at PB Edge K028 - K051 200,550m3 10,000m3/day	20d	14-Mar-14	04-Apr-14	-146d
Land Portion E2 Southern Part		28d	05-Feb-14 A	11-Mar-14	37d
SABF	Sand Blankets at PE2 142,000m3 5,000m3/day South	28d	05-Feb-14 A	11-Mar-14	37d
Vertical Band Drains by Marine Plant		306d	02-Oct-13 A	23-Jul-14	-45d
Land Portion C2a 115,258nrs		86d	13-Mar-14	13-Jun-14	-158d
VBDC	Vertical Band Drains 64250nrs by marine plant at PC2a (750nrs/day)	86d	13-Mar-14*	13-Jun-14	-158d
Land Portion C2c 62,400nrs		30d	09-Feb-14 A	12-Mar-14	-158d
VBDC	Vertical Band Drains 22,208nrs by marine plant at PC2c (750nrs/ady)	30d	09-Feb-14 A	12-Mar-14	-158d
Land Portion C2b 62,400nrs		248d	23-Jan-14 A	25-Apr-14	38d
VBDC	Vertical Band Drains 12,896nrs by marine plant at PC2b upto 10Dec2013	157d	23-Jan-14 A	27-Feb-14	90d
VBDC	Vertical Band Drains 49,504nrs by marine plant at PC2b (750nrs/day)	66d	13-Feb-14 A	25-Apr-14	-136d
Land Portion E2 Northern Part 84,746nrs		270d	02-Oct-13 A	23-Jul-14	-136d
VBDE	Vertical Band Drains 23,032nrs by marine plant at PE2 upto 5Dec2013	117d	02-Oct-13 A	07-Mar-14	-8d
VBDE	Vertical Band Drains 61,714nrs by marine plant at PE2 (750nrs/day)	83d	26-Apr-14	23-Jul-14	-136d
Marine Fill		103d	24-Jan-14 A	06-Jun-14	-46d
Land Portion B		64d	29-Mar-14	06-Jun-14	-180d
MFB1-(	Marine Fill Type A Sand 100% at PB Edge at K013 - K027 473,522m3 30,000m3/day	16d	25-Apr-14	11-May-14	-180d
MFB2-(	Marine Fill Type A Sand 100% at PB Main at K028 - K051 710,283m3 30,000m3/day	24d	29-Mar-14*	24-Apr-14	-180d
MFB3-(	Marine Fill Type A Sand 100% at PB Edge at K028 - K051 710,283m3 30,000m3/day	24d	12-May-14	06-Jun-14	-180d
Land Portion C1a		6d	23-Mar-14	28-Mar-14	-180d
MFC1a	Marine Fill Type A Sand 100% at PC1a 166,355m3 30,000m3/day	6d	23-Mar-14	28-Mar-14	-180d
Land Portion C1b		39d	24-Jan-14 A	07-Apr-14	-95d
MFC1b	Marine Fill Type A Sand 100% at PC1b west 477,472m3 15,000m3/day	32d	24-Jan-14 A	03-Mar-14	-95d
MFC1b	Marine Fill Type A Sand 100% at PC1b east 477,472m3 15,000m3/day	32d	04-Mar-14	07-Apr-14	-95d
Land Portion E2		0d	08-Apr-14	08-Apr-14	14d
MFE2-(	Start after Marine Fill Type A Sand 100% at PC1b	0d	08-Apr-14		14d
Vertical Band Drains by Land Plant		73d	29-Mar-14	16-Jun-14	-116d
Land Portion B 258,966nrs		48d	22-Apr-14	11-Jun-14	-112d
VBDB0	Vertical Band Drains by land plant at PB Edge K013 - K027 64,742nrs 3,000nrs/day	22d	20-May-14	11-Jun-14	-112d
VBDB0	Vertical Band Drains by land plant at PB Main K028 - K051 76,582nrs 3,000nrs/day	26d	22-Apr-14	19-May-14	-163d



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

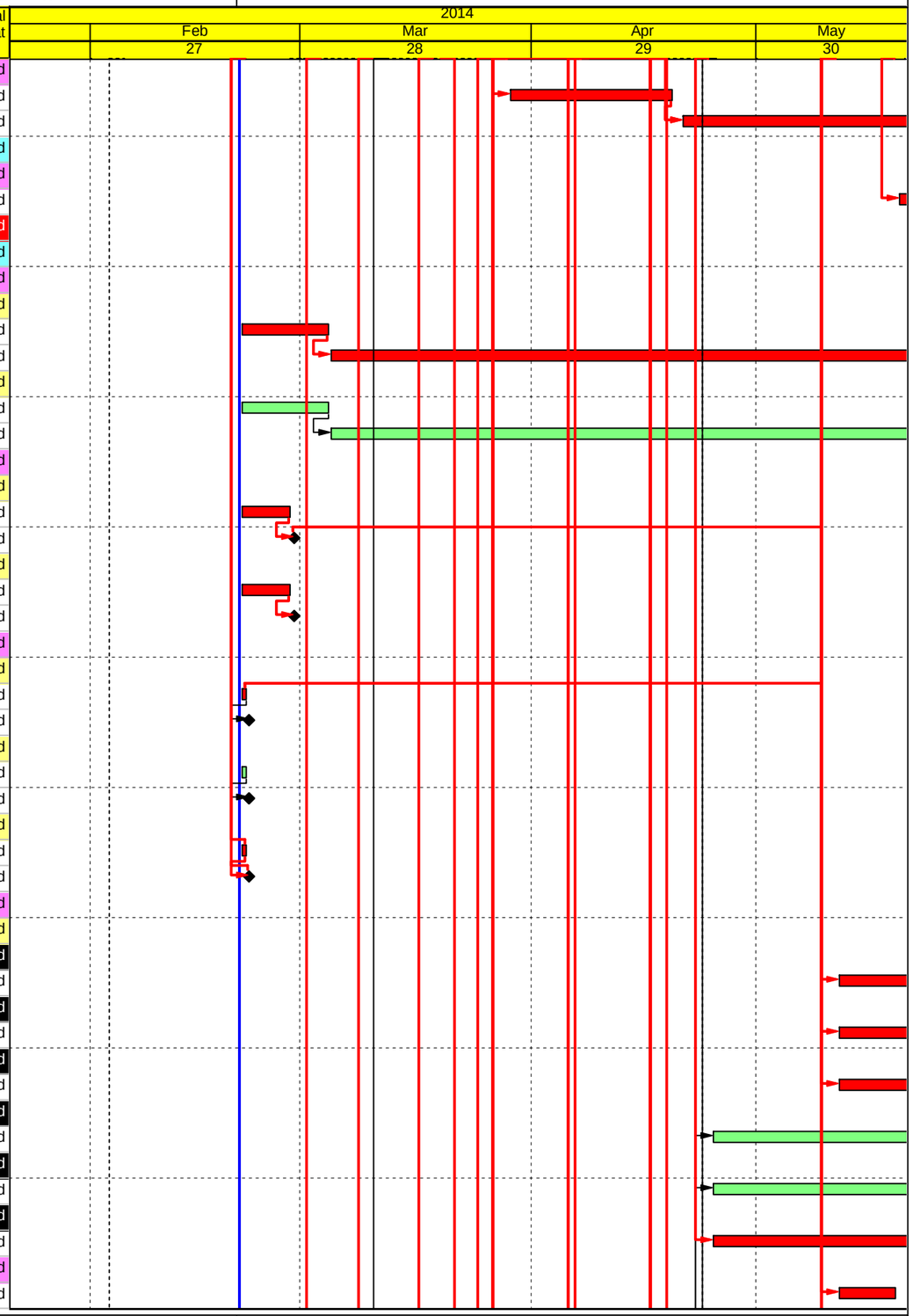
Contract No. HY/2010/02 Hong Kong - Zhuhai - Macao Bridge

Hong Kong Boundary Corssing Facilities - Reclamation Works

EMandA Monthly Report Programme

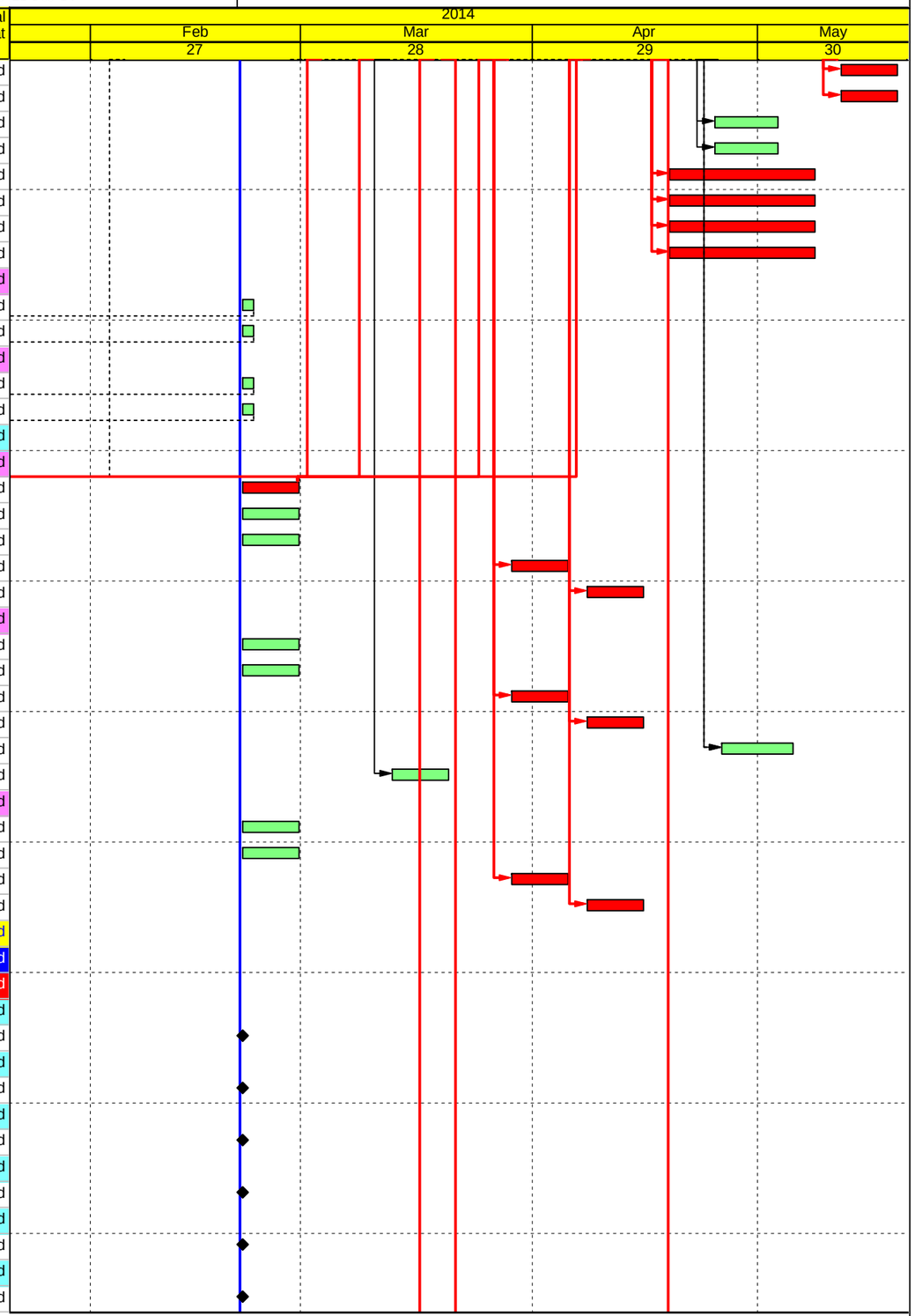
Data Date :21-Feb-14

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
Land Portion C1a 139,520nrs		73d	29-Mar-14	16-Jun-14	-133d
VBDC1	Vertical Band Drains 60,000nrs by land plant at PC1a 3,000nrs/day before PB ready	20d	29-Mar-14	19-Apr-14	-133d
VBDC1	Vertical Band Drains 79,520nrs by land plant at PC1a 1,500nrs/day	53d	21-Apr-14	16-Jun-14	-133d
Earthwork Fill		19d	20-May-14	08-Jun-14	-158d
Land Portion B		19d	20-May-14	08-Jun-14	-158d
EFB0-0	Earthwork Fill Type D Sand 100% at PB Main at K028 - K051 571,024m3 30,000m3/day	19d	20-May-14	08-Jun-14	-158d
Geotechnical Instrumentation Works		315d	21-Feb-14	01-Jan-15	817d
Geotechnical Instrumentation Works for Seawalls		315d	21-Feb-14	01-Jan-15	817d
Cluster Type SA 2nrs Piezometer, Extensometer and Settlement Marker Cluster inside Cells		315d	21-Feb-14	01-Jan-15	26d
SA-1 K048 Portion B		315d	21-Feb-14	01-Jan-15	-62d
CTSA:	Installation of SA-1 C048 (within 10days after filling C048) PB	10d	21-Feb-14	04-Mar-14	-50d
CTSA:	Montioring of SA-1 C048 PB by weekly for subsequent 10mths	303d	05-Mar-14	01-Jan-15	-62d
SA-2 C113 Portion C2a		315d	21-Feb-14	01-Jan-15	26d
CTSA:	Installation of SA-2 C113 (within 10days after filling C113) PC2a	10d	21-Feb-14	04-Mar-14	22d
CTSA:	Monitoring of SA-2 C113 PC2a by weekly for subsequent 10mths	303d	05-Mar-14	01-Jan-15	26d
Cluster Type SB 2nrs Inclinometer Cluster inside cells		7d	21-Feb-14	28-Feb-14	-69d
SB-1 K049 Portion B		7d	21-Feb-14	28-Feb-14	-169d
CTSB:	Installation of SB-1 K049 PB	6d	21-Feb-14	27-Feb-14	-137d
CTSB:	Commencement of Monitoring of SB-1 K049 PB	0d	28-Feb-14		-169d
SB-2 C112 Portion C2a		7d	21-Feb-14	28-Feb-14	-69d
CTSB:	Installation of SB-2 C112 PC2a	6d	21-Feb-14	27-Feb-14	-53d
CTSB:	Commencement of Monitoring of SB-2 C112 PC2a	0d	28-Feb-14		-69d
Cluster Type SC 3nrs Strain Guage and Inclinometer Cluster inside cells		1d	21-Feb-14	22-Feb-14	1131d
SC-1 K044 Portion B		1d	21-Feb-14	22-Feb-14	1131d
CTSC	Installation of SC-1 K044 PB	1d	21-Feb-14	21-Feb-14	-132d
CTSC	Commencement of Monitoring of SC-1 K044 PB	0d	22-Feb-14		1131d
SC-2 C074 Portion E1		1d	21-Feb-14	22-Feb-14	1131d
CTSC:	Installation of SC-2 C074 PE1	1d	21-Feb-14	21-Feb-14	930d
CTSC:	Commencement of Monitoring of SC-2 C074 PE1	0d	22-Feb-14		1131d
SC-3 C108 Portion C2a		1d	21-Feb-14	22-Feb-14	-85d
CTSC:	Installation of SC-3 C108 PC2a	1d	21-Feb-14	21-Feb-14	-67d
CTSC:	Commencement of Monitoring of SC-3 C108 PC2a	0d	22-Feb-14		-85d
Cluster Type SD 26nrs Instrumentation and CPT Cluster behind cells		42d	25-Apr-14	16-Jun-14	-11d
Portion B		42d	25-Apr-14	16-Jun-14	-11d
SD-01 K014		30d	12-May-14	16-Jun-14	-11d
CTSE	Installation of SD-01 (K014) PB	30d	12-May-14	16-Jun-14	-11d
SD-02 K019		30d	12-May-14	16-Jun-14	-11d
CTSE	Installation of SD-02 (K019) PB	30d	12-May-14	16-Jun-14	-11d
SD-03 K023		30d	12-May-14	16-Jun-14	-11d
CTSE	Installation of SD-03 (K023) PB	30d	12-May-14	16-Jun-14	-11d
SD-04 K028		30d	25-Apr-14	31-May-14	1d
CTSE	Installation of SD-04 (KC028) PB	30d	25-Apr-14	31-May-14	1d
SD-05 K033		30d	25-Apr-14	31-May-14	1d
CTSE	Installation of SD-05 (K033) PB	30d	25-Apr-14	31-May-14	1d
SD-06 K038		30d	25-Apr-14	31-May-14	-100d
CTSE	Installation of SD-06 (K038) PB	30d	25-Apr-14	31-May-14	-100d
Cluster Type SE 26nrs Surface movement marker cluster at top of cell and sloping seawall		23d	19-Apr-14	19-May-14	860d
CTSE-(	Installation of SE-01 (K017) PB	7d	12-May-14	19-May-14	-80d

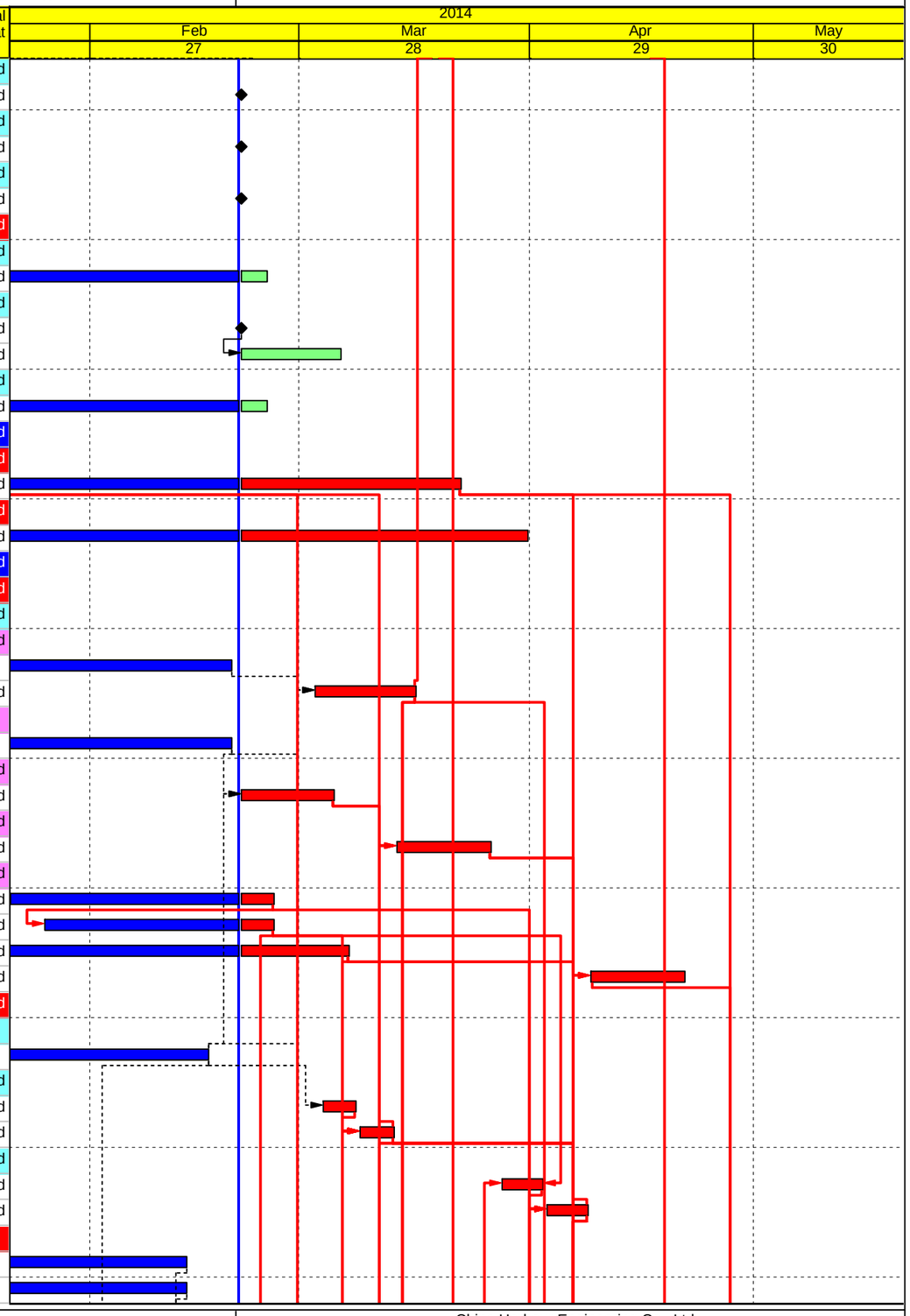


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
CTSE-(	Installation of SE-02 (K021) PB	7d	12-May-14	19-May-14	-80d
CTSE-(	Installation of SE-03 (K026) PB	7d	12-May-14	19-May-14	-80d
CTSE-(	Installation of SE-04 (K031) PB	7d	25-Apr-14	03-May-14	872d
CTSE-(	Installation of SE-05 (K035) PB	7d	25-Apr-14	03-May-14	872d
CTSE-2	Installation of SE-20 (C102) PC2a	14d	19-Apr-14	08-May-14	-53d
CTSE-2	Installation of SE-21 (C106) PC2a	14d	19-Apr-14	08-May-14	-53d
CTSE-2	Installation of SE-22 (C111) PC2a	14d	19-Apr-14	08-May-14	-53d
CTSE-2	Installation of SE-23 (C116) PC2a	14d	19-Apr-14	08-May-14	-53d
Cluster Type DV 4nrs Surface movement marker and inclinometer cluster at V2 seawall		2d	21-Feb-14	22-Feb-14	929d
CTDV-(	Installation of combined inclinometer and extensometer at seawall V2 PD	2d	21-Feb-14	22-Feb-14	929d
CTDV-(	Installation of surface movement markers at seawall V2 PD	2d	21-Feb-14	22-Feb-14	929d
Cluster Type DS 4nrs Surface movement marker and inclinometer cluster at S1 seawall		2d	21-Feb-14	22-Feb-14	929d
CTDS-(	Installation of DS-1 to DS2 PD	2d	21-Feb-14	22-Feb-14	929d
CTDS-(	Installation of DS-3 to DS4 PD	2d	21-Feb-14	22-Feb-14	929d
Geotechnical Instrumentation Works for Reclamation RA & RB		60d	21-Feb-14	05-May-14	871d
RA		46d	21-Feb-14	15-Apr-14	885d
CTRA-(	Installation of RA 5sets at PA	7d	21-Feb-14*	28-Feb-14*	-154d
CTRA-(	Installation of RA 2sets at PD (CH0 - 225)	7d	21-Feb-14	28-Feb-14	924d
CTRA-(	Installation of RA 2sets at PD (CH225 - 450)	7d	21-Feb-14	28-Feb-14	924d
CTRA-(	Installation of RA 8sets at PC1a	7d	29-Mar-14	05-Apr-14	-63d
CTRA-(	Installation of RA 6sets at PC1b	7d	08-Apr-14	15-Apr-14	-32d
RB		60d	21-Feb-14	05-May-14	871d
SMT1-(	Installation of RB at PD (CH0 - 225)	7d	21-Feb-14	28-Feb-14	924d
SMT1-(	Installation of RB at PD (CH225 - 450)	7d	21-Feb-14	28-Feb-14	924d
SMT1-(	Installation of RB at PC1a	7d	29-Mar-14	05-Apr-14	-63d
SMT1-(	Installation of RB at PC1b	7d	08-Apr-14	15-Apr-14	-32d
SMT1-(	Installation of RB at PC2b	7d	26-Apr-14	05-May-14	32d
SMT1-(	Installation of RB at PC2c	7d	13-Mar-14	20-Mar-14	64d
Settlement Marker Type 2		46d	21-Feb-14	15-Apr-14	885d
SMT2-(	M2 - Installation of Settlement Marker Type2 at PD (CH0 - 225)	7d	21-Feb-14	28-Feb-14	924d
SMT2-(	M2 - Installation of Settlement Marker Type2 at PD (CH225 - 450)	7d	21-Feb-14	28-Feb-14	924d
SMT2-(	M2 - Installation of Settlement Marker Type2 at PC1a	7d	29-Mar-14	05-Apr-14	-63d
SMT2-(	M2 - Installation of Settlement Marker Type2 at PC1b	7d	08-Apr-14	15-Apr-14	-32d
Portion D		699d	11-Dec-12 A	09-Nov-14	870d
Submission		451d	11-Dec-12 A	06-Mar-14	1118d
Design Submission		0d	21-Feb-14	21-Feb-14	1132d
Stability Analysis and Settlement Assessment for Vertical Seawall w No Dredging		0d	21-Feb-14	21-Feb-14	1132d
PD-DGN	Stability Analysis and settlement assessment for vertical seawall with no dredging	0d		21-Feb-14*	1132d
Stability Analysis and Settlement Assessment for Sloping Seawall w No Dredging		0d	21-Feb-14	21-Feb-14	1132d
PD-DGN	Stability Analysis and Settlement Assessment for Sloping seawall with no dredging	0d		21-Feb-14*	1132d
Settlement Assessment for Culverts C1 - C4 w No Dredging		0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Settlement assessment for box culverts C1 - C4 with no dredging	0d		21-Feb-14*	119d
Structural Analysis for Culverts C1 - C4 w Precast Method		0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Structural analysis for Box Culverts C1 - C4 with Precast Method	0d		21-Feb-14*	119d
Drainage Impact Assessment & Temporary Diversion (stg2 - for construction of box culver		0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Drainage Impact Assessment and Temporary Diversion (stage 2 - for construction of box	0d		21-Feb-14*	119d
Settlement Assessment for Box Culvert EC1		0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Settlement Assessment for Box culvert EC1 Submission 1st	0d		21-Feb-14*	119d



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
	Structural Analysis for Box Culvert EC1 w Precast & Cast in-situ Method	0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Structural Analysis for Box culvert EC1 with Precast and Cast in-situ Method	0d		21-Feb-14*	119d
	Detailed General Arrangement & RC drawings for C1 to C4 w Precast Method	0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Detailed General Arrangement and RC drawings for Box culverts C1 to C4 with Precast	0d		21-Feb-14*	119d
	Detailed General Arrangement & RC drawings for EC1 w Precast & Cast insitu Methods	0d	21-Feb-14	21-Feb-14	119d
PD-DGN	Detailed General Arrangement and RC drawings for Box Culverts EC1 with Precast and	0d		21-Feb-14*	119d
	Method Statement Submission	451d	11-Dec-12 A	06-Mar-14	1118d
	Seawall	410d	11-Dec-12 A	24-Feb-14	1128d
PD-MTD	MTD for Temporary Seawall Construction - Approval	410d	11-Dec-12 A	24-Feb-14	1128d
	Extension Culvert EC1	14d	21-Feb-14	06-Mar-14	169d
PD-MTD	MTD for culvert EC1 - Preparation & Submission	0d	21-Feb-14		169d
PD-MTD	MTD for culvert EC1- Approval	14d	21-Feb-14	06-Mar-14	169d
	Float & Sink installation of Culvert C1 - C4	410d	11-Dec-12 A	24-Feb-14	136d
PD-MTD	MTD for Float & Sink of culvert C1 - C4 - Approval	410d	11-Dec-12 A	24-Feb-14	136d
	Precast Yard for Seawall Blocks & Culverts	316d	19-Apr-13 A	31-Mar-14	-41d
	Concrete Blocks	307d	19-Apr-13 A	22-Mar-14	-118d
PD-PY1-(	Seawall Blocks for Temporary construction 1,190nrs	307d	19-Apr-13 A	22-Mar-14	-118d
	Culverts	58d	02-Jan-14 A	31-Mar-14	-41d
PD-PY-01	Precast Yard Setup	58d	02-Jan-14 A	31-Mar-14	-41d
	Site Construction	324d	21-Dec-13 A	09-Nov-14	870d
	Seawall Construction	110d	02-Jan-14 A	21-Apr-14	-76d
	Temporary Seawall	110d	02-Jan-14 A	21-Apr-14	-76d
	70m Zone of Airport Existing Seawall	74d	02-Jan-14 A	16-Mar-14	-128d
PDAS-(	Airport Existing Seawall 70m Seawall blocks installation 200nrs	27d	02-Jan-14 A	20-Feb-14 A	
PDAS-(	Airport Existing Seawall 70m Temporary Bridge above channel	14d	03-Mar-14*	16-Mar-14	-128d
	Temporary Seawall CH6+136 - CH6+000 (136m)	12d	20-Jan-14 A	20-Feb-14 A	
PDTS-1	V2 West1 Temporary Seawall Seawall blocks installation 350nrs	12d	20-Jan-14 A	20-Feb-14 A	
	Temporary Seawall CH6+000 - CH5+900 (100m)	12d	21-Feb-14	05-Mar-14	-82d
PDTS-2	V2 West2 Temporary Seawall Seawall blocks installation 350nrs	12d	21-Feb-14	05-Mar-14	-82d
	Temporary Seawall CH5+900 - CH5+800 (100m)	12d	14-Mar-14	26-Mar-14	-79d
PDTS-3	V2 East1 Temporary Seawall Seawall blocks installation 350nrs	12d	14-Mar-14	26-Mar-14	-79d
	Temporary Seawall CH5+800 - CH5+650 (150m)	84d	16-Jan-14 A	21-Apr-14	-70d
PDTS-4	S1 East2 Temporary Seawall Rockfill type1 14,600m3	5d	21-Jan-14 A	25-Feb-14	-57d
PDTS-4	S1 East2 Temporary Seawall Stone Aggregate 43,527m3 2,500m3/day	18d	26-Jan-14 A	25-Feb-14	-96d
PDTS-4	V2 East2 Temporary Seawall Stone Aggregate 45,198m3 2,500m3/day	20d	16-Jan-14 A	07-Mar-14	-89d
PDTS-4	V2 East2 Temporary Seawall Seawall blocks installation 350nrs	12d	09-Apr-14	21-Apr-14	-70d
	Reclamation below +2.5mPD	82d	06-Jan-14 A	08-Apr-14	-90d
	West2 (South CH 100 - 225 & North CH 6000 - 5900)	15d	06-Jan-14 A	17-Feb-14 A	
A1630c10	PD - Marine Fill Type A Sand 100% upto +2.5mPD at West2 43,754m3 5,000m3/day	15d	06-Jan-14 A	17-Feb-14 A	
	East1 (South CH 225 - 325 & North CH 5900 - 5800)	10d	04-Mar-14	13-Mar-14	-90d
A1635b	PD - Marine Fill Type A Sand 100% upto +0mPD at East1 43,754m3 10,000m3/day	5d	04-Mar-14*	08-Mar-14	-90d
A1635c	PD - Marine Fill Type A sand 100% upto +2.5mPD at East1 43,754m3 10,000m3/day	5d	09-Mar-14	13-Mar-14	-90d
	East2 (South CH 325 - 450 & North CH 5800 - 5650)	10d	28-Mar-14	08-Apr-14	-90d
A1635b10	PD - Marine Fill Type A Sand 100% upto +0mPD at East2 43,754m3 10,000m3/day	5d	28-Mar-14	02-Apr-14	-90d
A1635c10	PD - Marine Fill Type A sand 100% upto +2.5mPD at East2 43,754m3 10,000m3/day	5d	03-Apr-14	08-Apr-14	-90d
	Sand Drain	55d	09-Jan-14 A	17-Feb-14 A	
A1636a04	Installation of Sand Drains for Rig 1	29d	09-Jan-14 A	14-Feb-14 A	
A1636a05	Installation of Sand Drains for Rig 2	29d	09-Jan-14 A	14-Feb-14 A	



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

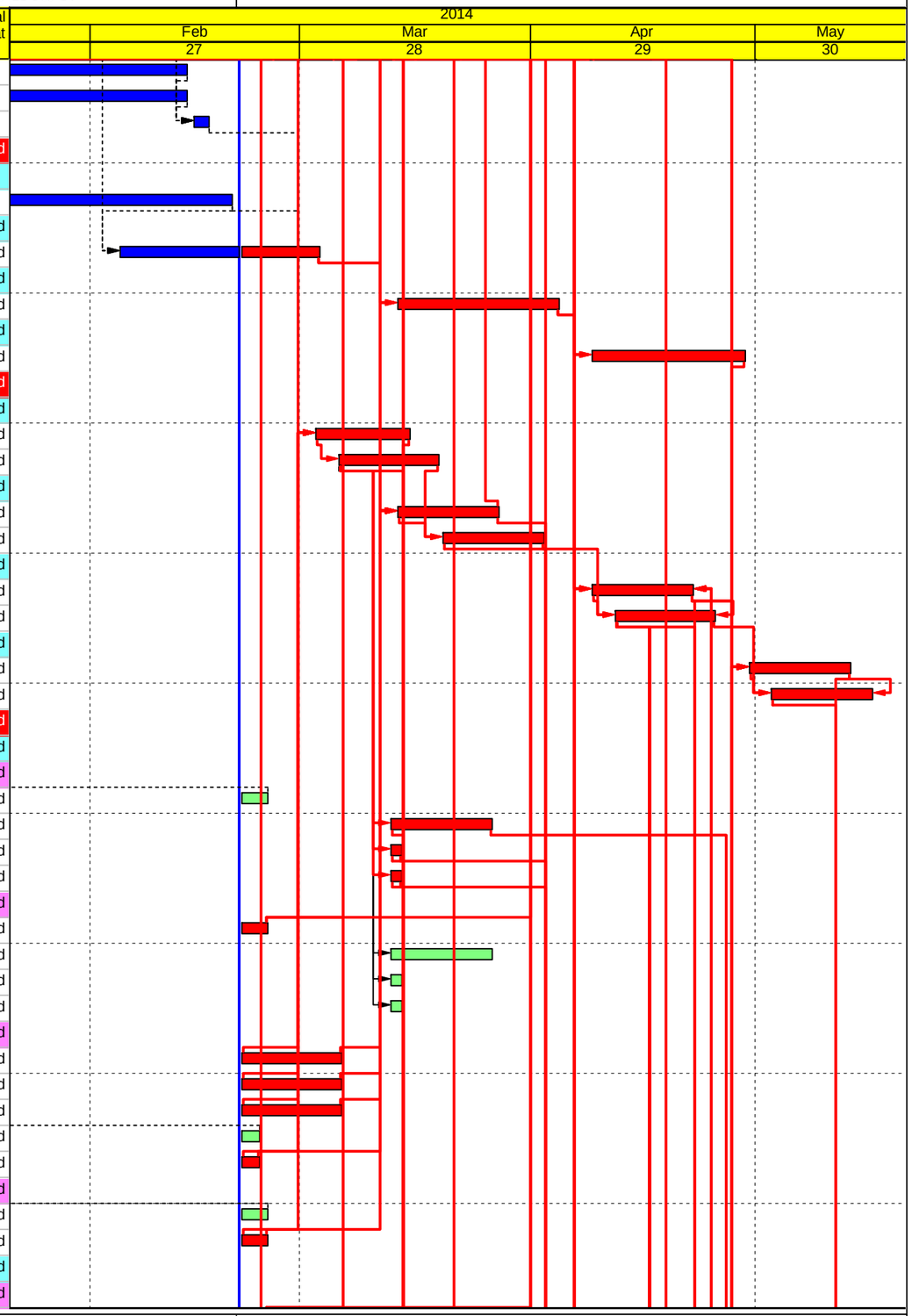
Contract No. HY/2010/02 Hong Kong - Zhuhai - Macao Bridge

Hong Kong Boundary Corssing Facilities - Reclamation Works

EMandA Monthly Report Programme

Data Date :21-Feb-14

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
A1636a06	Installation of Sand Drains for Rig 3	29d	09-Jan-14 A	14-Feb-14 A	
A1636a07	Installation of Sand Drains for Rig 4	26d	13-Jan-14 A	14-Feb-14 A	
A1636a08	Demobilization	2d	15-Feb-14 A	17-Feb-14 A	
Vertical Band Drain by Land Base		116d	21-Dec-13 A	29-Apr-14	-85d
West1 (South CH 0 -100 & North CH6136 - 6000)		38d	21-Dec-13 A	20-Feb-14 A	
A1632	PD - Install vertical band drain 6,170nrs at West1 by Land Plant 520nrs/day	38d	21-Dec-13 A	20-Feb-14 A	
West2 (South CH 100 -225 & North CH6000 - 5900)		20d	05-Feb-14 A	03-Mar-14	-80d
A2150	PD - Install vertical band drain 6,170nrs at West2 by Land Plant 520nrs/day	20d	05-Feb-14 A	03-Mar-14	-80d
East1 (North CH 225 - 325 & CH 5900 - 5800)		20d	14-Mar-14	04-Apr-14	-87d
A1636	PD - Install vertical band drain 6,170nrs drain at East1 by Land Plant 520nrs/day	20d	14-Mar-14	04-Apr-14	-87d
East2 (North CH 325 - 450 & CH 5800 - 5700)		20d	09-Apr-14	29-Apr-14	-85d
A2160	PD - Install vertical band drain 6,170nrs drain at East2 by Land Plant 520nrs/day	20d	09-Apr-14	29-Apr-14	-85d
Reclamation Above +2.5mPD		70d	03-Mar-14	16-May-14	-78d
West1 (South CH 0 -100 & North CH6136 - 6000)		16d	03-Mar-14	19-Mar-14	-111d
A1633	PD - Earthwork Fill upto + 5.5 mPD at West1 122,966m3 10,000m3/day	13d	03-Mar-14*	15-Mar-14	-114d
A1643	PD - Compaction at West Portion	13d	06-Mar-14	19-Mar-14	-111d
West2 (South CH 100 -225 & North CH6000 - 5900)		18d	14-Mar-14	02-Apr-14	-85d
A2120	PD - Earthwork Fill upto + 5.5 mPD at West2 122,966m3 10,000m3/day	13d	14-Mar-14	27-Mar-14	-90d
A2130	PD - Compaction at West Portion	13d	20-Mar-14	02-Apr-14	-85d
East1 (North CH 225 - 325 & CH 5900 - 5800)		16d	09-Apr-14	25-Apr-14	-86d
A1665	PD - Earthwork Fill upto + 5.5 mPD at East1 122,965m3 10,000m3/day	13d	09-Apr-14	22-Apr-14	-90d
A1695	PD - Compaction at East Portion	13d	12-Apr-14	25-Apr-14	-86d
East2 (North CH 325 - 450 & CH 5800 - 5700)		16d	30-Apr-14	16-May-14	-78d
A2170	PD - Earthwork Fill upto + 5.5 mPD at East2 122,965m3 10,000m3/day	13d	30-Apr-14	13-May-14	-85d
A2180	PD - Compaction at East Portion	13d	03-May-14	16-May-14	-78d
Instrumentation & Monitoring Requirements		71d	21-Feb-14	02-May-14	1061d
West Portion		34d	21-Feb-14	26-Mar-14	1098d
Vertical Seawalls - Cluster Type DV-1 & DV-2		34d	21-Feb-14	26-Mar-14	1098d
DV-1010	PD - Surface Movements Marker (Type 3B) 4nrs west	4d	21-Feb-14	24-Feb-14	1128d
DV-1020	PD - Combine Inclinometer and Extensometer 2nrs west	14d	13-Mar-14	26-Mar-14	-124d
DV-1030	PD - Sub-surface Settlement Marker 2nrs west	2d	13-Mar-14	14-Mar-14	-124d
DV-1040	PD - Settlement Marker (Type 2) 2nrs west	2d	13-Mar-14	14-Mar-14	-124d
Sloping Seawalls - Cluster Type DS-1 & DS-2		34d	21-Feb-14	26-Mar-14	1098d
DS-1010	PD - Surface Movement Marker (Type 3B) 4nrs east	4d	21-Feb-14	24-Feb-14	-89d
DS-1020	PD - Combine Inclinometer and Extensiometer 2nrs east	14d	13-Mar-14	26-Mar-14	1098d
DS-1030	PD - Sub-surface Settlement Marker 2nrs east	2d	13-Mar-14	14-Mar-14	1110d
DS-1040	PD - Settlement Marker (Type 2) 2nrs east	2d	13-Mar-14	14-Mar-14	1110d
Reclamation - Cluster Type RA 3sets		14d	21-Feb-14	06-Mar-14	1118d
RA-1010	PD - Extensometer 3nrs	14d	21-Feb-14	06-Mar-14	-118d
RA-1020	PD - Standpiipe / Casagrande Piezometer 3nrs	14d	21-Feb-14	06-Mar-14	-118d
RA-1030	PD - Double Tip Virbrating Wire Piezometer 9nrs	14d	21-Feb-14	06-Mar-14	-118d
RA-1040	PD - Sub-surface Settlement Marker 3nrs	3d	21-Feb-14	23-Feb-14	1129d
RA-1050	PD - Settlement Marker (Type 2) 6nrs	3d	21-Feb-14	23-Feb-14	-118d
Reclamation - Cluster Type RB 4sets		4d	21-Feb-14	24-Feb-14	1128d
RB-1010	PD - Sub-Surface Settlement Marker 4nrs west	4d	21-Feb-14	24-Feb-14	1128d
RB-1020	PD - Settlement Marker (Type 2) 4nrs west	4d	21-Feb-14	24-Feb-14	-118d
East Portion		71d	21-Feb-14	02-May-14	-98d
Vertical Seawalls - Cluster Type DV-3 & DV-4		71d	21-Feb-14	02-May-14	-98d

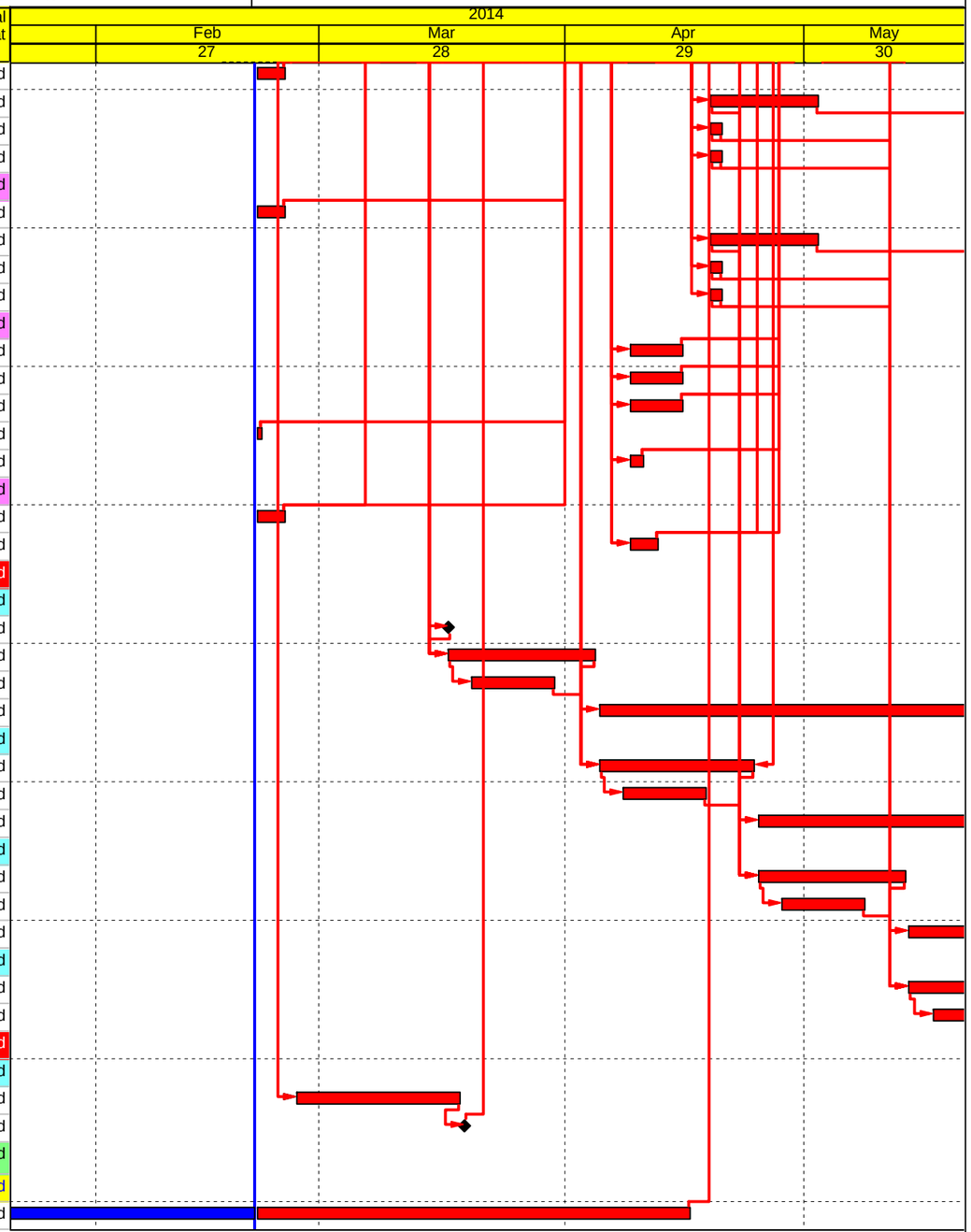


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

27th Monthly Progress Report Status as on 21Feb2014

China Harbour Engineering Co., Ltd

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float
DV-1050	PD - Surface Movements Marker (Type 3B) 4nrs east	4d	21-Feb-14	24-Feb-14	-89d
DV-1060	PD - Combine Inclinometer and Extensometer 2nrs east	14d	19-Apr-14	02-May-14	-98d
DV-1070	PD - Sub-surface Settlement Marker 2nrs east	2d	19-Apr-14	20-Apr-14	-98d
DV-1080	PD - Settlement Marker (Type 2) 2nrs east	2d	19-Apr-14	20-Apr-14	-98d
Sloping Seawalls - Cluster Type DS-3 & DS-4		71d	21-Feb-14	02-May-14	-98d
DS-1050	PD - Surface Movement Marker (Type 3B) 4nrs east	4d	21-Feb-14	24-Feb-14	-89d
DS-1060	PD - Combine Inclinometer and Extensiometer 2nrs east	14d	19-Apr-14	02-May-14	-98d
DS-1070	PD - Sub-surface Settlement Marker 2nrs east	2d	19-Apr-14	20-Apr-14	-98d
DS-1080	PD - Settlement Marker (Type 2) 2nrs east	2d	19-Apr-14	20-Apr-14	-98d
Reclamation - Cluster Type RA 1set		54d	21-Feb-14	15-Apr-14	-95d
RA-1060	PD - Extensometer 1nr	7d	09-Apr-14	15-Apr-14	-95d
RA-1070	PD - Standpiipe / Casagrande Piezometer 1nr	7d	09-Apr-14	15-Apr-14	-95d
RA-1080	PD - Double Tip Virbrating Wire Piezometer 3nrs	7d	09-Apr-14	15-Apr-14	-95d
RA-1090	PD - Sub-surface Settlement Marker 1nr	1d	21-Feb-14	21-Feb-14	-86d
RA-1100	PD - Settlement Marker (Type 2) 2nrs	2d	09-Apr-14	10-Apr-14	-90d
Reclamation - Cluster Type RB 4sets		51d	21-Feb-14	12-Apr-14	-92d
RB-1030	PD - Sub-Surface Settlement Marker 4nrs east	4d	21-Feb-14	24-Feb-14	-89d
RB-1040	PD - Settlement Marker (Type 2) 4nrs east	4d	09-Apr-14	12-Apr-14	-92d
Surcharge		238d	17-Mar-14	09-Nov-14	-102d
West1 Portion		199d	17-Mar-14	01-Oct-14	-127d
A1638	PD - Access Road for delivery of public fill material	0d	17-Mar-14*		-128d
A1640	PD - Surcharge Laying at West1 88,754m3 5,000m3/day	18d	17-Mar-14	04-Apr-14	-114d
A1650	PD - Surcharge compaction upto 8.5mPD at West1	11d	20-Mar-14	30-Mar-14	-122d
A1660	PD - Surcharge Period at West1 6mths	180d	05-Apr-14	01-Oct-14	-127d
West2 Portion		200d	05-Apr-14	21-Oct-14	-109d
A2200	PD - Surcharge Laying at West2 88,754m3 5,000m3/day	18d	05-Apr-14	24-Apr-14	-97d
A2210	PD - Surcharge compaction upto 8.5mPD at West2	11d	08-Apr-14	18-Apr-14	-103d
A2220	PD - Surcharge Period at West2 6mths	180d	25-Apr-14	21-Oct-14	-109d
East1 Portion		199d	25-Apr-14	09-Nov-14	-102d
A1675	PD - Surcharge Laying at East1 88,754m3 5,000m3/day	18d	25-Apr-14	13-May-14	-92d
A1680	PD - Surcharge Compaction upto 8.5mPD at East1	11d	28-Apr-14	08-May-14	-97d
A1685	PD - Surcharge Period at East1 6mths	180d	14-May-14	09-Nov-14	-102d
East2 Portion		20d	14-May-14	02-Jun-14	-92d
A2240	PD - Surcharge Laying at East2 88,754m3 5,000m3/day	18d	14-May-14	02-Jun-14	-85d
A2250	PD - Surcharge Compaction upto 8.5mPD at East2	11d	17-May-14	27-May-14	-86d
Access at Portion D		21d	26-Feb-14	19-Mar-14	-108d
Temporary Access to Portion A		21d	26-Feb-14	19-Mar-14	-108d
A1080	PD Construction of Access to PA	21d	26-Feb-14*	18-Mar-14	-108d
A1085	PD Provide Access to PA	0d	19-Mar-14		-108d
Works Area WA2 (Tung Chung)		685d	30-Nov-11 A	16-Apr-14	-24d
Zone B		685d	30-Nov-11 A	16-Apr-14	-24d
A3090	Maintenance of Site	685d	30-Nov-11 A	16-Apr-14	-24d



Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Appendix C - Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
Air Quality				
S5.5.6.1 of HKBCFEIA	A1	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	All construction sites	V
S5.5.6.2 of HKBCFEIA and S4.8.1 of TKCLKLEIA	A2	Proper watering of exposed spoil should be undertaken throughout the construction phase: • Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; • Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones. • Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary	All construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period; • The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an		

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; • All unpaved roads/exposed area shall be watered which results in dust suppression by forming moist cohesive films among the discrete grains of road surface material. • No burning of debris or other materials on the works areas is allowed; • Water spray shall be used during the handling of fill material at the site and at active cuts, excavation and fill sites where dust is likely to be created; • Open dropping heights for excavated materials shall be controlled to a maximum height of 2m to minimise the fugitive dust arising from unloading; • During transportation by truck, materials shall not be loaded to a level higher than the side and tail boards, and shall be dampened or covered before transport. Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin. The tarpaulin shall be properly secured and shall extend at least 300mm over the edges of the side and tail boards; • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and • Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable		

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.		
S5.5.6.3 of HKBCFEIA and S4.8.1 of TKCLKLEIA	A3	The Contractor should undertake proper watering on all exposed spoil and associated work areas (with at least 8 times per day) throughout the construction phase.	All construction sites	V
S5.5.6.4 of HKBCFEIA and S4.11 of TKCLKLEIA	A4	Implement regular dust monitoring under EM&A programme during the construction stage.	Selected representative dust monitoring station	V
S5.5.7.1 of HKBCFEIA	A5	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant: • Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; • All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; • Vents for all silos and cement/ pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; • The materials which may generate airborne dusty emissions should be wetted by water spray system;	All construction sites	N/A

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		• All receiving hoppers should be enclosed on three sides up to 3m above unloading point; • All conveyor transfer points should be totally enclosed; • All access and route roads within the premises should be paved and wetted; and • Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body.		
S5.5.2.7 of HKBCFEIA	A6	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point: • All road surface within the barging facilities will be paved; • Dust enclosures will be provided for the loading ramp; • Vehicles will be required to pass through designated wheels wash facilities; and • Continuous water spray at the loading points.	All construction sites	N/A (Construction in process)
Construction Noise (Air borne)				
S6.4.10 of HKBCFEIA	N1	Use of good site practices to limit noise emissions by considering the following: • only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated	All construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		so that the noise is directed away from nearby NSRs; • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; • mobile plant should be sited as far away from NSRs as possible and practicable; • material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.		
S6.4.11 of HKBCFEIA	N2	Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	All construction sites	V
S6.4.12 of HKBCFEIA	N3	Install movable noise barriers (typically density @14kg/m^2), acoustic mat or full enclosure close to noisy plants including air compressor, generators, saw.	For plant items listed in Appendix 6D of the EIA report at all construction sites	N/A
S6.4.13 of HKBCFEIA	N4	Select “Quiet plants” which comply with the BS 5228 Part 1 or TM standards.	For plant items listed in Appendix 6D of the EIA report at all construction sites	V
S6.4.14 of HKBCFEIA	N5	Sequencing operation of construction plants where practicable.	All construction sites where practicable	V
S5.1 of	N6	Implement a noise monitoring under EM&A programme.	Selected	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
TMCLKLEIA			representative noise monitoring station	
Waste Management (Construction Waste)				
S12.6 of TMCLKLEIA	WM1	The Contractor shall identify a coordinator for the management of waste.	All construction sites	V
S12.6 of TMCLKLEIA	WM2	The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	All construction sites	V
S12.6 of TMCLKLEIA	WM3	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All construction sites	V
S8.3.8 of HKBCFEIA and S12.6 of TMCLKLEIA	WM4	*Construction and Demolition Material* The following mitigation measures should be implemented in handling the waste: • Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; • Carry out on-site sorting; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible;	All construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		• Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; • Implement an enhanced Waste Management Plan similar to ETWBTC (Works) No. 19/2005 – "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction; • In addition, disposal of the C&D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation; and • The surplus surcharge should be transferred to a fill bank.		
S8.3.9-S8.3.11 of HKBCFEIA and S12.6 of TMCLKLEIA	WM5	*C&D Waste* • Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding and falsework should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage. • The Contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&D waste should be segregated and stored in different containers	All construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.		
S8.2.12-S8.3.15 of HKBCFEIA and S12.6 of TMCLKLEIA	WM6	*Chemical Waste* • Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. • Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation. • The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated. • Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre	All construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD.		
S8.3.16 of HKBCFEIA and S12.6 of TMCLKLEIA	WM7	*Sewage* • Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly.	All construction sites	V
S8.3.17 of HKBCFEIA and S12.6 of TMCLKLEIA	WM8	*General Refuse* • The site and surroundings shall be kept tidy and litter free. General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. • A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law. • Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible. • Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be	All construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		considered by the Contractor. In addition, waste separation facilities for paper, aluminum cans, plastic bottles etc., should be provided. • Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes. • Sufficient dustbins shall be provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws. In addition, general refuse shall be cleared daily and shall be disposed of to the nearest licensed landfill or refuse transfer station. • All waste containers shall be in a secure area on hardstanding.		
Water Quality (Construction Phase)				
	W1	Mitigation during the marine works to reduce impacts to within acceptable levels have been recommended and will comprise a series of measures that restrict the method and sequencing of backfilling, as well as protection measures. Details of the measures are provided below:	During filling	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		• Reclamation filling for the Project shall not proceed until at least 200m of leading seawall at the reclamation area formed above +2.2mPD, unless otherwise agreement was obtained from EPD, except for the 300m gaps for marine access. All underwater filling works shall be carried out behind seawalls to avoid dispersion of suspended solids outside the Project limit; • Except for the filling of the cellular structures, not more than 15% public fill shall be used for reclamation filling below +2.5mPD during construction of the seawall; • After the seawall is completed except for the 300m marine access as indicated in the EPs, not more than 30% public fill shall be used for reclamation filling below +2.5mPD, unless otherwise agreement from EPD was obtained; • Upon completion of 200m leading seawall, no more than a total of 60 filling barge trips per day shall be made with a cumulative maximum daily filling rate of 60,000 m3 for HKBCF and TMCLKL southern landfall reclamation during the filling operation; and • Upon completion of the whole section of seawall except for the 300m marine access as indicated in the EPs, no more than a total of 190 filling barge trips per day shall be made with a cumulative maximum daily filling rate of 190,000 m3 for the remaining filling operations for HKBCF and TMCLKL southern landfall reclamation. • Floating type perimeter silt curtains shall be around the HKBCF site before the commencement of marine works. Staggered layers of silt curtain shall be provided		

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		to prevent sediment loss at navigation accesses. The length of each staggered layers shall be at least 200m; • Single layer silt curtain to be applied around the North-east airport water intake; • The silt-curtains should be maintained in good condition to ensure the sediment plume generated from filling be confined effectively within the site boundary; • The filling works shall be scheduled to spread the works evenly over a working day; • Cellular structure shall be used for seawall construction; • A layer of geotextile shall be placed on top of the seabed before any filling activities take place inside the cellular structures to form the seawall; • The conveyor belts shall be fitted with windboards and conveyor release points shall be covered with curtain to prevent any spillage of filling materials onto the surrounding waters; and • An additional layer of silt curtain shall be installed near the active stone column installation points. A layer of geotextile with stone blanket on top shall be placed on the seabed prior to stone column installation works.		
S9.11.1.3 of HKBCFEIA and S6.10 of	W2	<u>Land Works</u> General construction activities on land should also be governed by standard good working practice. Specific measures to be written into the works contracts should include:	All land-based construction sites	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
TMCLKLEIA		• wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters; • sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided; • storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks; • silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm; • temporary access roads should be surfaced with crushed stone or gravel; • rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities; • measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system; • open stockpiles of construction materials (e.g. aggregates and sand) on site		

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		should be covered with tarpaulin or similar fabric during rainstorms; • manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers; • discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system; • all vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit; • wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain; • the section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel; • wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects; • vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for offsite disposal;		

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		• the contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately; • waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance; • all fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank; and • surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the storm water system..		
S9.14 of HKBCFEIA and S6.10 of TMCLKLEIA	W3	Implement a water quality monitoring programme	At identified monitoring location	V
S6.10 of TMCLKLEIA	W4	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	All construction site areas	V
Ecology (Construction Phase)				
S10.7 of HKBCFEIA and S8.14 of TMCLKLEIA	E1	• Install silt curtain during the construction • Limit works fronts • Construct seawall prior to reclamation filling where practicable	Seawall, reclamation area	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		• Good site practices • Strict enforcement of no marine dumping • Site runoff control • Spill response plan		
S10.7 of HKBCFEIA	E2	• Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater.	Land-based works areas	V
S10.7 of HKBCFEIA and S8.14 of TMCLKLEIA	E3	• Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time.	Land-based works areas	V
S10.7 of HKBCFEIA and S8.14 of TMCLKLEIA	E4	• Dolphin Exclusion Zone • Dolphin watching plan	Marine works	V
S10.7 of HKBCFEIA and S8.14 of TMCLKLEIA	E5	• Decouple compressors and other equipment on working vessels • Proposal on design and implementation of acoustic decoupling measures applied during reclamation works • Avoidance of percussive piling	Marine works	V
S10.7 of	E6	• Control vessel speed	Marine traffic	V

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
HKBCFEIA and S8.14 of TMCLKLEIA		• Skipper training • Predefined and regular routes for working vessels; avoid Brothers Islands		
S10.10 of HKBCFEIA and S8.14 of TMCLKLEIA	E7	• Vessel based dolphin monitoring	Northeast and Northwest Lantau	V
Fisheries				
S11.7 of HKBCFEIA	F1	• Reduce re-suspension of sediments • Limit works fronts • Good site practices • Strict enforcement of no marine dumping • Spill response plan	Seawall, reclamation area	V
S11.7 of HKBCFEIA	F2	• Install silt-grease trap in the drainage system collecting surface runoff	Reclamation area	V
Landscape & Visual (Construction Phase)				
S14.3.3. 3 of HKBCFEIA and S10.9 of TMCLKLEIA	LV1	*Mitigate Landscape Impacts* G1/CM4 Grass-hydroseed or sheeting bare soil surface and stock pile areas. G9 Reserve of loose natural granite rocks for re-use. Provide new coastline to adopt “natural-look” by means of using armour rocks in the form of natural	All construction site areas	N/A

EIA Ref.	EM&A Log Ref	Environmental Mitigation Measures	Location	Implementation Status
		rock materials and planting strip area accommodating screen buffer to enhance "natural-look" of new coastline.		
S10.9 of TMCLKLEIA	LV2	*Mitigate Landscape Impacts* CM7 Ensure no run-off into water body adjacent to the Project Area.	All construction site areas	V
S14.3.3. 3 of HKBCFEIA	LV4	*Mitigate Visual Impacts* V1 Minimize time for construction activities during construction period.	All construction site areas	V
S10.9 of TMCLKLEIA	LV5	*Mitigate Visual Impacts* CM6 Control night-time lighting and glare by hooding all lights.	All construction site areas	V
EM&A				
S15.2.2 of HKBCFEIA	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual.	All construction site areas	V
S15.5 - S15.6 of HKBCFEIA	EM2	• An Environmental Team needs to be employed as per the EM&A Manual. • Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. • An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with.	All construction site areas	V

Legend: V = implemented; x = not implemented; N/A = not applicable

Appendix D - Summary of Action and Limit Levels

Table 1 – Action and Limit Levels for 1-hour TSP

Location	Action Level	Limit Level
AMS2	374 μg/m^3	500 μg/m^3
AMS3A*	368 μg/m^3	500 μg/m^3
AMS6	360 μg/m^3	500 μg/m^3
AMS7	370 μg/m^3	500 μg/m^3

Remarks: * Action Level set out at AMS3 Ho Yu College is adopted.

Table 2 – Action and Limit Levels for 24-hour TSP

Location	Action Level	Limit Level
AMS2	176 μg/m^3	260 μg/m^3
AMS3A*	167 μg/m^3	260 μg/m^3
AMS6	173 μg/m^3	260 μg/m^3
AMS7	183 μg/m^3	260 μg/m^3

Remarks: * Action Level set out at AMS3 Ho Yu College is adopted.

Table 3 – Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)

Location	Action Level	Limit Level
NMS2	When one documented complaint, related to 0700 – 1900 hours on normal weekdays, is received from any one of the sensitive receivers	75 dB(A)
NMS3A		*65 / 70 dB(A)

*Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period.

Table 4 – Action and Limit Levels for Water Quality

Parameters	**Action**	**Limit**
DO in mg L^{-1} (Surface, Middle & Bottom)	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4 .2 (except 5 mg/L for FCZ) Bottom 3.6
SS in mg L^{-1} (depth-averaged)	23.5 and 120% of upstream control station's SS at the same tide of the same day	34.4 and 130% of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes
Turbidity in NTU (depth-averaged)	27.5 and 120% of upstream control station's turbidity at the same tide of the same day	47.0 and130% of upstream control station's turbidity at the same tide of the same day

Notes:

1. "depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
3. For turbidity, SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

Table 5(a) Action and Limit Levels for Chinese White Dolphin Monitoring - Approach to Define Action Level (AL) and Limit Level (LL):

	North Lantau Social Cluster	
	NEL	**NWL**
Action Level	(STG < 70% of baseline) & (ANI < 70% of baseline)	(STG < 70% of baseline) & (ANI < 70% of baseline)
Limit Level	[(STG < 40% of baseline) & (ANI < 40% of baseline)] AND [(STG < 40% of baseline) & (ANI < 40% of baseline)]	

For North Lantau Social Cluster, action level will be trigger if either NEL **or** NWL fall below the criteria; limit level will be triggered if both NEL **and** NWL fall below the criteria.

Table 5(b) Derived Value of Action Level (AL) and Limit Level (LL) for Chinese White Dolphin Monitoring

	North Lantau Social Cluster	
	NEL	**NWL**
Action Level	(STG < 4.2) & (ANI < 15.5)	(STG < 6.9) & (ANI < 31.3)
Limit Level	[(STG < 2.4) & (ANI <8.9)] AND [(STG < 3.9)& (ANI < 17.9)]	

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Tung Chung Development Pier (AMS2)	Operator:	Leung Yiu Ting
Cal. Date:	22-Dec-13	Next Due Date:	22-Feb-14
Equipment No.:	A-001-78T	Serial No.	3383

Ambient Condition			
Temperature, Ta (K)	288	Pressure, Pa (mmHg)	760.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	**mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	20-May-14	**Qstd = {[DH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.8	3.02	1.54	45.0	45.77
13	7.5	2.79	1.42	42.0	42.72
10	6.1	2.51	1.28	37.0	37.64
7	4.5	2.16	1.10	30.0	30.52
5	2.8	1.70	0.86	22.0	22.38

By Linear Regression of Y on X

Slope , mw = 35.4112 **Intercept, bw =** -8.0527

Correlation Coefficient* = 0.9974

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; IC = (mw x Qstd + bw) x [(760 / Pa) x (Ta / 298)]$^{1/2}$= **37.34**

Remarks: _____

QC Reviewer: YT Leung Signature: _____ Date: 23-12-13

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Tung Chung Development Pier (AMS2)	Operator:	Cheung Hung Wai
Cal. Date:	11-Feb-14	Next Due Date:	11-May-14
Equipment No.:	A-001-78T	Serial No.	3383

Ambient Condition			
Temperature, Ta (K)	281	Pressure, Pa (mmHg)	765.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	**mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	20-May-14	**Qstd = {[DH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.9	3.08	1.57	46.0	47.49
13	7.4	2.81	1.43	41.0	42.33
10	6.2	2.57	1.31	37.0	38.20
7	4.6	2.21	1.13	31.0	32.01
5	2.7	1.70	0.86	23.0	23.75

By Linear Regression of Y on X

Slope , mw = **33.3229** **Intercept, bw =** **-5.1834**

Correlation Coefficient* = **0.9989**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; IC = (mw x Qstd + bw) x [(760 / Pa) x (Ta / 298)]$^{1/2}$= **36.94**

Remarks: _____

QC Reviewer: _____ Signature: _____ Date: 13-2-14

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Site Boundary of Site Office (WA2) (AMS3A)	Operator:	Leung Yiu Ting
Cal. Date:	22-Dec-13	Next Due Date:	22-Feb-14
Equipment No.:	A-001-79T	Serial No.	3384

Ambient Condition			
Temperature, Ta (K)	288	Pressure, Pa (mmHg)	760.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-May-14	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X-axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.0	2.88	1.47	46.0	46.79
13	6.6	2.61	1.33	40.0	40.69
10	5.0	2.27	1.16	32.0	32.55
7	3.9	2.01	1.02	28.0	28.48
5	2.4	1.58	0.80	18.0	18.31

By Linear Regression of Y on X

Slope , mw = 42.0602 **Intercept, bw =** -15.1612

Correlation Coefficient* = 0.9969

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = IC \times [(Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2} =$ **38.85**

Remarks: _____

QC Reviewer: YT Leung Signature: _____ Date: 23-12-13

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AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Site Boundary of Site Office (WA2) ~~(AMS3A)~~ AMS3B	Operator:	Leung Yiu Ting
Cal. Date:	4-Feb-14	Next Due Date:	4-Apr-14
Equipment No.:	A-001-79T	Serial No.	3384

Ambient Condition			
Temperature, Ta (K)	291	Pressure, Pa (mmHg)	758.7

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-May-14	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.4	2.93	1.49	48.0	48.53
13	6.8	2.64	1.34	43.0	43.48
10	5.3	2.33	1.18	33.0	33.37
7	4.1	2.05	1.04	29.0	29.32
5	2.4	1.57	0.79	18.0	18.20

By Linear Regression of Y on X

Slope , mw = **43.8975** **Intercept, bw =** **-16.7820**

Correlation Coefficient* = **0.9906**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = IC \times [(Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2}$ = **39.84**

Remarks: _____

QC Reviewer: Mike check Signature: Mike Date: 4. Feb. 14

AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Hong Kong SkyCity Marriott Hotel (AMS7)	Operator:	Leung Yiu Ting
Cal. Date:	22-Dec-13	Next Due Date:	22-Feb-14
Equipment No.:	A-001-80T	Serial No.	3385

Ambient Condition			
Temperature, Ta (K)	288	Pressure, Pa (mmHg)	760.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	**mc x Qstd + bc = [DH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	20-May-14	**Qstd = {[DH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	[DH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (m^3/min) **X - axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	8.0	2.88	1.47	46.0	46.79
13	6.5	2.59	1.32	41.0	41.71
10	5.1	2.30	1.17	32.0	32.55
7	4.0	2.03	1.03	25.0	25.43
5	3.0	1.76	0.89	19.0	19.33

By Linear Regression of Y on X

Slope , mw = **49.7114** **Intercept, bw =** **-25.2864**

Correlation Coefficient* = **0.9941**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

mw x Qstd + bw = IC x [(Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; IC = (mw x Qstd + bw) x [(760 / Pa) x (Ta / 298)]$^{1/2}$= **38.67**

Remarks:

QC Reviewer: YT Leung Signature: Date: 23-12-13

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AECOM Asia Company Limited
TSP High Volume Sampler
Field Calibration Report

Station	Hong Kong SkyCity Marriott Hotel (AMS7)	Operator:	Cheung Hung Wai
Cal. Date:	11-Feb-14	Next Due Date:	11-May-14
Equipment No.:	A-001-80T	Serial No.	3385

Ambient Condition			
Temperature, Ta (K)	281	Pressure, Pa (mmHg)	765.0

Orifice Transfer Standard Information					
Serial No:	988	Slope, mc	1.94727	Intercept, bc	0.02332
Last Calibration Date:	20-May-13	$mc \times Qstd + bc = [DH \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	20-May-14	$Qstd = \{[DH \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Resistance Plate No.	Orfice			HVS Flow Recorder	
	DH (orifice), in. of water	$[DH \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (m^3/min) **X-axis**	Flow Recorder Reading (CFM)	Continuous Flow Recorder Reading IC (CFM) **Y-axis**
18	7.9	2.90	1.48	45.0	46.49
13	6.6	2.65	1.35	41.0	42.36
10	5.2	2.36	1.20	33.0	34.10
7	4.0	2.07	1.05	26.0	26.86
5	3.1	1.82	0.92	20.0	20.66

By Linear Regression of Y on X

Slope , mw = **47.4861** **Intercept, bw =** **-22.8861**

Correlation Coefficient* = **0.9956**

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 1.30m^3/min

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = IC \times [(Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $IC = (mw \times Qstd + bw) \times [(760 / Pa) \times (Ta / 298)]^{1/2} =$ **37.60**

Remarks: _____

QC Reviewer: HY Sum Signature: _____ Date: 13-2-14

TISCH ENVIROMENTAL, INC.
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AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - May 20, 2013 Rootsmeter S/N 0438320 Ta (K) - 297
Operator Tisch Orifice I.D. - 0988 Pa (mm) - 751.84

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.3900	3.2	2.00
2	NA	NA	1.00	0.9720	6.4	4.00
3	NA	NA	1.00	0.8670	7.9	5.00
4	NA	NA	1.00	0.8270	8.7	5.50
5	NA	NA	1.00	0.6800	12.6	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)
0.9884	0.7110	1.4090
0.9842	1.0125	1.9926
0.9821	1.1327	2.2278
0.9811	1.1863	2.3365
0.9759	1.4352	2.8179

Qstd slope (m) = 1.94727
intercept (b) = 0.02332
coefficient (r) = 0.99998

y axis = SQRT[H2O(Pa/760)(298/Ta)]

Va	(x axis) Qa	(y axis)
0.9957	0.7163	0.8889
0.9915	1.0201	1.2570
0.9894	1.1412	1.4054
0.9884	1.1952	1.4740
0.9832	1.4459	1.7777

Qa slope (m) = 1.21935
intercept (b) = 0.01471
coefficient (r) = 0.99998

y axis = SQRT[H2O(Ta/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{[SQRT(H2O(Pa/760)(298/Ta))]- b}
Qa = 1/m{[SQRT H2O(Ta/Pa)]- b}

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.07a***
Sensitivity Adjustment Scale Setting:	***557 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *557* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *557* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1887*	*31.45*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1970*	*32.83*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*2056*	*34.27*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*2026*	*33.77*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9978*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.08a***
Sensitivity Adjustment Scale Setting:	***702 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *702* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *702* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1764*	*29.40*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1846*	*30.77*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*1935*	*32.25*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*1899*	*31.65*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0016*
Correlation coefficient: *0.9976*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.09a***
Sensitivity Adjustment Scale Setting:	***797 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o:	*12500*
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *797* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *797* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1885*	*31.42*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1965*	*32.75*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*2059*	*34.32*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*2024*	*33.73*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9973*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: _____ Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.10a***
Sensitivity Adjustment Scale Setting:	***753 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o:	*12500*
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *753* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *753* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:30 - 13:30*	*28.1*	*78*	*0.04714*	*1886*	*31.43*
2	*18-05-13*	*13:30 - 14:30*	*28.1*	*78*	*0.04932*	*1968*	*32.80*
3	*18-05-13*	*14:30 - 15:30*	*28.2*	*77*	*0.05156*	*2061*	*34.35*
4	*18-05-13*	*15:30 - 16:30*	*28.1*	*78*	*0.05083*	*2026*	*33.77*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9983*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: _____ Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3***
Equipment No.:	***A.005.11a***
Sensitivity Adjustment Scale Setting:	***799 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o:	*12500*
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *799* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *799* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:15 - 13:15*	*28.1*	*78*	*0.04685*	*1871*	*31.18*
2	*18-05-13*	*13:15 - 14:15*	*28.1*	*78*	*0.04941*	*1979*	*32.98*
3	*18-05-13*	*14:15 - 15:15*	*28.2*	*77*	*0.05127*	*2055*	*34.25*
4	*18-05-13*	*15:15 - 16:15*	*28.1*	*78*	*0.05060*	*2021*	*33.68*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9976*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3B***
Equipment No.:	***A.005.13a***
Sensitivity Adjustment Scale Setting:	***643 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *643* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *643* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:15 - 13:15*	*28.1*	*78*	*0.04685*	*1867*	*31.12*
2	*18-05-13*	*13:15 - 14:15*	*28.1*	*78*	*0.04941*	*1975*	*32.92*
3	*18-05-13*	*14:15 - 15:15*	*28.2*	*77*	*0.05127*	*2048*	*34.13*
4	*18-05-13*	*15:15 - 16:15*	*28.1*	*78*	*0.05060*	*2017*	*33.62*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0015*
Correlation coefficient: *0.9986*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

EQUIPMENT CALIBRATION RECORD

Type:	***Laser Dust Monitor***
Manufacturer/Brand:	***SIBATA***
Model No.:	***LD-3B***
Equipment No.:	***A.005.14a***
Sensitivity Adjustment Scale Setting:	***786 CPM***
Operator:	*Mike Shek (MSKM)*

Standard Equipment

Equipment:	*Rupprecht & Patashnick TEOM®*		
Venue:	*Cyberport (Pui Ying Secondary School)*		
Model No.:	*Series 1400AB*		
Serial No:	Control: *140AB219899803*		
	Sensor: *1200C143659803*	K_o: *12500*	
Last Calibration Date*:	*18 May 2013*		

*Remarks: Recommended interval for hardware calibration is 1 year

Calibration Result

Sensitivity Adjustment Scale Setting (Before Calibration): *786* CPM
Sensitivity Adjustment Scale Setting (After Calibration): *786* CPM

Hour	Date (dd-mm-yy)	Time	Ambient Condition		Concentration[1] (mg/m^3) **Y-axis**	Total Count[2]	Count/ Minute[3] **X-axis**
			Temp (°C)	R.H. (%)			
1	*18-05-13*	*12:15 - 13:15*	*28.1*	*78*	*0.04685*	*2005*	*33.42*
2	*18-05-13*	*13:15 - 14:15*	*28.1*	*78*	*0.04941*	*2121*	*35.35*
3	*18-05-13*	*14:15 - 15:15*	*28.2*	*77*	*0.05127*	*2194*	*36.57*
4	*18-05-13*	*15:15 - 16:15*	*28.1*	*78*	*0.05060*	*2167*	*36.12*

Note: 1. Monitoring data was measured by Rupprecht & Patashnick TEOM®
2. Total Count was logged by Laser Dust Monitor
3. Count/minute was calculated by (Total Count/60)

By Linear Regression of Y or X
Slope (K-factor): *0.0014*
Correlation coefficient: *0.9987*

Validity of Calibration Record: *17 May 2014*

Remarks:

QC Reviewer: *YW Fung* Signature: Date: 20 May 2013

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533

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CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-01 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone
Manufacturer:	B & K	,	B & K
Type/Model No.:	2238	,	4188
Serial/Equipment No.:	2285692 N009.04	,	2250420
Adaptors used:	-	,	-

Item submitted by

Customer Name:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	22-Jun-2013	CIGISMEC
Signal generator	DS 360	33873	29-May-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 26-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong.
香港黃竹坑道37號利達中心地下，9樓，12樓，13樓及20樓
E-mail: smec@cigismec.com Website: www.cigismec.com
Tel : (852) 2873 6860
Fax : (852) 2555 7533

HKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 13CA0325 01-03 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Rion Co., Ltd.
Type/Model No.:	NC-73
Serial/Equipment No.:	10186482 / N.004.09
Adaptors used:	-

Item submitted by

Curstomer:	AECOM ASIA CO., LTD.
Address of Customer:	-
Request No.:	-
Date of receipt:	25-Mar-2013

Date of test: 26-Mar-2013

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	29-May-2013	SCL
Preamplifier	B&K 2673	2239857	17-Dec-2013	CEPREI
Measuring amplifier	B&K 2610	2346941	17-Dec-2013	CEPREI
Signal generator	DS 360	61227	29-May-2013	CEPREI
Digital multi-meter	34401A	US36087050	10-Dec-2013	CEPREI
Audio analyzer	8903B	GB41300350	29-May-2013	CEPREI
Universal counter	53132A	MY40003662	29-May-2013	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	60 ± 10 %
Air pressure:	1000 ± 10 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Huang Jian Min/Feng Jun Qi **Date:** 26-Mar-2013 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1400792
Date of Issue: 10/01/2014
Client: AECOM ASIA COMPANY LIMITED

Equipment Type: YSI Sonde
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12D100972
Equipment No.: W.026.36
Date of Calibration: 09 January, 2014 Date of next Calibration: 09 April, 2014

Parameters:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading (uS/cm)	Displayed Reading (uS/cm)	Tolerance (%)
146.9	150.5	2.5
6667	6580	-1.3
12890	12650	-1.9
58670	58580	-0.2
	Tolerance Limit (±%)	10.0

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.80	3.78	-0.02
5.85	5.80	-0.05
7.65	7.61	-0.04
	Tolerance Limit (±mg/L)	0.20

pH Value

Method Ref: APHA 21st Ed. 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.08	0.08
7.0	7.05	0.05
10.0	9.97	-0.03
	Tolerance Limit (±pH unit)	0.20

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0	--
10	9.89	-1.1
20	19.77	-1.2
30	29.50	-1.7
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1400792
Date of Issue: 10/01/2014
Client: AECOM ASIA COMPANY LIMITED

Equipment Type: YSI Sonde
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12D100972
Equipment No.: W.026.36
Date of Calibration: 09 January, 2014 Date of next Calibration: 09 April, 2014

Parameters:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
12.5	12.48	0.0
25.0	24.86	-0.1
36.0	35.85	-0.1
	Tolerance Limit (±°C)	2.0

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0	--
4	4.1	2.5
10	10.4	4.0
20	20.3	1.5
50	49.3	-1.4
100	100.5	0.5
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

ork Order: HK1331508
Date of Issue: 18/11/2013
Client: AECOM ASIA COMPANY LIMITED

Equipment Type: YSI Sonde
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 14 November, 2013 Date of next Calibration: 14 February, 2014

Parameters:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading (uS/cm)	Displayed Reading (uS/cm)	Tolerance (%)
146.9	150.5	2.5
6667	6460	-3.1
12890	12710	-1.4
58670	58120	-0.9
	Tolerance Limit (±%)	10.0

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.49	3.51	0.02
5.05	5.11	0.06
7.59	7.54	-0.05
	Tolerance Limit (±mg/L)	0.20

pH Value

Method Ref: APHA 21st Ed. 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	3.94	-0.06
7.0	6.98	-0.02
10.0	9.99	-0.01
	Tolerance Limit (±pH unit)	0.20

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.01	--
10	9.77	-2.3
20	19.40	-3.0
30	29.73	-0.9
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager - Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1331508
Date of Issue: 18/11/2013
Client: AECOM ASIA COMPANY LIMITED

Equipment Type: YSI Sonde
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 14 November, 2013 Date of next Calibration: 14 February, 2014

Parameters:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
16.5	16.42	-0.1
26.0	26.51	0.5
38.0	38.22	0.2
	Tolerance Limit (±°C)	2.0

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0	--
4	3.8	-5.0
10	9.9	-1.0
20	19.2	-4.0
50	48.0	-4.0
100	99.1	-0.9
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1404435
Date of Issue: 20/02/2014
Client: AECOM ASIA COMPANY LIMITED

Equipment Type: Sonde Environmental Monitoring System
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 13 February, 2014 Date of next Calibration: 13 May, 2014

Parameters:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading (uS/cm)	Displayed Reading (uS/cm)	Tolerance (%)
146.9	151.0	2.8
6667	6558	-1.6
12890	12670	-1.7
58670	58020	-1.1
	Tolerance Limit (±%)	10.0

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.40	3.42	0.02
5.50	5.54	0.04
7.65	7.60	-0.05
	Tolerance Limit (±mg/L)	0.20

pH Value

Method Ref: APHA 21st Ed. 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.02	0.02
7.0	7.05	0.05
10.0	9.97	-0.03
	Tolerance Limit (±pH unit)	0.20

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.03	--
10	9.88	-1.2
20	19.62	-1.9
30	29.50	-1.7
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1404435
Date of Issue: 20/02/2014
Client: AECOM ASIA COMPANY LIMITED

Equipment Type: Sonde Environmental Monitoring System
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: W.026.35
Date of Calibration: 13 February, 2014 Date of next Calibration: 13 May, 2014

Parameters:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
14.0	13.92	-0.1
26.0	25.91	-0.1
38.5	38.40	-0.1
	Tolerance Limit (±°C)	2.0

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	3.9	-2.5
10	9.7	-3.0
20	19.6	-2.0
50	49.3	-1.4
100	99.2	-0.8
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

Hong Kong Boundary Crossing Facilities – Reclamation Works
Impact Monitoring Schedule for Feb 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Feb
						Mid-Flood 8:43 Mid-Ebb 14:19
2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb
	Mid-Flood 9:56 Mid-Ebb 15:48	24-hour TSP 1-hour TSP Noise	Mid-Flood 11:02 Mid-Ebb 17:29		Mid-Flood 12:23 Mid-Ebb 19:45	
9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
	Mid-Flood 10:41 Mid-Ebb 23:03 24-hour TSP 1-hour TSP Noise Dolphin Monitoring	Dolphin Monitoring	Mid-Ebb 11:56 Mid-Flood 17:11		Mid-Flood 7:29 Mid-Ebb 12:52	24-hour TSP 1-hour TSP
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
Dolphin Monitoring	Mid-Flood 8:37 Mid-Ebb 14:21 Dolphin Monitoring	Dolphin Monitoring#	Mid-Flood 9:29 Mid-Ebb 15:31	Dolphin Monitoring#	Mid-Flood 10:32 Mid-Ebb 17:03 24-hour TSP 1-hour TSP Noise	
23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	
	Mid-Flood 13:25 Mid-Ebb 20:57		Mid-Ebb 11:04 Mid-Flood 16:08	24-hour TSP 1-hour TSP Noise	Mid-Ebb 12:35 Mid-Flood 18:02	

#As informed by dolphin specialist, the boat survey for Dolphin monitoring on 18 Feb 14 was terminated due to low visibility on that morning. It was below 1km and not favourable for dolphin survey and unsafe to travel across the busy channel. The boat survey was continued and and was completed on 20 Feb 14).

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

*As informed by the Contractor, marine works was conducted at HKBCF on 1 Feb 14, the impact water quality monitoring work scheduled on 31 Jan 14 at mid Flood tide 08:04 and Mid-ebb 13:36 was rescheduled to 1 Feb 14 mid Flood tide 08:43 and Mid-ebb tide 14:19.

Hong Kong Boundary Crossing Facilities – Reclamation Works
Tentative Impact Monitoring Schedule for Mar 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Mar
2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	7-Mar	8-Mar
	Mid-Flood 8:33 Mid-Ebb 14:32		Mid-Flood 9:26 Mid-Ebb 15:49 24-hour TSP 1-hour TSP Noise		Mid-Flood 10:25 Mid-Ebb 17:26	
9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar
	Mid-Flood 8:48 Mid-Ebb 21:27	24-hour TSP 1-hour TSP Noise	Mid-Ebb 11:09 Mid-Flood 16:16		Mid-Ebb 12:01 Mid-Flood 17:43	
16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar
	Mid-Flood 7:31 Mid-Ebb 13:25 24-hour TSP 1-hour TSP Noise		Mid-Flood 8:21 Mid-Ebb 14:31		Mid-Flood 9:20 Mid-Ebb 15:49	24-hour TSP 1-hour TSP
23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar
	Mid-Flood 11:32 Mid-Ebb 18:53		Mid-Ebb 9:57 Mid-Flood 14:53		Mid-Ebb 23:36 Mid-Flood 17:06 24-hour TSP 1-hour TSP Noise	
30-Mar	31-Mar					
	Mid-Flood 7:17 Mid-Ebb 13:27					

The schedule is subject to change due to unforeseeable circumstances (e.g. adverse weather, etc)

Appendix G Impact Air Quality Monitoring Results

1-hour TSP Monitoring Results at Station AMS2 - Tung Chung Development Pier

Date	Session	Weather Condition	averaged Wind Speed (m/s)*	Time (hh:mm)	Conc. ($\mu g/m^3$)	Actino Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
4-Feb-14	1st Hour	Sunny	3.55	9:50	82	374	500
4-Feb-14	2nd Hour	Sunny	4.2	10:50	84	374	500
4-Feb-14	3rd Hour	Sunny	3.3	11:50	85	374	500
10-Feb-14	1st Hour	Fine	2.39	10:10	83	374	500
10-Feb-14	2nd Hour	Fine	3.59	11:10	82	374	500
10-Feb-14	3rd Hour	Fine	3.64	12:10	83	374	500
15-Feb-14	1st Hour	Cloudy	0.11	12:57	84	374	500
15-Feb-14	2nd Hour	Cloudy	0.17	13:57	83	374	500
15-Feb-14	3rd Hour	Cloudy	0.13	14:57	84	374	500
21-Feb-14	1st Hour	Cloudy	1.99	12:15	77	374	500
21-Feb-14	2nd Hour	Cloudy	3.01	13:15	78	374	500
21-Feb-14	3rd Hour	Cloudy	1.82	14:15	78	374	500
27-Feb-14	1st Hour	Sunny	2.17	10:49	82	374	500
27-Feb-14	2nd Hour	Sunny	2.43	11:49	81	374	500
27-Feb-14	3rd Hour	Sunny	2.13	12:49	79	374	500
				Average	82		
				Min	77		
				Max	85		

1-hour TSP Monitoring Results at Station AMS3A - Site Boundary of Site Office (WA2)

Date	Session	Weather Condition	averaged Wind Speed (m/s)*	Time (hh:mm)	Conc. ($\mu g/m^3$)	Actino Level ($\mu g/m^3$) ^	Limit Level ($\mu g/m^3$)
4-Feb-14	1st Hour	Sunny	3.55	10:10	84	368	500
4-Feb-14	2nd Hour	Sunny	1.69	11:10	83	368	500
4-Feb-14	3rd Hour	Sunny	3.3	12:10	85	368	500
10-Feb-14	1st Hour	Fine	2.39	10:20	81	368	500
10-Feb-14	2nd Hour	Fine	3.59	11:20	82	368	500
10-Feb-14	3rd Hour	Fine	1.94	13:20	83	368	500
15-Feb-14	1st Hour	Cloudy	0.11	13:09	84	368	500
15-Feb-14	2nd Hour	Cloudy	0.17	14:09	85	368	500
15-Feb-14	3rd Hour	Cloudy	0.13	15:09	83	368	500
21-Feb-14	1st Hour	Cloudy	1.99	12:06	80	368	500
21-Feb-14	2nd Hour	Cloudy	3.01	13:06	79	368	500
21-Feb-14	3rd Hour	Cloudy	1.82	14:06	78	368	500
27-Feb-14	1st Hour	Sunny	2.17	11:28	79	368	500
27-Feb-14	2nd Hour	Sunny	2.13	12:28	80	368	500
27-Feb-14	3rd Hour	Sunny	5.19	13:28	77	368	500
				Average	81		
				Min	77		
				Max	85		

Remarks:
^ Action Level set out at AMS3 Ho Yu College is adopted.

1-hour TSP Monitoring Results at Station AMS7 - Hong Kong SkyCity Marriott Hotel

Date	Session	Weather Condition	averaged Wind Speed (m/s)*	Time (hh:mm)	Conc. ($\mu g/m^3$)	Actino Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
4-Feb-14	1st Hour	Sunny	3.55	9:35	82	370	500
4-Feb-14	2nd Hour	Sunny	4.2	10:35	83	370	500
4-Feb-14	3rd Hour	Sunny	1.69	11:35	84	370	500
10-Feb-14	1st Hour	Fine	2.39	9:55	79	370	500
10-Feb-14	2nd Hour	Fine	3.59	10:55	82	370	500
10-Feb-14	3rd Hour	Fine	3.64	11:55	82	370	500
15-Feb-14	1st Hour	Cloudy	0.11	12:43	85	370	500
15-Feb-14	2nd Hour	Cloudy	0.17	13:43	83	370	500
15-Feb-14	3rd Hour	Cloudy	0.13	14:43	84	370	500
21-Feb-14	1st Hour	Cloudy	1.99	11:53	76	370	500
21-Feb-14	2nd Hour	Cloudy	3.01	12:53	75	370	500
21-Feb-14	3rd Hour	Cloudy	1.82	13:53	77	370	500
27-Feb-14	1st Hour	Sunny	0.59	10:09	82	370	500
27-Feb-14	2nd Hour	Sunny	2.17	11:09	81	370	500
27-Feb-14	3rd Hour	Sunny	2.43	12:09	79	370	500
				Average	81		
				Min	75		
				Max	85		

Appendix G Impact Air Quality Monitoring Results

24-hour TSP Monitoring Results at Station AMS2 - Tung Chung Development Pier

Start Date	Start Time	End Date	End Time	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)	Actino Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
4-Feb-14	9:00	5-Feb-14	9:00	Sunny	18.2	1013.3	1.33	1.33	1.33	1912.3	2.7464	2.8665	0.1201	2957.84	2981.84	24.00	63	176	260
10-Feb-14	9:00	11-Feb-14	9:00	Fine	9.1	1019.1	1.33	1.33	1.33	1912.3	2.7158	2.8035	0.0877	2981.84	3005.84	24.00	46	176	260
14-Feb-14	16:00	15-Feb-14	16:00	Cloudy	11.8	1020.4	1.33	1.33	1.33	1912.3	2.6657	2.7909	0.1252	3005.84	3029.84	24.00	65	176	260
20-Feb-14	16:00	21-Feb-14	16:00	Cloudy	13.8	1024.4	1.33	1.33	1.33	1912.3	2.6677	2.8303	0.1626	3029.84	3053.84	24.00	85	176	260
26-Feb-14	16:00	27-Feb-14	16:00	Sunny	19.6	1018.9	1.33	1.33	1.33	1912.3	2.7467	2.8754	0.1287	3053.84	3077.84	24.00	67	176	260
																Average	65		
																Min	46		
																Max	85		

24-hour TSP Monitoring Results at Station AMS3A - Site Boundary of Site Office (WA2)

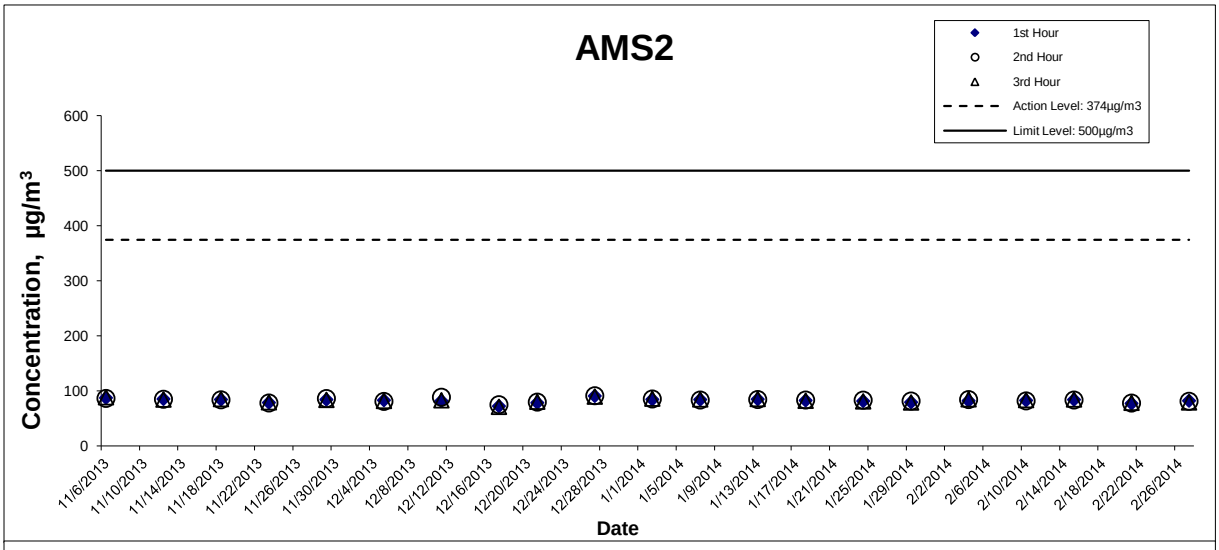
Start Date	Start Time	End Date	End Time	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)	Actino Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
4-Feb-14	9:00	5-Feb-14	9:00	Sunny	18.2	1013.3	1.32	1.32	1.32	1905.1	2.6876	2.8389	0.1513	2893.80	2917.80	24.00	79	167	260
10-Feb-14	9:00	11-Feb-14	9:00	Fine	9.1	1019.1	1.32	1.32	1.32	1841.6	2.7245	2.8149	0.0904	2917.80	2941.00	23.20	49	167	260
14-Feb-14	16:00	15-Feb-14	16:00	Cloudy	11.8	1020.4	1.32	1.32	1.32	1905.1	2.6530	2.7793	0.1263	2941.80	2965.80	24.00	66	167	260
20-Feb-14	16:00	21-Feb-14	16:00	Cloudy	13.8	1024.4	1.32	1.32	1.32	1905.1	2.6653	2.9138	0.2485	2965.80	2989.80	24.00	130	167	260
26-Feb-14	16:00	27-Feb-14	16:00	Sunny	19.6	1018.9	1.32	1.32	1.32	1905.1	2.7480	2.9520	0.2040	2989.80	3013.80	24.00	107	167	260
																Average	86		
																Min	49		
																Max	130		

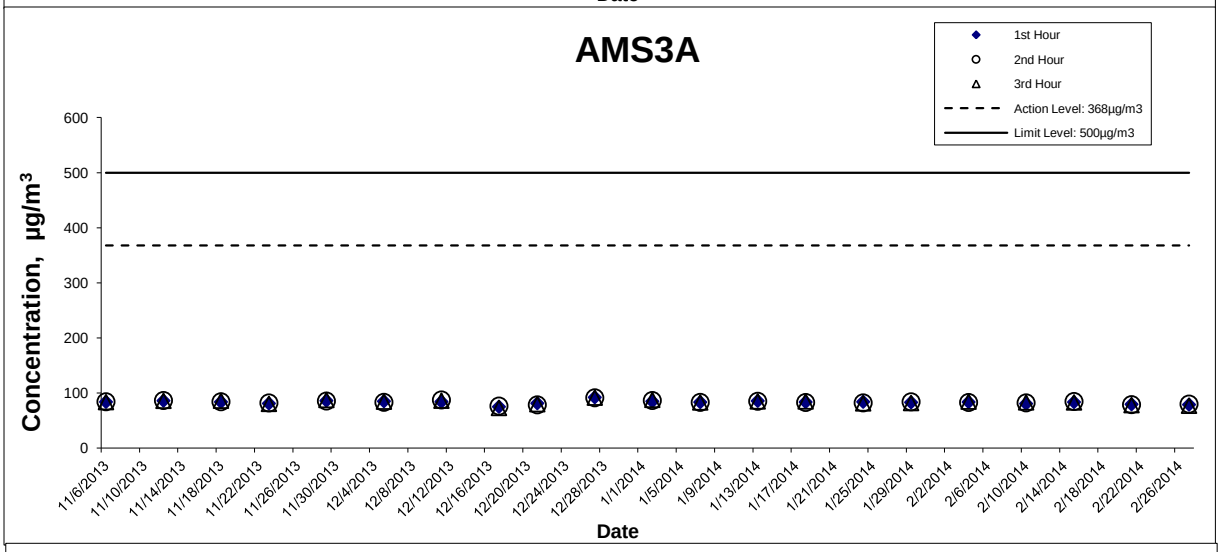
Remarks:
^ Action Level set out at AMS3 Ho Yu College is adopted.

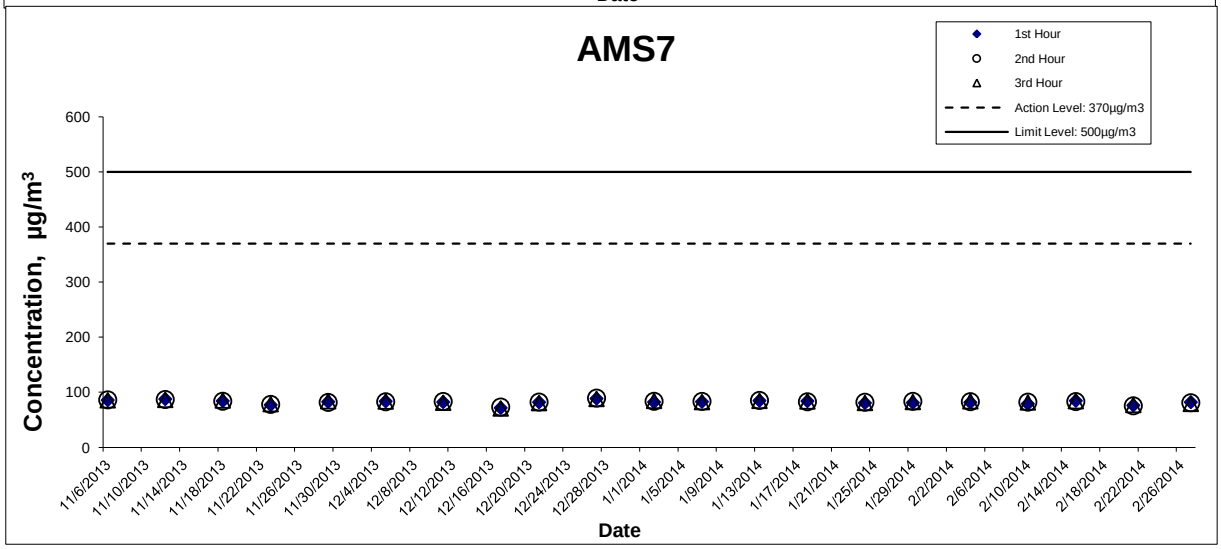
24-hour TSP Monitoring Results at Station AMS7 - Hong Kong SkyCity Marriott Hotel

Start Date	Start Time	End Date	End Time	Weather Condition	Air Temp. (°C)	Atmospheric Pressure(hPa)	Flow Rate (m^3/min.) Initial	Flow Rate (m^3/min.) Final	Av. flow (m^3/min)	Total vol. (m^3)	Filter Weight (g) Initial	Filter Weight (g) Final	Particulate weight(g)	Elapse Time Initial	Elapse Time Final	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)	Actino Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
4-Feb-14	9:00	5-Feb-14	9:00	Sunny	18.2	1013.3	1.33	1.33	1.33	1916.6	2.6141	2.7042	0.0901	2915.98	2939.98	24.00	47	183	260
10-Feb-14	9:00	11-Feb-14	9:00	Fine	9.1	1019.1	1.33	1.33	1.33	1916.6	2.7179	2.8125	0.0946	2939.98	2963.98	24.00	49	183	260
14-Feb-14	16:00	15-Feb-14	16:00	Cloudy	11.8	1020.4	1.33	1.33	1.33	1916.6	2.6690	2.8038	0.1348	2963.98	2987.98	24.00	70	183	260
20-Feb-14	16:00	21-Feb-14	16:00	Cloudy	13.8	1024.4	1.33	1.33	1.33	1916.6	2.6091	2.7937	0.1846	2987.98	3011.98	24.00	**96**	183	260
26-Feb-14	16:00	27-Feb-14	16:00	Sunny	19.6	1018.9	1.33	1.33	1.33	1916.6	2.7342	2.8723	0.1381	3011.98	3035.98	24.00	72	183	260
																Average	72		
																Min	47		
																Max	96		

Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.







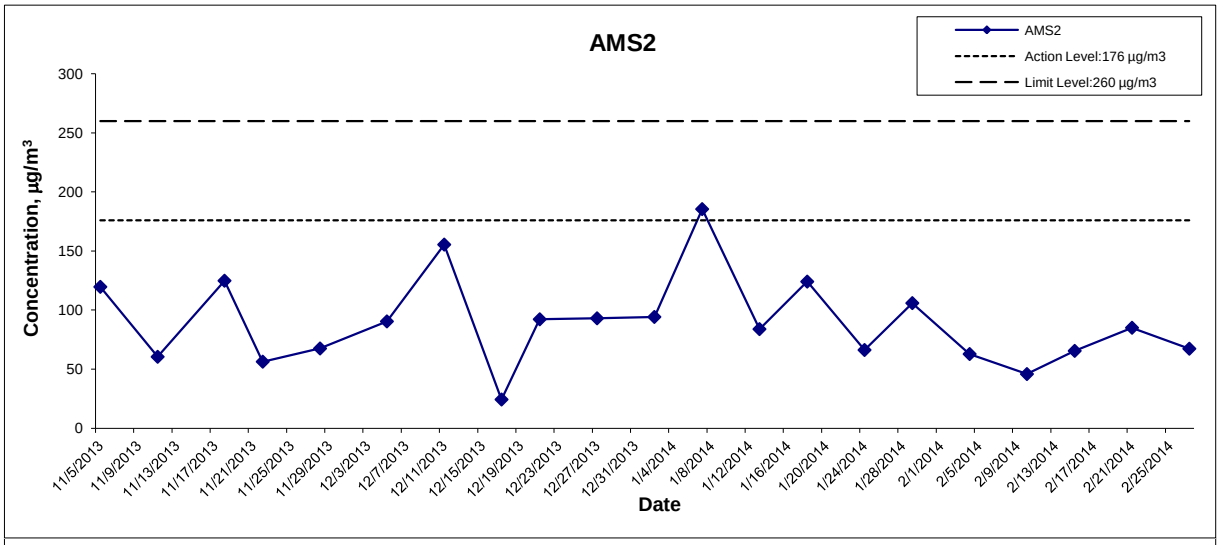
HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

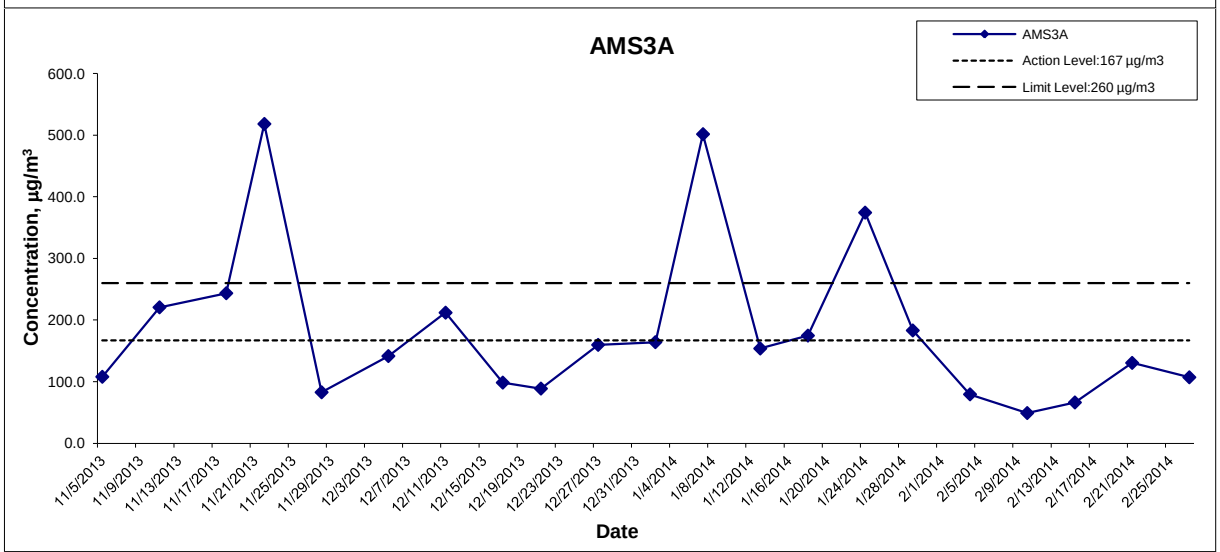
AECOM

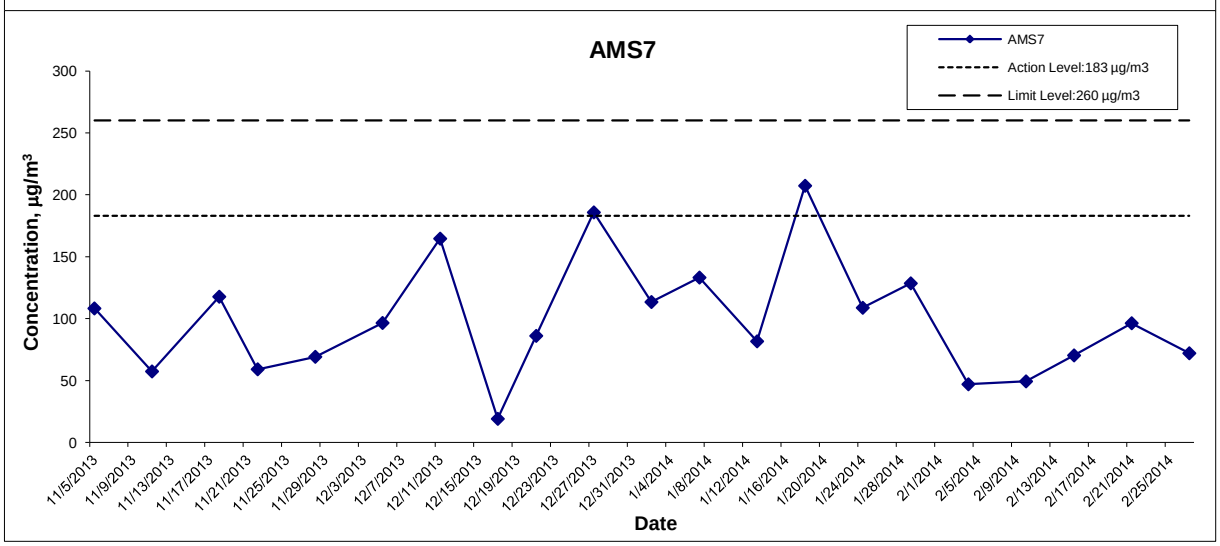
Graphical Presentation of Impact 1-hour TSP Monitoring Results

Project No.: 60249820 **Date: March 2014**

Appendix G







HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

AECOM

Graphical Presentation of Impact 24-hour TSP Monitoring Results

Project No.: 60249820 **Date: March 2014**

Appendix G

APPENDIX H Meteorological Data for Monitoring Periods on Monitoring Dates in February 2014

WIND DATA

Date	Time	Averaged Wind Speed (m/s)	Averaged Wind Direction (degrees)
02/04/14	09:31:06	3.55	139.92
02/04/14	10:31:06	4.20	133.65
02/04/14	11:10:24	1.69	151.77
02/04/14	12:10:24	3.30	128.51
02/04/14	13:10:24	4.48	141.04
02/04/14	14:10:24	7.33	136.11
02/04/14	15:10:24	1.50	147.63
02/04/14	16:10:24	2.64	157.59
02/04/14	17:10:24	3.22	102.90
02/04/14	18:10:24	2.81	124.04
02/04/14	19:10:24	3.54	136.56
02/04/14	20:10:24	6.34	152.33
02/04/14	21:10:24	2.46	121.58
02/04/14	22:10:24	4.28	164.52
02/04/14	23:10:24	2.73	145.51
02/05/14	00:10:24	2.28	177.72
02/05/14	01:10:24	1.47	103.68
02/05/14	02:10:24	4.18	129.29
02/05/14	03:10:24	7.55	133.43
02/05/14	04:10:24	6.80	130.08
02/05/14	05:10:24	2.60	139.25
02/05/14	06:10:24	3.75	139.69
02/05/14	07:10:24	2.13	158.04
02/05/14	08:10:24	2.98	133.77
02/05/14	09:10:24	2.34	157.70
02/10/14	09:10:24	2.43	123.81
02/10/14	10:10:24	2.39	55.81
02/10/14	11:10:24	3.59	49.77
02/10/14	12:10:24	3.64	58.49
02/10/14	13:10:24	1.94	43.40
02/10/14	14:10:24	1.54	87.69
02/10/14	15:10:24	1.45	87.13
02/10/14	16:10:24	2.13	34.45
02/10/14	17:10:24	3.43	66.66
02/10/14	18:10:24	3.16	49.21
02/10/14	19:10:24	2.07	145.40
02/10/14	20:10:24	2.00	70.46
02/10/14	21:10:24	0.97	56.26
02/10/14	22:10:24	1.31	60.51
02/10/14	23:10:24	2.88	85.11
02/11/14	00:10:24	2.13	45.74
02/11/14	01:10:24	1.43	50.22
02/11/14	02:10:24	0.95	96.41
02/11/14	03:10:24	0.80	81.53
02/11/14	04:10:24	0.88	58.16
02/11/14	05:10:24	2.27	39.26
02/11/14	06:10:24	0.87	52.46
02/11/14	07:10:24	1.34	45.41
02/11/14	08:10:24	0.60	37.69
02/11/14	09:10:24	0.99	40.60
02/14/14	16:10:24	0.70	339.11
02/14/14	17:10:24	1.09	15.43
02/14/14	18:10:24	0.31	48.43
02/14/14	19:10:24	0.21	49.66
02/14/14	20:10:24	1.89	171.46
02/14/14	21:10:24	0.17	159.27
02/14/14	22:10:24	0.18	170.45
02/14/14	23:10:24	0.49	147.75
02/15/14	00:10:24	0.15	122.13
02/15/14	01:10:24	0.76	92.83
02/15/14	02:10:24	0.21	116.21
02/15/14	03:10:24	0.10	126.94
02/15/14	04:10:24	0.60	56.93
02/15/14	05:10:24	2.15	93.84
02/15/14	06:10:24	0.10	145.96
02/15/14	07:10:24	0.14	133.77
02/15/14	08:10:24	0.11	143.38
02/15/14	09:10:24	0.08	72.03
02/15/14	10:10:24	0.10	75.27
02/15/14	11:10:24	0.11	113.63
02/15/14	12:10:24	0.14	68.34
02/15/14	13:10:24	0.11	122.58
02/15/14	14:10:24	0.17	61.51
02/15/14	15:10:24	0.13	137.23
02/15/14	16:10:24	0.10	352.31
02/20/14	16:10:24	0.67	347.17
02/20/14	17:10:24	0.03	326.92
02/20/14	18:10:24	1.05	283.19
02/20/14	19:10:24	0.14	261.94
02/20/14	20:10:24	0.07	221.01
02/20/14	21:10:24	0.38	273.57
02/20/14	22:10:24	0.11	257.91
02/20/14	23:10:24	0.08	252.66
02/21/14	00:10:24	0.03	88.02
02/21/14	01:10:24	0.03	124.26
02/21/14	02:10:24	0.91	130.75
02/21/14	03:10:24	0.01	267.87
02/21/14	04:10:24	0.78	128.85
02/21/14	05:10:24	0.01	10.07

APPENDIX H Meteorological Data for Monitoring Periods on Monitoring Dates in February 2014

WIND DATA

Date	Time	Averaged Wind Speed (m/s)	Averaged Wind Direction (degrees)
02/21/14	06:10:24	2.14	133.65
02/21/14	07:10:24	1.94	132.98
02/21/14	08:10:24	7.39	135.56
02/21/14	09:10:24	2.77	110.73
02/21/14	10:10:24	7.05	142.49
02/21/14	11:10:24	2.22	142.04
02/21/14	12:10:24	1.99	149.09
02/21/14	13:10:24	3.01	118.89
02/21/14	14:10:24	1.82	115.20
02/21/14	15:10:24	3.85	128.17
02/21/14	16:10:24	3.69	132.31
02/26/14	16:10:24	0.78	116.88
02/26/14	17:10:24	0.83	117.10
02/26/14	18:10:24	1.09	118.89
02/26/14	19:10:24	1.34	125.94
02/26/14	20:10:24	1.19	57.38
02/26/14	21:10:24	1.05	132.09
02/26/14	22:10:24	1.05	101.33
02/26/14	23:10:24	0.98	100.32
02/27/14	00:10:24	0.87	283.86
02/27/14	01:10:24	0.74	194.95
02/27/14	02:10:24	0.84	332.18
02/27/14	03:10:24	0.78	243.04
02/27/14	04:10:24	0.74	322.34
02/27/14	05:10:24	1.36	93.50
02/27/14	06:10:24	0.95	290.57
02/27/14	07:10:24	0.99	68.78
02/27/14	08:10:24	0.92	104.57
02/27/14	09:10:24	0.53	54.92
02/27/14	10:10:24	0.59	97.86
02/27/14	11:10:24	2.17	152.22
02/27/14	12:10:24	2.43	131.75
02/27/14	12:18:24	2.13	128.40
02/27/14	13:18:24	5.19	124.48
02/27/14	14:18:24	4.27	135.44
02/27/14	15:18:24	2.98	155.02
02/27/14	16:18:24	5.33	158.71

Appendix I Impact Daytime Construction Noise Monitoring Results

Daytime Noise Monitoring Results at Station NMS2 - Seaview Crescent Tower 1

Date	Weather Condition	Noise Level for 30-min, dB(A)[#]				Averaged Wind Speed (m/s)	Baseline Noise Level, dB(A)	Limit Level, dB(A)	Exceedance (Y/N)
		Time	L90	L10	Leq				
4-Feb-14	Sunny	10:33	63	69	67	<5m/s	62.9	75	N
10-Feb-14	Fine	10:35	66	70	68	<5m/s	62.9	75	N
22-Feb-14	Sunny	10:35	64	71	68	<5m/s	62.9	75	N
27-Feb-14	Sunny	10:46	61	67	65	<5m/s	62.9	75	N
		Min	61	67	65				
		Max	66	71	68				
		Average	--	--	67				

Daytime Noise Monitoring Results at Station NMS3B - Site Boundary of Site Office (WA2)

Date	Weather Condition	Noise Level for 30-min, dB(A)[#]				Averaged Wind Speed (m/s)	Baseline Noise Level, dB(A) ^	Limit Level, dB(A)**	Exceedance (Y/N)
		Time	L90	L10	Leq				
4-Feb-14	Sunny	11:15	63	68	67	<5m/s	66.3	70	N
10-Feb-14	Fine	11:20	65	69	67	<5m/s	66.3	70	N
22-Feb-14	Sunny	11:25	64	71	68	<5m/s	66.3	70	N
27-Feb-14	Sunny	11:30	62	70	67	<5m/s	66.3	70	N
		Min	62	68	67				
		Max	65	71	68				
		Average	--	--	67				

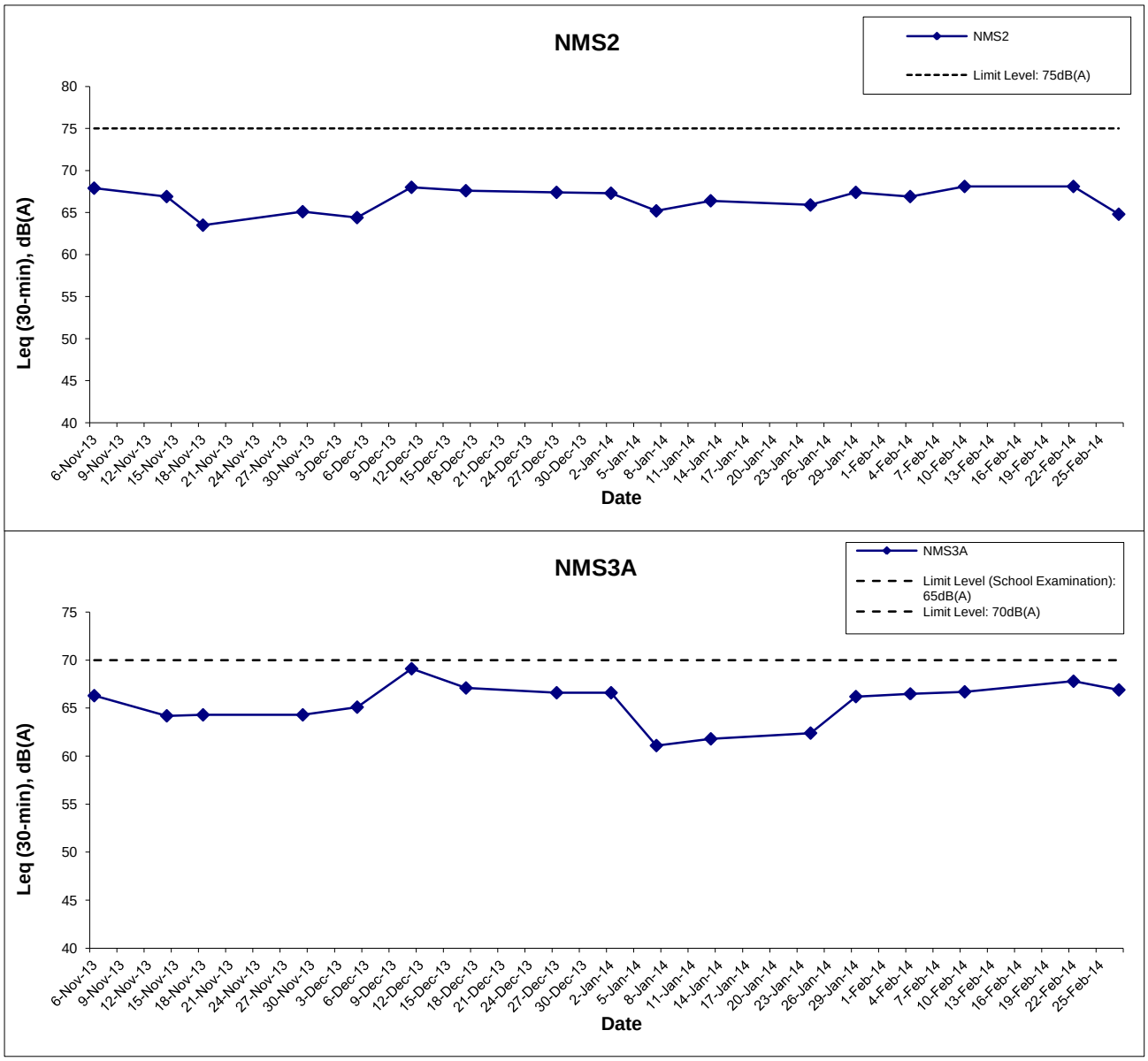
Remark:

[#] A correction of +3dB(A) was made to the free field measurement.

* Façade measurement.

^ Averaged baseline noise level recorded at NMS3 Ho Yu College is adopted.

** Limit Level of 70dB(A) applies to education institutes while 65dB(A) applies during school examination period.



Remarks: Effective from July 2012, the Limit Level at NMS3A was revised to 70dB(A). Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)3 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:22	7.0	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.1 30.1	30.1	107.6 107.7	107.7	8.6 8.6	8.6	8.6	2.6 2.5	2.6	3.3	4.7 4.6	4.7	5.2
					Middle	3.5	18.2 18.2	18.2	8.4 8.4	8.4	30.1 30.1	30.1	107.2 107.4	107.3	8.5 8.5	8.5		3.3 3.2	3.3		3.7 5.0	4.4	
					Bottom	6.0	18.1 18.2	18.2	8.4 8.4	8.4	30.1 30.1	30.1	106.8 107.0	106.9	8.5 8.5	8.5	8.5	4.0 3.8	3.9		6.0 7.1	6.6	
3-Feb-14	Sunny	Moderate	15:29	6.5	Surface	1.0	18.4 18.5	18.4	8.4 8.3	8.4	29.0 29.0	29.0	127.2 127.2	127.2	10.1 10.0	10.0	10.0	1.5 1.5	1.5	1.7	4.2 4.8	4.5	4.4
					Middle	3.3	18.2 18.2	18.2	8.3 8.3	8.3	29.1 29.1	29.1	126.2 126.2	126.2	10.0 10.0	10.0		1.6 1.7	1.7		4.2 5.4	4.8	
					Bottom	5.5	18.2 18.2	18.2	8.3 8.3	8.3	29.4 29.4	29.4	126.4 126.2	126.3	10.0 10.0	10.0	10.0	1.7 1.8	1.8		3.8 4.2	4.0	
5-Feb-14	Sunny	Moderate	17:04	6.4	Surface	1.0	18.6 18.6	18.6	8.5 8.5	8.5	29.6 29.6	29.6	127.6 127.9	127.8	10.0 10.0	10.0	10.0	1.9 1.8	1.9	1.9	2.0 2.3	2.2	2.4
					Middle	3.2	18.4 18.4	18.4	8.5 8.5	8.5	29.9 29.9	29.9	126.6 126.5	126.6	10.0 10.0	10.0		1.9 1.9	1.9		2.2 2.4	2.3	
					Bottom	5.4	18.4 18.4	18.4	8.5 8.5	8.5	29.9 29.9	29.9	128.1 127.9	128.0	10.1 10.1	10.1	10.1	1.9 1.9	1.9		2.7 2.8	2.8	
7-Feb-14	Sunny	Moderate	19:06	6.5	Surface	1.0	19.2 19.1	19.2	8.5 8.5	8.5	28.6 28.6	28.6	138.2 138.1	138.2	10.8 10.8	10.8	10.8	1.1 1.2	1.2	1.5	2.7 3.2	3.0	3.1
					Middle	3.3	19.1 19.1	19.1	8.5 8.5	8.5	28.8 28.9	28.9	137.9 137.5	137.7	10.8 10.7	10.7		1.2 1.4	1.3		4.2 2.8	3.5	
					Bottom	5.5	19.0 18.9	18.9	8.5 8.5	8.5	29.7 29.8	29.8	136.9 136.7	136.8	10.7 10.6	10.6	10.6	1.9 2.0	2.0		2.9 2.9	2.9	
10-Feb-14	Fine	Moderate	22:24	6.7	Surface	1.0	17.5 17.5	17.5	8.4 8.4	8.4	32.0 32.0	32.0	97.2 97.6	97.4	7.7 7.7	7.7	7.7	3.0 3.2	3.1	3.1	6.3 5.7	6.0	6.1
					Middle	3.4	17.7 17.7	17.7	8.4 8.3	8.4	32.4 32.5	32.4	97.0 97.0	97.0	7.6 7.6	7.6		3.0 3.3	3.2		5.2 4.8	5.0	
					Bottom	5.7	17.7 17.7	17.7	8.3 8.4	8.4	32.5 32.5	32.5	97.6 97.4	97.5	7.7 7.6	7.6	7.6	3.1 3.0	3.1		7.4 7.2	7.3	
12-Feb-14	Cloudy	Moderate	12:16	6.4	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	95.8 95.4	95.6	7.7 7.6	7.6	7.6	3.0 3.2	3.1	4.2	4.6 4.2	4.4	4.9
					Middle	3.2	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	95.4 95.7	95.6	7.6 7.7	7.6		4.5 4.6	4.6		5.4 5.4	5.4	
					Bottom	5.4	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	95.8 95.5	95.7	7.7 7.6	7.7	7.7	4.9 4.7	4.8		3.8 5.8	4.8	
14-Feb-14	Sunny	Moderate	07:43	6.5	Surface	1.0	16.0 16.0	16.0	8.2 8.3	8.2	33.6 33.6	33.6	94.1 92.3	93.2	7.6 7.4	7.5	7.5	4.1 3.9	4.0	4.4	6.9 7.1	7.0	6.0
					Middle	3.3	16.0 16.1	16.1	8.2 8.2	8.2	33.6 33.6	33.6	94.9 92.5	93.7	7.6 7.4	7.5		4.5 4.4	4.5		4.8 5.7	5.3	
					Bottom	5.5	16.0 16.1	16.1	8.2 8.2	8.2	33.7 33.6	33.7	96.3 92.7	94.5	7.7 7.5	7.6	7.6	4.6 4.7	4.7		5.9 5.5	5.7	
17-Feb-14	Sunny	Moderate	13:57	6.3	Surface	1.0	16.6 16.5	16.6	8.3 8.3	8.3	33.4 33.5	33.5	95.8 95.5	95.7	7.6 7.6	7.6	7.6	6.5 6.7	6.6	7.1	6.8 6.2	6.5	6.6
					Middle	3.2	16.5 16.5	16.5	8.3 8.3	8.3	33.6 33.6	33.6	95.3 95.3	95.3	7.6 7.6	7.6		7.3 7.3	7.3		6.2 7.2	6.7	
					Bottom	5.3	16.4 16.5	16.5	8.3 8.3	8.3	33.6 33.6	33.6	95.1 95.3	95.2	7.6 7.6	7.6	7.6	7.2 7.4	7.3		7.3 5.9	6.6	
19-Feb-14	Sunny	Moderate	14:50	6.6	Surface	1.0	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	91.5 91.7	91.6	7.3 7.3	7.3	7.3	5.2 4.5	4.9	4.8	11.9 11.3	11.6	11.6
					Middle	3.3	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	91.4 91.4	91.4	7.3 7.3	7.3		4.8 5.0	4.9		12.2 10.8	11.5	
					Bottom	5.6	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	91.2 91.4	91.3	7.3 7.3	7.3	7.3	4.5 4.9	4.7		11.7 11.6	11.7	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)3 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:39	6.3	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.7 94.7	94.7	7.6 7.6	7.6	7.6	2.2 2.2	2.2	2.2	8.7 7.2	8.0	7.7
					Middle	3.2	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.6 94.5	94.6	7.6 7.6	7.6		2.2 2.2	2.2		7.2 7.9	7.6	
					Bottom	5.3	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.6 94.6	94.6	7.6 7.6	7.6	7.6	2.3 2.2	2.3		7.5 7.6	7.6	
24-Feb-14	Sunny	Moderate	20:26	6.7	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.4	33.5	94.9 94.8	94.9	7.5 7.5	7.5	7.5	1.5 1.5	1.5	1.5	4.1 5.0	4.6	4.3
					Middle	3.4	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	94.7 94.8	94.8	7.5 7.5	7.5		1.6 1.5	1.6		5.1 4.5	4.8	
					Bottom	5.7	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	94.6 94.6	94.6	7.5 7.5	7.5	7.5	1.5 1.5	1.5		4.0 2.9	3.5	
26-Feb-14	Cloudy	Moderate	11:33	6.7	Surface	1.0	17.3 17.2	17.2	8.3 8.3	8.3	31.5 31.8	31.7	104.2 102.6	103.4	8.3 8.2	8.2	8.1	2.3 2.2	2.3	2.1	3.3 4.2	3.8	4.0
					Middle	3.4	17.1 17.1	17.1	8.3 8.3	8.3	33.2 33.3	33.3	100.5 102.4	101.5	7.9 8.1	8.0		2.1 2.1	2.1		3.7 3.8	3.8	
					Bottom	5.7	17.1 17.1	17.1	8.3 8.3	8.3	33.6 33.6	33.6	102.1 98.4	100.3	8.1 7.8	7.9	7.9	2.0 2.0	2.0		4.9 4.1	4.5	
28-Feb-14	Sunny	Moderate	12:49	6.4	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.1 32.1	32.1	105.6 106.6	106.1	8.3 8.4	8.3	8.3	2.5 2.4	2.5	2.5	3.7 4.5	4.1	4.4
					Middle	3.2	17.7 17.7	17.7	8.3 8.3	8.3	32.2 32.2	32.2	104.8 106.4	105.6	8.2 8.4	8.3		2.3 2.4	2.4		5.1 4.4	4.8	
					Bottom	5.4	17.7 17.7	17.7	8.3 8.3	8.3	32.3 32.3	32.3	105.8 102.9	104.4	8.3 8.1	8.2	8.2	2.5 2.6	2.6		5.4 3.3	4.4	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)3 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:11	7.0	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	30.0 30.0	30.0	105.2 104.6	104.9	8.4 8.3	8.4	8.4	6.0 6.3	6.2	6.5	4.2 3.8	4.0	4.6
					Middle	3.5	18.1 18.1	18.1	8.3 8.3	8.3	30.1 30.1	30.1	105.3 104.3	104.8	8.4 8.3	8.4		5.7 5.8	5.8		4.7 5.8	5.3	
					Bottom	6.0	18.1 18.1	18.1	8.3 8.3	8.3	30.2 30.1	30.2	105.9 104.5	105.2	8.5 8.3	8.4	8.4	7.4 7.7	7.6		4.2 4.9	4.6	
3-Feb-14	Sunny	Moderate	10:10	6.5	Surface	1.0	18.4 18.4	18.4	8.3 8.3	8.3	29.0 29.0	29.0	120.9 123.0	122.0	9.6 9.7	9.6	9.6	3.1 3.2	3.2	3.3	5.0 3.6	4.3	4.8
					Middle	3.3	18.2 18.2	18.2	8.3 8.3	8.3	29.3 29.4	29.3	118.9 121.5	120.2	9.4 9.6	9.5		3.0 3.3	3.2		5.5 4.2	4.9	
					Bottom	5.5	18.2 18.2	18.2	8.3 8.3	8.3	29.5 29.6	29.6	121.3 116.6	119.0	9.6 9.2	9.4	9.4	3.4 3.4	3.4		4.6 5.7	5.2	
5-Feb-14	Fine	Moderate	11:19	6.7	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.2 30.2	30.2	115.7 119.3	117.5	9.1 9.4	9.2	9.2	2.5 2.5	2.5	2.7	5.0 5.1	5.1	5.0
					Middle	3.4	18.2 18.2	18.2	8.4 8.4	8.4	30.3 30.2	30.2	114.9 118.1	116.5	9.1 9.3	9.2		2.7 2.7	2.7		3.5 5.6	4.6	
					Bottom	5.7	18.2 18.2	18.2	8.4 8.4	8.4	30.3 30.2	30.3	113.9 117.3	115.6	9.0 9.2	9.1	9.1	2.7 2.8	2.8		6.0 4.8	5.4	
7-Feb-14	Sunny	Moderate	12:51	6.6	Surface	1.0	19.0 19.2	19.1	8.5 8.5	8.5	29.0 28.8	28.9	129.2 124.8	127.0	10.1 9.7	9.9	9.8	1.5 1.7	1.6	2.4	3.2 2.4	2.8	3.1
					Middle	3.3	18.9 18.8	18.8	8.5 8.5	8.5	29.3 29.4	29.3	127.5 118.0	122.8	10.0 9.2	9.6		2.2 2.6	2.4		3.1 2.7	2.9	
					Bottom	5.6	19.0 18.7	18.9	8.5 8.4	8.5	29.3 30.1	29.7	126.2 113.5	119.9	9.8 8.9	9.3	9.3	3.2 3.1	3.2		3.8 3.3	3.6	
10-Feb-14	Fine	Moderate	11:04	6.7	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	31.9 31.9	31.9	99.1 100.6	99.9	7.8 7.9	7.9	7.9	3.6 3.7	3.7	3.6	4.2 5.8	5.0	5.5
					Middle	3.4	17.8 17.8	17.8	8.3 8.3	8.3	31.9 31.9	31.9	101.3 99.2	100.3	8.0 7.8	7.9		3.1 3.3	3.2		5.3 6.1	5.7	
					Bottom	5.7	17.9 17.9	17.9	8.3 8.3	8.3	32.1 32.0	32.1	104.6 99.8	102.2	8.2 7.8	8.0	8.0	4.0 3.9	4.0		6.1 5.3	5.7	
12-Feb-14	Cloudy	Moderate	16:41	6.5	Surface	1.0	16.4 16.4	16.4	8.3 8.3	8.3	32.9 32.9	32.9	95.5 95.5	95.5	7.7 7.7	7.7	7.7	3.2 3.2	3.2	3.2	6.2 6.8	6.5	6.9
					Middle	3.3	16.4 16.4	16.4	8.3 8.3	8.3	32.9 32.9	32.9	95.4 95.3	95.4	7.7 7.6	7.6		3.2 3.2	3.2		7.3 6.1	6.7	
					Bottom	5.5	16.4 16.4	16.4	8.3 8.3	8.3	32.9 32.9	32.9	95.2 95.3	95.3	7.6 7.6	7.6	7.6	3.1 3.2	3.2		7.1 8.1	7.6	
14-Feb-14	Cloudy	Moderate	12:29	6.5	Surface	1.0	16.3 16.2	16.3	8.3 8.3	8.3	33.3 33.3	33.3	91.7 91.5	91.6	7.4 7.3	7.3	7.3	3.8 3.7	3.8	3.8	6.8 7.0	6.9	6.8
					Middle	3.3	16.2 16.3	16.2	8.3 8.3	8.3	33.4 33.4	33.4	91.4 91.5	91.5	7.3 7.3	7.3		3.7 3.6	3.7		7.3 5.8	6.6	
					Bottom	5.5	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	91.3 91.3	91.3	7.3 7.3	7.3	7.3	3.7 3.8	3.8		7.0 6.7	6.9	
17-Feb-14	Cloudy	Moderate	08:47	6.7	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.7 94.8	94.8	7.6 7.6	7.6	7.6	14.2 14.4	14.3	14.3	12.5 11.1	11.8	16.1
					Middle	3.4	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.8 94.5	94.7	7.6 7.6	7.6		14.5 14.1	14.3		16.6 15.2	15.9	
					Bottom	5.7	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	95.0 94.5	94.8	7.6 7.6	7.6	7.6	14.6 14.2	14.4		20.4 21.0	20.7	
19-Feb-14	Rainy	Moderate	10:06	6.8	Surface	1.0	16.2 16.2	16.2	8.3 8.2	8.3	33.5 33.5	33.5	94.1 96.5	95.3	7.6 7.7	7.6	7.7	8.2 8.9	8.6	10.9	8.0 8.3	8.2	8.1
					Middle	3.4	16.2 16.2	16.2	8.3 8.2	8.2	33.5 33.5	33.5	94.4 97.8	96.1	7.6 7.8	7.7		10.6 11.3	11.0		8.3 7.3	7.8	
					Bottom	5.8	16.2 16.2	16.2	8.2 8.2	8.2	33.5 33.5	33.5	100.4 99.2	99.8	8.1 7.9	8.0	8.0	12.8 13.2	13.0		8.2 8.1	8.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)3 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:45	6.3	Surface	1.0	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	96.3 94.7	95.5	7.8 7.7	7.7	7.8	4.3 4.2	4.3	4.5	7.5 7.7	7.6	7.1
					Middle	3.2	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	94.8 97.0	95.9	7.7 7.9	7.8		4.4 4.5	4.5		5.8 6.4	6.1	
					Bottom	5.3	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	95.1 98.6	96.9	7.7 8.0	7.8	7.8	4.7 4.9	4.8		7.6 7.4	7.5	
24-Feb-14	Sunny	Moderate	13:47	6.5	Surface	1.0	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	97.1 97.0	97.1	7.7 7.7	7.7	7.7	2.5 2.6	2.6	2.5	5.9 4.2	5.1	5.4
					Middle	3.3	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	96.8 96.6	96.7	7.7 7.7	7.7		2.4 2.5	2.5		4.9 5.7	5.3	
					Bottom	5.5	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	96.7 96.5	96.6	7.7 7.7	7.7	7.7	2.4 2.5	2.5		5.8 5.8	5.8	
26-Feb-14	Cloudy	Moderate	15:28	7.1	Surface	1.0	17.1 17.1	17.1	8.3 8.3	8.3	32.2 32.1	32.1	105.8 106.3	106.1	8.4 8.4	8.4	8.4	2.3 2.4	2.4	2.6	3.7 3.0	3.4	4.0
					Middle	3.6	17.1 17.1	17.1	8.3 8.3	8.3	32.3 32.4	32.3	105.6 104.9	105.3	8.4 8.3	8.4		2.7 2.6	2.7		3.0 4.0	3.5	
					Bottom	6.1	17.1 17.1	17.1	8.3 8.3	8.3	33.0 33.1	33.1	105.2 104.5	104.9	8.3 8.3	8.3	8.3	2.6 2.8	2.7		5.5 4.4	5.0	
28-Feb-14	Sunny	Moderate	17:29	6.4	Surface	1.0	18.0 18.1	18.1	8.4 8.4	8.4	30.3 30.2	30.2	113.7 118.7	116.2	9.0 9.4	9.2	9.1	2.2 2.1	2.2	2.2	3.2 4.5	3.9	4.3
					Middle	3.2	17.8 17.8	17.8	8.3 8.3	8.3	30.8 30.8	30.8	112.5 112.9	112.7	8.9 8.9	8.9		2.2 2.2	2.2		5.2 3.6	4.4	
					Bottom	5.4	17.8 17.8	17.8	8.4 8.4	8.4	31.0 31.2	31.1	114.2 115.2	114.7	9.0 9.1	9.1	9.1	2.2 2.2	2.2		4.5 4.6	4.6	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS4 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:03	18.3	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.1 30.1	30.1	107.4 107.7	107.6	8.5 8.6	8.5	8.5	4.3 4.0	4.2	5.1	4.1 4.8	4.5	4.3
					Middle	9.2	18.2 18.1	18.2	8.4 8.4	8.4	30.1 30.1	30.1	107.1 106.9	107.0	8.5 8.5	8.5		5.2 5.2	5.2		3.1 4.6	3.9	
					Bottom	17.3	18.1 18.1	18.1	8.4 8.4	8.4	30.1 30.1	30.1	106.8 106.8	106.8	8.5 8.5	8.5	8.5	5.7 5.9	5.8		4.2 4.5	4.4	
3-Feb-14	Sunny	Moderate	14:59	16.6	Surface	1.0	18.4 18.4	18.4	8.4 8.4	8.4	28.9 29.0	29.0	126.6 126.5	126.6	10.0 10.0	10.0	10.0	2.2 2.2	2.2	2.5	3.9 3.5	3.7	3.6
					Middle	8.3	18.2 18.2	18.2	8.3 8.3	8.3	29.6 29.6	29.6	125.2 125.5	125.4	9.9 9.9	9.9		2.7 2.6	2.7		4.6 3.3	4.0	
					Bottom	15.6	18.3 18.2	18.3	8.3 8.3	8.3	29.6 29.6	29.6	125.7 125.7	125.7	9.9 9.9	9.9	9.9	2.7 2.7	2.7		3.3 2.6	3.0	
5-Feb-14	Sunny	Moderate	16:37	16.0	Surface	1.0	18.6 18.6	18.6	8.5 8.5	8.5	29.6 29.6	29.6	125.8 126.6	126.2	9.9 9.9	9.9	9.9	2.1 2.0	2.1	2.2	3.1 4.3	3.7	3.2
					Middle	8.0	18.2 18.3	18.3	8.4 8.5	8.4	30.1 30.0	30.0	125.6 126.8	126.2	9.9 10.0	9.9		2.2 2.2	2.2		3.8 2.7	3.3	
					Bottom	15.0	18.3 18.3	18.3	8.5 8.5	8.5	30.0 30.1	30.0	123.1 124.2	123.7	9.7 9.8	9.7	9.7	2.2 2.1	2.2		2.4 3.0	2.7	
7-Feb-14	Sunny	Moderate	18:48	18.7	Surface	1.0	19.1 19.1	19.1	8.5 8.5	8.5	28.6 28.5	28.6	135.9 135.9	135.9	10.6 10.6	10.6	10.5	1.5 1.4	1.5	1.8	2.6 2.9	2.8	2.6
					Middle	9.4	18.8 18.8	18.8	8.5 8.5	8.5	30.2 30.2	30.2	133.4 133.9	133.7	10.4 10.4	10.4		1.8 1.9	1.9		2.3 2.9	2.6	
					Bottom	17.7	18.7 18.8	18.8	8.5 8.5	8.5	30.4 30.3	30.4	134.4 134.5	134.5	10.5 10.5	10.5	10.5	2.2 2.0	2.1		2.5 2.5	2.5	
10-Feb-14	Fine	Moderate	22:04	19.1	Surface	1.0	17.5 17.5	17.5	8.4 8.4	8.4	32.1 32.0	32.0	97.1 97.4	97.3	7.7 7.7	7.7	7.7	2.6 2.4	2.5	3.0	6.1 6.0	6.1	6.9
					Middle	9.6	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	96.6 96.7	96.7	7.6 7.6	7.6		3.2 3.2	3.2		4.8 4.9	4.9	
					Bottom	18.1	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	96.7 96.9	96.8	7.6 7.6	7.6	7.6	3.2 3.2	3.2		9.5 9.8	9.7	
12-Feb-14	Cloudy	Moderate	12:41	15.9	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.8 94.6	94.7	7.6 7.6	7.6	7.6	3.2 3.4	3.3	3.4	5.9 4.8	5.4	5.8
					Middle	8.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.3 94.4	94.4	7.5 7.6	7.5		3.4 3.3	3.4		5.5 6.2	5.9	
					Bottom	14.9	16.6 16.6	16.6	8.3 8.3	8.3	33.0 32.9	32.9	94.9 94.6	94.8	7.6 7.6	7.6	7.6	3.5 3.5	3.5		6.0 6.1	6.1	
14-Feb-14	Sunny	Moderate	08:10	17.1	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.6 33.6	33.6	91.3 91.0	91.2	7.3 7.3	7.3	7.3	5.5 5.5	5.5	5.9	6.1 4.5	5.3	5.9
					Middle	8.6	16.0 16.1	16.1	8.3 8.3	8.3	33.7 33.6	33.7	91.0 90.9	91.0	7.3 7.3	7.3		5.7 5.8	5.8		6.0 5.7	5.9	
					Bottom	16.1	16.0 16.0	16.0	8.3 8.3	8.3	33.7 33.6	33.7	91.2 91.0	91.1	7.3 7.3	7.3	7.3	6.6 6.3	6.5		7.2 5.8	6.5	
17-Feb-14	Sunny	Moderate	13:31	16.2	Surface	1.0	16.5 16.5	16.5	8.3 8.3	8.3	33.5 33.4	33.4	95.1 94.9	95.0	7.6 7.6	7.6	7.6	8.9 9.0	9.0	9.4	5.2 6.9	6.1	7.0
					Middle	8.1	16.4 16.3	16.4	8.3 8.3	8.3	33.6 33.6	33.6	94.6 94.3	94.5	7.6 7.5	7.5		9.5 9.5	9.5		6.0 8.0	7.0	
					Bottom	15.2	16.4 16.4	16.4	8.3 8.3	8.3	33.6 33.6	33.6	94.3 94.5	94.4	7.5 7.6	7.5	7.5	9.4 9.8	9.6		6.8 9.0	7.9	
19-Feb-14	Sunny	Moderate	14:30	18.5	Surface	1.0	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	91.8 91.8	91.8	7.3 7.4	7.3	7.3	4.6 4.5	4.6	4.6	9.6 9.7	9.7	10.7
					Middle	9.3	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	91.2 91.3	91.3	7.3 7.3	7.3		4.5 4.5	4.5		11.3 9.3	10.3	
					Bottom	17.5	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	91.3 91.3	91.3	7.3 7.3	7.3	7.3	4.7 4.5	4.6		11.9 12.5	12.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS4 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:11	16.1	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.6 94.4	94.5	7.6 7.6	7.6	7.6	1.6 1.6	1.6	1.7	7.0 6.9	7.0	6.9
					Middle	8.1	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.3 94.1	94.2	7.6 7.6	7.6		1.7 1.8	1.8		8.0 6.1	7.1	
					Bottom	15.1	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.5 94.4	94.5	7.6 7.6	7.6	7.6	1.7 1.7	1.7		6.4 6.6	6.5	
24-Feb-14	Sunny	Moderate	19:59	16.4	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.0 95.0	95.0	7.6 7.6	7.6	7.6	1.7 1.6	1.7	1.8	2.1 3.9	3.0	3.9
					Middle	8.2	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	94.6 94.7	94.7	7.5 7.5	7.5		1.8 1.8	1.8		3.7 3.6	3.7	
					Bottom	15.4	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	94.6 94.5	94.6	7.5 7.5	7.5	7.5	1.9 1.8	1.9		5.6 4.2	4.9	
26-Feb-14	Cloudy	Moderate	11:53	17.8	Surface	1.0	17.3 17.2	17.2	8.3 8.3	8.3	31.5 31.9	31.7	104.9 103.8	104.4	8.3 8.3	8.3	8.2	2.6 2.4	2.5	2.3	3.8 2.9	3.4	4.2
					Middle	8.9	17.1 17.1	17.1	8.3 8.3	8.3	33.6 33.6	33.6	101.7 101.8	101.8	8.0 8.0	8.0		2.3 2.0	2.2		4.6 4.4	4.5	
					Bottom	16.8	17.1 17.1	17.1	8.3 8.3	8.3	33.6 33.6	33.6	102.6 101.7	102.2	8.1 8.0	8.1	8.1	2.0 2.1	2.1		4.3 5.0	4.7	
28-Feb-14	Sunny	Moderate	13:16	16.6	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	32.0 32.0	32.0	106.8 106.7	106.8	8.4 8.4	8.4	8.4	2.5 2.5	2.5	2.5	3.6 3.0	3.3	3.6
					Middle	8.3	17.7 17.6	17.7	8.3 8.3	8.3	32.3 32.3	32.3	106.1 106.0	106.1	8.3 8.3	8.3		2.4 2.6	2.5		3.6 4.5	4.1	
					Bottom	15.6	17.7 17.7	17.7	8.3 8.3	8.3	32.3 32.2	32.3	105.9 106.4	106.2	8.3 8.4	8.3	8.3	2.6 2.6	2.6		3.3 3.2	3.3	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS4 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:37	17.3	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	30.0 30.0	30.0	104.4 104.3	104.4	8.3 8.3	8.3	8.3	5.9 5.6	5.8	7.1	4.4 3.5	4.0	5.8
					Middle	8.7	18.1 18.1	18.1	8.3 8.3	8.3	30.1 30.1	30.1	103.9 103.9	103.9	8.3 8.3	8.3		7.3 7.4	7.4		6.2 6.6	6.4	
					Bottom	16.3	18.1 18.1	18.1	8.3 8.3	8.3	30.2 30.2	30.2	103.6 103.6	103.6	8.3 8.3	8.3	8.3	8.0 8.1	8.1		6.1 7.9	7.0	
3-Feb-14	Sunny	Moderate	10:42	17.1	Surface	1.0	18.4 18.3	18.3	8.3 8.3	8.3	29.0 29.0	29.0	124.9 124.2	124.6	9.9 9.8	9.9	9.9	4.5 4.7	4.6	4.5	3.8 3.7	3.8	3.7
					Middle	8.6	18.2 18.2	18.2	8.3 8.3	8.3	29.6 29.7	29.7	123.4 124.0	123.7	9.8 9.8	9.8		4.4 4.5	4.5		3.8 2.9	3.4	
					Bottom	16.1	18.2 18.2	18.2	8.3 8.3	8.3	29.7 29.7	29.7	123.4 123.8	123.6	9.7 9.8	9.7	9.7	4.6 4.4	4.5		3.5 4.1	3.8	
5-Feb-14	Fine	Moderate	11:43	16.4	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.1 30.2	30.2	121.2 120.8	121.0	9.5 9.5	9.5	9.5	2.8 2.9	2.9	3.1	5.4 6.7	6.1	6.0
					Middle	8.2	18.2 18.2	18.2	8.4 8.4	8.4	30.2 30.2	30.2	120.4 119.7	120.1	9.5 9.4	9.4		3.3 3.3	3.3		5.6 5.9	5.8	
					Bottom	15.4	18.2 18.2	18.2	8.4 8.4	8.4	30.2 30.3	30.3	120.1 119.4	119.8	9.5 9.4	9.4	9.4	3.1 3.3	3.2		5.4 6.8	6.1	
7-Feb-14	Sunny	Moderate	13:10	18.8	Surface	1.0	19.1 19.1	19.1	8.5 8.5	8.5	28.9 28.9	28.9	130.5 129.8	130.2	10.2 10.1	10.2	10.1	2.0 2.0	2.0	2.2	3.6 3.4	3.5	3.6
					Middle	9.4	18.7 18.7	18.7	8.4 8.4	8.4	30.0 30.0	30.0	127.2 126.8	127.0	9.9 9.9	9.9		2.4 2.3	2.4		3.8 3.1	3.5	
					Bottom	17.8	18.7 18.7	18.7	8.4 8.4	8.4	30.1 30.0	30.0	127.7 128.1	127.9	10.0 10.0	10.0	10.0	2.2 2.4	2.3		3.5 3.9	3.7	
10-Feb-14	Fine	Moderate	11:23	18.8	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	31.9 31.9	31.9	97.5 97.1	97.3	7.7 7.6	7.6	7.6	3.4 3.7	3.6	3.5	6.7 6.9	6.8	6.8
					Middle	9.4	17.9 17.9	17.9	8.3 8.3	8.3	32.2 32.2	32.2	96.6 96.2	96.4	7.6 7.5	7.5		3.4 3.6	3.5		6.1 7.7	6.9	
					Bottom	17.8	17.9 17.9	17.9	8.3 8.3	8.3	32.2 32.2	32.2	96.7 97.1	96.9	7.6 7.6	7.6	7.6	3.3 3.2	3.3		6.4 7.1	6.8	
12-Feb-14	Cloudy	Moderate	16:20	16.4	Surface	1.0	16.4 16.4	16.4	8.3 8.3	8.3	32.9 32.9	32.9	95.8 95.8	95.8	7.7 7.7	7.7	7.7	3.4 3.3	3.4	3.5	6.0 5.2	5.6	5.9
					Middle	8.2	16.4 16.4	16.4	8.4 8.3	8.4	32.9 32.9	32.9	95.3 95.4	95.4	7.6 7.7	7.6		3.5 3.5	3.5		6.5 5.2	5.9	
					Bottom	15.4	16.4 16.4	16.4	8.3 8.3	8.3	32.9 32.9	32.9	95.3 95.3	95.3	7.6 7.6	7.6	7.6	3.5 3.6	3.6		6.6 5.7	6.2	
14-Feb-14	Cloudy	Moderate	12:00	15.5	Surface	1.0	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.3	33.3	91.4 91.4	91.4	7.3 7.3	7.3	7.3	3.8 3.6	3.7	4.3	4.8 6.2	5.5	5.7
					Middle	7.8	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	91.0 91.1	91.1	7.3 7.3	7.3		4.5 4.6	4.6		5.0 4.0	4.5	
					Bottom	14.5	16.2 16.2	16.2	8.3 8.2	8.3	33.4 33.4	33.4	91.0 91.5	91.3	7.3 7.4	7.3	7.3	4.5 4.7	4.6		6.3 8.0	7.2	
17-Feb-14	Cloudy	Moderate	09:12	16.9	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.5 94.4	94.5	7.6 7.6	7.6	7.6	15.9 16.3	16.1	16.2	15.0 14.6	14.8	16.7
					Middle	8.5	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.1 94.1	94.1	7.6 7.6	7.6		16.1 16.4	16.3		16.4 15.2	15.8	
					Bottom	15.9	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.1 94.0	94.1	7.6 7.6	7.6	7.6	16.2 16.2	16.2		20.4 18.5	19.5	
19-Feb-14	Rainy	Moderate	10:24	18.7	Surface	1.0	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	93.1 93.3	93.2	7.5 7.5	7.5	7.5	8.3 8.3	8.3	9.2	13.8 14.2	14.0	15.9
					Middle	9.4	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	93.1 92.7	92.9	7.5 7.4	7.4		10.4 9.5	10.0		16.5 17.2	16.9	
					Bottom	17.7	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	92.8 93.2	93.0	7.4 7.5	7.5	7.5	9.0 9.3	9.2		16.6 16.8	16.7	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS4 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	11:07	16.7	Surface	1.0	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	94.2 94.0	94.1	7.6 7.6	7.6	7.6	4.3 4.3	4.3	4.5	6.1 7.3	6.7	6.4
					Middle	8.4	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	93.8 93.8	93.8	7.6 7.6	7.6		4.6 4.6	4.6		5.5 5.9	5.7	
					Bottom	15.7	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	93.8 93.9	93.9	7.6 7.6	7.6	7.6	4.7 4.5	4.6		6.2 7.6	6.9	
24-Feb-14	Sunny	Moderate	14:10	16.9	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	33.8 33.8	33.8	97.2 97.2	97.2	7.7 7.7	7.7	7.7	2.9 2.9	2.9	2.9	5.0 5.6	5.3	5.8
					Middle	8.5	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	96.8 96.8	96.8	7.7 7.7	7.7		2.8 2.9	2.9		5.9 6.6	6.3	
					Bottom	15.9	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	96.6 96.8	96.7	7.7 7.7	7.7	7.7	2.8 2.8	2.8		6.8 5.0	5.9	
26-Feb-14	Cloudy	Moderate	15:10	17.6	Surface	1.0	17.1 17.1	17.1	8.3 8.3	8.3	32.2 32.2	32.2	105.8 104.8	105.3	8.4 8.3	8.4	8.3	2.3 2.6	2.5	3.6	3.6 3.8	3.7	4.2
					Middle	8.8	17.1 17.1	17.1	8.3 8.3	8.3	33.0 33.1	33.0	102.8 102.6	102.7	8.1 8.1	8.1		3.3 3.0	3.2		4.8 3.2	4.0	
					Bottom	16.6	17.1 17.1	17.1	8.3 8.3	8.3	33.2 33.2	33.2	103.0 102.5	102.8	8.1 8.1	8.1	8.1	5.0 4.9	5.0		4.6 5.3	5.0	
28-Feb-14	Sunny	Moderate	17:05	16.7	Surface	1.0	18.1 18.0	18.1	8.4 8.4	8.4	30.3 30.4	30.3	112.6 111.7	112.2	8.9 8.8	8.8	8.7	3.6 3.6	3.6	3.6	5.1 4.3	4.7	5.0
					Middle	8.4	17.9 17.8	17.9	8.4 8.4	8.4	31.6 31.6	31.6	109.9 109.4	109.7	8.6 8.6	8.6		3.5 3.5	3.5		3.9 6.0	5.0	
					Bottom	15.7	17.7 17.7	17.7	8.4 8.3	8.4	31.7 31.7	31.7	112.4 111.2	111.8	8.9 8.8	8.8	8.8	3.5 3.6	3.6		5.6 5.1	5.4	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)5 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:24	12.3	Surface	1.0	17.9 18.0	17.9	8.2 8.2	8.2	30.1 29.9	30.0	119.6 119.6	119.6	9.5 9.5	9.5	9.5	1.5 1.5	1.5	1.6	4.2 5.1	4.7	4.6
					Middle	6.2	17.5 17.5	17.5	8.1 8.1	8.1	30.7 30.7	30.7	119.9 116.4	118.2	9.5 9.3	9.4		1.7 1.6	1.7		3.6 4.5	4.1	
					Bottom	11.3	17.5 17.5	17.5	8.1 8.1	8.1	30.7 30.8	30.8	110.7 109.6	110.2	8.8 8.7	8.8	8.8	1.7 1.7	1.7		5.0 5.2	5.1	
3-Feb-14	Sunny	Moderate	15:41	13.5	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	127.9 127.9	127.9	10.1 10.1	10.1	10.1	0.8 0.9	0.9	1.1	3.4 4.4	3.9	3.7
					Middle	6.8	18.0 18.0	18.0	8.2 8.2	8.2	30.3 30.3	30.3	127.0 127.5	127.3	10.0 10.1	10.0		1.1 1.1	1.1		4.6 3.4	4.0	
					Bottom	12.5	18.0 18.0	18.0	8.2 8.2	8.2	30.5 30.5	30.5	126.2 126.8	126.5	10.0 10.0	10.0	10.0	1.2 1.3	1.3		2.9 3.4	3.2	
5-Feb-14	Sunny	Moderate	17:24	13.3	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	31.1 31.1	31.1	121.8 125.6	123.7	9.6 9.9	9.7	9.6	1.5 1.5	1.5	1.6	2.9 4.0	3.5	3.9
					Middle	6.7	18.1 18.1	18.1	8.2 8.2	8.2	31.3 31.3	31.3	124.2 116.1	120.2	9.7 9.1	9.4		1.5 1.6	1.6		4.0 3.2	3.6	
					Bottom	12.3	18.1 18.1	18.1	8.2 8.2	8.2	31.3 31.3	31.3	112.7 123.8	118.3	8.8 9.7	9.3	9.3	1.6 1.5	1.6		5.4 3.7	4.6	
7-Feb-14	Sunny	Moderate	19:52	12.2	Surface	1.0	18.7 18.6	18.6	8.3 8.2	8.3	30.4 30.5	30.5	122.6 122.9	122.8	9.6 9.6	9.6	9.5	1.7 1.5	1.6	1.6	3.1 4.2	3.7	3.5
					Middle	6.1	18.5 18.4	18.4	8.2 8.2	8.2	31.0 31.2	31.1	117.3 120.7	119.0	9.1 9.4	9.3		1.6 1.6	1.6		3.2 3.3	3.3	
					Bottom	11.2	18.4 18.3	18.3	8.2 8.2	8.2	31.4 31.7	31.6	122.4 111.6	117.0	9.5 8.7	9.1	9.1	1.6 1.6	1.6		3.1 4.1	3.6	
10-Feb-14	Fine	Moderate	23:01	12.2	Surface	1.0	17.7 17.6	17.6	8.2 8.2	8.2	33.3 33.3	33.3	100.2 99.4	99.8	7.8 7.8	7.8	7.8	2.1 2.1	2.1	2.1	4.3 5.5	4.9	6.2
					Middle	6.1	17.7 17.7	17.7	8.2 8.2	8.2	33.3 33.3	33.3	99.1 100.5	99.8	7.7 7.9	7.8		2.1 2.0	2.1		5.2 6.6	5.9	
					Bottom	11.2	17.7 17.7	17.7	8.2 8.2	8.2	33.3 33.3	33.3	99.1 101.2	100.2	7.7 7.9	7.8	7.8	2.2 2.1	2.2		8.5 7.2	7.9	
12-Feb-14	Cloudy	Moderate	11:26	13.3	Surface	1.0	17.1 17.1	17.1	8.1 8.1	8.1	33.2 33.1	33.1	94.7 95.5	95.1	7.5 7.5	7.5	7.5	1.5 1.4	1.5	1.5	4.0 4.3	4.2	4.0
					Middle	6.7	17.2 17.1	17.2	8.1 8.1	8.1	33.2 33.0	33.1	94.6 96.0	95.3	7.5 7.6	7.5		1.7 1.6	1.7		3.2 3.5	3.4	
					Bottom	12.3	17.1 17.1	17.1	8.1 8.0	8.1	33.1 32.9	33.0	94.9 96.7	95.8	7.5 7.6	7.6	7.6	1.3 1.4	1.4		4.2 4.3	4.3	
14-Feb-14	Sunny	Moderate	07:02	13.5	Surface	1.0	16.5 16.5	16.5	7.8 7.8	7.8	33.3 33.3	33.3	94.5 97.9	96.2	7.6 7.8	7.7	7.7	2.8 3.1	3.0	3.5	4.0 4.3	4.2	4.5
					Middle	6.8	16.5 16.6	16.6	7.8 7.8	7.8	33.3 33.3	33.3	95.2 98.2	96.7	7.6 7.8	7.7		3.3 3.5	3.4		3.6 4.5	4.1	
					Bottom	12.5	16.6 16.6	16.6	7.8 7.8	7.8	33.3 33.3	33.3	95.9 102.9	99.4	7.6 8.2	7.9	7.9	4.0 4.3	4.2		5.7 4.9	5.3	
17-Feb-14	Sunny	Moderate	14:14	13.4	Surface	1.0	16.7 16.6	16.6	8.0 8.0	8.0	33.5 33.6	33.6	95.0 94.4	94.7	7.5 7.5	7.5	7.5	3.2 3.3	3.3	3.5	4.9 4.0	4.5	6.2
					Middle	6.7	16.2 16.2	16.2	8.0 8.0	8.0	33.6 33.6	33.6	93.5 93.0	93.3	7.5 7.5	7.5		3.6 3.6	3.6		6.2 5.4	5.8	
					Bottom	12.4	16.2 16.2	16.2	8.0 7.9	8.0	33.6 33.6	33.6	93.5 93.1	93.3	7.5 7.5	7.5	7.5	3.8 3.5	3.7		8.0 8.7	8.4	
19-Feb-14	Sunny	Moderate	15:39	12.4	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	89.9 89.7	89.8	7.2 7.2	7.2	7.2	2.3 2.4	2.4	2.5	4.7 4.6	4.7	5.9
					Middle	6.2	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	89.4 89.8	89.6	7.1 7.2	7.1		2.5 2.5	2.5		5.8 5.5	5.7	
					Bottom	11.4	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	90.0 89.4	89.7	7.2 7.1	7.2	7.2	2.4 2.5	2.5		7.0 7.3	7.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)5 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:52	13.1	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.7 33.7	33.7	92.7 94.0	93.4	7.4 7.5	7.4	7.5	2.2 2.2	2.2	2.6	5.6 6.6	6.1	6.6
					Middle	6.6	16.6 16.5	16.6	7.9 7.9	7.9	33.8 33.8	33.8	92.6 95.3	94.0	7.4 7.6	7.5		2.5 2.7	2.6		6.6 4.9	5.8	
					Bottom	12.1	16.6 16.5	16.6	7.9 7.9	7.9	33.8 33.8	33.8	93.2 97.1	95.2	7.4 7.7	7.6	7.6	3.0 2.9	3.0		7.2 8.8	8.0	
24-Feb-14	Sunny	Moderate	20:33	12.4	Surface	1.0	16.7 16.7	16.7	8.0 8.0	8.0	33.6 33.6	33.6	91.0 91.0	91.0	7.2 7.2	7.2	7.2	2.1 2.2	2.2	2.4	2.2 3.3	2.8	3.2
					Middle	6.2	16.7 16.7	16.7	8.0 8.0	8.0	33.6 33.6	33.6	90.5 90.6	90.6	7.2 7.2	7.2		2.4 2.3	2.4		2.8 3.0	2.9	
					Bottom	11.4	16.7 16.7	16.7	8.0 8.0	8.0	33.6 33.6	33.6	89.9 90.5	90.2	7.1 7.2	7.2	7.2	2.4 2.5	2.5		4.5 3.0	3.8	
26-Feb-14	Cloudy	Moderate	10:39	12.7	Surface	1.0	16.8 16.8	16.8	7.8 7.8	7.8	33.3 33.3	33.3	92.3 92.1	92.2	7.3 7.3	7.3	7.3	1.8 1.8	1.8	1.8	4.0 2.3	3.2	3.7
					Middle	6.4	16.8 16.8	16.8	7.8 7.8	7.8	33.3 33.3	33.3	91.7 92.1	91.9	7.3 7.3	7.3		1.8 1.7	1.8		4.7 4.5	4.6	
					Bottom	11.7	16.8 16.8	16.8	7.8 7.8	7.8	33.3 33.3	33.3	92.1 91.8	92.0	7.3 7.3	7.3	7.3	1.7 1.8	1.8		3.4 3.3	3.4	
28-Feb-14	Sunny	Moderate	11:47	13.4	Surface	1.0	17.6 17.6	17.6	7.9 7.9	7.9	32.3 32.3	32.3	100.3 100.1	100.2	7.9 7.9	7.9	7.9	1.7 1.7	1.7	1.6	4.1 4.3	4.2	4.3
					Middle	6.7	17.5 17.5	17.5	7.9 7.8	7.9	32.5 32.5	32.5	98.5 98.7	98.6	7.8 7.8	7.8		1.5 1.6	1.6		4.9 4.3	4.6	
					Bottom	12.4	17.4 17.4	17.4	7.9 7.8	7.8	32.6 32.6	32.6	98.5 98.4	98.5	7.8 7.8	7.8	7.8	1.5 1.4	1.5		4.1 4.3	4.2	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)5 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:08	12.7	Surface	1.0	17.6 17.6	17.6	8.1 8.1	8.1	30.4 30.4	30.4	113.9 114.4	114.2	9.1 9.1	9.1	9.1	1.7 1.8	1.8	2.6	4.8 5.8	5.3	5.8
					Middle	6.4	17.6 17.6	17.6	8.1 8.1	8.1	30.4 30.5	30.4	112.6 113.5	113.1	9.0 9.0	9.0		2.4 2.5	2.5		5.8 5.7	5.8	
					Bottom	11.7	17.6 17.6	17.6	8.1 8.1	8.1	30.5 30.5	30.5	113.4 111.1	112.3	9.0 8.8	8.9	8.9	3.6 3.5	3.6		6.5 5.8	6.2	
3-Feb-14	Sunny	Moderate	09:20	13.5	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	29.7 29.6	29.7	121.2 124.2	122.7	9.6 9.8	9.7	9.7	2.8 2.8	2.8	3.0	2.2 2.7	2.5	2.9
					Middle	6.8	18.0 18.0	18.0	8.2 8.2	8.2	30.0 30.0	30.0	123.0 119.0	121.0	9.7 9.4	9.6		2.9 3.0	3.0		3.4 2.4	2.9	
					Bottom	12.5	18.0 18.0	18.0	8.2 8.2	8.2	30.0 30.0	30.0	116.7 122.9	119.8	9.2 9.7	9.5	9.5	3.1 3.1	3.1		3.6 2.9	3.3	
5-Feb-14	Fine	Moderate	10:17	13.6	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.3 30.3	30.3	122.1 117.8	120.0	9.6 9.3	9.5	9.4	1.5 1.5	1.5	1.7	4.1 3.6	3.9	3.4
					Middle	6.8	18.1 18.1	18.1	8.2 8.2	8.2	30.7 30.6	30.6	119.9 114.4	117.2	9.4 9.0	9.2		1.6 1.7	1.7		3.6 2.3	3.0	
					Bottom	12.6	18.1 18.1	18.1	8.1 8.2	8.2	30.7 30.6	30.6	111.6 119.8	115.7	8.8 9.4	9.1	9.1	1.9 2.0	2.0		3.1 3.3	3.2	
7-Feb-14	Sunny	Moderate	11:50	13.2	Surface	1.0	18.6 18.6	18.6	8.2 8.2	8.2	30.1 30.1	30.1	119.8 122.1	121.0	9.4 9.5	9.5	9.4	1.7 1.7	1.7	1.7	4.9 4.5	4.7	4.0
					Middle	6.6	18.3 18.3	18.3	8.2 8.2	8.2	30.7 30.8	30.8	118.8 115.3	117.1	9.3 9.0	9.2		1.7 1.7	1.7		3.1 3.3	3.2	
					Bottom	12.2	18.3 18.3	18.3	8.2 8.2	8.2	31.0 31.0	31.0	118.8 113.3	116.1	9.3 8.9	9.1	9.1	1.8 1.8	1.8		3.6 4.8	4.2	
10-Feb-14	Fine	Moderate	10:01	12.7	Surface	1.0	18.0 18.0	18.0	8.1 8.2	8.2	32.9 32.9	32.9	99.4 98.0	98.7	7.7 7.6	7.7	7.7	1.9 1.9	1.9	2.3	7.0 7.6	7.3	6.7
					Middle	6.4	18.0 18.0	18.0	8.1 8.2	8.2	32.9 32.9	32.9	100.3 97.9	99.1	7.8 7.6	7.7		2.6 2.5	2.6		6.3 6.2	6.3	
					Bottom	11.7	18.0 18.0	18.0	8.1 8.2	8.2	32.9 32.9	32.9	101.9 98.2	100.1	7.9 7.6	7.8	7.8	2.6 2.4	2.5		6.9 6.2	6.6	
12-Feb-14	Cloudy	Moderate	17:07	13.6	Surface	1.0	16.8 16.7	16.8	8.1 8.1	8.1	33.2 33.1	33.2	95.7 95.8	95.8	7.6 7.6	7.6	7.6	1.5 1.6	1.6	1.7	3.5 2.3	2.9	4.3
					Middle	6.8	16.9 16.9	16.9	8.1 8.1	8.1	33.2 33.2	33.2	95.8 95.5	95.7	7.6 7.6	7.6		1.7 1.8	1.8		3.7 5.2	4.5	
					Bottom	12.6	16.8 17.0	16.9	8.1 8.1	8.1	33.3 33.3	33.3	95.9 96.9	96.4	7.6 7.7	7.6	7.6	1.6 1.5	1.6		6.0 4.9	5.5	
14-Feb-14	Cloudy	Moderate	12:43	13.0	Surface	1.0	16.8 16.8	16.8	7.9 7.9	7.9	33.4 33.4	33.4	94.0 92.6	93.3	7.5 7.4	7.4	7.4	2.5 2.7	2.6	2.8	4.3 5.3	4.8	5.4
					Middle	6.5	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	94.5 92.5	93.5	7.5 7.4	7.4		2.8 2.6	2.7		5.6 5.2	5.4	
					Bottom	12.0	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	95.6 92.8	94.2	7.6 7.4	7.5	7.5	3.0 2.9	3.0		5.3 6.8	6.1	
17-Feb-14	Cloudy	Moderate	07:53	13.7	Surface	1.0	16.0 16.0	16.0	7.8 7.8	7.8	33.2 33.2	33.2	94.4 94.2	94.3	7.6 7.6	7.6	7.6	6.4 6.6	6.5	6.9	5.1 5.5	5.3	7.2
					Middle	6.9	16.0 16.0	16.0	7.8 7.8	7.8	33.2 33.2	33.2	94.2 93.9	94.1	7.6 7.6	7.6		7.2 7.1	7.2		7.2 7.9	7.6	
					Bottom	12.7	16.0 16.0	16.0	7.8 7.8	7.8	33.2 33.2	33.2	94.0 94.4	94.2	7.6 7.6	7.6	7.6	6.9 7.0	7.0		8.9 8.6	8.8	
19-Feb-14	Rainy	Moderate	09:08	12.7	Surface	1.0	16.4 16.4	16.4	7.9 7.9	7.9	33.3 33.3	33.3	91.7 90.6	91.2	7.3 7.3	7.3	7.3	4.1 4.4	4.3	5.4	7.5 6.9	7.2	10.1
					Middle	6.4	16.4 16.4	16.4	7.9 7.8	7.9	33.3 33.3	33.3	90.5 92.1	91.3	7.2 7.4	7.3		5.1 5.3	5.2		10.6 10.9	10.8	
					Bottom	11.7	16.4 16.4	16.4	7.9 7.8	7.9	33.3 33.3	33.3	90.5 92.6	91.6	7.2 7.4	7.3	7.3	6.9 6.7	6.8		11.5 13.1	12.3	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS(Mf)5 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	09:45	13.5	Surface	1.0	16.4 16.4	16.4	7.8 7.8	7.8	33.4 33.4	33.4	91.6 91.0	91.3	7.3 7.3	7.3	7.3	2.3 2.4	2.4		2.7 2.5	2.6	
					Middle	6.8	16.4 16.4	16.4	7.8 7.8	7.8	33.4 33.4	33.4	90.8 91.9	91.4	7.3 7.4	7.3		3.1 2.9	3.0	3.0	5.0 3.6	4.3	3.9
					Bottom	12.5	16.4 16.4	16.4	7.8 7.8	7.8	33.4 33.4	33.4	92.9 91.0	92.0	7.4 7.3	7.4	7.4	3.6 3.3	3.5		4.9 4.8	4.9	
24-Feb-14	Sunny	Moderate	12:40	12.4	Surface	1.0	16.7 16.7	16.7	7.9 7.9	7.9	33.2 33.3	33.3	92.7 95.9	94.3	7.4 7.6	7.5	7.5	1.1 1.1	1.1		2.4 4.4	3.4	
					Middle	6.2	16.6 16.6	16.6	7.9 7.9	7.9	33.3 33.3	33.3	92.3 94.0	93.2	7.4 7.5	7.4		1.1 1.2	1.2	1.2	5.4 6.1	5.8	4.8
					Bottom	11.4	16.6 16.6	16.6	7.9 7.9	7.9	33.3 33.3	33.3	92.3 93.9	93.1	7.4 7.5	7.4	7.4	1.3 1.3	1.3		5.5 5.0	5.3	
26-Feb-14	Cloudy	Moderate	16:17	12.9	Surface	1.0	17.5 17.3	17.4	7.9 7.9	7.9	33.1 33.2	33.1	97.7 96.8	97.3	7.7 7.6	7.6	7.6	2.6 2.6	2.6		6.4 6.2	6.3	
					Middle	6.5	17.1 17.1	17.1	7.9 7.9	7.9	33.3 33.3	33.3	94.0 95.2	94.6	7.4 7.5	7.5		2.7 2.6	2.7	2.7	5.6 6.8	6.2	6.2
					Bottom	11.9	16.9 16.9	16.9	7.9 7.9	7.9	33.3 33.3	33.3	93.0 95.4	94.2	7.4 7.6	7.5	7.5	2.9 2.8	2.9		6.4 5.9	6.2	
28-Feb-14	Sunny	Moderate	18:01	13.6	Surface	1.0	17.6 17.6	17.6	8.0 8.0	8.0	32.5 32.5	32.5	101.1 100.4	100.8	8.0 7.9	7.9	7.9	1.8 1.5	1.7		3.1 4.3	3.7	
					Middle	6.8	17.5 17.5	17.5	8.0 8.0	8.0	32.6 32.6	32.6	98.5 98.6	98.6	7.7 7.8	7.8		2.4 2.2	2.3	2.5	4.4 4.3	4.4	4.2
					Bottom	12.6	17.4 17.4	17.4	8.0 8.0	8.0	32.8 32.7	32.8	98.2 98.5	98.4	7.7 7.8	7.7	7.7	3.6 3.3	3.5		5.3 3.6	4.5	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS6 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:44	10.1	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	30.7 30.7	30.7	101.3 102.0	101.7	8.0 8.0	8.0	8.0	1.3 1.3	1.3	1.5	3.2 3.0	3.1	3.6
					Middle	5.1	18.5 18.4	18.5	8.3 8.3	8.3	30.7 30.7	30.7	100.7 100.4	100.6	8.0 7.9	7.9		1.4 1.5	1.5		3.4 4.0	3.7	
					Bottom	9.1	18.4 18.4	18.4	8.3 8.3	8.3	30.7 30.7	30.7	101.6 100.7	101.2	8.0 8.0	8.0	8.0	1.5 1.6	1.6		4.2 3.7	4.0	
3-Feb-14	Sunny	Moderate	16:43	10.1	Surface	1.0	18.0 18.1	18.0	8.3 8.3	8.3	30.6 30.5	30.6	118.3 117.2	117.8	9.3 9.2	9.3	9.2	1.8 1.8	1.8	2.1	3.5 4.5	4.0	3.7
					Middle	5.1	17.9 17.9	17.9	8.3 8.3	8.3	30.7 30.8	30.7	117.0 114.1	115.6	9.2 9.0	9.1		2.2 2.1	2.2		3.4 3.2	3.3	
					Bottom	9.1	17.9 17.9	17.9	8.3 8.3	8.3	31.0 31.0	31.0	110.6 116.1	113.4	8.7 9.2	8.9	8.9	2.2 2.2	2.2		4.0 3.6	3.8	
5-Feb-14	Sunny	Moderate	18:19	9.6	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.7 30.7	30.7	121.0 123.8	122.4	9.5 9.7	9.6	9.5	1.7 1.6	1.7	1.6	3.6 2.8	3.2	2.9
					Middle	4.8	18.1 18.1	18.1	8.4 8.4	8.4	31.1 31.2	31.1	121.3 116.5	118.9	9.5 9.1	9.3		1.6 1.6	1.6		2.6 3.0	2.8	
					Bottom	8.6	18.0 18.1	18.1	8.4 8.4	8.4	31.4 31.2	31.3	116.1 121.8	119.0	9.1 9.5	9.3	9.3	1.6 1.6	1.6		2.8 2.8	2.8	
7-Feb-14	Sunny	Moderate	20:22	10.5	Surface	1.0	18.9 18.8	18.8	8.5 8.5	8.5	29.9 30.1	30.0	120.7 117.7	119.2	9.4 9.2	9.3	9.1	1.2 1.1	1.2	1.2	3.5 2.8	3.2	3.0
					Middle	5.3	18.4 18.4	18.4	8.4 8.4	8.4	31.0 31.0	31.0	115.2 111.5	113.4	9.0 8.7	8.8		1.2 1.3	1.3		2.6 2.6	2.6	
					Bottom	9.5	18.3 18.4	18.4	8.4 8.4	8.4	31.7 31.7	31.7	116.2 107.8	112.0	9.0 8.4	8.7	8.7	1.1 1.2	1.2		3.4 3.2	3.3	
10-Feb-14	Fine	Moderate	23:47	10.0	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	33.3 33.3	33.3	99.9 98.3	99.1	7.8 7.7	7.7	7.8	1.9 1.7	1.8	2.0	5.3 4.4	4.9	5.4
					Middle	5.0	17.7 17.7	17.7	8.2 8.3	8.3	33.3 33.3	33.3	101.2 98.3	99.8	7.9 7.7	7.8		2.0 1.8	1.9		3.6 3.7	3.7	
					Bottom	9.0	17.7 17.7	17.7	8.3 8.2	8.3	33.3 33.3	33.3	98.4 102.3	100.4	7.7 8.0	7.8	7.8	2.3 2.2	2.3		7.6 7.7	7.7	
12-Feb-14	Cloudy	Moderate	11:00	10.1	Surface	1.0	17.2 17.2	17.2	8.3 8.3	8.3	33.6 33.6	33.6	92.8 92.7	92.8	7.3 7.3	7.3	7.3	1.3 1.3	1.3	1.3	4.6 4.1	4.4	5.6
					Middle	5.1	17.3 17.2	17.2	8.3 8.3	8.3	33.6 33.6	33.6	92.6 92.4	92.5	7.3 7.3	7.3		1.3 1.3	1.3		6.1 6.1	6.1	
					Bottom	9.1	17.3 17.2	17.2	8.3 8.3	8.3	33.6 33.6	33.6	92.5 92.2	92.4	7.3 7.2	7.3	7.3	1.3 1.4	1.4		6.5 6.3	6.4	
14-Feb-14	Sunny	Moderate	06:31	10.3	Surface	1.0	16.6 16.6	16.6	8.2 8.2	8.2	33.8 33.8	33.8	90.2 90.3	90.3	7.2 7.2	7.2	7.2	1.7 1.8	1.8	1.9	7.8 6.6	7.2	7.2
					Middle	5.2	16.6 16.6	16.6	8.2 8.2	8.2	33.8 33.8	33.8	90.0 89.9	90.0	7.1 7.1	7.1		1.9 1.9	1.9		7.1 6.8	7.0	
					Bottom	9.3	16.6 16.6	16.6	8.2 8.2	8.2	33.8 33.8	33.8	89.9 89.9	89.9	7.1 7.1	7.1	7.1	2.0 1.9	2.0		6.8 8.0	7.4	
17-Feb-14	Sunny	Moderate	15:11	10.2	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	90.1 90.3	90.2	7.2 7.2	7.2	7.2	1.8 1.7	1.8	1.9	3.3 4.9	4.1	5.0
					Middle	5.1	16.6 16.7	16.6	8.3 8.3	8.3	33.5 33.6	33.5	89.6 89.9	89.8	7.1 7.1	7.1		1.8 1.9	1.9		6.2 5.3	5.8	
					Bottom	9.2	16.6 16.6	16.6	8.3 8.3	8.3	33.5 33.6	33.6	89.5 90.2	89.9	7.1 7.2	7.2	7.2	1.8 1.9	1.9		5.0 5.1	5.1	
19-Feb-14	Sunny	Moderate	16:05	9.5	Surface	1.0	16.6 16.6	16.6	8.2 8.2	8.2	33.7 33.7	33.7	92.1 89.7	90.9	7.3 7.1	7.2	7.3	1.6 1.8	1.7	1.8	4.4 4.5	4.5	4.7
					Middle	4.8	16.6 16.6	16.6	8.2 8.2	8.2	33.7 33.7	33.7	89.9 94.0	92.0	7.2 7.5	7.3		1.9 1.9	1.9		4.4 4.4	4.4	
					Bottom	8.5	16.6 16.6	16.6	8.2 8.2	8.2	33.7 33.7	33.7	97.3 90.4	93.9	7.7 7.2	7.5	7.5	1.8 1.7	1.8		5.8 4.7	5.3	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS6 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	17:52	9.8	Surface	1.0	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	91.3 92.4	91.9	7.3 7.4	7.3	7.3	2.1 2.2	2.2	2.2	5.2 3.7	4.5	3.8
					Middle	4.9	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	91.3 92.9	92.1	7.3 7.4	7.3		2.2 2.1	2.2		3.3 4.0	3.7	
					Bottom	8.8	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	94.5 91.5	93.0	7.5 7.3	7.4	7.4	2.1 2.2	2.2		2.6 3.5	3.1	
24-Feb-14	Sunny	Moderate	21:42	10.2	Surface	1.0	16.6 16.6	16.6	8.2 8.3	8.3	33.6 33.6	33.6	89.3 90.3	89.8	7.1 7.2	7.2	7.2	1.7 1.8	1.8	1.8	3.8 4.0	3.9	3.7
					Middle	5.1	16.6 16.6	16.6	8.2 8.3	8.3	33.6 33.6	33.6	89.3 91.6	90.5	7.1 7.3	7.2		1.8 1.8	1.8		4.1 2.5	3.3	
					Bottom	9.2	16.6 16.6	16.6	8.3 8.2	8.3	33.6 33.6	33.6	93.0 89.4	91.2	7.4 7.1	7.3	7.3	1.8 1.8	1.8		3.8 3.7	3.8	
26-Feb-14	Cloudy	Moderate	10:08	10.3	Surface	1.0	16.8 16.8	16.8	8.2 8.2	8.2	33.9 33.9	33.9	87.6 87.6	87.6	6.9 6.9	6.9	6.9	2.0 2.1	2.1	2.1	4.0 5.2	4.6	4.7
					Middle	5.2	16.8 16.8	16.8	8.2 8.2	8.2	33.9 33.9	33.9	87.3 87.3	87.3	6.9 6.9	6.9		2.4 2.3	2.4		5.3 3.5	4.4	
					Bottom	9.3	16.8 16.8	16.8	8.2 8.2	8.2	33.9 33.9	33.9	87.1 87.0	87.1	6.9 6.9	6.9	6.9	1.9 1.9	1.9		4.8 5.2	5.0	
28-Feb-14	Sunny	Moderate	11:35	10.5	Surface	1.0	17.2 17.3	17.3	8.2 8.2	8.2	33.5 33.5	33.5	91.5 91.6	91.6	7.2 7.2	7.2	7.2	1.5 1.6	1.6	1.6	3.6 2.6	3.1	3.2
					Middle	5.3	17.2 17.2	17.2	8.2 8.2	8.2	33.5 33.5	33.5	91.1 91.0	91.1	7.2 7.2	7.2		1.6 1.6	1.6		2.3 3.5	2.9	
					Bottom	9.5	17.2 17.2	17.2	8.2 8.2	8.2	33.5 33.6	33.6	91.2 91.2	91.2	7.2 7.2	7.2	7.2	1.6 1.7	1.7		3.5 3.4	3.5	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS6 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	07:48	9.9	Surface	1.0	18.2 18.2	18.2	8.3 8.3	8.3	30.6 30.6	30.6	101.7 101.7	101.7	8.1 8.1	8.1	8.1	1.4 1.5	1.5	1.8	5.2 5.8	5.5	6.1
					Middle	5.0	18.2 18.2	18.2	8.3 8.3	8.3	30.6 30.6	30.6	101.4 101.4	101.4	8.0 8.0	8.0		1.8 1.7	1.8		5.6 5.8	5.7	
					Bottom	8.9	18.2 18.2	18.2	8.3 8.3	8.3	30.6 30.6	30.6	101.1 101.2	101.2	8.0 8.0	8.0	8.0	2.3 2.1	2.2		5.9 8.5	7.2	
3-Feb-14	Sunny	Moderate	08:59	10.2	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	29.7 29.7	29.7	121.1 121.6	121.4	9.6 9.6	9.6	9.6	1.5 1.5	1.5	1.6	4.2 4.0	4.1	3.7
					Middle	5.1	18.1 18.1	18.1	8.3 8.3	8.3	30.0 29.9	29.9	119.6 120.4	120.0	9.5 9.5	9.5		1.5 1.6	1.6		3.2 3.5	3.4	
					Bottom	9.2	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.3	30.3	120.6 119.6	120.1	9.5 9.5	9.5	9.5	1.7 1.7	1.7		3.4 3.5	3.5	
5-Feb-14	Fine	Moderate	10:05	10.3	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.1 30.2	30.1	120.6 120.7	120.7	9.5 9.5	9.5	9.5	1.5 1.5	1.5	1.6	5.4 3.9	4.7	4.7
					Middle	5.2	18.2 18.1	18.1	8.4 8.4	8.4	30.4 30.5	30.5	119.9 119.9	119.9	9.4 9.4	9.4		1.5 1.6	1.6		4.7 4.6	4.7	
					Bottom	9.3	18.1 18.2	18.1	8.4 8.4	8.4	30.6 30.5	30.5	120.0 120.3	120.2	9.4 9.5	9.4	9.4	1.5 1.6	1.6		5.4 4.0	4.7	
7-Feb-14	Sunny	Moderate	11:33	10.2	Surface	1.0	18.7 18.7	18.7	8.4 8.4	8.4	30.6 30.6	30.6	123.8 124.1	124.0	9.6 9.7	9.7	9.7	1.1 1.0	1.1	1.1	4.2 3.9	4.1	3.8
					Middle	5.1	18.6 18.6	18.6	8.4 8.4	8.4	30.6 30.7	30.7	123.7 123.5	123.6	9.6 9.6	9.6		1.0 1.0	1.0		2.8 2.7	2.8	
					Bottom	9.2	18.6 18.6	18.6	8.4 8.4	8.4	30.7 30.7	30.7	123.2 122.9	123.1	9.6 9.6	9.6	9.6	1.0 1.1	1.1		3.8 5.3	4.6	
10-Feb-14	Fine	Moderate	09:41	10.5	Surface	1.0	17.9 17.9	17.9	8.3 8.3	8.3	33.2 33.2	33.2	96.6 96.4	96.5	7.5 7.5	7.5	7.5	1.4 1.5	1.5	1.4	7.3 7.8	7.6	7.2
					Middle	5.3	17.9 17.9	17.9	8.3 8.3	8.3	33.2 33.2	33.2	96.3 96.3	96.3	7.5 7.5	7.5		1.3 1.2	1.3		6.6 5.6	6.1	
					Bottom	9.5	17.9 17.9	17.9	8.3 8.3	8.3	33.2 33.2	33.2	96.0 96.1	96.1	7.5 7.5	7.5	7.5	1.5 1.5	1.5		7.0 8.8	7.9	
12-Feb-14	Cloudy	Moderate	18:10	10.4	Surface	1.0	17.2 17.2	17.2	8.3 8.3	8.3	33.5 33.5	33.5	96.4 93.6	95.0	7.6 7.4	7.5	7.6	1.4 1.5	1.5	1.5	4.9 3.1	4.0	4.5
					Middle	5.2	17.2 17.2	17.2	8.3 8.3	8.3	33.5 33.5	33.5	98.1 93.8	96.0	7.7 7.4	7.6		1.5 1.5	1.5		4.6 5.9	5.3	
					Bottom	9.4	17.2 17.2	17.2	8.3 8.3	8.3	33.5 33.5	33.5	94.1 102.3	98.2	7.4 8.1	7.7	7.7	1.5 1.5	1.5		4.6 3.9	4.3	
14-Feb-14	Cloudy	Moderate	13:38	10.2	Surface	1.0	16.8 16.9	16.8	8.2 8.2	8.2	33.7 33.7	33.7	91.3 92.9	92.1	7.2 7.3	7.3	7.3	2.1 2.2	2.2	2.2	7.9 7.5	7.7	8.2
					Middle	5.1	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	91.1 92.8	92.0	7.2 7.4	7.3		2.1 2.1	2.1		8.7 9.0	8.9	
					Bottom	9.2	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	91.3 93.5	92.4	7.2 7.4	7.3	7.3	2.2 2.1	2.2		7.8 7.9	7.9	
17-Feb-14	Cloudy	Moderate	07:36	10.5	Surface	1.0	16.0 16.0	16.0	8.2 8.2	8.2	33.8 33.8	33.8	93.2 93.2	93.2	7.5 7.5	7.5	7.5	3.1 3.0	3.1	3.1	4.2 4.6	4.4	4.6
					Middle	5.3	16.0 16.0	16.0	8.2 8.2	8.2	33.8 33.8	33.8	92.8 92.9	92.9	7.5 7.5	7.5		3.1 3.2	3.2		5.9 4.0	5.0	
					Bottom	9.5	16.0 16.0	16.0	8.2 8.2	8.2	33.8 33.8	33.8	92.7 92.7	92.7	7.4 7.5	7.4	7.4	3.1 3.1	3.1		4.7 4.3	4.5	
19-Feb-14	Rainy	Moderate	08:42	9.9	Surface	1.0	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	88.0 88.2	88.1	7.0 7.0	7.0	7.0	2.6 2.8	2.7	3.2	9.1 7.0	8.1	7.8
					Middle	5.0	16.5 16.6	16.6	8.2 8.2	8.2	33.8 33.8	33.8	88.0 87.8	87.9	7.0 7.0	7.0		3.5 3.4	3.5		7.3 6.8	7.1	
					Bottom	8.9	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	87.7 87.8	87.8	7.0 7.0	7.0	7.0	3.3 3.4	3.4		8.2 8.1	8.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CS6 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	09:36	10.0	Surface	1.0	16.4 16.4	16.4	8.2 8.2	8.2	33.9 33.9	33.9	89.7 89.5	89.6	7.1 7.1	7.1	7.1	1.7 1.7	1.7	1.8	3.7 4.6	4.2	4.7
					Middle	5.0	16.4 16.4	16.4	8.2 8.2	8.2	33.9 33.9	33.9	89.3 89.4	89.4	7.1 7.1	7.1		1.9 1.8	1.9		4.6 3.9	4.3	
					Bottom	9.0	16.4 16.4	16.4	8.2 8.2	8.2	33.9 33.9	33.9	89.3 89.3	89.3	7.1 7.1	7.1	7.1	1.9 1.9	1.9		5.9 5.3	5.6	
24-Feb-14	Sunny	Moderate	12:36	9.7	Surface	1.0	16.7 16.7	16.7	8.2 8.2	8.2	33.8 33.8	33.8	90.1 89.9	90.0	7.1 7.1	7.1	7.1	2.2 2.1	2.2	2.2	3.8 5.5	4.7	4.6
					Middle	4.9	16.6 16.6	16.6	8.2 8.2	8.2	33.8 33.8	33.8	89.5 89.4	89.5	7.1 7.1	7.1		2.1 2.2	2.2		5.5 4.2	4.9	
					Bottom	8.7	16.6 16.6	16.6	8.2 8.2	8.2	33.8 33.8	33.8	89.4 89.5	89.5	7.1 7.1	7.1	7.1	2.1 2.1	2.1		3.2 5.2	4.2	
26-Feb-14	Cloudy	Moderate	16:50	10.4	Surface	1.0	17.0 17.0	17.0	8.2 8.2	8.2	33.7 33.7	33.7	88.4 88.7	88.6	7.0 7.0	7.0	7.0	1.4 1.4	1.4	1.5	3.4 3.7	3.6	3.3
					Middle	5.2	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	87.5 88.1	87.8	6.9 7.0	7.0		1.5 1.5	1.5		2.3 3.1	2.7	
					Bottom	9.4	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	87.8 89.0	88.4	7.0 7.1	7.0	7.0	1.5 1.5	1.5		3.0 3.9	3.5	
28-Feb-14	Sunny	Moderate	18:42	10.4	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.7 32.7	32.7	99.5 98.3	98.9	7.8 7.7	7.7	7.6	2.1 2.1	2.1	2.2	4.4 3.6	4.0	4.7
					Middle	5.2	17.4 17.3	17.4	8.2 8.2	8.2	33.2 33.2	33.2	95.7 94.8	95.3	7.5 7.5	7.5		2.2 2.2	2.2		5.2 4.1	4.7	
					Bottom	9.4	17.4 17.3	17.4	8.2 8.2	8.2	33.2 33.2	33.2	97.3 95.2	96.3	7.7 7.5	7.6	7.6	2.2 2.2	2.2		5.8 5.1	5.5	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CSA - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	15:00	36.2	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	30.7 30.7	30.7	101.4 101.3	101.4	8.0 8.0	8.0	7.9	1.7 1.8	1.8	2.0	3.9 4.0	4.0	4.0
					Middle	18.1	18.4 18.4	18.4	8.3 8.3	8.3	30.7 30.7	30.7	99.2 99.4	99.3	7.8 7.8	7.8		2.2 2.0	2.1		4.0 3.6	3.8	
					Bottom	35.2	18.4 18.4	18.4	8.3 8.3	8.3	30.7 30.7	30.7	99.4 99.6	99.5	7.9 7.9	7.9		1.9 2.0	2.0		3.4 4.7	4.1	
3-Feb-14	Sunny	Moderate	16:54	36.3	Surface	1.0	18.0 18.1	18.0	8.3 8.3	8.3	30.6 30.5	30.6	118.2 119.4	118.8	9.3 9.4	9.4	9.3	1.7 1.7	1.7	2.0	3.9 3.3	3.6	3.8
					Middle	18.2	17.9 17.9	17.9	8.3 8.3	8.3	31.1 31.0	31.0	116.8 116.3	116.6	9.2 9.2	9.2		2.1 2.1	2.1		2.9 4.7	3.8	
					Bottom	35.3	17.9 17.9	17.9	8.3 8.3	8.3	31.0 31.1	31.1	117.9 116.1	117.0	9.3 9.2	9.2	9.2	2.1 2.1	2.1		3.8 4.3	4.1	
5-Feb-14	Sunny	Moderate	18:29	34.6	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.7 30.7	30.7	125.9 123.6	124.8	9.9 9.7	9.8	9.7	1.6 1.6	1.6	1.7	3.5 2.5	3.0	3.5
					Middle	17.3	18.1 18.0	18.1	8.4 8.4	8.4	31.1 31.3	31.2	121.1 120.2	120.7	9.5 9.4	9.5		1.6 1.7	1.7		3.7 3.9	3.8	
					Bottom	33.6	18.0 18.1	18.0	8.4 8.4	8.4	31.4 31.3	31.3	122.8 123.8	123.3	9.6 9.7	9.7	9.7	1.7 1.7	1.7		3.7 3.5	3.6	
7-Feb-14	Sunny	Moderate	20:38	35.6	Surface	1.0	18.8 18.8	18.8	8.5 8.5	8.5	29.9 30.0	30.0	123.7 119.9	121.8	9.6 9.3	9.5	9.2	1.6 1.5	1.6	1.4	3.6 3.4	3.5	3.4
					Middle	17.8	18.3 18.3	18.3	8.4 8.4	8.4	31.8 31.8	31.8	112.8 112.2	112.5	8.8 8.7	8.8		1.4 1.4	1.4		3.4 3.1	3.3	
					Bottom	34.6	18.3 18.3	18.3	8.4 8.4	8.4	31.8 31.8	31.8	115.3 113.1	114.2	9.0 8.8	8.9	8.9	1.2 1.2	1.2		3.7 3.3	3.5	
10-Feb-14	Fine	Moderate	23:59	35.8	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	33.3 33.3	33.3	97.4 97.6	97.5	7.6 7.6	7.6	7.6	1.7 1.8	1.8	2.0	3.7 4.9	4.3	5.8
					Middle	17.9	17.7 17.7	17.7	8.3 8.3	8.3	33.3 33.3	33.3	96.7 97.0	96.9	7.5 7.6	7.6		1.8 1.7	1.8		5.4 4.2	4.8	
					Bottom	34.8	17.7 17.7	17.7	8.3 8.3	8.3	33.3 33.3	33.3	97.2 96.8	97.0	7.6 7.6	7.6	7.6	2.4 2.5	2.5		8.0 8.5	8.3	
12-Feb-14	Cloudy	Moderate	10:52	35.9	Surface	1.0	17.2 17.2	17.2	8.2 8.3	8.2	33.6 33.6	33.6	94.5 93.1	93.8	7.4 7.3	7.4	7.4	1.5 1.5	1.5	1.5	4.0 4.2	4.1	5.0
					Middle	18.0	17.3 17.2	17.3	8.2 8.2	8.2	33.6 33.5	33.6	92.7 95.4	94.1	7.3 7.5	7.4		1.4 1.5	1.5		5.4 5.1	5.3	
					Bottom	34.9	17.3 17.3	17.3	8.2 8.1	8.2	33.6 33.5	33.5	92.7 98.7	95.7	7.3 7.8	7.5	7.5	1.5 1.5	1.5		5.5 5.7	5.6	
14-Feb-14	Sunny	Moderate	06:23	34.9	Surface	1.0	16.6 16.6	16.6	8.1 8.2	8.1	33.8 33.8	33.8	91.3 90.6	91.0	7.3 7.2	7.2	7.2	2.1 2.0	2.1	2.4	7.8 7.3	7.6	9.0
					Middle	17.5	16.6 16.6	16.6	8.1 8.1	8.1	33.8 33.8	33.8	91.3 90.2	90.8	7.2 7.2	7.2		2.3 2.4	2.4		8.8 9.2	9.0	
					Bottom	33.9	16.6 16.6	16.6	8.1 8.1	8.1	33.8 33.8	33.8	90.4 93.1	91.8	7.2 7.4	7.3	7.3	2.6 2.7	2.7		9.6 11.2	10.4	
17-Feb-14	Sunny	Moderate	15:22	34.9	Surface	1.0	16.7 16.7	16.7	8.2 8.3	8.3	33.6 33.6	33.6	90.1 90.0	90.1	7.2 7.2	7.2	7.2	1.4 1.4	1.4	1.5	3.5 3.6	3.6	3.3
					Middle	17.5	16.5 16.5	16.5	8.3 8.3	8.3	33.5 33.5	33.5	89.2 89.1	89.2	7.1 7.1	7.1		1.6 1.6	1.6		3.0 3.4	3.2	
					Bottom	33.9	16.5 16.5	16.5	8.3 8.3	8.3	33.5 33.5	33.5	89.0 89.1	89.1	7.1 7.1	7.1	7.1	1.6 1.6	1.6		4.0 2.1	3.1	
19-Feb-14	Sunny	Moderate	16:21	36.4	Surface	1.0	16.6 16.6	16.6	8.2 8.3	8.3	33.7 33.7	33.7	88.7 88.5	88.6	7.1 7.0	7.0	7.0	1.7 1.6	1.7	1.9	6.6 8.0	7.3	7.8
					Middle	18.2	16.6 16.7	16.7	8.2 8.3	8.3	33.7 33.7	33.7	88.4 88.1	88.3	7.0 7.0	7.0		2.3 2.2	2.3		9.2 8.8	9.0	
					Bottom	35.4	16.7 16.7	16.7	8.3 8.2	8.3	33.7 33.7	33.7	88.0 88.5	88.3	7.0 7.0	7.0	7.0	1.7 1.9	1.8		7.7 6.6	7.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CSA - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	18:00	34.6	Surface	1.0	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	90.2 90.0	90.1	7.2 7.2	7.2	7.2	2.2 2.2	2.2		3.4 4.2	3.8	
					Middle	17.3	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	89.8 89.4	89.6	7.1 7.1	7.1		2.2 2.2	2.2	2.2	3.7 4.2	4.0	4.0
					Bottom	33.6	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	90.1 89.6	89.9	7.2 7.1	7.2	7.2	2.2 2.1	2.2		3.2 5.1	4.2	
24-Feb-14	Sunny	Moderate	21:51	34.6	Surface	1.0	16.6 16.6	16.6	8.2 8.2	8.2	33.6 33.6	33.6	88.4 88.5	88.5	7.0 7.0	7.0	7.0	1.8 1.8	1.8		2.9 3.0	3.0	
					Middle	17.3	16.6 16.6	16.6	8.2 8.2	8.2	33.6 33.6	33.6	88.1 87.9	88.0	7.0 7.0	7.0		1.8 1.7	1.8	1.8	5.5 5.9	5.7	4.5
					Bottom	33.6	16.6 16.6	16.6	8.2 8.2	8.2	33.6 33.6	33.6	87.9 88.1	88.0	7.0 7.0	7.0	7.0	1.7 1.8	1.8		4.4 5.2	4.8	
26-Feb-14	Cloudy	Moderate	09:53	36.6	Surface	1.0	16.8 16.8	16.8	8.2 8.1	8.2	33.9 33.9	33.9	87.6 88.0	87.8	6.9 7.0	6.9	6.9	1.8 1.8	1.8		6.0 5.4	5.7	
					Middle	18.3	16.8 16.8	16.8	8.2 8.1	8.2	33.9 33.9	33.9	86.7 87.2	87.0	6.9 6.9	6.9		1.7 1.8	1.8	1.8	6.2 5.2	5.7	5.5
					Bottom	35.6	16.8 16.8	16.8	8.2 8.1	8.2	33.9 33.9	33.9	86.7 88.2	87.5	6.9 7.0	6.9	6.9	1.8 1.9	1.9		6.1 4.0	5.1	
28-Feb-14	Sunny	Moderate	11:27	34.6	Surface	1.0	17.2 17.2	17.2	8.2 8.2	8.2	33.5 33.5	33.5	91.4 91.2	91.3	7.2 7.2	7.2	7.2	1.8 1.8	1.8		2.5 3.6	3.1	
					Middle	17.3	17.2 17.2	17.2	8.2 8.2	8.2	33.5 33.5	33.5	90.2 90.1	90.2	7.1 7.1	7.1		1.8 1.7	1.8	1.8	2.4 3.6	3.0	3.1
					Bottom	33.6	17.2 17.2	17.2	8.2 8.2	8.2	33.6 33.5	33.5	90.5 90.6	90.6	7.1 7.1	7.1	7.1	1.7 1.7	1.7		3.9 2.6	3.3	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CSA - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	07:32	36.3	Surface	1.0	18.2 18.2	18.2	8.3 8.3	8.3	30.6 30.6	30.6	102.9 102.1	102.5	8.2 8.1	8.1	8.1	2.0 2.0	2.0	2.0	5.1 6.3	5.7	5.6
					Middle	18.2	18.2 18.2	18.2	8.3 8.3	8.3	30.6 30.6	30.6	102.8 101.4	102.1	8.2 8.0	8.1		2.0 2.1	2.1		4.7 5.1	4.9	
					Bottom	35.3	18.2 18.2	18.2	8.3 8.2	8.3	30.6 30.6	30.6	101.4 104.5	103.0	8.0 8.3	8.2	8.2	2.1 1.9	2.0		6.5 6.1	6.3	
3-Feb-14	Sunny	Moderate	08:53	35.0	Surface	1.0	18.2 18.1	18.1	8.3 8.3	8.3	29.7 29.8	29.8	119.6 117.5	118.6	9.5 9.3	9.4	9.3	1.6 1.6	1.6	1.7	3.9 2.3	3.1	3.8
					Middle	17.5	18.0 18.0	18.0	8.3 8.3	8.3	30.3 30.4	30.3	113.8 116.6	115.2	9.0 9.2	9.1		1.6 1.7	1.7		5.1 3.4	4.3	
					Bottom	34.0	18.0 18.0	18.0	8.3 8.3	8.3	30.3 30.4	30.3	111.4 116.5	114.0	8.8 9.2	9.0	9.0	1.8 1.7	1.8		3.8 3.9	3.9	
5-Feb-14	Fine	Moderate	09:59	34.9	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.0 30.0	30.0	119.6 118.6	119.1	9.4 9.3	9.4	9.3	1.7 1.7	1.7	1.8	3.4 4.3	3.9	5.2
					Middle	17.5	18.1 18.1	18.1	8.4 8.3	8.3	30.6 30.7	30.7	117.5 116.1	116.8	9.2 9.1	9.2		1.8 1.8	1.8		6.7 6.5	6.6	
					Bottom	33.9	18.1 18.1	18.1	8.3 8.3	8.3	30.9 30.9	30.9	117.7 113.5	115.6	9.3 8.9	9.1	9.1	1.9 1.8	1.9		5.3 4.7	5.0	
7-Feb-14	Sunny	Moderate	11:21	36.7	Surface	1.0	18.7 18.7	18.7	8.4 8.4	8.4	30.6 30.5	30.6	123.5 122.0	122.8	9.6 9.5	9.6	9.5	1.1 1.1	1.1	1.1	3.5 4.5	4.0	3.9
					Middle	18.4	18.6 18.5	18.5	8.4 8.4	8.4	30.7 30.7	30.7	122.2 118.6	120.4	9.5 9.3	9.4		1.1 1.1	1.1		3.7 3.7	3.7	
					Bottom	35.7	18.5 18.4	18.5	8.4 8.3	8.4	30.7 30.9	30.8	121.5 115.2	118.4	9.5 9.0	9.2	9.2	1.2 1.2	1.2		3.2 4.6	3.9	
10-Feb-14	Fine	Moderate	09:28	36.7	Surface	1.0	17.9 18.0	17.9	8.3 8.2	8.3	33.2 33.2	33.2	96.8 97.7	97.3	7.5 7.6	7.6	7.6	1.9 1.8	1.9	1.9	5.8 6.4	6.1	6.1
					Middle	18.4	18.0 18.0	18.0	8.2 8.3	8.2	33.2 33.2	33.2	97.6 96.2	96.9	7.6 7.5	7.5		1.6 1.5	1.6		6.0 5.5	5.8	
					Bottom	35.7	18.0 18.0	18.0	8.3 8.2	8.2	33.2 33.1	33.1	96.3 101.2	98.8	7.5 7.9	7.7	7.7	2.1 2.0	2.1		6.5 6.3	6.4	
12-Feb-14	Cloudy	Moderate	18:23	36.1	Surface	1.0	17.2 17.2	17.2	8.3 8.3	8.3	33.5 33.5	33.5	92.7 92.4	92.6	7.3 7.3	7.3	7.3	1.4 1.4	1.4	1.5	4.1 4.1	4.1	4.3
					Middle	18.1	17.2 17.2	17.2	8.3 8.3	8.3	33.5 33.5	33.5	91.8 92.2	92.0	7.2 7.3	7.2		1.5 1.4	1.5		4.8 4.9	4.9	
					Bottom	35.1	17.2 17.2	17.2	8.3 8.3	8.3	33.5 33.5	33.5	92.1 91.7	91.9	7.3 7.2	7.2	7.2	1.5 1.5	1.5		4.7 3.3	4.0	
14-Feb-14	Cloudy	Moderate	13:47	34.0	Surface	1.0	16.9 16.9	16.9	8.2 8.2	8.2	33.7 33.7	33.7	90.6 90.4	90.5	7.2 7.2	7.2	7.2	2.1 2.2	2.2	2.2	3.9 5.3	4.6	4.9
					Middle	17.0	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	89.2 89.7	89.5	7.1 7.1	7.1		2.2 2.1	2.2		3.8 4.8	4.3	
					Bottom	33.0	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	89.2 89.8	89.5	7.1 7.1	7.1	7.1	2.2 2.2	2.2		6.3 5.0	5.7	
17-Feb-14	Cloudy	Moderate	07:28	35.3	Surface	1.0	16.0 16.0	16.0	8.2 8.2	8.2	33.8 33.8	33.8	93.2 93.4	93.3	7.5 7.5	7.5	7.5	3.1 3.1	3.1	3.3	6.3 5.5	5.9	6.6
					Middle	17.7	16.0 16.0	16.0	8.2 8.2	8.2	33.8 33.8	33.8	92.6 92.9	92.8	7.4 7.5	7.5		3.4 3.2	3.3		6.4 7.3	6.9	
					Bottom	34.3	16.0 16.0	16.0	8.2 8.2	8.2	33.8 33.8	33.8	92.9 92.3	92.6	7.5 7.4	7.4	7.4	3.4 3.4	3.4		7.2 6.5	6.9	
19-Feb-14	Rainy	Moderate	08:28	36.7	Surface	1.0	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	89.2 88.4	88.8	7.1 7.0	7.1	7.1	2.3 2.4	2.4	2.8	6.7 7.3	7.0	6.8
					Middle	18.4	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	89.4 88.1	88.8	7.1 7.0	7.1		2.9 2.8	2.9		7.6 7.0	7.3	
					Bottom	35.7	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	88.1 90.6	89.4	7.0 7.2	7.1	7.1	3.0 3.1	3.1		5.7 6.3	6.0	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at CSA - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	09:26	36.1	Surface	1.0	16.4 16.4	16.4	8.2 8.2	8.2	33.9 33.9	33.9	90.4 89.6	90.0	7.2 7.1	7.2	7.2	1.7 1.8	1.8	1.9	3.7 4.8	4.3	4.8
					Middle	18.1	16.4 16.4	16.4	8.2 8.2	8.2	33.9 33.9	33.9	90.2 89.2	89.7	7.2 7.1	7.1		1.9 1.8	1.9		3.9 6.1	5.0	
					Bottom	35.1	16.4 16.4	16.4	8.2 8.2	8.2	33.9 33.9	33.9	91.1 89.2	90.2	7.3 7.1	7.2	7.2	1.9 1.9	1.9		4.0 6.3	5.2	
24-Feb-14	Sunny	Moderate	12:28	35.1	Surface	1.0	16.7 16.7	16.7	8.2 8.2	8.2	33.8 33.8	33.8	89.8 90.2	90.0	7.1 7.2	7.1	7.1	2.1 2.1	2.1	2.1	3.2 2.3	2.8	3.0
					Middle	17.6	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	89.2 88.8	89.0	7.1 7.1	7.1		2.1 2.1	2.1		3.0 2.5	2.8	
					Bottom	34.1	16.5 16.5	16.5	8.2 8.2	8.2	33.8 33.8	33.8	89.1 89.7	89.4	7.1 7.1	7.1	7.1	2.2 2.1	2.2		3.0 3.5	3.3	
26-Feb-14	Cloudy	Moderate	17:07	36.8	Surface	1.0	16.9 17.0	17.0	8.2 8.2	8.2	33.7 33.7	33.7	88.6 89.2	88.9	7.0 7.0	7.0	7.0	1.4 1.4	1.4	2.0	2.1 2.4	2.3	2.8
					Middle	18.4	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	87.1 87.4	87.3	6.9 6.9	6.9		2.1 2.2	2.2		3.8 3.9	3.9	
					Bottom	35.8	16.8 16.8	16.8	8.2 8.2	8.2	33.7 33.7	33.7	87.4 87.1	87.3	6.9 6.9	6.9	6.9	2.3 2.5	2.4		2.2 2.4	2.3	
28-Feb-14	Sunny	Moderate	18:52	36.0	Surface	1.0	17.7 17.6	17.6	8.3 8.3	8.3	32.7 32.8	32.8	97.5 96.5	97.0	7.6 7.6	7.6	7.5	2.2 2.1	2.2	2.2	3.3 4.4	3.9	4.9
					Middle	18.0	17.3 17.3	17.3	8.2 8.2	8.2	33.2 33.2	33.2	92.7 94.6	93.7	7.3 7.4	7.4		2.2 2.2	2.2		5.5 5.9	5.7	
					Bottom	35.0	17.3 17.3	17.3	8.2 8.2	8.2	33.3 33.3	33.3	96.6 95.4	96.0	7.6 7.5	7.6	7.6	2.1 2.2	2.2		5.4 4.7	5.1	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)6 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:24	3.1	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	132.0 129.0	130.5	10.4 10.2	10.3	10.3	1.7 1.8	1.8	1.8	3.6 3.9	3.8	4.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	130.3 124.3	127.3	10.3 9.8	10.1	10.1	1.8 1.8	1.8		3.9 4.2	4.1	
3-Feb-14	Sunny	Moderate	14:35	3.4	Surface	1.0	18.1 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	117.5 107.6	112.6	9.3 8.5	8.9	8.9	1.4 1.5	1.5	1.7	4.3 2.9	3.6	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.2 18.1	18.2	8.2 8.2	8.2	30.0 30.1	30.0	114.2 100.9	107.6	9.0 8.0	8.5	8.5	1.9 1.8	1.9		2.9 4.0	3.5	
5-Feb-14	Sunny	Moderate	16:16	3.3	Surface	1.0	18.7 18.7	18.7	8.3 8.3	8.3	30.5 30.5	30.5	119.8 113.7	116.8	9.3 8.9	9.1	9.1	2.3 2.2	2.3	2.4	4.1 4.9	4.5	4.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	18.6 18.7	18.7	8.3 8.3	8.3	30.5 30.5	30.5	109.3 116.7	113.0	8.5 9.1	8.8	8.8	2.4 2.6	2.5		4.9 4.4	4.7	
7-Feb-14	Sunny	Moderate	18:46	3.2	Surface	1.0	19.2 19.2	19.2	8.3 8.3	8.3	30.5 30.6	30.6	125.9 123.1	124.5	9.7 9.5	9.6	9.6	2.2 2.2	2.2	2.2	4.1 4.5	4.3	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	19.2 19.2	19.2	8.3 8.3	8.3	30.7 30.7	30.7	120.8 124.3	122.6	9.3 9.6	9.4	9.4	2.2 2.2	2.2		3.4 4.2	3.8	
10-Feb-14	Fine	Moderate	21:57	3.2	Surface	1.0	16.9 16.9	16.9	8.2 8.2	8.2	30.5 30.5	30.5	103.9 103.6	103.8	8.4 8.4	8.4	8.4	1.8 1.8	1.8	1.8	3.9 6.0	5.0	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	16.9 16.9	16.9	8.2 8.2	8.2	30.5 30.5	30.5	104.8 103.9	104.4	8.4 8.4	8.4	8.4	1.8 1.7	1.8		7.8 7.2	7.5	
12-Feb-14	Cloudy	Moderate	12:33	3.2	Surface	1.0	15.8 16.0	15.9	8.1 8.1	8.1	31.0 31.2	31.1	96.1 94.0	95.1	7.9 7.7	7.8	7.8	4.0 4.1	4.1	5.3	6.2 5.0	5.6	5.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.9 16.0	15.9	8.1 8.1	8.1	30.9 31.2	31.1	97.2 95.1	96.2	8.0 7.8	7.9	7.9	6.6 6.4	6.5		5.8 4.7	5.3	
14-Feb-14	Sunny	Moderate	08:09	3.3	Surface	1.0	15.0 15.0	15.0	7.9 7.9	7.9	32.1 32.1	32.1	95.5 99.2	97.4	7.9 8.2	8.1	8.1	6.5 5.8	6.2	6.7	3.5 4.8	4.2	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.0 15.0	15.0	7.9 7.9	7.9	32.2 32.1	32.2	104.4 96.9	100.7	8.7 8.0	8.3	8.3	7.1 7.2	7.2		4.2 2.9	3.6	
17-Feb-14	Sunny	Moderate	13:06	3.3	Surface	1.0	16.0 16.0	16.0	7.9 7.9	7.9	33.2 33.3	33.3	101.4 98.4	99.9	8.2 7.9	8.1	8.1	6.3 6.7	6.5	6.9	5.8 5.7	5.8	5.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.2	33.2	97.0 99.6	98.3	7.8 8.0	7.9	7.9	7.5 7.0	7.3		5.6 5.1	5.4	
19-Feb-14	Sunny	Moderate	14:32	3.1	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	99.4 98.9	99.2	8.0 8.0	8.0	8.0	6.8 6.8	6.8	6.9	10.1 9.8	10.0	11.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	100.3 99.0	99.7	8.1 8.0	8.1	8.1	7.0 6.8	6.9		12.4 12.0	12.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)6 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	15:47	3.2	Surface	1.0	15.8 15.8	15.8	7.9 7.9	7.9	33.6 33.6	33.6	103.3 103.3	103.3	8.3 8.4	8.3	8.3	5.8 5.9	5.9	5.9	7.3 6.6	7.0	7.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.8 15.8	15.8	7.8 7.9	7.8	33.6 33.6	33.6	102.9 103.2	103.1	8.3 8.3	8.3	8.3	5.8 5.8	5.8		7.9 7.8	7.9	
24-Feb-14	Sunny	Moderate	19:28	3.4	Surface	1.0	16.5 16.5	16.5	8.0 8.0	8.0	33.8 33.8	33.8	101.2 100.8	101.0	8.1 8.0	8.0	8.0	4.3 4.3	4.3	4.3	8.0 6.7	7.4	7.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	16.5 16.5	16.5	8.0 8.0	8.0	33.8 33.8	33.8	99.5 101.0	100.3	7.9 8.0	8.0	8.0	4.3 4.3	4.3		6.4 7.2	6.8	
26-Feb-14	Cloudy	Moderate	12:05	3.1	Surface	1.0	17.5 17.5	17.5	7.9 7.9	7.9	33.2 33.2	33.2	102.4 102.7	102.6	8.0 8.1	8.0	8.0	5.5 5.6	5.6	5.7	5.1 4.2	4.7	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	17.5 17.5	17.5	7.9 7.9	7.9	33.2 33.2	33.2	101.8 102.7	102.3	8.0 8.1	8.0	8.0	5.8 5.7	5.8		5.0 4.6	4.8	
28-Feb-14	Sunny	Moderate	12:56	3.2	Surface	1.0	18.5 18.5	18.5	8.0 8.0	8.0	32.4 32.4	32.4	107.6 108.4	108.0	8.3 8.4	8.4	8.4	4.8 4.4	4.6	5.5	5.9 4.9	5.4	6.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	18.5 18.5	18.5	8.0 8.0	8.0	32.3 32.4	32.3	107.3 108.1	107.7	8.3 8.4	8.3	8.3	6.3 6.4	6.4		7.6 7.2	7.4	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
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Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)6 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:08	3.1	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	132.6 134.5	133.6	10.5 10.6	10.5	10.5	2.1 2.1	2.1	2.2	3.9 2.5	3.2	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	133.4 128.7	131.1	10.5 10.2	10.3	10.3	2.1 2.2	2.2		4.1 4.9	4.5	
3-Feb-14	Sunny	Moderate	10:16	3.4	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	29.9 29.9	29.9	125.3 133.6	129.5	9.8 10.5	10.2	10.2	2.0 1.9	2.0	2.1	2.7 3.6	3.2	2.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.4 18.5	18.5	8.3 8.3	8.3	29.9 29.9	29.9	116.0 130.4	123.2	9.1 10.2	9.7	9.7	2.2 2.1	2.2		2.3 2.9	2.6	
5-Feb-14	Fine	Moderate	11:19	3.2	Surface	1.0	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	115.6 108.1	111.9	9.1 8.5	8.8	8.8	2.4 2.6	2.5	3.2	3.1 5.0	4.1	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	18.4 18.3	18.4	8.3 8.2	8.2	29.9 30.0	30.0	113.2 102.7	108.0	8.9 8.1	8.5	8.5	3.9 3.6	3.8		3.9 3.3	3.6	
7-Feb-14	Sunny	Moderate	12:49	3.2	Surface	1.0	19.2 19.2	19.2	8.3 8.3	8.3	30.1 30.1	30.1	126.4 129.1	127.8	9.8 10.0	9.9	9.9	2.2 2.2	2.2	2.3	3.0 2.8	2.9	3.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	19.2 19.1	19.2	8.3 8.3	8.3	30.1 30.1	30.1	127.9 120.6	124.3	9.9 9.3	9.6	9.6	2.3 2.3	2.3		3.6 3.2	3.4	
10-Feb-14	Fine	Moderate	11:03	3.2	Surface	1.0	17.1 17.1	17.1	8.2 8.2	8.2	30.4 30.4	30.4	100.2 101.5	100.9	8.0 8.2	8.1	8.1	2.5 2.3	2.4	2.4	9.0 8.3	8.7	9.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	17.1 17.1	17.1	8.2 8.2	8.2	30.4 30.4	30.4	100.7 103.4	102.1	8.1 8.3	8.2	8.2	2.4 2.4	2.4		9.3 9.5	9.4	
12-Feb-14	Cloudy	Moderate	16:03	3.1	Surface	1.0	15.9 15.9	15.9	8.1 8.1	8.1	31.3 31.2	31.3	95.0 96.6	95.8	7.8 7.9	7.8	7.8	2.9 3.2	3.1	3.2	2.7 4.3	3.5	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	15.9 15.9	15.9	8.1 8.1	8.1	31.2 31.3	31.2	98.3 95.5	96.9	8.0 7.8	7.9	7.9	3.1 3.2	3.2		4.2 2.9	3.6	
14-Feb-14	Cloudy	Moderate	11:39	3.3	Surface	1.0	15.1 15.2	15.1	7.9 7.9	7.9	32.0 32.0	32.0	98.6 101.8	100.2	8.2 8.4	8.3	8.3	3.6 3.5	3.6	3.8	4.5 5.4	5.0	5.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.1 15.1	15.1	7.9 7.9	7.9	32.1 32.0	32.1	103.1 99.4	101.3	8.5 8.2	8.4	8.4	3.9 4.0	4.0		6.5 5.4	6.0	
17-Feb-14	Cloudy	Moderate	08:57	3.3	Surface	1.0	15.5 15.5	15.5	7.9 7.8	7.8	32.6 32.6	32.6	97.8 97.8	97.8	8.0 8.0	8.0	8.0	6.6 6.3	6.5	7.3	6.9 9.0	8.0	8.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.5 15.5	15.5	7.8 7.8	7.8	32.7 32.7	32.7	97.9 98.0	98.0	8.0 8.0	8.0	8.0	7.8 8.1	8.0		9.9 9.4	9.7	
19-Feb-14	Rainy	Moderate	10:09	3.2	Surface	1.0	16.0 16.0	16.0	7.9 7.9	7.9	33.1 33.1	33.1	96.3 97.2	96.8	7.8 7.9	7.8	7.8	8.6 8.2	8.4	8.5	9.3 10.2	9.8	10.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.9 16.0	16.0	7.9 7.9	7.9	33.1 33.1	33.1	98.5 96.5	97.5	8.0 7.8	7.9	7.9	8.4 8.5	8.5		10.0 10.3	10.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)6 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	11:04	3.1	Surface	1.0	15.6 15.6	15.6	7.9 7.9	7.9	33.2 33.2	33.2	98.4 99.0	98.7	8.0 8.1	8.0	8.0	5.7 6.0	5.9	6.0	8.5 6.7	7.6	7.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	15.5 15.6	15.6	7.9 7.9	7.9	33.2 33.2	33.2	99.5 98.7	99.1	8.1 8.0	8.1	8.1	5.8 6.2	6.0		7.4 6.3	6.9	
24-Feb-14	Sunny	Moderate	13:36	3.3	Surface	1.0	16.4 16.4	16.4	8.0 8.0	8.0	33.1 33.1	33.1	101.0 102.5	101.8	8.1 8.2	8.1	8.1	5.3 5.0	5.2	5.2	7.5 8.5	8.0	9.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	16.4 16.5	16.5	8.0 7.9	8.0	33.1 33.0	33.1	101.8 99.3	100.6	8.2 7.9	8.0	8.0	5.1 5.3	5.2		10.9 9.0	10.0	
26-Feb-14	Cloudy	Moderate	15:06	3.1	Surface	1.0	17.8 17.8	17.8	7.9 7.9	7.9	33.2 33.2	33.2	105.6 105.5	105.6	8.2 8.2	8.2	8.2	6.4 6.6	6.5	6.5	9.1 9.7	9.4	9.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	17.7 17.6	17.6	7.9 7.9	7.9	33.2 33.2	33.2	105.3 104.7	105.0	8.2 8.2	8.2	8.2	6.3 6.5	6.4		8.5 8.7	8.6	
28-Feb-14	Sunny	Moderate	16:37	3.1	Surface	1.0	18.6 18.6	18.6	8.1 8.1	8.1	32.4 32.4	32.4	117.5 117.8	117.7	9.1 9.1	9.1	9.1	6.3 6.5	6.4	7.1	6.4 6.0	6.2	6.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	18.6 18.6	18.6	8.1 8.0	8.1	32.4 32.4	32.4	117.2 117.1	117.2	9.0 9.0	9.0	9.0	7.8 7.7	7.8		7.1 4.7	5.9	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)9 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:38	3.7	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	29.9 29.9	29.9	140.6 140.4	140.5	11.1 11.1	11.1	11.1	1.4 1.3	1.4	1.6	3.6 3.9	3.8	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	18.2 18.2	18.2	8.2 8.3	8.3	30.1 30.1	30.1	140.1 140.3	140.2	11.1 11.1	11.1	11.1	1.8 1.8	1.8		4.4 4.3	4.4	
3-Feb-14	Sunny	Moderate	14:53	3.4	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	29.9 29.9	29.9	130.9 131.6	131.3	10.3 10.4	10.4	10.4	1.4 1.2	1.3	1.4	3.1 3.8	3.5	3.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.1 18.1	18.1	8.2 8.2	8.2	30.0 30.0	30.0	130.4 130.9	130.7	10.3 10.3	10.3	10.3	1.5 1.4	1.5		3.6 2.4	3.0	
5-Feb-14	Sunny	Moderate	16:33	3.4	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	30.2 30.2	30.2	129.3 126.5	127.9	10.1 9.9	10.0	10.0	1.7 1.7	1.7	1.7	5.3 2.8	4.1	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.5 18.5	18.5	8.3 8.3	8.3	30.2 30.2	30.2	127.8 121.4	124.6	10.0 9.5	9.8	9.8	1.7 1.7	1.7		5.7 5.3	5.5	
7-Feb-14	Sunny	Moderate	18:59	3.4	Surface	1.0	19.2 19.2	19.2	8.3 8.3	8.3	30.3 30.3	30.3	130.8 127.1	129.0	10.1 9.8	10.0	10.0	3.2 3.1	3.2	3.2	4.0 3.8	3.9	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	19.1 19.1	19.1	8.3 8.3	8.3	30.3 30.3	30.3	122.6 129.2	125.9	9.5 10.0	9.7	9.7	3.1 3.0	3.1		4.5 4.1	4.3	
10-Feb-14	Fine	Moderate	22:08	3.7	Surface	1.0	17.2 17.2	17.2	8.2 8.2	8.2	30.9 31.0	31.0	104.2 102.6	103.4	8.3 8.2	8.3	8.3	1.6 1.6	1.6	1.6	5.7 4.8	5.3	6.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	17.2 17.3	17.2	8.2 8.2	8.2	31.0 31.0	31.0	103.5 106.6	105.1	8.3 8.5	8.4	8.4	1.6 1.6	1.6		7.4 8.5	8.0	
12-Feb-14	Cloudy	Moderate	12:17	3.5	Surface	1.0	15.9 15.9	15.9	8.1 8.1	8.1	31.0 31.2	31.1	97.7 96.5	97.1	8.0 7.9	8.0	8.0	2.6 2.6	2.6	2.9	5.3 4.4	4.9	5.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.8 15.9	15.9	8.1 8.1	8.1	30.8 31.2	31.0	97.9 97.2	97.6	8.0 8.0	8.0	8.0	3.3 3.1	3.2		4.5 6.0	5.3	
14-Feb-14	Sunny	Moderate	07:56	3.4	Surface	1.0	15.0 15.0	15.0	7.9 7.9	7.9	32.1 32.1	32.1	96.9 101.1	99.0	8.0 8.4	8.2	8.2	6.6 6.9	6.8	9.2	3.6 4.7	4.2	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	15.2 15.2	15.2	7.9 7.9	7.9	32.3 32.3	32.3	104.8 99.3	102.1	8.6 8.2	8.4	8.4	11.1 12.0	11.6		4.7 3.2	4.0	
17-Feb-14	Sunny	Moderate	13:23	3.5	Surface	1.0	16.3 16.4	16.3	7.9 7.9	7.9	33.3 33.3	33.3	100.4 102.4	101.4	8.1 8.2	8.1	8.1	4.2 4.4	4.3	4.7	6.6 5.0	5.8	5.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	16.2 16.3	16.3	7.9 7.9	7.9	33.3 33.3	33.3	99.0 101.4	100.2	8.0 8.1	8.0	8.0	5.1 4.9	5.0		6.2 5.1	5.7	
19-Feb-14	Sunny	Moderate	14:45	3.6	Surface	1.0	15.8 15.8	15.8	7.9 8.0	8.0	33.0 33.0	33.0	101.6 100.7	101.2	8.2 8.2	8.2	8.2	5.4 5.3	5.4	5.5	7.9 9.1	8.5	9.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	15.8 15.8	15.8	7.9 8.0	8.0	33.0 33.0	33.0	103.3 101.0	102.2	8.4 8.2	8.3	8.3	5.4 5.6	5.5		11.0 9.7	10.4	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)9 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	15:59	3.4	Surface	1.0	16.1 16.1	16.1	7.9 7.9	7.9	33.5 33.5	33.5	100.5 101.6	101.1	8.1 8.2	8.1	8.1	6.8 6.3	6.6	6.5	9.6 9.0	9.3	9.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	16.0 16.1	16.0	7.9 7.9	7.9	33.6 33.5	33.6	101.7 101.0	101.4	8.2 8.1	8.2	8.2	6.5 6.1	6.3		8.8 9.1	9.0	
24-Feb-14	Sunny	Moderate	19:41	3.2	Surface	1.0	17.0 17.0	17.0	8.0 8.0	8.0	33.8 33.8	33.8	99.5 99.7	99.6	7.8 7.9	7.9	7.9	6.8 6.6	6.7	6.8	8.4 8.2	8.3	9.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	17.0 17.0	17.0	8.0 8.0	8.0	33.8 33.8	33.8	99.5 99.6	99.6	7.8 7.9	7.8	7.8	6.8 6.7	6.8		8.9 10.4	9.7	
26-Feb-14	Cloudy	Moderate	11:48	3.5	Surface	1.0	17.6 17.5	17.6	7.9 7.9	7.9	33.2 33.2	33.2	104.1 103.6	103.9	8.1 8.1	8.1	8.1	3.7 3.7	3.7	3.7	4.5 4.1	4.3	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	17.4 17.5	17.4	7.9 7.9	7.9	33.2 33.3	33.2	102.1 101.2	101.7	8.0 7.9	8.0	8.0	3.6 3.8	3.7		5.4 5.6	5.5	
28-Feb-14	Sunny	Moderate	12:40	3.4	Surface	1.0	18.2 18.2	18.2	8.0 8.0	8.0	32.4 32.4	32.4	108.7 109.3	109.0	8.5 8.5	8.5	8.5	3.5 3.6	3.6	3.6	6.9 6.9	6.9	7.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.2 18.2	18.2	8.0 8.0	8.0	32.4 32.4	32.4	108.5 108.6	108.6	8.4 8.4	8.4	8.4	3.6 3.4	3.5		7.2 7.9	7.6	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)9 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:55	3.7	Surface	1.0	18.0 18.0	18.0	8.2 8.2	8.2	29.9 29.9	29.9	134.1 131.3	132.7	10.6 10.4	10.5	10.5	1.4 1.5	1.5	1.6	4.6 6.0	5.3	5.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	133.0 128.4	130.7	10.5 10.1	10.3	10.3	1.6 1.6	1.6		6.2 6.8	6.5	
3-Feb-14	Sunny	Moderate	10:04	3.5	Surface	1.0	18.6 18.6	18.6	8.3 8.3	8.3	29.7 29.7	29.7	128.8 134.5	131.7	10.1 10.5	10.3	10.3	1.1 1.0	1.1	1.2	4.1 2.8	3.5	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.6 18.6	18.6	8.3 8.3	8.3	29.7 29.7	29.7	132.5 124.0	128.3	10.4 9.7	10.0	10.0	1.1 1.2	1.2		3.8 4.6	4.2	
5-Feb-14	Fine	Moderate	11:05	3.5	Surface	1.0	18.3 18.3	18.3	8.2 8.2	8.2	29.7 29.7	29.7	115.5 119.0	117.3	9.1 9.4	9.2	9.2	2.4 2.5	2.5	2.6	6.3 5.4	5.9	5.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.3 18.3	18.3	8.2 8.2	8.2	29.7 29.7	29.7	110.6 117.3	114.0	8.7 9.3	9.0	9.0	2.6 2.7	2.7		4.7 6.1	5.4	
7-Feb-14	Sunny	Moderate	12:37	3.7	Surface	1.0	19.0 19.0	19.0	8.3 8.3	8.3	29.7 29.7	29.7	128.6 125.9	127.3	10.0 9.8	9.9	9.9	2.4 2.5	2.5	2.5	4.3 2.4	3.4	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	18.9 18.9	18.9	8.3 8.3	8.3	30.0 29.8	29.9	121.8 127.2	124.5	9.5 9.9	9.7	9.7	2.5 2.5	2.5		3.1 4.2	3.7	
10-Feb-14	Fine	Moderate	10:50	3.8	Surface	1.0	17.2 17.2	17.2	8.2 8.2	8.2	30.4 30.4	30.4	100.1 100.5	100.3	8.0 8.1	8.0	8.0	2.2 2.2	2.2	2.3	4.7 5.1	4.9	5.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	17.7 17.3	17.5	8.2 8.2	8.2	30.6 30.5	30.5	102.1 100.6	101.4	8.1 8.0	8.1	8.1	2.4 2.2	2.3		5.8 4.3	5.1	
12-Feb-14	Cloudy	Moderate	16:17	3.5	Surface	1.0	15.7 15.9	15.8	8.1 8.1	8.1	31.3 31.5	31.4	97.7 97.7	97.7	8.0 8.0	8.0	8.0	3.8 3.5	3.7	3.9	3.9 4.0	4.0	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.8 16.2	16.0	8.1 8.1	8.1	31.7 32.0	31.9	98.2 98.0	98.1	8.0 7.9	8.0	8.0	3.8 4.1	4.0		3.7 3.6	3.7	
14-Feb-14	Cloudy	Moderate	11:54	3.3	Surface	1.0	15.2 15.2	15.2	7.9 7.9	7.9	32.1 32.0	32.1	98.1 99.2	98.7	8.1 8.2	8.1	8.1	3.3 3.0	3.2	3.4	6.9 6.9	6.9	6.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.2 15.1	15.1	7.9 7.9	7.9	32.1 32.2	32.2	98.5 100.4	99.5	8.1 8.3	8.2	8.2	3.8 3.4	3.6		5.4 5.3	5.4	
17-Feb-14	Cloudy	Moderate	08:43	3.7	Surface	1.0	15.8 15.8	15.8	7.8 7.8	7.8	32.8 32.8	32.8	96.1 95.6	95.9	7.8 7.8	7.8	7.8	7.7 7.9	7.8	8.0	12.3 13.6	13.0	13.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	15.8 15.8	15.8	7.8 7.7	7.8	32.8 32.7	32.7	95.8 97.5	96.7	7.8 7.9	7.9	7.9	8.1 8.0	8.1		13.2 12.6	12.9	
19-Feb-14	Rainy	Moderate	09:56	3.7	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	100.7 98.6	99.7	8.2 8.0	8.1	8.1	9.3 9.4	9.4	9.4	8.4 7.9	8.2	9.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	99.5 104.5	102.0	8.1 8.5	8.3	8.3	9.4 9.4	9.4		10.2 9.6	9.9	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)9 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:51	3.4	Surface	1.0	15.8 15.8	15.8	7.9 7.8	7.9	33.2 33.2	33.2	97.4 98.0	97.7	7.9 7.9	7.9	7.9	5.0 4.8	4.9	4.9	4.4 5.8	5.1	6.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	15.7 15.8	15.8	7.8 7.9	7.9	33.2 33.2	33.2	98.7 97.6	98.2	8.0 7.9	8.0	8.0	4.6 5.0	4.8		8.0 8.0	8.0	
24-Feb-14	Sunny	Moderate	13:24	3.3	Surface	1.0	16.9 16.9	16.9	8.0 8.0	8.0	33.2 33.2	33.2	99.4 100.0	99.7	7.9 7.9	7.9	7.9	4.6 4.5	4.6	4.7	8.5 6.9	7.7	7.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	16.9 16.9	16.9	8.0 8.0	8.0	33.2 33.2	33.2	99.9 98.4	99.2	7.9 7.8	7.9	7.9	4.8 4.8	4.8		8.6 7.6	8.1	
26-Feb-14	Cloudy	Moderate	15:20	3.7	Surface	1.0	17.7 17.7	17.7	7.9 7.9	7.9	33.2 33.2	33.2	108.4 106.9	107.7	8.5 8.3	8.4	8.4	6.4 6.2	6.3	6.4	6.6 6.0	6.3	6.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	17.5 17.6	17.5	7.9 7.9	7.9	33.2 33.2	33.2	104.8 107.4	106.1	8.2 8.4	8.3	8.3	6.5 6.2	6.4		6.8 6.6	6.7	
28-Feb-14	Sunny	Moderate	17:03	3.2	Surface	1.0	18.2 18.2	18.2	8.0 8.0	8.0	32.3 32.3	32.3	109.9 110.0	110.0	8.5 8.5	8.5	8.5	9.8 10.0	9.9	10.2	11.2 12.5	11.9	12.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	18.3 18.3	18.3	8.0 8.0	8.0	32.3 32.3	32.3	109.3 109.0	109.2	8.5 8.5	8.5	8.5	10.3 10.5	10.4		12.5 11.6	12.1	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS10 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:46	10.5	Surface	1.0	18.1 18.2	18.2	8.3 8.3	8.3	30.2 30.2	30.2	106.3 106.2	106.3	8.5 8.5	8.5	8.5	4.0 3.9	4.0	4.3	3.0 2.3	2.7	3.3
					Middle	5.3	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.2 105.4	105.3	8.4 8.4	8.4		4.5 4.7	4.6		3.3 3.7	3.5	
					Bottom	9.5	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.9 105.7	105.8	8.5 8.4	8.4	8.4	4.3 4.2	4.3		3.2 4.0	3.6	
3-Feb-14	Sunny	Moderate	15:53	10.5	Surface	1.0	18.4 18.5	18.4	8.4 8.4	8.4	29.6 29.6	29.6	127.3 128.2	127.8	10.0 10.1	10.1	10.1	3.3 3.4	3.4	4.3	4.3 4.7	4.5	4.4
					Middle	5.3	18.3 18.3	18.3	8.4 8.4	8.4	29.6 29.6	29.6	126.1 126.4	126.3	9.9 10.0	10.0		4.6 4.6	4.6		4.5 4.2	4.4	
					Bottom	9.5	18.3 18.3	18.3	8.4 8.4	8.4	29.6 29.6	29.6	126.7 126.2	126.5	10.0 10.0	10.0	10.0	4.7 4.9	4.8		4.7 3.7	4.2	
5-Feb-14	Sunny	Moderate	17:25	10.4	Surface	1.0	18.5 18.4	18.5	8.5 8.5	8.5	29.5 29.6	29.6	128.0 126.8	127.4	10.1 10.0	10.0	10.0	1.5 1.5	1.5	1.5	3.7 2.6	3.2	3.0
					Middle	5.2	18.3 18.3	18.3	8.4 8.4	8.4	30.0 30.0	30.0	125.7 125.2	125.5	9.9 9.9	9.9		1.5 1.5	1.5		2.4 2.8	2.6	
					Bottom	9.4	18.3 18.3	18.3	8.4 8.4	8.4	30.0 30.0	30.0	126.7 127.5	127.1	10.0 10.0	10.0	10.0	1.6 1.5	1.6		3.6 2.7	3.2	
7-Feb-14	Sunny	Moderate	19:30	9.8	Surface	1.0	19.2 19.1	19.2	8.5 8.5	8.5	28.6 28.8	28.7	131.1 130.2	130.7	10.2 10.2	10.2	10.1	1.4 1.5	1.5	1.7	2.5 2.7	2.6	2.9
					Middle	4.9	18.8 18.8	18.8	8.5 8.5	8.5	29.8 29.7	29.7	127.3 127.8	127.6	10.0 10.0	10.0		1.9 1.6	1.8		2.9 3.2	3.1	
					Bottom	8.8	18.8 18.8	18.8	8.5 8.5	8.5	29.8 29.7	29.7	128.7 129.7	129.2	10.1 10.1	10.1	10.1	1.9 1.6	1.8		3.3 2.6	3.0	
10-Feb-14	Fine	Moderate	22:52	10.5	Surface	1.0	17.4 17.4	17.4	8.3 8.3	8.3	31.6 31.6	31.6	95.3 95.2	95.3	7.6 7.6	7.6	7.6	15.1 14.6	14.9	13.5	20.2 19.7	20.0	22.3
					Middle	5.3	17.7 17.8	17.8	8.3 8.3	8.3	32.3 32.4	32.3	95.4 95.2	95.3	7.5 7.5	7.5		12.7 13.0	12.9		22.3 23.2	22.8	
					Bottom	9.5	17.8 17.7	17.7	8.3 8.3	8.3	32.4 32.5	32.5	95.4 95.8	95.6	7.5 7.5	7.5	7.5	12.5 12.8	12.7		23.6 24.8	24.2	
12-Feb-14	Cloudy	Moderate	11:55	10.5	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	95.2 97.0	96.1	7.6 7.8	7.7	7.7	2.4 2.5	2.5	2.4	4.8 4.4	4.6	5.6
					Middle	5.3	16.7 16.8	16.7	8.3 8.3	8.3	32.9 33.0	33.0	95.1 98.4	96.8	7.6 7.8	7.7		2.3 2.4	2.4		4.9 4.4	4.7	
					Bottom	9.5	16.7 16.8	16.7	8.3 8.3	8.3	33.0 33.0	33.0	96.0 100.9	98.5	7.6 8.0	7.8	7.8	2.3 2.3	2.3		7.8 7.0	7.4	
14-Feb-14	Sunny	Moderate	07:19	10.9	Surface	1.0	15.7 15.7	15.7	8.2 8.2	8.2	33.4 33.4	33.4	92.6 94.2	93.4	7.5 7.6	7.6	7.6	14.2 14.2	14.2	14.4	3.4 2.7	3.1	3.7
					Middle	5.5	15.7 15.7	15.7	8.2 8.2	8.2	33.4 33.5	33.5	92.7 94.7	93.7	7.5 7.7	7.6		15.0 14.4	14.7		2.4 3.9	3.2	
					Bottom	9.9	15.7 15.7	15.7	8.1 8.2	8.2	33.5 33.5	33.5	96.4 93.0	94.7	7.8 7.5	7.7	7.7	14.4 14.1	14.3		4.3 5.3	4.8	
17-Feb-14	Sunny	Moderate	14:19	10.4	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.4	33.4	96.2 95.9	96.1	7.6 7.6	7.6	7.6	3.9 4.0	4.0	4.3	3.4 4.8	4.1	4.5
					Middle	5.2	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	94.7 94.8	94.8	7.6 7.6	7.6		4.4 4.6	4.5		4.3 4.2	4.3	
					Bottom	9.4	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	94.9 94.7	94.8	7.6 7.6	7.6	7.6	4.5 4.4	4.5		4.9 5.4	5.2	
19-Feb-14	Sunny	Moderate	15:11	10.0	Surface	1.0	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	93.2 93.2	93.2	7.5 7.5	7.5	7.5	7.8 8.1	8.0	7.9	14.1 12.7	13.4	12.9
					Middle	5.0	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	93.0 92.9	93.0	7.5 7.5	7.5		8.0 7.6	7.8		12.1 13.3	12.7	
					Bottom	9.0	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	93.0 92.8	92.9	7.5 7.5	7.5	7.5	7.7 7.9	7.8		12.6 12.5	12.6	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS10 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	17:00	10.4	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.4 94.3	94.4	7.6 7.6	7.6	7.6	3.1 3.2	3.2	3.3	4.9 6.1	5.5	5.2
					Middle	5.2	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.0 94.1	94.1	7.6 7.6	7.6		3.2 3.2	3.2		4.4 4.3	4.4	
					Bottom	9.4	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	94.0 93.9	94.0	7.6 7.6	7.6	7.6	3.4 3.4	3.4		4.9 6.5	5.7	
24-Feb-14	Sunny	Moderate	20:48	10.4	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.8 95.8	95.8	7.6 7.6	7.6	7.6	1.8 1.9	1.9	2.1	4.9 5.0	5.0	4.1
					Middle	5.2	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.8 96.1	96.0	7.6 7.6	7.6		2.3 2.2	2.3		4.7 3.5	4.1	
					Bottom	9.4	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	94.9 95.2	95.1	7.5 7.6	7.6	7.6	2.2 2.2	2.2		2.8 3.3	3.1	
26-Feb-14	Cloudy	Moderate	11:05	10.0	Surface	1.0	17.1 17.1	17.1	8.3 8.3	8.3	32.9 32.6	32.8	98.7 99.8	99.3	7.8 7.9	7.9	7.8	2.6 2.7	2.7	2.8	5.3 5.1	5.2	5.1
					Middle	5.0	17.0 17.0	17.0	8.3 8.3	8.3	33.7 33.7	33.7	97.6 98.8	98.2	7.7 7.8	7.7		2.7 2.6	2.7		5.7 5.1	5.4	
					Bottom	9.0	17.0 17.0	17.0	8.3 8.3	8.3	33.7 33.7	33.7	96.9 98.8	97.9	7.6 7.8	7.7	7.7	2.9 3.2	3.1		5.0 4.6	4.8	
28-Feb-14	Sunny	Moderate	12:28	10.6	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	104.1 105.2	104.7	8.2 8.2	8.2	8.2	2.2 2.3	2.3	2.3	4.1 3.1	3.6	4.5
					Middle	5.3	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	103.4 104.4	103.9	8.1 8.2	8.1		2.3 2.3	2.3		4.1 4.4	4.3	
					Bottom	9.6	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	102.4 104.1	103.3	8.0 8.2	8.1	8.1	2.3 2.3	2.3		5.2 5.9	5.6	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS10 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:43	10.6	Surface	1.0	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.1	30.1	105.2 106.3	105.8	8.4 8.5	8.4	8.4	4.4 4.4	4.4	4.7	3.5 3.4	3.5	4.2
					Middle	5.3	17.9 17.9	17.9	8.3 8.3	8.3	30.2 30.2	30.2	105.7 104.7	105.2	8.4 8.4	8.4		4.9 4.7	4.8		5.0 4.6	4.8	
					Bottom	9.6	17.9 17.9	17.9	8.3 8.3	8.3	30.2 30.2	30.2	106.4 104.8	105.6	8.5 8.4	8.4	8.4	4.9 4.9	4.9		4.7 4.1	4.4	
3-Feb-14	Sunny	Moderate	09:49	10.9	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	29.6 29.6	29.6	124.8 123.0	123.9	9.8 9.7	9.8	9.8	3.8 3.9	3.9	3.9	5.0 4.8	4.9	4.8
					Middle	5.5	18.3 18.3	18.3	8.4 8.3	8.4	29.6 29.6	29.6	124.1 121.7	122.9	9.8 9.6	9.7		3.9 4.0	4.0		4.8 4.5	4.7	
					Bottom	9.9	18.3 18.3	18.3	8.4 8.3	8.4	29.6 29.6	29.6	123.4 119.5	121.5	9.7 9.4	9.6	9.6	3.8 3.9	3.9		5.2 4.1	4.7	
5-Feb-14	Fine	Moderate	11:00	10.8	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.1 30.1	30.1	117.5 116.7	117.1	9.3 9.2	9.2	9.1	2.9 3.0	3.0	3.4	5.5 5.3	5.4	4.8
					Middle	5.4	18.2 18.2	18.2	8.4 8.4	8.4	30.1 30.1	30.1	112.3 116.5	114.4	8.8 9.2	9.0		3.6 3.6	3.6		4.7 3.5	4.1	
					Bottom	9.8	18.2 18.2	18.2	8.4 8.4	8.4	30.2 30.2	30.2	109.0 116.3	112.7	8.6 9.2	8.9	8.9	3.7 3.6	3.7		5.6 4.1	4.9	
7-Feb-14	Sunny	Moderate	12:27	10.4	Surface	1.0	18.8 18.9	18.8	8.4 8.4	8.4	30.0 29.9	29.9	122.6 120.6	121.6	9.6 9.4	9.5	9.4	3.9 3.8	3.9	3.8	4.7 4.5	4.6	4.6
					Middle	5.2	18.7 18.6	18.7	8.4 8.4	8.4	30.2 30.3	30.3	118.3 120.9	119.6	9.2 9.4	9.3		3.8 3.6	3.7		4.9 3.5	4.2	
					Bottom	9.4	18.6 18.6	18.6	8.4 8.4	8.4	30.4 30.4	30.4	112.1 120.6	116.4	8.8 9.4	9.1	9.1	3.7 3.6	3.7		5.2 4.8	5.0	
10-Feb-14	Fine	Moderate	10:37	10.2	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	31.8 31.8	31.8	98.8 97.9	98.4	7.8 7.7	7.7	7.7	4.1 3.9	4.0	3.6	6.1 5.7	5.9	7.7
					Middle	5.1	17.9 17.9	17.9	8.3 8.3	8.3	32.0 32.1	32.1	97.9 99.2	98.6	7.7 7.8	7.7		3.2 3.4	3.3		8.5 7.6	8.1	
					Bottom	9.2	17.9 17.9	17.9	8.3 8.3	8.3	32.1 32.1	32.1	100.8 98.3	99.6	7.9 7.7	7.8	7.8	3.3 3.4	3.4		8.1 10.2	9.2	
12-Feb-14	Cloudy	Moderate	17:20	10.7	Surface	1.0	16.5 16.4	16.4	8.3 8.3	8.3	32.8 32.8	32.8	94.8 94.7	94.8	7.6 7.6	7.6	7.6	2.5 2.5	2.5	2.5	7.4 7.9	7.7	7.2
					Middle	5.4	16.6 16.5	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.5 94.1	94.3	7.6 7.5	7.5		2.5 2.5	2.5		6.7 6.2	6.5	
					Bottom	9.7	16.6 16.7	16.6	8.3 8.3	8.3	33.0 33.0	33.0	94.7 95.3	95.0	7.6 7.6	7.6	7.6	2.6 2.6	2.6		6.9 7.7	7.3	
14-Feb-14	Cloudy	Moderate	12:50	10.7	Surface	1.0	16.2 16.3	16.2	8.3 8.3	8.3	33.4 33.4	33.4	90.0 90.1	90.1	7.2 7.2	7.2	7.2	3.8 3.8	3.8	3.8	16.8 17.5	17.2	17.2
					Middle	5.4	16.2 16.2	16.2	8.3 8.3	8.3	33.3 33.4	33.4	89.6 89.7	89.7	7.2 7.2	7.2		3.7 3.7	3.7		18.0 16.1	17.1	
					Bottom	9.7	16.3 16.3	16.3	8.3 8.3	8.3	33.4 33.4	33.4	89.9 89.8	89.9	7.2 7.2	7.2	7.2	3.8 3.8	3.8		17.5 17.3	17.4	
17-Feb-14	Cloudy	Moderate	08:25	10.7	Surface	1.0	15.9 16.0	16.0	8.3 8.3	8.3	33.7 33.7	33.7	94.0 93.6	93.8	7.6 7.5	7.6	7.6	13.6 13.9	13.8	13.6	13.4 14.6	14.0	14.7
					Middle	5.4	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	93.5 94.1	93.8	7.5 7.6	7.5		13.2 13.4	13.3		13.7 15.2	14.5	
					Bottom	9.7	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	94.4 93.5	94.0	7.6 7.5	7.6	7.6	13.4 13.7	13.6		15.7 15.2	15.5	
19-Feb-14	Rainy	Moderate	09:36	10.2	Surface	1.0	16.3 16.3	16.3	8.3 8.2	8.3	33.6 33.6	33.6	93.9 95.7	94.8	7.5 7.7	7.6	7.7	9.1 9.1	9.1	9.4	10.4 10.2	10.3	11.1
					Middle	5.1	16.3 16.3	16.3	8.2 8.3	8.3	33.6 33.6	33.6	97.1 94.2	95.7	7.8 7.5	7.7		9.7 9.7	9.7		10.9 10.8	10.9	
					Bottom	9.2	16.3 16.3	16.3	8.2 8.2	8.2	33.6 33.6	33.6	94.5 99.4	97.0	7.6 8.0	7.8	7.8	8.9 9.6	9.3		12.6 11.8	12.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS10 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:24	10.5	Surface	1.0	16.1 16.1	16.1	8.3 8.3	8.3	33.7 33.7	33.7	92.2 91.1	91.7	7.4 7.3	7.4	7.4	5.7 5.6	5.7	7.7	10.2 10.9	10.6	10.4
					Middle	5.3	16.1 16.1	16.1	8.3 8.3	8.3	33.7 33.7	33.7	92.5 91.1	91.8	7.4 7.3	7.4		7.9 7.6	7.8		10.0 10.4	10.2	
					Bottom	9.5	16.1 16.0	16.0	8.3 8.3	8.3	33.7 33.7	33.7	91.1 94.0	92.6	7.3 7.6	7.4	7.4	9.4 9.8	9.6		10.4 10.6	10.5	
24-Feb-14	Sunny	Moderate	13:26	10.5	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	33.8 33.8	33.8	95.9 95.9	95.9	7.6 7.6	7.6	7.6	3.4 3.3	3.4	3.7	6.1 5.9	6.0	5.5
					Middle	5.3	16.6 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	95.6 95.5	95.6	7.6 7.6	7.6		3.6 3.6	3.6		5.2 5.9	5.6	
					Bottom	9.5	16.5 16.5	16.5	8.3 8.3	8.3	33.8 33.8	33.8	95.3 95.3	95.3	7.6 7.6	7.6	7.6	4.0 3.9	4.0		3.9 5.8	4.9	
26-Feb-14	Cloudy	Moderate	15:55	10.3	Surface	1.0	17.5 17.5	17.5	8.4 8.3	8.4	30.9 30.9	30.9	115.0 109.4	112.2	9.1 8.7	8.9	8.7	4.0 3.7	3.9	3.5	4.8 5.1	5.0	4.3
					Middle	5.2	17.2 17.1	17.2	8.3 8.3	8.3	32.8 33.0	32.9	106.2 105.3	105.8	8.4 8.3	8.4		3.5 3.2	3.4		3.3 4.1	3.7	
					Bottom	9.3	17.1 17.1	17.1	8.3 8.3	8.3	33.2 33.1	33.1	108.9 107.8	108.4	8.6 8.5	8.6	8.6	3.3 3.3	3.3		4.0 4.3	4.2	
28-Feb-14	Sunny	Moderate	17:50	10.9	Surface	1.0	17.8 18.0	17.9	8.3 8.4	8.3	31.5 31.2	31.3	106.8 108.4	107.6	8.4 8.5	8.5	8.5	2.1 2.0	2.1	2.2	3.4 4.2	3.8	4.9
					Middle	5.5	17.7 17.8	17.7	8.3 8.3	8.3	32.0 32.0	32.0	106.5 107.2	106.9	8.4 8.4	8.4		2.3 2.3	2.3		6.5 6.3	6.4	
					Bottom	9.9	17.8 17.8	17.8	8.3 8.3	8.3	32.1 32.0	32.1	108.6 107.7	108.2	8.5 8.5	8.5	8.5	2.2 2.3	2.3		4.8 4.3	4.6	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)11 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:58	10.3	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	30.2 30.2	30.2	105.2 105.5	105.4	8.4 8.4	8.4	8.4	3.5 3.3	3.4		3.8 3.6	3.7	
					Middle	5.2	18.1 18.1	18.1	8.3 8.3	8.3	30.3 30.2	30.3	104.7 104.3	104.5	8.3 8.3	8.3		3.4 3.6	3.5	3.5	3.3 4.4	3.9	3.8
					Bottom	9.3	18.1 18.1	18.1	8.3 8.3	8.3	30.3 30.3	30.3	104.7 104.2	104.5	8.4 8.3	8.3	8.3	3.6 3.6	3.6		3.2 4.6	3.9	
3-Feb-14	Sunny	Moderate	16:03	10.3	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	29.7 29.7	29.7	124.1 121.3	122.7	9.8 9.6	9.7	9.6	1.8 1.9	1.9		3.8 3.4	3.6	
					Middle	5.2	18.2 18.2	18.2	8.4 8.4	8.4	29.7 29.7	29.7	122.0 118.3	120.2	9.6 9.3	9.5		3.3 3.3	3.3	2.8	4.5 4.4	4.5	3.8
					Bottom	9.3	18.2 18.2	18.2	8.4 8.4	8.4	29.7 29.7	29.7	122.2 115.9	119.1	9.7 9.2	9.4	9.4	3.3 3.3	3.3		3.2 3.5	3.4	
5-Feb-14	Sunny	Moderate	17:37	10.1	Surface	1.0	18.5 18.5	18.5	8.5 8.5	8.5	29.6 29.6	29.6	121.5 120.5	121.0	9.6 9.5	9.5	9.5	2.3 2.4	2.4		3.3 3.0	3.2	
					Middle	5.1	18.3 18.3	18.3	8.4 8.4	8.4	30.0 29.9	29.9	118.5 119.5	119.0	9.3 9.4	9.4		2.6 2.6	2.6	2.6	4.0 3.0	3.5	3.8
					Bottom	9.1	18.2 18.3	18.2	8.4 8.4	8.4	30.1 30.0	30.1	111.6 115.3	113.5	8.8 9.1	8.9	8.9	2.6 2.7	2.7		4.1 5.5	4.8	
7-Feb-14	Sunny	Moderate	19:40	10.1	Surface	1.0	18.8 18.7	18.8	8.5 8.5	8.5	29.7 29.8	29.7	124.2 119.8	122.0	9.7 9.4	9.5	9.4	1.9 1.9	1.9		2.5 2.3	2.4	
					Middle	5.1	18.6 18.6	18.6	8.5 8.5	8.5	30.0 30.0	30.0	121.1 115.8	118.5	9.5 9.1	9.3		2.3 2.2	2.3	2.2	4.0 2.6	3.3	2.9
					Bottom	9.1	18.6 18.6	18.6	8.5 8.5	8.5	30.0 30.0	30.0	113.3 121.0	117.2	8.9 9.5	9.2	9.2	2.2 2.3	2.3		2.7 3.5	3.1	
10-Feb-14	Fine	Moderate	23:03	10.1	Surface	1.0	17.6 17.6	17.6	8.3 8.3	8.3	32.6 32.6	32.6	99.7 98.1	98.9	7.8 7.7	7.8	7.8	2.4 2.4	2.4		6.2 6.8	6.5	
					Middle	5.1	17.7 17.7	17.7	8.3 8.3	8.3	32.8 32.8	32.8	98.2 101.1	99.7	7.7 7.9	7.8		3.9 3.7	3.8	3.6	10.8 10.5	10.7	7.7
					Bottom	9.1	17.7 17.7	17.7	8.3 8.3	8.3	32.8 32.8	32.8	98.7 103.9	101.3	7.7 8.1	7.9	7.9	4.4 4.7	4.6		6.2 5.4	5.8	
12-Feb-14	Cloudy	Moderate	11:44	10.3	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.1 95.2	94.7	7.5 7.6	7.6	7.6	6.7 6.6	6.7		5.5 5.2	5.4	
					Middle	5.2	16.7 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.0 95.0	94.5	7.5 7.6	7.5		6.4 6.5	6.5	6.6	5.1 6.4	5.8	6.6
					Bottom	9.3	16.7 16.6	16.7	8.3 8.3	8.3	33.0 33.0	33.0	94.2 95.6	94.9	7.5 7.6	7.6	7.6	6.5 6.5	6.5		8.6 8.8	8.7	
14-Feb-14	Sunny	Moderate	07:10	10.3	Surface	1.0	15.7 15.7	15.7	8.2 8.2	8.2	33.4 33.4	33.4	92.5 93.3	92.9	7.5 7.6	7.5	7.5	4.8 4.9	4.9		3.9 3.5	3.7	
					Middle	5.2	15.7 15.7	15.7	8.2 8.2	8.2	33.4 33.4	33.4	92.5 93.3	92.9	7.5 7.6	7.5		5.1 4.9	5.0	4.9	3.8 2.5	3.2	3.4
					Bottom	9.3	15.7 15.8	15.7	8.2 8.1	8.2	33.4 33.5	33.5	92.6 93.6	93.1	7.5 7.6	7.5	7.5	4.9 4.9	4.9		3.1 3.4	3.3	
17-Feb-14	Sunny	Moderate	14:29	10.3	Surface	1.0	16.6 16.7	16.7	8.3 8.3	8.3	33.6 33.6	33.6	95.5 95.4	95.5	7.6 7.6	7.6	7.6	3.4 3.3	3.4		5.3 4.5	4.9	
					Middle	5.2	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	93.6 94.3	94.0	7.5 7.6	7.5		3.7 4.0	3.9	3.9	3.2 4.5	3.9	4.3
					Bottom	9.3	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	94.4 93.2	93.8	7.6 7.5	7.5	7.5	4.5 4.5	4.5		4.7 3.6	4.2	
19-Feb-14	Sunny	Moderate	15:22	9.9	Surface	1.0	16.5 16.5	16.5	8.2 8.2	8.2	33.7 33.7	33.7	90.1 94.1	92.1	7.2 7.5	7.3	7.4	4.0 4.1	4.1		6.2 7.4	6.8	
					Middle	5.0	16.5 16.5	16.5	8.2 8.2	8.2	33.7 33.7	33.7	96.5 90.8	93.7	7.7 7.2	7.5		3.4 3.6	3.5	3.8	6.1 7.0	6.6	7.3
					Bottom	8.9	16.5 16.5	16.5	8.2 8.2	8.2	33.7 33.6	33.7	91.6 97.2	94.4	7.3 7.7	7.5	7.5	4.1 3.7	3.9		7.8 9.4	8.6	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)11 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	17:13	10.2	Surface	1.0	16.1 16.1	16.1	8.3 8.3	8.3	33.5 33.5	33.5	93.4 95.1	94.3	7.5 7.6	7.6	7.6	4.4 4.5	4.5	5.4	7.5 6.1	6.8	6.7
					Middle	5.1	16.0 16.1	16.1	8.3 8.3	8.3	33.5 33.5	33.5	96.1 93.4	94.8	7.7 7.5	7.6		6.2 5.9	6.1		6.8 5.2	6.0	
					Bottom	9.2	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	93.6 97.8	95.7	7.5 7.9	7.7	7.7	5.6 5.8	5.7		7.8 6.9	7.4	
24-Feb-14	Sunny	Moderate	20:58	10.2	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	96.2 95.9	96.1	7.6 7.6	7.6	7.6	2.2 2.2	2.2	2.3	3.0 2.6	2.8	2.9
					Middle	5.1	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	96.1 95.7	95.9	7.6 7.6	7.6		2.3 2.4	2.4		2.0 3.0	2.5	
					Bottom	9.2	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.6 96.3	96.0	7.6 7.7	7.6	7.6	2.4 2.3	2.4		4.1 2.4	3.3	
26-Feb-14	Cloudy	Moderate	10:55	9.7	Surface	1.0	17.2 17.2	17.2	8.3 8.3	8.3	31.5 31.8	31.7	100.6 102.0	101.3	8.0 8.1	8.1	7.9	2.4 2.5	2.5	3.9	3.2 3.7	3.5	3.6
					Middle	4.9	17.1 17.1	17.1	8.3 8.2	8.3	33.6 33.8	33.7	98.3 98.1	98.2	7.7 7.7	7.7		3.9 4.6	4.3		2.8 4.8	3.8	
					Bottom	8.7	17.1 17.1	17.1	8.2 8.3	8.3	33.8 33.8	33.8	98.9 98.4	98.7	7.8 7.7	7.8	7.8	5.0 4.9	5.0		3.0 3.8	3.4	
28-Feb-14	Sunny	Moderate	12:17	10.2	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.4 32.4	32.4	103.7 103.6	103.7	8.1 8.1	8.1	8.1	3.3 3.2	3.3	3.5	6.0 6.6	6.3	6.0
					Middle	5.1	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	103.0 103.0	103.0	8.1 8.1	8.1		3.5 3.4	3.5		5.8 5.5	5.7	
					Bottom	9.2	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	103.3 103.3	103.3	8.1 8.1	8.1	8.1	3.6 3.8	3.7		5.7 6.3	6.0	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)11 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:32	10.4	Surface	1.0	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.8 105.5	105.7	8.4 8.4	8.4	8.4	5.3 5.2	5.3	6.4	4.3 4.3	4.3	5.7
					Middle	5.2	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.2 105.2	105.2	8.4 8.4	8.4		6.6 6.2	6.4		6.6 5.1	5.9	
					Bottom	9.4	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.3 105.3	105.3	8.4 8.4	8.4	8.4	7.2 7.8	7.5		7.4 6.4	6.9	
3-Feb-14	Sunny	Moderate	09:40	10.6	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	29.7 29.7	29.7	122.4 122.2	122.3	9.7 9.7	9.7	9.7	4.5 4.4	4.5	4.5	6.1 6.4	6.3	7.0
					Middle	5.3	18.1 18.1	18.1	8.3 8.3	8.3	29.7 29.7	29.7	121.5 121.9	121.7	9.6 9.6	9.6		4.4 4.4	4.4		6.3 5.8	6.1	
					Bottom	9.6	18.1 18.1	18.1	8.3 8.3	8.3	29.7 29.7	29.7	121.9 121.0	121.5	9.6 9.6	9.6	9.6	4.4 4.5	4.5		8.8 8.4	8.6	
5-Feb-14	Fine	Moderate	10:48	10.7	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.3 30.3	30.3	117.3 117.8	117.6	9.2 9.3	9.3	9.3	3.3 3.4	3.4	3.5	4.0 5.5	4.8	4.2
					Middle	5.4	18.2 18.2	18.2	8.4 8.4	8.4	30.5 30.5	30.5	116.4 117.1	116.8	9.2 9.2	9.2		3.3 3.4	3.4		3.8 3.5	3.7	
					Bottom	9.7	18.2 18.2	18.2	8.4 8.4	8.4	30.5 30.4	30.5	116.5 117.4	117.0	9.2 9.2	9.2	9.2	3.6 3.6	3.6		4.4 3.6	4.0	
7-Feb-14	Sunny	Moderate	12:17	10.0	Surface	1.0	18.9 18.8	18.8	8.5 8.5	8.5	29.6 29.8	29.7	130.1 127.7	128.9	10.1 10.0	10.1	10.0	2.0 2.1	2.1	2.5	2.4 2.7	2.6	2.9
					Middle	5.0	18.5 18.5	18.5	8.4 8.4	8.4	30.5 30.5	30.5	126.1 123.9	125.0	9.8 9.7	9.8		2.1 2.2	2.2		2.5 2.9	2.7	
					Bottom	9.0	18.5 18.6	18.6	8.4 8.4	8.4	30.5 30.4	30.5	125.3 128.1	126.7	9.8 10.0	9.9	9.9	3.1 3.4	3.3		3.5 3.4	3.5	
10-Feb-14	Fine	Moderate	10:27	9.9	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	31.8 31.7	31.8	97.9 97.5	97.7	7.7 7.7	7.7	7.7	4.9 4.6	4.8	4.7	6.9 7.0	7.0	6.5
					Middle	5.0	17.8 17.8	17.8	8.3 8.3	8.3	31.9 31.9	31.9	97.3 97.4	97.4	7.6 7.7	7.6		4.6 4.6	4.6		5.6 7.3	6.5	
					Bottom	8.9	17.8 17.8	17.8	8.3 8.3	8.3	32.0 32.1	32.1	97.3 97.4	97.4	7.6 7.6	7.6	7.6	4.5 4.6	4.6		6.3 5.8	6.1	
12-Feb-14	Cloudy	Moderate	17:31	10.2	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	32.9 32.9	32.9	93.9 95.6	94.8	7.5 7.6	7.6	7.6	6.9 6.7	6.8	6.8	8.1 8.2	8.2	8.9
					Middle	5.1	16.7 16.7	16.7	8.3 8.3	8.3	32.9 33.0	33.0	94.2 96.3	95.3	7.5 7.7	7.6		7.1 6.5	6.8		9.5 8.8	9.2	
					Bottom	9.2	16.7 16.7	16.7	8.3 8.3	8.3	33.0 33.0	33.0	98.0 94.6	96.3	7.8 7.5	7.7	7.7	6.5 7.0	6.8		9.0 9.7	9.4	
14-Feb-14	Cloudy	Moderate	13:02	10.6	Surface	1.0	15.9 15.9	15.9	8.3 8.2	8.2	33.2 33.2	33.2	93.1 94.5	93.8	7.5 7.6	7.6	7.6	7.2 7.2	7.2	7.4	4.6 4.1	4.4	4.5
					Middle	5.3	15.8 15.9	15.8	8.2 8.2	8.2	33.2 33.2	33.2	92.7 94.6	93.7	7.5 7.7	7.6		7.3 7.5	7.4		4.9 4.1	4.5	
					Bottom	9.6	15.9 15.9	15.9	8.2 8.2	8.2	33.3 33.3	33.3	96.1 93.5	94.8	7.8 7.6	7.7	7.7	7.5 7.4	7.5		4.2 5.2	4.7	
17-Feb-14	Cloudy	Moderate	08:15	10.6	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.4 94.4	94.4	7.6 7.6	7.6	7.6	13.6 13.2	13.4	13.3	5.0 7.3	6.2	8.1
					Middle	5.3	16.0 16.0	16.0	8.3 8.3	8.3	33.9 33.9	33.9	94.1 94.0	94.1	7.6 7.6	7.6		13.1 13.5	13.3		7.2 9.4	8.3	
					Bottom	9.6	16.0 16.0	16.0	8.3 8.3	8.3	33.9 33.9	33.9	94.0 94.1	94.1	7.6 7.6	7.6	7.6	13.2 13.3	13.3		10.8 8.8	9.8	
19-Feb-14	Rainy	Moderate	09:26	9.9	Surface	1.0	16.3 16.3	16.3	8.3 8.3	8.3	33.6 33.6	33.6	93.2 93.6	93.4	7.5 7.5	7.5	7.5	7.2 7.0	7.1	7.4	12.6 11.7	12.2	12.1
					Middle	5.0	16.3 16.3	16.3	8.3 8.3	8.3	33.6 33.6	33.6	93.6 93.0	93.3	7.5 7.4	7.5		7.3 7.9	7.6		11.6 11.7	11.7	
					Bottom	8.9	16.3 16.3	16.3	8.3 8.3	8.3	33.6 33.6	33.6	93.7 93.0	93.4	7.5 7.4	7.5	7.5	7.4 7.5	7.5		12.1 12.6	12.4	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)11 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:16	10.7	Surface	1.0	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	92.4 92.6	92.5	7.4 7.5	7.5	7.5	6.7 6.8	6.8	8.8	9.4 10.1	9.8	10.6
					Middle	5.4	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	92.5 92.1	92.3	7.5 7.4	7.4		9.9 9.8	9.9		11.3 11.0	11.2	
					Bottom	9.7	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	92.0 92.5	92.3	7.4 7.5	7.4	7.4	9.9 9.6	9.8		10.9 10.6	10.8	
24-Feb-14	Sunny	Moderate	13:16	10.5	Surface	1.0	16.7 16.6	16.7	8.2 8.2	8.2	33.7 33.7	33.7	94.2 94.2	94.2	7.5 7.5	7.5	7.5	2.4 2.5	2.5	3.2	4.7 4.9	4.8	4.8
					Middle	5.3	16.6 16.6	16.6	8.2 8.3	8.3	33.8 33.8	33.8	93.6 93.7	93.7	7.4 7.4	7.4		3.5 3.4	3.5		3.2 4.5	3.9	
					Bottom	9.5	16.6 16.6	16.6	8.2 8.3	8.3	33.8 33.8	33.8	93.5 93.7	93.6	7.4 7.4	7.4	7.4	3.4 3.5	3.5		5.3 6.2	5.8	
26-Feb-14	Cloudy	Moderate	16:05	10.2	Surface	1.0	17.5 17.6	17.6	8.3 8.3	8.3	31.4 31.4	31.4	109.4 106.3	107.9	8.7 8.4	8.5	8.3	3.3 3.4	3.4	5.6	3.3 3.9	3.6	3.8
					Middle	5.1	17.2 17.2	17.2	8.3 8.3	8.3	33.2 33.2	33.2	100.4 101.9	101.2	7.9 8.0	8.0		6.4 6.2	6.3		3.1 4.1	3.6	
					Bottom	9.2	17.2 17.2	17.2	8.3 8.3	8.3	33.3 33.5	33.4	100.6 103.4	102.0	7.9 8.1	8.0	8.0	7.2 6.9	7.1		3.6 4.7	4.2	
28-Feb-14	Sunny	Moderate	18:02	10.4	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.3 32.3	32.3	103.9 103.3	103.6	8.2 8.1	8.1	8.1	4.6 4.7	4.7	5.2	5.7 6.2	6.0	6.2
					Middle	5.2	17.7 17.7	17.7	8.3 8.3	8.3	32.3 32.3	32.3	103.4 101.8	102.6	8.1 8.0	8.0		5.3 5.3	5.3		5.2 7.3	6.3	
					Bottom	9.4	17.7 17.7	17.7	8.3 8.3	8.3	32.4 32.3	32.4	100.5 103.3	101.9	7.9 8.1	8.0	8.0	5.7 5.6	5.7		6.5 6.1	6.3	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)16 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:00	6.2	Surface	1.0	18.1 18.0	18.0	8.2 8.2	8.2	29.7 29.7	29.7	129.2 128.9	129.1	10.2 10.2	10.2	10.2	1.8 1.7	1.8	1.8	4.1 4.5	4.3	4.3
					Middle	3.1	17.8 17.8	17.8	8.2 8.2	8.2	29.7 29.7	29.7	127.1 127.4	127.3	10.1 10.1	10.1		1.8 1.8	1.8		4.5 4.4	4.5	
					Bottom	5.2	17.8 17.8	17.8	8.2 8.2	8.2	29.7 29.7	29.7	128.0 127.7	127.9	10.2 10.2	10.2		1.7 1.8	1.8		4.2 4.1	4.2	
3-Feb-14	Sunny	Moderate	15:18	6.8	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	129.1 129.3	129.2	10.2 10.2	10.2	10.2	1.1 1.1	1.1	1.2	4.6 3.0	3.8	4.1
					Middle	3.4	18.0 18.0	18.0	8.2 8.2	8.2	30.2 30.2	30.2	128.4 127.8	128.1	10.1 10.1	10.1		1.2 1.2	1.2		4.4 3.0	3.7	
					Bottom	5.8	18.0 18.0	18.0	8.2 8.2	8.2	30.4 30.4	30.4	127.7 126.9	127.3	10.1 10.0	10.1	10.1	1.4 1.3	1.4		5.1 4.5	4.8	
5-Feb-14	Sunny	Moderate	16:54	6.6	Surface	1.0	18.4 18.4	18.4	8.3 8.3	8.3	30.5 30.5	30.5	120.6 127.2	123.9	9.5 10.0	9.7	9.7	5.1 4.9	5.0	5.0	6.0 6.1	6.1	6.0
					Middle	3.3	18.4 18.4	18.4	8.2 8.3	8.3	30.5 30.5	30.5	121.9 125.0	123.5	9.5 9.8	9.7		4.7 4.9	4.8		5.2 5.2	5.2	
					Bottom	5.6	18.4 18.3	18.4	8.2 8.2	8.2	30.5 30.5	30.5	123.5 115.4	119.5	9.7 9.0	9.4	9.4	5.0 5.2	5.1		7.2 6.0	6.6	
7-Feb-14	Sunny	Moderate	19:23	6.3	Surface	1.0	19.1 19.1	19.1	8.3 8.3	8.3	30.2 30.2	30.2	126.1 127.7	126.9	9.8 9.9	9.8	9.8	2.1 2.2	2.2	2.2	4.4 3.2	3.8	4.4
					Middle	3.2	18.9 19.0	18.9	8.3 8.3	8.3	30.3 30.3	30.3	122.8 126.7	124.8	9.5 9.8	9.7		2.1 2.1	2.1		4.6 3.6	4.1	
					Bottom	5.3	18.8 18.9	18.9	8.3 8.3	8.3	30.4 30.3	30.4	120.3 126.1	123.2	9.4 9.8	9.6	9.6	2.2 2.1	2.2		6.1 4.5	5.3	
10-Feb-14	Fine	Moderate	22:33	6.2	Surface	1.0	17.3 17.3	17.3	8.2 8.2	8.2	32.1 32.1	32.1	102.8 101.4	102.1	8.1 8.0	8.1	8.1	10.5 10.1	10.3	10.5	15.7 14.8	15.3	15.6
					Middle	3.1	17.4 17.4	17.4	8.2 8.2	8.2	32.2 32.1	32.2	101.5 104.1	102.8	8.0 8.2	8.1		10.7 10.5	10.6		16.7 15.6	16.2	
					Bottom	5.2	17.4 17.4	17.4	8.2 8.2	8.2	32.2 32.2	32.2	102.0 106.9	104.5	8.1 8.4	8.2	8.2	10.8 10.1	10.5		16.0 14.8	15.4	
12-Feb-14	Cloudy	Moderate	11:52	6.3	Surface	1.0	16.4 16.4	16.4	8.1 8.1	8.1	32.3 32.2	32.2	93.2 95.6	94.4	7.5 7.7	7.6	7.6	4.1 3.9	4.0	4.0	6.0 7.1	6.6	7.3
					Middle	3.2	16.7 16.6	16.7	8.1 8.1	8.1	32.4 32.5	32.5	96.2 92.7	94.5	7.7 7.4	7.6		3.7 3.8	3.8		7.8 7.7	7.8	
					Bottom	5.3	16.7 16.7	16.7	8.1 8.1	8.1	32.4 32.6	32.5	97.1 92.4	94.8	7.8 7.4	7.6	7.6	4.2 4.4	4.3		7.4 7.7	7.6	
14-Feb-14	Sunny	Moderate	07:25	6.3	Surface	1.0	15.8 15.8	15.8	7.9 7.9	7.9	32.8 32.8	32.8	98.4 94.4	96.4	8.0 7.7	7.8	7.9	5.2 5.0	5.1	6.0	11.8 11.4	11.6	11.1
					Middle	3.2	15.8 15.8	15.8	7.9 7.9	7.9	32.8 32.8	32.8	95.1 100.5	97.8	7.7 8.2	7.9		5.3 5.8	5.6		10.7 10.4	10.6	
					Bottom	5.3	15.8 15.8	15.8	7.9 7.9	7.9	32.9 32.9	32.9	96.3 104.1	100.2	7.8 8.4	8.1	8.1	7.1 7.5	7.3		11.1 10.8	11.0	
17-Feb-14	Sunny	Moderate	13:50	6.5	Surface	1.0	16.3 16.3	16.3	8.0 8.0	8.0	33.4 33.4	33.4	97.0 96.0	96.5	7.8 7.7	7.7	7.7	6.2 6.8	6.5	6.5	7.9 8.5	8.2	9.1
					Middle	3.3	16.2 16.2	16.2	7.9 7.9	7.9	33.4 33.5	33.5	96.3 94.5	95.4	7.7 7.6	7.7		6.6 6.0	6.3		7.7 9.1	8.4	
					Bottom	5.5	16.2 16.2	16.2	7.9 8.0	8.0	33.5 33.4	33.4	94.1 97.2	95.7	7.6 7.8	7.7	7.7	6.8 6.7	6.8		10.0 11.2	10.6	
19-Feb-14	Sunny	Moderate	15:09	6.5	Surface	1.0	16.2 16.2	16.2	7.9 7.9	7.9	33.1 33.1	33.1	94.4 95.3	94.9	7.6 7.7	7.6	7.6	6.5 6.6	6.6	6.5	16.7 15.2	16.0	16.6
					Middle	3.3	16.2 16.2	16.2	7.9 7.9	7.9	33.2 33.2	33.2	94.4 95.9	95.2	7.6 7.7	7.6		6.4 6.4	6.4		17.2 17.3	17.3	
					Bottom	5.5	16.2 16.2	16.2	7.9 7.9	7.9	33.2 33.2	33.2	94.5 97.0	95.8	7.6 7.8	7.7	7.7	6.6 6.5	6.6		17.1 15.6	16.4	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)16 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:27	6.7	Surface	1.0	16.1 16.1	16.1	7.9 7.9	7.9	33.6 33.6	33.6	95.3 96.2	95.8	7.7 7.7	7.7	7.7	9.6 9.7	9.7	9.7	11.8 12.8	12.3	13.8
					Middle	3.4	16.1 16.1	16.1	7.9 7.9	7.9	33.6 33.6	33.6	95.3 96.8	96.1	7.7 7.8	7.7		9.7 9.7	9.7		14.8 13.6	14.2	
					Bottom	5.7	16.1 16.1	16.1	7.9 7.9	7.9	33.6 33.6	33.6	95.4 98.2	96.8	7.7 7.9	7.8	7.8	9.6 10.0	9.8		14.3 15.4	14.9	
24-Feb-14	Sunny	Moderate	20:02	7.1	Surface	1.0	16.9 16.9	16.9	8.0 8.0	8.0	33.7 33.7	33.7	95.2 96.7	96.0	7.5 7.6	7.6	7.6	6.0 5.8	5.9	6.0	8.2 8.8	8.5	8.3
					Middle	3.6	16.9 16.9	16.9	8.0 8.0	8.0	33.7 33.7	33.7	95.1 96.1	95.6	7.5 7.6	7.6		6.1 6.0	6.1		9.4 7.0	8.2	
					Bottom	6.1	16.9 16.9	16.9	8.0 8.0	8.0	33.7 33.7	33.7	95.8 95.1	95.5	7.6 7.5	7.5	7.5	6.0 6.2	6.1		8.4 8.0	8.2	
26-Feb-14	Cloudy	Moderate	11:22	6.1	Surface	1.0	17.3 17.2	17.2	7.9 7.9	7.9	33.2 33.2	33.2	100.7 100.6	100.7	7.9 7.9	7.9	7.9	4.9 4.8	4.9	5.5	7.1 8.4	7.8	8.2
					Middle	3.1	17.2 17.2	17.2	7.9 7.9	7.9	33.2 33.2	33.2	100.3 100.2	100.3	7.9 7.9	7.9		5.6 5.8	5.7		7.2 6.9	7.1	
					Bottom	5.1	17.2 17.2	17.2	7.9 7.9	7.9	33.3 33.2	33.3	99.7 100.2	100.0	7.9 7.9	7.9	7.9	5.6 5.9	5.8		9.2 9.9	9.6	
28-Feb-14	Sunny	Moderate	12:13	6.4	Surface	1.0	17.7 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	104.3 104.9	104.6	8.2 8.2	8.2	8.2	8.0 8.3	8.2	8.6	11.2 12.4	11.8	12.5
					Middle	3.2	17.8 17.8	17.8	8.0 7.9	8.0	32.1 32.1	32.1	104.9 104.1	104.5	8.2 8.2	8.2		8.7 8.5	8.6		13.5 12.0	12.8	
					Bottom	5.4	17.9 17.9	17.9	8.0 7.9	8.0	32.2 32.2	32.2	104.8 104.1	104.5	8.2 8.2	8.2	8.2	9.0 8.7	8.9		13.3 12.4	12.9	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)16 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:33	6.3	Surface	1.0	17.8 17.8	17.8	8.1 8.1	8.1	29.7 29.7	29.7	122.1 119.4	120.8	9.7 9.5	9.6	9.5	2.2 2.2	2.2	2.2	2.9 2.5	2.7	3.0
					Middle	3.2	17.7 17.7	17.7	8.1 8.1	8.1	29.7 29.7	29.7	120.6 115.4	118.0	9.6 9.2	9.4		2.1 2.1	2.1		3.8 2.1	3.0	
					Bottom	5.3	17.7 17.7	17.7	8.1 8.1	8.1	29.7 29.7	29.7	120.3 110.9	115.6	9.6 8.8	9.2	9.2	2.2 2.1	2.2		3.6 2.8	3.2	
3-Feb-14	Sunny	Moderate	09:40	6.8	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	29.3 29.3	29.3	121.4 125.5	123.5	9.6 9.9	9.8	9.7	1.8 1.8	1.8	1.9	2.9 2.2	2.6	3.1
					Middle	3.4	18.2 18.2	18.2	8.2 8.2	8.2	29.4 29.4	29.4	124.4 118.4	121.4	9.9 9.4	9.6		2.0 1.9	2.0		2.7 3.4	3.1	
					Bottom	5.8	18.2 18.1	18.2	8.2 8.2	8.2	29.4 29.5	29.4	123.6 115.1	119.4	9.8 9.1	9.4	9.4	2.0 2.0	2.0		3.5 3.6	3.6	
5-Feb-14	Fine	Moderate	10:39	6.3	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	120.3 122.9	121.6	9.5 9.7	9.6	9.6	2.5 2.4	2.5	2.4	3.8 3.2	3.5	3.5
					Middle	3.2	18.2 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	122.1 117.8	120.0	9.6 9.3	9.5		2.3 2.4	2.4		4.3 3.0	3.7	
					Bottom	5.3	18.2 18.2	18.2	8.2 8.2	8.2	30.1 30.1	30.1	121.4 112.5	117.0	9.6 8.9	9.2	9.2	2.4 2.4	2.4		4.1 2.6	3.4	
7-Feb-14	Sunny	Moderate	12:13	6.5	Surface	1.0	19.0 18.8	18.9	8.3 8.3	8.3	29.4 29.6	29.5	126.5 128.8	127.7	9.9 10.1	10.0	9.9	1.6 1.7	1.7	1.9	2.4 4.0	3.2	4.1
					Middle	3.3	18.7 18.7	18.7	8.3 8.3	8.3	29.8 29.8	29.8	123.1 127.7	125.4	9.6 10.0	9.8		1.7 1.8	1.8		4.7 4.4	4.6	
					Bottom	5.5	18.7 18.7	18.7	8.3 8.3	8.3	29.8 29.8	29.8	127.6 120.4	124.0	10.0 9.4	9.7	9.7	2.2 2.1	2.2		3.7 5.1	4.4	
10-Feb-14	Fine	Moderate	10:26	6.5	Surface	1.0	17.8 17.7	17.8	8.2 8.2	8.2	31.6 31.6	31.6	99.1 100.7	99.9	7.8 7.9	7.9	7.9	3.1 3.1	3.1	3.6	14.6 14.9	14.8	16.3
					Middle	3.3	17.9 17.9	17.9	8.2 8.2	8.2	32.0 32.0	32.0	101.7 99.6	100.7	8.0 7.8	7.9		3.6 3.5	3.6		16.4 17.9	17.2	
					Bottom	5.5	17.9 17.8	17.8	8.2 8.2	8.2	32.3 32.1	32.2	104.0 100.4	102.2	8.1 7.9	8.0	8.0	4.1 4.2	4.2		17.5 16.2	16.9	
12-Feb-14	Cloudy	Moderate	16:43	6.6	Surface	1.0	16.6 16.6	16.6	8.1 8.1	8.1	32.6 32.6	32.6	94.7 95.1	94.9	7.6 7.6	7.6	7.6	7.0 7.0	7.0	7.6	5.7 5.4	5.6	6.3
					Middle	3.3	16.6 16.6	16.6	8.1 8.1	8.1	32.7 32.7	32.7	94.4 95.1	94.8	7.6 7.6	7.6		7.4 7.3	7.4		6.8 5.5	6.2	
					Bottom	5.6	16.7 16.6	16.7	8.1 8.1	8.1	32.7 32.7	32.7	96.1 94.8	95.5	7.7 7.6	7.6	7.6	8.0 9.0	8.5		6.4 7.5	7.0	
14-Feb-14	Cloudy	Moderate	12:20	6.6	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	32.8 32.8	32.8	95.0 93.7	94.4	7.7 7.6	7.6	7.7	9.0 8.9	9.0	8.2	6.8 6.4	6.6	7.2
					Middle	3.3	16.0 16.0	16.0	7.9 7.9	7.9	32.9 32.9	32.9	95.7 93.7	94.7	7.7 7.6	7.7		7.3 7.6	7.5		7.4 6.8	7.1	
					Bottom	5.6	16.1 16.1	16.1	7.9 7.9	7.9	33.1 33.1	33.1	94.3 98.4	96.4	7.6 7.9	7.8	7.8	8.4 7.8	8.1		8.5 7.5	8.0	
17-Feb-14	Cloudy	Moderate	08:18	6.6	Surface	1.0	15.9 15.9	15.9	7.8 7.8	7.8	33.1 33.1	33.1	93.8 94.9	94.4	7.6 7.7	7.6	7.6	8.0 7.5	7.8	8.3	8.1 7.6	7.9	7.9
					Middle	3.3	15.9 15.9	15.9	7.8 7.8	7.8	33.1 33.1	33.1	93.8 95.4	94.6	7.6 7.7	7.6		8.6 8.0	8.3		7.7 7.0	7.4	
					Bottom	5.6	15.9 16.0	15.9	7.8 7.7	7.7	33.1 33.0	33.1	94.0 96.7	95.4	7.6 7.8	7.7	7.7	9.0 8.6	8.8		7.9 8.7	8.3	
19-Feb-14	Rainy	Moderate	09:32	6.3	Surface	1.0	16.2 16.1	16.2	7.9 7.9	7.9	33.0 33.0	33.0	95.8 94.9	95.4	7.7 7.6	7.7	7.7	7.7 7.9	7.8	9.8	10.4 11.0	10.7	10.5
					Middle	3.2	16.2 16.2	16.2	7.9 7.9	7.9	33.0 33.0	33.0	96.5 94.9	95.7	7.8 7.6	7.7		10.4 10.7	10.6		9.5 9.5	9.5	
					Bottom	5.3	16.2 16.2	16.2	7.9 7.9	7.9	33.0 33.1	33.1	98.0 95.3	96.7	7.9 7.7	7.8	7.8	11.2 11.0	11.1		10.8 12.0	11.4	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS(Mf)16 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:28	6.9	Surface	1.0	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.3	33.3	94.9 92.7	93.8	7.7 7.5	7.6	7.6	23.7 24.9	24.3		27.3 27.7	27.5	
					Middle	3.5	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.3	33.3	92.6 94.1	93.4	7.5 7.6	7.5		26.1 25.6	25.9	25.2	30.3 28.7	29.5	**28.5**
					Bottom	5.9	16.0 16.0	16.0	7.9 7.8	7.9	33.3 33.3	33.3	93.0 96.3	94.7	7.5 7.8	7.6	7.6	25.5 25.1	25.3		28.7 28.2	28.5	
24-Feb-14	Sunny	Moderate	13:01	7.5	Surface	1.0	16.7 16.7	16.7	8.0 8.0	8.0	33.3 33.3	33.3	94.6 96.1	95.4	7.5 7.6	7.6	7.6	5.0 4.9	5.0		8.7 8.9	8.8	
					Middle	3.8	16.7 16.6	16.6	7.9 8.0	8.0	33.3 33.3	33.3	94.6 94.3	94.5	7.5 7.5	7.5		5.1 5.3	5.2	5.2	8.4 7.6	8.0	8.1
					Bottom	6.5	16.8 16.6	16.7	7.9 8.0	7.9	33.3 33.2	33.3	94.4 94.3	94.4	7.5 7.5	7.5	7.5	5.3 5.3	5.3		8.4 6.8	7.6	
26-Feb-14	Cloudy	Moderate	15:48	6.3	Surface	1.0	17.7 17.7	17.7	8.0 8.0	8.0	33.3 33.3	33.3	104.6 103.2	103.9	8.2 8.1	8.1	8.0	5.3 5.4	5.4		5.4 5.9	5.7	
					Middle	3.2	17.5 17.3	17.4	8.0 7.9	8.0	33.3 33.3	33.3	102.7 100.0	101.4	8.0 7.9	7.9		5.8 5.7	5.8	5.7	6.5 5.9	6.2	6.9
					Bottom	5.3	17.4 17.2	17.3	7.9 7.9	7.9	33.3 33.3	33.3	102.8 99.8	101.3	8.1 7.9	8.0	8.0	5.8 6.0	5.9		8.8 8.9	8.9	
28-Feb-14	Sunny	Moderate	17:31	6.6	Surface	1.0	17.8 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	106.0 105.7	105.9	8.3 8.3	8.3	8.3	4.1 4.0	4.1		7.8 8.2	8.0	
					Middle	3.3	17.8 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	105.6 105.7	105.7	8.3 8.3	8.3		4.2 4.3	4.3	4.4	7.8 7.6	7.7	8.0
					Bottom	5.6	17.8 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	105.5 105.0	105.3	8.3 8.2	8.3	8.3	4.7 4.6	4.7		8.0 8.6	8.3	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS5 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:11	8.7	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	135.0 134.9	135.0	10.7 10.7	10.7	10.7	2.4 2.4	2.4	2.5	6.1 4.6	5.4	6.3
					Middle	4.4	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	134.6 134.2	134.4	10.6 10.6	10.6		2.5 2.5	2.5		6.9 6.5	6.7	
					Bottom	7.7	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	134.3 133.9	134.1	10.6 10.6	10.6	10.6	2.5 2.6	2.6		6.8 6.7	6.8	
3-Feb-14	Sunny	Moderate	14:24	9.4	Surface	1.0	18.4 18.5	18.5	8.3 8.3	8.3	29.9 29.8	29.9	136.5 138.2	137.4	10.7 10.9	10.8	10.8	1.3 1.2	1.3	1.5	3.2 2.1	2.7	3.0
					Middle	4.7	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	135.9 137.2	136.6	10.7 10.8	10.7		1.4 1.5	1.5		2.4 3.3	2.9	
					Bottom	8.4	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	135.8 137.2	136.5	10.7 10.8	10.7	10.7	1.6 1.7	1.7		3.9 3.0	3.5	
5-Feb-14	Sunny	Moderate	16:08	8.8	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	31.0 30.9	31.0	125.1 125.3	125.2	9.7 9.8	9.7	9.7	2.5 2.5	2.5	2.6	3.8 3.5	3.7	3.2
					Middle	4.4	18.5 18.5	18.5	8.3 8.3	8.3	31.1 31.1	31.1	124.4 124.2	124.3	9.7 9.7	9.7		2.8 2.4	2.6		3.6 3.1	3.4	
					Bottom	7.8	18.5 18.5	18.5	8.3 8.3	8.3	31.1 31.1	31.1	124.7 124.0	124.4	9.7 9.7	9.7	9.7	2.7 2.8	2.8		2.4 2.3	2.4	
7-Feb-14	Sunny	Moderate	18:39	8.3	Surface	1.0	19.2 19.2	19.2	8.3 8.3	8.3	30.8 30.8	30.8	132.0 131.6	131.8	10.2 10.1	10.2	10.2	1.9 1.9	1.9	1.9	2.8 4.4	3.6	4.3
					Middle	4.2	19.2 19.2	19.2	8.3 8.3	8.3	30.8 30.8	30.8	131.4 131.5	131.5	10.1 10.1	10.1		1.9 1.9	1.9		4.7 4.6	4.7	
					Bottom	7.3	19.2 19.2	19.2	8.3 8.3	8.3	30.9 30.8	30.9	130.1 132.0	131.1	10.0 10.2	10.1	10.1	1.9 1.9	1.9		4.6 4.8	4.7	
10-Feb-14	Fine	Moderate	21:49	8.4	Surface	1.0	17.2 17.2	17.2	8.2 8.2	8.2	30.6 30.6	30.6	99.1 98.8	99.0	7.9 7.9	7.9	7.9	2.2 2.2	2.2	2.4	6.7 5.3	6.0	5.5
					Middle	4.2	17.2 17.2	17.2	8.2 8.2	8.2	30.6 30.6	30.6	99.1 98.8	99.0	7.9 7.9	7.9		2.4 2.4	2.4		5.1 6.1	5.6	
					Bottom	7.4	17.2 17.2	17.2	8.2 8.2	8.2	30.6 30.6	30.6	98.9 98.5	98.7	7.9 7.9	7.9	7.9	2.5 2.6	2.6		4.6 5.4	5.0	
12-Feb-14	Cloudy	Moderate	12:41	8.4	Surface	1.0	15.9 15.9	15.9	8.2 8.2	8.2	31.1 31.1	31.1	93.7 92.9	93.3	7.7 7.6	7.6	7.6	3.5 3.3	3.4	4.3	4.9 4.5	4.7	5.3
					Middle	4.2	15.9 15.9	15.9	8.2 8.2	8.2	31.1 31.1	31.1	94.1 92.8	93.5	7.7 7.6	7.6		4.0 4.3	4.2		5.7 5.2	5.5	
					Bottom	7.4	15.9 15.9	15.9	8.1 8.2	8.2	31.0 31.1	31.1	94.7 93.2	94.0	7.8 7.6	7.7	7.7	5.0 5.5	5.3		6.2 5.2	5.7	
14-Feb-14	Sunny	Moderate	08:19	9.9	Surface	1.0	15.0 15.0	15.0	7.9 7.9	7.9	31.9 31.9	31.9	95.4 92.4	93.9	7.9 7.7	7.8	7.9	3.9 4.2	4.1	4.2	5.6 6.1	5.9	6.0
					Middle	5.0	15.0 15.0	15.0	7.9 7.9	7.9	31.9 31.9	31.9	97.2 92.8	95.0	8.1 7.7	7.9		4.1 4.5	4.3		5.5 6.0	5.8	
					Bottom	8.9	15.0 15.0	15.0	7.9 7.9	7.9	32.0 31.9	31.9	94.0 101.4	97.7	7.8 8.4	8.1	8.1	4.2 4.4	4.3		5.7 6.6	6.2	
17-Feb-14	Sunny	Moderate	12:59	9.0	Surface	1.0	16.2 16.2	16.2	7.9 7.9	7.9	33.7 33.6	33.7	99.6 99.9	99.8	8.0 8.0	8.0	8.0	5.6 5.3	5.5	5.8	6.8 4.8	5.8	5.8
					Middle	4.5	16.2 16.2	16.2	7.9 7.9	7.9	33.7 33.7	33.7	99.3 99.6	99.5	8.0 8.0	8.0		5.9 5.5	5.7		5.7 6.0	5.9	
					Bottom	8.0	16.2 16.2	16.2	7.8 7.9	7.9	33.8 33.7	33.7	99.2 99.5	99.4	7.9 8.0	8.0	8.0	6.1 6.2	6.2		5.8 5.6	5.7	
19-Feb-14	Sunny	Moderate	14:24	8.5	Surface	1.0	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.2	33.2	95.2 95.0	95.1	7.7 7.7	7.7	7.7	8.8 8.8	8.8	8.7	11.6 11.7	11.7	12.0
					Middle	4.3	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.2	33.3	95.2 94.7	95.0	7.7 7.6	7.7		8.8 8.6	8.7		12.7 11.7	12.2	
					Bottom	7.5	16.0 16.0	16.0	7.9 7.9	7.9	33.2 33.3	33.3	94.8 95.2	95.0	7.6 7.7	7.7	7.7	8.6 8.7	8.7		12.7 11.6	12.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS5 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	15:39	8.8	Surface	1.0	15.7 15.7	15.7	7.9 7.9	7.9	33.8 33.8	33.8	98.2 97.7	98.0	7.9 7.9	7.9	7.9	5.2 5.2	5.2	5.2	8.6 7.4	8.0	8.6
					Middle	4.4	15.7 15.7	15.7	7.8 7.9	7.9	33.9 33.8	33.8	98.0 97.5	97.8	7.9 7.9	7.9		5.5 5.3	5.4		7.4 7.8	7.6	
					Bottom	7.8	15.7 15.7	15.7	7.8 7.8	7.8	33.9 33.8	33.8	98.2 97.8	98.0	7.9 7.9	7.9	7.9	4.7 5.1	4.9		10.4 10.0	10.2	
24-Feb-14	Sunny	Moderate	19:21	9.1	Surface	1.0	16.6 16.6	16.6	7.9 7.9	7.9	34.1 34.0	34.0	99.5 99.4	99.5	7.9 7.9	7.9	7.9	4.0 3.9	4.0	4.3	7.4 6.1	6.8	8.3
					Middle	4.6	16.5 16.5	16.5	7.9 7.9	7.9	34.0 34.1	34.1	99.3 99.1	99.2	7.9 7.9	7.9		4.3 4.5	4.4		7.6 8.6	8.1	
					Bottom	8.1	16.5 16.5	16.5	7.9 7.9	7.9	34.0 34.1	34.0	99.2 99.1	99.2	7.9 7.9	7.9	7.9	4.3 4.5	4.4		10.6 9.3	10.0	
26-Feb-14	Cloudy	Moderate	12:12	8.4	Surface	1.0	17.4 17.4	17.4	7.9 7.9	7.9	33.1 33.1	33.1	102.6 102.6	102.6	8.1 8.1	8.1	8.1	4.5 4.8	4.7	4.6	7.4 7.9	7.7	7.5
					Middle	4.2	17.4 17.4	17.4	7.9 7.9	7.9	33.1 33.1	33.1	102.5 101.8	102.2	8.1 8.0	8.0		4.5 4.5	4.5		6.7 6.3	6.5	
					Bottom	7.4	17.4 17.4	17.4	7.9 7.9	7.9	33.1 33.1	33.1	101.1 102.3	101.7	7.9 8.0	8.0	8.0	4.5 4.6	4.6		7.8 8.9	8.4	
28-Feb-14	Sunny	Moderate	13:06	8.2	Surface	1.0	17.9 17.9	17.9	8.0 8.0	8.0	32.0 32.0	32.0	104.9 104.6	104.8	8.2 8.2	8.2	8.2	5.0 4.9	5.0	4.8	8.3 6.8	7.6	8.0
					Middle	4.1	17.9 17.9	17.9	8.0 8.0	8.0	32.0 32.0	32.0	103.8 104.4	104.1	8.1 8.2	8.2		4.7 4.8	4.8		9.3 7.5	8.4	
					Bottom	7.2	17.9 17.9	17.9	8.0 8.0	8.0	32.0 32.0	32.0	104.1 103.0	103.6	8.2 8.1	8.1	8.1	4.6 4.5	4.6		8.2 7.9	8.1	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS5 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:16	8.9	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	131.6 134.1	132.9	10.4 10.6	10.5	10.5	2.0 2.0	2.0	2.1	4.4 5.8	5.1	4.7
					Middle	4.5	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	133.2 129.9	131.6	10.5 10.3	10.4		2.0 2.1	2.1		5.1 3.8	4.5	
					Bottom	7.9	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	132.4 127.6	130.0	10.5 10.1	10.3	10.3	2.1 2.1	2.1		4.6 4.5	4.6	
3-Feb-14	Sunny	Moderate	10:26	9.3	Surface	1.0	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	133.2 126.2	129.7	10.5 9.9	10.2	10.1	1.6 1.5	1.6	1.9	2.8 2.5	2.7	3.2
					Middle	4.7	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	131.6 122.6	127.1	10.3 9.6	10.0		1.8 1.9	1.9		3.7 2.8	3.3	
					Bottom	8.3	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	118.4 130.0	124.2	9.3 10.2	9.8	9.8	2.1 2.0	2.1		4.0 3.2	3.6	
5-Feb-14	Fine	Moderate	11:29	8.7	Surface	1.0	18.4 18.4	18.4	8.3 8.3	8.3	29.8 29.8	29.8	118.9 122.1	120.5	9.3 9.6	9.5	9.4	2.1 2.0	2.1	2.1	3.6 3.4	3.5	4.5
					Middle	4.4	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	115.2 121.0	118.1	9.1 9.5	9.3		2.1 1.9	2.0		5.7 6.0	5.9	
					Bottom	7.7	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	120.2 110.6	115.4	9.4 8.7	9.1	9.1	2.1 2.2	2.2		3.3 4.9	4.1	
7-Feb-14	Sunny	Moderate	12:57	8.9	Surface	1.0	19.0 19.0	19.0	8.3 8.3	8.3	29.9 29.9	29.9	124.4 125.0	124.7	9.7 9.7	9.7	9.6	2.1 2.1	2.1	2.1	2.8 2.5	2.7	3.3
					Middle	4.5	19.0 18.9	18.9	8.3 8.3	8.3	29.9 30.0	30.0	121.8 123.5	122.7	9.5 9.6	9.5		2.2 2.1	2.2		3.4 2.9	3.2	
					Bottom	7.9	18.9 18.9	18.9	8.3 8.3	8.3	30.0 30.0	30.0	119.0 123.6	121.3	9.3 9.6	9.4	9.4	2.1 2.1	2.1		4.8 2.9	3.9	
10-Feb-14	Fine	Moderate	11:10	8.8	Surface	1.0	17.6 17.6	17.6	8.2 8.2	8.2	30.5 30.5	30.5	96.9 99.4	98.2	7.7 7.9	7.8	7.9	2.1 2.1	2.1	2.1	6.6 5.4	6.0	5.7
					Middle	4.4	17.6 17.6	17.6	8.2 8.2	8.2	30.5 30.5	30.5	100.6 97.2	98.9	8.0 7.7	7.9		2.2 2.1	2.2		5.8 5.5	5.7	
					Bottom	7.8	17.6 17.6	17.6	8.2 8.2	8.2	30.5 30.5	30.5	97.9 102.7	100.3	7.8 8.2	8.0	8.0	2.1 2.1	2.1		5.7 5.3	5.5	
12-Feb-14	Cloudy	Moderate	15:53	8.6	Surface	1.0	15.9 15.9	15.9	8.1 8.1	8.1	31.1 31.1	31.1	91.8 91.6	91.7	7.5 7.5	7.5	7.5	3.4 3.3	3.4	3.6	4.3 4.9	4.6	3.6
					Middle	4.3	15.9 15.9	15.9	8.1 8.1	8.1	31.1 31.1	31.1	91.6 91.7	91.7	7.5 7.5	7.5		3.4 3.1	3.3		3.0 2.7	2.9	
					Bottom	7.6	15.9 15.9	15.9	8.1 8.1	8.1	31.1 31.1	31.1	91.4 91.8	91.6	7.5 7.5	7.5	7.5	4.2 4.0	4.1		3.4 2.9	3.2	
14-Feb-14	Cloudy	Moderate	11:32	9.8	Surface	1.0	15.1 15.1	15.1	7.9 7.9	7.9	32.0 32.0	32.0	92.1 92.9	92.5	7.6 7.7	7.7	7.7	4.1 4.1	4.1	4.0	5.0 6.9	6.0	6.1
					Middle	4.9	15.1 15.1	15.1	7.9 7.9	7.9	32.0 32.1	32.1	92.2 93.2	92.7	7.6 7.7	7.7		4.0 4.0	4.0		7.0 6.8	6.9	
					Bottom	8.8	15.1 15.1	15.1	7.9 7.9	7.9	32.1 32.0	32.1	93.6 92.4	93.0	7.7 7.6	7.7	7.7	4.0 3.9	4.0		5.1 5.5	5.3	
17-Feb-14	Cloudy	Moderate	09:05	8.8	Surface	1.0	15.5 15.5	15.5	7.9 7.9	7.9	32.6 32.6	32.6	96.6 96.8	96.7	7.9 7.9	7.9	7.9	4.9 4.9	4.9	5.1	7.8 8.8	8.3	8.8
					Middle	4.4	15.6 15.5	15.6	7.9 7.9	7.9	32.7 32.6	32.7	96.4 96.6	96.5	7.9 7.9	7.9		5.5 5.3	5.4		7.2 8.4	7.8	
					Bottom	7.8	15.6 15.6	15.6	7.9 7.8	7.9	32.7 32.7	32.7	96.6 96.9	96.8	7.9 7.9	7.9	7.9	5.1 4.7	4.9		9.5 11.1	10.3	
19-Feb-14	Rainy	Moderate	10:17	8.9	Surface	1.0	16.2 16.2	16.2	7.9 7.9	7.9	33.1 33.1	33.1	95.5 96.2	95.9	7.7 7.7	7.7	7.7	9.3 8.8	9.1	8.7	12.2 13.0	12.6	12.7
					Middle	4.5	16.1 16.2	16.2	7.9 7.9	7.9	33.1 33.1	33.1	95.4 96.5	96.0	7.7 7.8	7.7		8.6 8.6	8.6		11.5 11.8	11.7	
					Bottom	7.9	16.1 16.2	16.2	7.9 7.9	7.9	33.1 33.1	33.1	95.5 97.2	96.4	7.7 7.8	7.8	7.8	8.5 8.5	8.5		13.7 13.8	13.8	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS5 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	11:13	8.7	Surface	1.0	15.5 15.5	15.5	7.9 7.9	7.9	33.2 33.2	33.2	97.3 96.8	97.1	7.9 7.9	7.9	7.9	5.6 5.3	5.5	5.6	4.5 4.1	4.3	5.2
					Middle	4.4	15.5 15.5	15.5	7.9 7.9	7.9	33.2 33.2	33.2	96.7 97.8	97.3	7.9 8.0	7.9		5.0 5.5	5.3		5.4 6.5	6.0	
					Bottom	7.7	15.5 15.5	15.5	7.9 7.9	7.9	33.2 33.2	33.2	96.7 98.6	97.7	7.9 8.0	8.0	8.0	6.0 6.2	6.1		4.6 5.7	5.2	
24-Feb-14	Sunny	Moderate	13:42	9.1	Surface	1.0	16.4 16.4	16.4	8.0 8.0	8.0	33.1 33.1	33.1	101.4 102.6	102.0	8.1 8.2	8.2	8.2	4.1 4.2	4.2	4.3	5.0 5.3	5.2	5.1
					Middle	4.6	16.3 16.4	16.4	8.0 8.0	8.0	33.1 33.1	33.1	101.9 100.4	101.2	8.2 8.1	8.1		4.4 4.2	4.3		5.1 5.7	5.4	
					Bottom	8.1	16.3 16.4	16.4	8.0 8.0	8.0	33.1 33.1	33.1	101.8 99.5	100.7	8.2 8.0	8.1	8.1	4.5 4.4	4.5		4.8 4.6	4.7	
26-Feb-14	Cloudy	Moderate	14:59	8.6	Surface	1.0	17.3 17.4	17.4	7.9 7.9	7.9	33.1 33.1	33.1	106.6 106.9	106.8	8.4 8.4	8.4	8.4	2.7 2.6	2.7	2.8	5.6 5.3	5.5	5.6
					Middle	4.3	17.3 17.3	17.3	7.9 7.9	7.9	33.1 33.1	33.1	106.3 106.3	106.3	8.4 8.4	8.4		2.8 2.9	2.9		6.8 5.0	5.9	
					Bottom	7.6	17.3 17.3	17.3	7.9 7.9	7.9	33.1 33.1	33.1	106.2 106.0	106.1	8.4 8.4	8.4	8.4	2.8 2.8	2.8		5.4 5.2	5.3	
28-Feb-14	Sunny	Moderate	16:27	8.4	Surface	1.0	18.3 18.4	18.4	7.9 7.9	7.9	32.1 32.2	32.2	107.9 107.9	107.9	8.4 8.4	8.4	8.4	4.5 4.4	4.5	4.9	5.8 4.2	5.0	5.0
					Middle	4.2	18.4 18.3	18.3	7.9 7.9	7.9	32.2 32.1	32.1	107.7 107.7	107.7	8.4 8.4	8.4		4.6 4.7	4.7		5.2 5.1	5.2	
					Bottom	7.4	18.4 18.4	18.4	7.9 7.9	7.9	32.2 32.2	32.2	107.6 107.5	107.6	8.4 8.3	8.3	8.3	5.5 5.4	5.5		4.1 5.7	4.9	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS7 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:31	3.1	Surface	1.0	18.2 18.3	18.3	8.3 8.3	8.3	30.1 30.1	30.1	141.3 138.5	139.9	11.1 10.9	11.0	11.0	1.7 1.7	1.7	1.7	4.7 3.3	4.0	3.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	18.2 18.2	18.2	8.3 8.3	8.3	30.1 30.1	30.1	134.1 140.0	137.1	10.6 11.0	10.8	10.8	1.7 1.6	1.7		3.4 3.6	3.5	
3-Feb-14	Sunny	Moderate	14:44	3.4	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.0 30.0	30.0	118.6 123.8	121.2	9.4 9.8	9.6	9.6	2.2 2.3	2.3	2.3	4.6 3.2	3.9	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.2 18.1	18.2	8.2 8.2	8.2	30.0 30.0	30.0	113.9 121.8	117.9	9.0 9.6	9.3	9.3	2.3 2.3	2.3		3.9 3.6	3.8	
5-Feb-14	Sunny	Moderate	16:25	3.3	Surface	1.0	18.6 18.6	18.6	8.3 8.3	8.3	30.3 30.3	30.3	120.7 126.9	123.8	9.4 9.9	9.7	9.7	2.4 2.6	2.5	2.6	5.2 4.2	4.7	5.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	18.6 18.5	18.6	8.3 8.3	8.3	30.3 30.3	30.3	124.4 116.0	120.2	9.7 9.1	9.4	9.4	2.5 2.7	2.6		5.1 6.9	6.0	
7-Feb-14	Sunny	Moderate	18:52	3.3	Surface	1.0	19.3 19.3	19.3	8.3 8.3	8.3	30.2 30.2	30.2	130.1 132.1	131.1	10.0 10.2	10.1	10.1	2.2 2.1	2.2	2.2	4.5 3.8	4.2	4.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	19.3 19.3	19.3	8.3 8.3	8.3	30.3 30.3	30.3	130.9 126.8	128.9	10.1 9.8	9.9	9.9	2.1 2.1	2.1		4.0 3.6	3.8	
10-Feb-14	Fine	Moderate	22:02	3.3	Surface	1.0	16.9 16.9	16.9	8.2 8.2	8.2	30.5 30.5	30.5	105.2 107.1	106.2	8.5 8.6	8.5	8.5	1.7 1.7	1.7	1.8	6.1 5.8	6.0	5.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	16.9 16.9	16.9	8.2 8.2	8.2	30.5 30.5	30.5	108.7 106.1	107.4	8.8 8.5	8.6	8.6	1.8 1.7	1.8		5.6 5.2	5.4	
12-Feb-14	Cloudy	Moderate	12:25	3.2	Surface	1.0	15.6 15.6	15.6	8.1 8.1	8.1	31.1 31.0	31.1	97.8 98.0	97.9	8.1 8.1	8.1	8.1	1.9 2.1	2.0	2.0	5.4 3.7	4.6	4.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.6 15.6	15.6	8.1 8.1	8.1	30.9 31.1	31.0	98.0 97.9	98.0	8.1 8.1	8.1	8.1	2.0 1.9	2.0		4.4 4.7	4.6	
14-Feb-14	Sunny	Moderate	08:02	3.2	Surface	1.0	15.0 15.0	15.0	7.9 7.9	7.9	32.2 32.2	32.2	97.1 100.9	99.0	8.0 8.4	8.2	8.2	6.3 6.5	6.4	7.2	3.8 3.5	3.7	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.0 15.0	15.0	7.9 7.9	7.9	32.3 32.2	32.2	98.9 104.2	101.6	8.2 8.6	8.4	8.4	8.0 7.9	8.0		5.1 3.7	4.4	
17-Feb-14	Sunny	Moderate	13:15	3.2	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.3 33.3	33.3	103.0 100.4	101.7	8.2 8.0	8.1	8.1	4.1 4.0	4.1	4.8	5.5 5.5	5.5	7.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	16.4 16.4	16.4	7.9 7.9	7.9	33.3 33.3	33.3	97.5 101.5	99.5	7.8 8.1	8.0	8.0	5.4 5.6	5.5		8.0 9.7	8.9	
19-Feb-14	Sunny	Moderate	14:39	3.2	Surface	1.0	15.8 15.8	15.8	8.0 7.9	8.0	33.1 33.1	33.1	101.0 102.9	102.0	8.2 8.3	8.3	8.3	6.5 6.5	6.5	6.5	8.7 8.6	8.7	9.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.8 15.8	15.8	7.9 8.0	8.0	33.1 33.1	33.1	104.1 101.1	102.6	8.4 8.2	8.3	8.3	6.4 6.6	6.5		11.0 9.9	10.5	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS7 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	15:53	3.5	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	33.6 33.6	33.6	103.1 103.2	103.2	8.3 8.3	8.3	8.3	7.6 7.3	7.5	7.5	8.7 9.0	8.9	9.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.8 15.9	15.9	7.9 7.9	7.9	33.6 33.6	33.6	102.6 103.2	102.9	8.3 8.3	8.3	8.3	7.6 7.4	7.5		10.3 10.6	10.5	
24-Feb-14	Sunny	Moderate	19:35	3.4	Surface	1.0	16.8 16.8	16.8	8.0 8.0	8.0	33.7 33.7	33.7	102.2 103.0	102.6	8.1 8.2	8.1	8.1	6.7 6.6	6.7	6.7	8.1 8.6	8.4	9.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	16.7 16.8	16.8	8.0 8.0	8.0	33.8 33.7	33.7	100.6 102.7	101.7	8.0 8.1	8.1	8.1	6.8 6.6	6.7		10.7 8.6	9.7	
26-Feb-14	Cloudy	Moderate	11:57	3.2	Surface	1.0	17.7 17.7	17.7	7.9 7.9	7.9	33.3 33.2	33.2	101.3 102.2	101.8	7.9 8.0	7.9	7.9	8.4 8.4	8.4	8.6	7.7 6.9	7.3	8.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	17.6 17.6	17.6	7.9 7.9	7.9	33.3 33.2	33.3	99.5 101.7	100.6	7.8 7.9	7.9	7.9	8.9 8.7	8.8		10.5 10.1	10.3	
28-Feb-14	Sunny	Moderate	12:49	3.5	Surface	1.0	18.2 18.3	18.3	8.0 8.0	8.0	32.4 32.4	32.4	104.8 105.1	105.0	8.1 8.2	8.1	8.1	8.6 8.5	8.6	8.7	10.0 9.3	9.7	11.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.2 18.2	18.2	8.0 8.0	8.0	32.4 32.4	32.4	104.8 104.9	104.9	8.1 8.2	8.1	8.1	8.9 8.7	8.8		12.2 12.8	12.5	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS7 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:02	3.1	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.0 30.0	30.0	138.0 135.2	136.6	10.9 10.7	10.8	10.8	2.1 2.1	2.1	2.2	3.2 4.9	4.1	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	136.6 128.1	132.4	10.8 10.1	10.4	10.4	2.1 2.2	2.2		4.1 3.0	3.6	
3-Feb-14	Sunny	Moderate	10:10	3.4	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	29.8 29.8	29.8	126.8 134.1	130.5	10.0 10.5	10.2	10.2	1.6 1.5	1.6	1.7	3.0 3.5	3.3	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	18.5 18.5	18.5	8.3 8.3	8.3	29.8 29.8	29.8	130.9 121.0	126.0	10.3 9.5	9.9	9.9	1.7 1.6	1.7		2.4 6.3	4.4	
5-Feb-14	Fine	Moderate	11:12	3.6	Surface	1.0	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	119.3 113.6	116.5	9.4 8.9	9.2	9.2	2.0 2.2	2.1	2.1	5.3 4.6	5.0	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	18.4 18.4	18.4	8.3 8.3	8.3	29.9 29.9	29.9	110.5 117.2	113.9	8.7 9.2	8.9	8.9	2.1 2.0	2.1		4.7 4.3	4.5	
7-Feb-14	Sunny	Moderate	12:43	3.4	Surface	1.0	19.0 19.0	19.0	8.3 8.3	8.3	29.9 29.9	29.9	129.9 127.0	128.5	10.1 9.9	10.0	10.0	2.2 2.1	2.2	2.2	2.8 3.7	3.3	3.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	19.0 19.0	19.0	8.3 8.3	8.3	29.9 29.9	29.9	128.6 121.6	125.1	10.0 9.4	9.7	9.7	2.2 2.1	2.2		4.1 4.2	4.2	
10-Feb-14	Fine	Moderate	10:56	3.2	Surface	1.0	17.3 17.3	17.3	8.2 8.2	8.2	30.3 30.3	30.3	103.1 101.5	102.3	8.3 8.1	8.2	8.2	3.4 3.6	3.5	3.8	6.4 6.4	6.4	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	17.3 17.3	17.3	8.2 8.2	8.2	30.3 30.3	30.3	105.4 101.9	103.7	8.4 8.2	8.3	8.3	4.1 3.9	4.0		5.8 6.5	6.2	
12-Feb-14	Cloudy	Moderate	16:10	3.3	Surface	1.0	15.5 15.5	15.5	8.1 8.1	8.1	31.3 31.2	31.3	98.7 98.9	98.8	8.1 8.2	8.2	8.2	3.0 2.7	2.9	2.9	4.3 3.9	4.1	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.5 15.4	15.5	8.1 8.1	8.1	31.2 31.2	31.2	98.8 98.2	98.5	8.2 8.1	8.1	8.1	2.9 2.6	2.8		2.8 3.2	3.0	
14-Feb-14	Cloudy	Moderate	11:47	3.3	Surface	1.0	15.2 15.2	15.2	7.9 7.9	7.9	32.1 32.1	32.1	100.0 101.0	100.5	8.3 8.3	8.3	8.3	4.9 4.7	4.8	5.0	5.1 5.9	5.5	6.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.2 15.2	15.2	7.9 7.9	7.9	32.2 32.2	32.2	102.1 100.4	101.3	8.4 8.3	8.4	8.4	5.2 5.0	5.1		7.0 6.3	6.7	
17-Feb-14	Cloudy	Moderate	08:50	3.5	Surface	1.0	15.6 15.6	15.6	7.8 7.8	7.8	32.6 32.6	32.6	96.8 96.8	96.8	7.9 7.9	7.9	7.9	5.6 5.4	5.5	5.5	12.9 11.3	12.1	11.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.6 15.6	15.6	7.8 7.8	7.8	32.6 32.6	32.6	96.8 97.0	96.9	7.9 7.9	7.9	7.9	5.5 5.4	5.5		11.3 10.8	11.1	
19-Feb-14	Rainy	Moderate	10:03	3.2	Surface	1.0	15.8 15.8	15.8	7.9 7.9	7.9	33.1 33.1	33.1	98.1 96.9	97.5	8.0 7.9	7.9	7.9	10.7 10.2	10.5	10.5	13.1 13.4	13.3	13.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	15.8 15.8	15.8	7.9 7.9	7.9	33.1 33.1	33.1	97.3 100.1	98.7	7.9 8.1	8.0	8.0	10.4 10.4	10.4		12.5 12.6	12.6	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS7 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:59	3.3	Surface	1.0	15.6 15.6	15.6	7.9 7.9	7.9	33.2 33.2	33.2	100.0 99.7	99.9	8.1 8.1	8.1	8.1	7.9 7.8	7.9	7.8	9.0 9.3	9.2	9.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	15.6 15.5	15.6	7.9 7.9	7.9	33.2 33.2	33.2	99.7 100.5	100.1	8.1 8.2	8.2	8.2	7.7 7.6	7.7		10.4 8.9	9.7	
24-Feb-14	Sunny	Moderate	13:30	3.4	Surface	1.0	16.5 16.5	16.5	8.0 8.0	8.0	33.1 33.1	33.1	103.5 102.9	103.2	8.3 8.2	8.3	8.3	8.8 8.8	8.8	8.9	12.2 11.7	12.0	12.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	16.5 16.5	16.5	8.0 8.0	8.0	33.1 33.1	33.1	101.9 103.2	102.6	8.1 8.2	8.2	8.2	9.0 8.9	9.0		11.4 12.9	12.2	
26-Feb-14	Cloudy	Moderate	15:14	3.0	Surface	1.0	17.7 17.6	17.7	7.9 7.9	7.9	33.2 33.2	33.2	104.9 104.3	104.6	8.2 8.2	8.2	8.2	7.2 7.4	7.3	7.4	7.4 9.5	8.5	9.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.0	17.4 17.4	17.4	7.9 7.9	7.9	33.2 33.2	33.2	104.2 103.1	103.7	8.2 8.1	8.1	8.1	7.3 7.5	7.4		10.2 11.7	11.0	
28-Feb-14	Sunny	Moderate	16:47	3.1	Surface	1.0	18.6 18.6	18.6	8.0 8.0	8.0	32.4 32.4	32.4	110.1 109.7	109.9	8.5 8.5	8.5	8.5	6.6 6.7	6.7	6.7	7.7 8.4	8.1	7.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.1	18.6 18.6	18.6	8.0 8.0	8.0	32.4 32.4	32.4	109.9 109.2	109.6	8.5 8.4	8.4	8.4	6.8 6.5	6.7		6.2 6.5	6.4	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS8 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:52	4.1	Surface	1.0	18.0 18.0	18.0	8.2 8.2	8.2	29.8 29.8	29.8	135.9 135.6	135.8	10.8 10.8	10.8	10.8	2.9 2.8	2.9	3.1	3.1 4.1	3.6	3.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	18.0 17.9	17.9	8.2 8.2	8.2	29.8 29.9	29.9	135.3 135.8	135.6	10.7 10.8	10.7	10.7	3.2 3.1	3.2		2.8 4.0	3.4	
3-Feb-14	Sunny	Moderate	15:09	3.5	Surface	1.0	18.3 18.3	18.3	8.2 8.2	8.2	29.9 29.9	29.9	130.2 122.7	126.5	10.3 9.7	10.0	10.0	1.1 1.1	1.1	1.2	4.8 4.7	4.8	4.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.1 18.2	18.1	8.2 8.2	8.2	30.0 30.0	30.0	122.5 126.2	124.4	9.6 10.0	9.8	9.8	1.2 1.3	1.3		3.0 4.2	3.6	
5-Feb-14	Sunny	Moderate	16:47	3.8	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	30.4 30.3	30.4	133.5 133.5	133.5	10.4 10.4	10.4	10.4	2.3 2.2	2.3	2.3	5.2 5.1	5.2	5.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	18.5 18.5	18.5	8.3 8.3	8.3	30.4 30.4	30.4	133.4 133.2	133.3	10.4 10.4	10.4	10.4	2.3 2.1	2.2		5.8 6.6	6.2	
7-Feb-14	Sunny	Moderate	19:16	3.9	Surface	1.0	19.3 19.3	19.3	8.3 8.3	8.3	30.4 30.4	30.4	134.1 134.0	134.1	10.3 10.3	10.3	10.3	1.6 1.7	1.7	1.7	3.0 2.9	3.0	3.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.9	19.4 19.4	19.4	8.3 8.3	8.3	30.4 30.5	30.5	134.0 134.1	134.1	10.3 10.3	10.3	10.3	1.7 1.7	1.7		3.8 3.7	3.8	
10-Feb-14	Fine	Moderate	22:25	4.0	Surface	1.0	17.2 17.2	17.2	8.2 8.2	8.2	31.4 31.4	31.4	98.8 98.9	98.9	7.9 7.9	7.9	7.9	4.3 4.5	4.4	4.5	8.4 6.7	7.6	7.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.0	17.2 17.3	17.2	8.2 8.2	8.2	31.4 31.4	31.4	98.9 98.9	98.9	7.9 7.9	7.9	7.9	4.5 4.4	4.5		6.7 8.6	7.7	
12-Feb-14	Cloudy	Moderate	11:59	3.8	Surface	1.0	15.9 15.8	15.9	8.2 8.1	8.2	31.1 31.0	31.1	95.1 96.0	95.6	7.8 7.9	7.8	7.8	3.4 3.1	3.3	3.5	6.1 5.7	5.9	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	16.2 16.3	16.3	8.1 8.1	8.1	32.1 31.9	32.0	96.0 97.4	96.7	7.8 7.9	7.8	7.8	3.8 3.6	3.7		7.5 5.9	6.7	
14-Feb-14	Sunny	Moderate	07:32	3.7	Surface	1.0	15.0 14.9	15.0	7.9 7.9	7.9	32.2 32.2	32.2	95.4 99.1	97.3	7.9 8.2	8.1	8.1	3.0 3.3	3.2	4.1	5.3 4.9	5.1	5.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	15.0 14.9	15.0	7.9 7.9	7.9	32.2 32.2	32.2	96.4 102.8	99.6	8.0 8.5	8.2	8.2	5.0 4.9	5.0		4.7 5.4	5.1	
17-Feb-14	Sunny	Moderate	13:41	3.8	Surface	1.0	16.2 16.3	16.2	7.9 7.9	7.9	33.2 33.2	33.2	100.1 99.1	99.6	8.0 8.0	8.0	8.0	3.9 3.9	3.9	4.2	4.4 4.2	4.3	4.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	16.2 16.0	16.1	7.9 7.9	7.9	33.2 33.4	33.3	99.3 95.7	97.5	8.0 7.7	7.8	7.8	4.1 4.6	4.4		4.3 4.8	4.6	
19-Feb-14	Sunny	Moderate	15:01	4.1	Surface	1.0	16.0 16.0	16.0	8.0 8.0	8.0	33.1 33.1	33.1	98.2 98.1	98.2	7.9 7.9	7.9	7.9	4.4 4.4	4.4	4.5	8.6 7.8	8.2	7.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	16.0 15.9	16.0	8.0 8.0	8.0	33.1 33.1	33.1	98.0 98.2	98.1	7.9 7.9	7.9	7.9	4.6 4.5	4.6		6.9 7.7	7.3	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS8 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:15	3.7	Surface	1.0	16.3 16.3	16.3	7.9 7.9	7.9	33.3 33.3	33.3	100.9 99.3	100.1	8.1 8.0	8.0	8.0	5.5 5.2	5.4	5.7	7.5 7.5	7.5	8.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	16.3 16.3	16.3	7.9 7.8	7.9	33.3 33.3	33.3	100.0 101.1	100.6	8.0 8.1	8.1	8.1	5.9 6.0	6.0		9.4 9.0	9.2	
24-Feb-14	Sunny	Moderate	19:55	3.2	Surface	1.0	16.9 16.9	16.9	8.0 8.0	8.0	33.7 33.7	33.7	99.4 98.9	99.2	7.9 7.8	7.8	7.8	5.3 5.2	5.3	5.4	9.0 8.4	8.7	8.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.2	16.8 16.9	16.9	8.0 8.0	8.0	33.8 33.7	33.7	99.1 98.7	98.9	7.8 7.8	7.8	7.8	5.3 5.4	5.4		8.1 7.2	7.7	
26-Feb-14	Cloudy	Moderate	11:31	3.7	Surface	1.0	17.4 17.4	17.4	7.9 7.9	7.9	33.2 33.2	33.2	99.4 98.8	99.1	7.8 7.8	7.8	7.8	6.2 6.3	6.3	6.3	4.4 4.7	4.6	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	17.4 17.3	17.3	7.9 7.9	7.9	33.3 33.3	33.3	99.1 97.8	98.5	7.8 7.7	7.7	7.7	6.3 6.2	6.3		3.5 3.5	3.5	
28-Feb-14	Sunny	Moderate	12:21	3.7	Surface	1.0	17.7 17.7	17.7	8.0 8.0	8.0	32.0 32.0	32.0	106.0 106.5	106.3	8.3 8.4	8.4	8.4	3.6 3.5	3.6	3.8	5.3 5.7	5.5	5.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	17.7 17.7	17.7	8.0 8.0	8.0	32.0 32.0	32.0	106.0 105.7	105.9	8.3 8.3	8.3	8.3	3.8 4.2	4.0		7.4 5.1	6.3	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS8 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:40	4.2	Surface	1.0	17.8 17.8	17.8	8.2 8.2	8.2	29.8 29.9	29.9	127.8 125.9	126.9	10.2 10.0	10.1	10.1	1.8 1.7	1.8	1.8	5.0 3.6	4.3	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	17.8 17.8	17.8	8.1 8.1	8.1	29.9 29.9	29.9	126.8 121.7	124.3	10.1 9.7	9.9	9.9	1.8 1.8	1.8		4.5 6.4	5.5	
3-Feb-14	Sunny	Moderate	09:48	3.5	Surface	1.0	18.4 18.3	18.3	8.2 8.2	8.2	29.5 29.5	29.5	129.4 131.6	130.5	10.2 10.4	10.3	10.3	1.2 1.2	1.2	1.4	4.0 3.3	3.7	3.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.3 18.3	18.3	8.2 8.2	8.2	29.5 29.5	29.5	130.4 124.7	127.6	10.3 9.8	10.1	10.1	1.5 1.4	1.5		3.3 2.6	3.0	
5-Feb-14	Fine	Moderate	10:46	3.9	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	119.9 112.2	116.1	9.5 8.8	9.1	9.1	2.5 2.3	2.4	2.4	4.7 4.5	4.6	4.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.9	18.1 18.2	18.2	8.2 8.2	8.2	30.1 30.0	30.0	105.7 116.7	111.2	8.3 9.2	8.8	8.8	2.4 2.3	2.4		3.3 4.1	3.7	
7-Feb-14	Sunny	Moderate	12:20	4.3	Surface	1.0	19.0 18.9	19.0	8.3 8.3	8.3	29.6 29.7	29.7	127.6 129.2	128.4	9.9 10.1	10.0	10.0	1.9 1.9	1.9	1.9	3.0 3.4	3.2	3.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	18.8 18.7	18.7	8.3 8.3	8.3	29.9 30.0	30.0	128.3 127.1	127.7	10.0 9.9	9.9	9.9	1.7 1.9	1.8		2.9 3.7	3.3	
10-Feb-14	Fine	Moderate	10:33	4.2	Surface	1.0	17.5 17.5	17.5	8.2 8.2	8.2	31.1 31.1	31.1	100.8 100.2	100.5	8.0 8.0	8.0	8.0	2.9 2.8	2.9	2.9	7.6 6.5	7.1	6.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	17.5 17.5	17.5	8.2 8.2	8.2	31.1 31.1	31.1	100.5 102.8	101.7	8.0 8.2	8.1	8.1	2.9 2.8	2.9		6.7 6.6	6.7	
12-Feb-14	Cloudy	Moderate	16:33	3.7	Surface	1.0	15.9 15.8	15.9	8.2 8.2	8.2	31.6 31.5	31.5	96.5 96.3	96.4	7.9 7.9	7.9	7.9	2.6 2.4	2.5	2.8	4.9 5.4	5.2	5.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	16.2 15.9	16.0	8.2 8.2	8.2	32.0 31.7	31.9	97.2 96.8	97.0	7.9 7.9	7.9	7.9	3.1 3.0	3.1		5.1 5.5	5.3	
14-Feb-14	Cloudy	Moderate	12:12	3.5	Surface	1.0	15.2 15.2	15.2	7.9 7.9	7.9	32.2 32.3	32.2	98.4 100.2	99.3	8.1 8.3	8.2	8.2	3.9 4.1	4.0	4.5	8.6 9.2	8.9	8.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.2 15.4	15.3	7.9 7.9	7.9	32.5 32.6	32.5	99.5 102.1	100.8	8.2 8.4	8.3	8.3	4.8 5.2	5.0		7.1 7.2	7.2	
17-Feb-14	Cloudy	Moderate	08:26	3.8	Surface	1.0	15.9 15.9	15.9	7.8 7.8	7.8	33.0 33.0	33.0	93.2 94.1	93.7	7.6 7.6	7.6	7.6	5.4 4.9	5.2	5.6	4.3 4.5	4.4	4.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	15.9 15.9	15.9	7.8 7.7	7.8	33.0 33.0	33.0	93.3 94.9	94.1	7.6 7.7	7.6	7.6	5.8 6.2	6.0		3.8 5.1	4.5	
19-Feb-14	Rainy	Moderate	09:38	4.0	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	98.4 97.1	97.8	8.0 7.9	7.9	7.9	6.0 5.6	5.8	5.9	9.4 9.2	9.3	10.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.0	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	97.6 99.8	98.7	7.9 8.1	8.0	8.0	5.9 5.9	5.9		10.9 10.6	10.8	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS8 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:37	3.8	Surface	1.0	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.3	33.3	92.9 94.7	93.8	7.5 7.7	7.6	7.6	6.3 6.2	6.3	6.3	9.1 9.4	9.3	10.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.3	33.3	93.7 96.0	94.9	7.6 7.8	7.7	7.7	6.5 5.9	6.2		10.5 11.7	11.1	
24-Feb-14	Sunny	Moderate	13:07	3.5	Surface	1.0	16.9 16.9	16.9	8.0 8.0	8.0	33.4 33.3	33.4	95.6 95.6	95.6	7.6 7.6	7.6	7.6	5.1 5.1	5.1	5.1	11.8 10.7	11.3	11.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	16.9 16.9	16.9	8.0 8.0	8.0	33.4 33.4	33.4	95.5 95.4	95.5	7.6 7.6	7.6	7.6	5.1 5.1	5.1		10.1 11.3	10.7	
26-Feb-14	Cloudy	Moderate	15:36	3.8	Surface	1.0	17.6 17.5	17.5	7.9 7.9	7.9	33.3 33.3	33.3	100.8 101.6	101.2	7.9 8.0	7.9	7.9	5.5 5.6	5.6	5.8	6.6 5.5	6.1	6.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	17.5 17.4	17.5	7.9 7.9	7.9	33.3 33.3	33.3	101.4 99.6	100.5	8.0 7.8	7.9	7.9	5.8 5.9	5.9		7.5 7.1	7.3	
28-Feb-14	Sunny	Moderate	17:23	3.3	Surface	1.0	17.8 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	105.6 106.1	105.9	8.3 8.3	8.3	8.3	5.4 5.5	5.5	5.6	5.9 6.5	6.2	6.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	17.8 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	105.9 105.6	105.8	8.3 8.3	8.3	8.3	5.6 5.6	5.6		8.0 7.2	7.6	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS17 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:08	9.9	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	29.8 29.8	29.8	123.1 120.4	121.8	9.7 9.5	9.6	9.6	1.3 1.3	1.3	1.3	3.4 5.5	4.5	4.0
					Middle	5.0	17.7 17.7	17.7	8.2 8.1	8.2	29.8 29.8	29.8	120.7 116.7	118.7	9.6 9.3	9.5		1.3 1.3	1.3		4.4 2.9	3.7	
					Bottom	8.9	17.7 17.8	17.7	8.1 8.1	8.1	30.0 29.8	29.9	114.9 121.5	118.2	9.1 9.7	9.4	9.4	1.4 1.4	1.4		4.0 3.4	3.7	
3-Feb-14	Sunny	Moderate	15:28	10.8	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.0 30.1	30.1	130.1 128.2	129.2	10.3 10.1	10.2	10.2	0.8 0.8	0.8	0.9	3.2 4.0	3.6	4.0
					Middle	5.4	18.0 18.0	18.0	8.2 8.2	8.2	30.2 30.2	30.2	127.9 127.8	127.9	10.1 10.1	10.1		0.8 0.9	0.9		3.5 5.2	4.4	
					Bottom	9.8	18.1 18.0	18.0	8.2 8.2	8.2	30.3 30.4	30.4	126.8 127.5	127.2	10.0 10.1	10.0	10.0	0.9 0.9	0.9		4.2 3.8	4.0	
5-Feb-14	Sunny	Moderate	17:01	11.1	Surface	1.0	18.2 18.3	18.2	8.2 8.2	8.2	30.6 30.5	30.6	118.9 122.0	120.5	9.3 9.6	9.5	9.4	4.1 4.0	4.1	3.6	6.5 5.0	5.8	5.4
					Middle	5.6	18.2 18.2	18.2	8.2 8.2	8.2	30.6 30.6	30.6	121.4 114.8	118.1	9.5 9.0	9.3		3.3 3.2	3.3		6.5 4.8	5.7	
					Bottom	10.1	18.2 18.2	18.2	8.2 8.2	8.2	30.7 30.6	30.6	109.8 121.1	115.5	8.6 9.5	9.1	9.1	3.2 3.5	3.4		4.9 4.5	4.7	
7-Feb-14	Sunny	Moderate	19:29	9.3	Surface	1.0	18.8 18.8	18.8	8.3 8.3	8.3	30.0 30.1	30.1	126.9 125.2	126.1	9.9 9.8	9.8	9.7	2.3 2.3	2.3	2.6	3.4 3.3	3.4	3.8
					Middle	4.7	18.6 18.7	18.7	8.2 8.3	8.3	30.4 30.3	30.4	124.9 122.3	123.6	9.7 9.5	9.6		2.7 2.8	2.8		3.8 2.9	3.4	
					Bottom	8.3	18.6 18.6	18.6	8.2 8.2	8.2	30.6 30.4	30.5	119.1 125.6	122.4	9.3 9.8	9.5	9.5	2.8 2.7	2.8		4.4 5.0	4.7	
10-Feb-14	Fine	Moderate	22:41	10.1	Surface	1.0	17.5 17.4	17.5	8.2 8.2	8.2	32.7 32.6	32.6	99.6 99.7	99.7	7.8 7.9	7.8	7.8	3.5 3.3	3.4	3.4	3.5 4.5	4.0	4.1
					Middle	5.1	17.7 17.7	17.7	8.2 8.2	8.2	32.8 32.8	32.8	98.6 98.4	98.5	7.7 7.7	7.7		3.3 3.3	3.3		3.5 3.6	3.6	
					Bottom	9.1	17.8 17.9	17.9	8.2 8.2	8.2	33.0 33.1	33.1	99.6 99.5	99.6	7.8 7.7	7.8	7.8	3.6 3.5	3.6		3.9 5.6	4.8	
12-Feb-14	Cloudy	Moderate	11:45	10.7	Surface	1.0	16.6 16.6	16.6	8.1 8.1	8.1	32.5 32.5	32.5	95.9 95.2	95.6	7.7 7.6	7.7	7.7	7.7 7.0	7.4	5.4	12.1 12.4	12.3	12.0
					Middle	5.4	16.8 16.8	16.8	8.1 8.1	8.1	32.7 32.8	32.7	96.6 95.3	96.0	7.7 7.6	7.6		4.1 4.0	4.1		11.3 10.6	11.0	
					Bottom	9.7	16.8 16.8	16.8	8.1 8.1	8.1	32.8 32.7	32.8	95.6 97.2	96.4	7.6 7.7	7.7	7.7	4.6 5.0	4.8		13.1 12.5	12.8	
14-Feb-14	Sunny	Moderate	07:18	11.6	Surface	1.0	16.2 16.2	16.2	7.8 7.8	7.8	33.2 33.2	33.2	97.7 94.9	96.3	7.9 7.6	7.7	7.8	8.8 8.3	8.6	8.5	12.8 12.2	12.5	12.2
					Middle	5.8	16.2 16.2	16.2	7.8 7.8	7.8	33.2 33.2	33.2	98.5 95.3	96.9	7.9 7.7	7.8		9.0 8.5	8.8		12.6 11.8	12.2	
					Bottom	10.6	16.1 16.2	16.2	7.8 7.8	7.8	33.2 33.2	33.2	103.0 95.8	99.4	8.3 7.7	8.0	8.0	7.7 8.3	8.0		12.4 11.4	11.9	
17-Feb-14	Sunny	Moderate	13:56	11.1	Surface	1.0	16.2 16.1	16.2	8.0 8.0	8.0	33.6 33.6	33.6	95.3 95.5	95.4	7.6 7.7	7.7	7.7	8.3 7.6	8.0	8.0	9.4 9.1	9.3	10.0
					Middle	5.6	16.1 16.1	16.1	8.0 8.0	8.0	33.6 33.6	33.6	94.2 95.1	94.7	7.6 7.6	7.6		8.1 7.7	7.9		9.7 9.5	9.6	
					Bottom	10.1	16.1 16.1	16.1	8.0 8.0	8.0	33.6 33.6	33.6	95.1 94.2	94.7	7.6 7.6	7.6	7.6	7.8 8.3	8.1		11.2 11.1	11.2	
19-Feb-14	Sunny	Moderate	15:15	10.0	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.3 33.3	33.3	90.7 89.6	90.2	7.2 7.2	7.2	7.2	3.7 3.7	3.7	3.8	8.3 6.6	7.5	7.3
					Middle	5.0	16.5 16.5	16.5	7.9 7.9	7.9	33.3 33.3	33.3	91.3 89.5	90.4	7.3 7.1	7.2		3.9 3.9	3.9		6.7 6.9	6.8	
					Bottom	9.0	16.5 16.5	16.5	7.9 7.9	7.9	33.3 33.3	33.3	89.8 92.6	91.2	7.2 7.4	7.3	7.3	3.7 3.9	3.8		7.3 7.7	7.5	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS17 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:35	11.0	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	33.5 33.5	33.5	95.4 96.9	96.2	7.7 7.8	7.8	7.8	10.4 11.0	10.7	10.9	13.1 12.6	12.9	13.7
					Middle	5.5	15.9 15.9	15.9	7.9 7.9	7.9	33.5 33.5	33.5	97.6 95.2	96.4	7.9 7.7	7.8		10.7 11.0	10.9		14.4 13.7	14.1	
					Bottom	10.0	15.9 15.9	15.9	7.9 7.9	7.9	33.5 33.5	33.5	99.0 95.6	97.3	8.0 7.7	7.8	7.8	11.0 10.9	11.0		13.8 14.1	14.0	
24-Feb-14	Sunny	Moderate	20:11	11.3	Surface	1.0	16.7 16.7	16.7	8.0 8.0	8.0	33.6 33.6	33.6	96.9 96.7	96.8	7.7 7.7	7.7	7.7	8.4 8.3	8.4	8.6	10.0 8.9	9.5	11.7
					Middle	5.7	16.7 16.7	16.7	8.0 8.0	8.0	33.6 33.6	33.6	96.8 96.1	96.5	7.7 7.6	7.7		8.4 8.5	8.5		11.8 12.5	12.2	
					Bottom	10.3	16.7 16.7	16.7	8.0 8.0	8.0	33.7 33.6	33.7	96.7 96.0	96.4	7.7 7.6	7.7	7.7	8.7 8.8	8.8		12.5 14.4	13.5	
26-Feb-14	Cloudy	Moderate	11:13	11.1	Surface	1.0	17.1 17.1	17.1	7.9 7.9	7.9	33.2 33.2	33.2	99.5 99.5	99.5	7.9 7.9	7.9	7.9	4.9 5.0	5.0	5.5	5.9 6.1	6.0	6.7
					Middle	5.6	17.1 17.1	17.1	7.9 7.9	7.9	33.2 33.2	33.2	99.0 99.0	99.0	7.8 7.8	7.8		5.6 5.7	5.7		6.3 6.5	6.4	
					Bottom	10.1	17.1 17.1	17.1	7.9 7.9	7.9	33.2 33.2	33.2	98.8 98.3	98.6	7.8 7.8	7.8	7.8	5.7 5.7	5.7		7.8 7.6	7.7	
28-Feb-14	Sunny	Moderate	12:07	10.8	Surface	1.0	17.6 17.6	17.6	8.0 8.0	8.0	31.8 31.8	31.8	104.1 104.4	104.3	8.2 8.2	8.2	8.2	8.6 8.6	8.6	8.6	12.4 13.4	12.9	15.2
					Middle	5.4	17.6 17.6	17.6	8.0 8.0	8.0	31.8 31.8	31.8	102.9 103.6	103.3	8.1 8.2	8.1		8.8 8.7	8.8		16.6 16.6	16.6	
					Bottom	9.8	17.6 17.6	17.6	8.0 8.0	8.0	31.8 31.8	31.8	103.3 102.2	102.8	8.1 8.1	8.1	8.1	8.3 8.6	8.5		15.8 16.6	16.2	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS17 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:26	10.7	Surface	1.0	17.8 17.7	17.8	8.1 8.1	8.1	29.7 29.8	29.8	120.4 119.6	120.0	9.6 9.5	9.6	9.6	2.1 2.3	2.2	2.3	5.5 3.8	4.7	5.8
					Middle	5.4	17.7 17.7	17.7	8.1 8.1	8.1	29.8 29.8	29.8	118.1 119.3	118.7	9.4 9.5	9.5		2.2 2.3	2.3		6.2 6.6	6.4	
					Bottom	9.7	17.7 17.7	17.7	8.1 8.1	8.1	29.8 29.8	29.8	119.5 117.3	118.4	9.5 9.3	9.4	9.4	2.3 2.3	2.3		7.1 5.3	6.2	
3-Feb-14	Sunny	Moderate	09:34	10.6	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	29.5 29.5	29.5	123.2 120.8	122.0	9.8 9.6	9.7	9.7	1.9 1.8	1.9	2.0	4.6 3.1	3.9	3.9
					Middle	5.3	18.1 18.1	18.1	8.2 8.2	8.2	29.6 29.5	29.6	122.6 119.4	121.0	9.7 9.5	9.6		1.9 2.0	2.0		3.7 4.9	4.3	
					Bottom	9.6	18.1 18.1	18.1	8.2 8.2	8.2	29.6 29.6	29.6	117.4 122.0	119.7	9.3 9.7	9.5	9.5	2.2 2.0	2.1		2.9 4.2	3.6	
5-Feb-14	Fine	Moderate	10:32	11.2	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	30.1 30.1	30.1	121.0 117.3	119.2	9.5 9.2	9.4	9.3	3.0 3.2	3.1	4.0	2.5 4.3	3.4	4.1
					Middle	5.6	18.1 18.2	18.1	8.2 8.2	8.2	30.4 30.4	30.4	114.6 119.2	116.9	9.0 9.4	9.2		4.1 4.5	4.3		3.1 4.1	3.6	
					Bottom	10.2	18.2 18.1	18.2	8.2 8.2	8.2	30.3 30.4	30.4	118.6 112.1	115.4	9.3 8.8	9.1	9.1	4.6 4.4	4.5		5.7 4.7	5.2	
7-Feb-14	Sunny	Moderate	12:06	10.5	Surface	1.0	18.9 19.0	19.0	8.3 8.3	8.3	29.2 29.2	29.2	126.4 128.7	127.6	9.9 10.1	10.0	9.9	1.8 1.8	1.8	1.8	3.6 4.4	4.0	3.5
					Middle	5.3	18.5 18.5	18.5	8.2 8.2	8.2	30.1 30.1	30.1	123.0 123.5	123.3	9.6 9.7	9.7		1.8 1.9	1.9		3.6 3.8	3.7	
					Bottom	9.5	18.4 18.4	18.4	8.2 8.2	8.2	30.5 30.6	30.5	119.7 118.3	119.0	9.4 9.3	9.3	9.3	1.8 1.8	1.8		2.3 3.1	2.7	
10-Feb-14	Fine	Moderate	10:20	10.3	Surface	1.0	17.7 17.7	17.7	8.2 8.2	8.2	32.4 32.3	32.3	98.7 99.4	99.1	7.7 7.8	7.8	7.8	2.2 2.2	2.2	2.2	7.0 4.9	6.0	7.3
					Middle	5.2	17.8 17.8	17.8	8.2 8.1	8.2	32.6 32.6	32.6	98.1 99.0	98.6	7.7 7.7	7.7		2.1 2.2	2.2		8.5 6.9	7.7	
					Bottom	9.3	17.8 18.0	17.9	8.2 8.1	8.1	32.7 32.7	32.7	99.2 100.7	100.0	7.8 7.8	7.8	7.8	2.2 2.1	2.2		8.0 8.6	8.3	
12-Feb-14	Cloudy	Moderate	16:49	10.9	Surface	1.0	16.6 16.6	16.6	8.2 8.2	8.2	32.8 32.8	32.8	95.5 95.4	95.5	7.6 7.6	7.6	7.6	4.2 4.3	4.3	3.8	6.8 7.4	7.1	6.3
					Middle	5.5	16.7 16.7	16.7	8.2 8.2	8.2	32.9 32.9	32.9	95.7 95.1	95.4	7.6 7.6	7.6		3.5 3.8	3.7		6.3 5.4	5.9	
					Bottom	9.9	16.7 16.8	16.8	8.2 8.1	8.2	32.9 32.9	32.9	95.2 96.4	95.8	7.6 7.7	7.6	7.6	3.3 3.2	3.3		5.9 5.8	5.9	
14-Feb-14	Cloudy	Moderate	12:27	11.3	Surface	1.0	15.8 15.8	15.8	7.9 7.9	7.9	33.0 33.0	33.0	93.2 95.6	94.4	7.6 7.8	7.7	7.8	9.7 9.6	9.7	9.6	11.3 12.1	11.7	11.9
					Middle	5.7	15.8 15.8	15.8	7.9 7.9	7.9	33.0 33.0	33.0	97.8 93.5	95.7	7.9 7.6	7.8		9.6 9.4	9.5		12.8 11.1	12.0	
					Bottom	10.3	15.8 15.8	15.8	7.9 7.9	7.9	33.0 33.0	33.0	99.6 94.1	96.9	8.1 7.6	7.9	7.9	9.5 9.4	9.5		11.9 12.2	12.1	
17-Feb-14	Cloudy	Moderate	08:09	11.2	Surface	1.0	16.0 16.0	16.0	7.8 7.8	7.8	33.2 33.2	33.2	95.3 95.6	95.5	7.7 7.7	7.7	7.7	5.5 5.6	5.6	5.6	9.8 8.7	9.3	8.6
					Middle	5.6	16.0 16.0	16.0	7.8 7.8	7.8	33.2 33.2	33.2	95.7 95.0	95.4	7.7 7.7	7.7		5.7 5.6	5.7		8.8 8.2	8.5	
					Bottom	10.2	16.0 16.0	16.0	7.8 7.8	7.8	33.2 33.2	33.2	95.1 96.1	95.6	7.7 7.8	7.7	7.7	5.4 5.5	5.5		8.0 7.8	7.9	
19-Feb-14	Rainy	Moderate	09:26	10.2	Surface	1.0	16.3 16.3	16.3	7.9 7.9	7.9	33.1 33.1	33.1	94.1 94.8	94.5	7.6 7.6	7.6	7.6	5.8 5.7	5.8	5.8	8.9 9.4	9.2	9.5
					Middle	5.1	16.3 16.3	16.3	7.9 7.9	7.9	33.1 33.1	33.1	94.0 94.9	94.5	7.5 7.6	7.6		5.8 5.8	5.8		9.4 8.7	9.1	
					Bottom	9.2	16.3 16.3	16.3	7.9 7.9	7.9	33.1 33.1	33.1	94.0 95.4	94.7	7.5 7.7	7.6	7.6	5.9 5.9	5.9		9.2 11.2	10.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at IS17 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:20	11.3	Surface	1.0	15.9 15.9	15.9	7.9 7.8	7.9	33.3 33.3	33.3	94.3 93.7	94.0	7.6 7.6	7.6	7.7	4.3 4.2	4.3	4.6	7.6 6.6	7.1	7.8
					Middle	5.7	15.9 15.9	15.9	7.8 7.9	7.8	33.3 33.3	33.3	93.5 96.0	94.8	7.6 7.8	7.7		4.5 4.2	4.4		8.8 9.0	8.9	
					Bottom	10.3	15.9 15.9	15.9	7.8 7.8	7.8	33.3 33.3	33.3	92.9 93.6	93.3	7.5 7.6	7.5	7.5	4.8 5.1	5.0		6.8 7.7	7.3	
24-Feb-14	Sunny	Moderate	12:54	11.3	Surface	1.0	16.7 16.8	16.8	7.9 7.9	7.9	33.2 33.2	33.2	96.8 94.4	95.6	7.7 7.5	7.6	7.6	2.1 2.0	2.1	2.2	4.4 3.2	3.8	6.2
					Middle	5.7	16.6 16.5	16.6	7.9 8.0	8.0	33.2 33.3	33.2	94.4 95.9	95.2	7.5 7.7	7.6		2.2 2.2	2.2		7.7 7.7	7.7	
					Bottom	10.3	16.7 16.7	16.7	8.0 7.9	8.0	33.2 33.2	33.2	95.6 94.2	94.9	7.6 7.5	7.6	7.6	2.2 2.2	2.2		7.5 6.8	7.2	
26-Feb-14	Cloudy	Moderate	15:59	10.6	Surface	1.0	17.3 17.3	17.3	8.0 7.9	8.0	32.6 32.8	32.7	102.1 101.5	101.8	8.1 8.0	8.0	8.0	3.5 3.5	3.5	3.6	5.9 6.0	6.0	5.5
					Middle	5.3	17.1 17.1	17.1	7.9 7.9	7.9	33.2 33.2	33.2	100.5 100.6	100.6	7.9 7.9	7.9		3.6 3.6	3.6		5.3 4.0	4.7	
					Bottom	9.6	17.1 17.1	17.1	7.9 7.9	7.9	33.2 33.2	33.2	100.7 100.1	100.4	8.0 7.9	7.9	7.9	3.7 3.6	3.7		5.3 6.1	5.7	
28-Feb-14	Sunny	Moderate	17:40	10.8	Surface	1.0	17.7 17.7	17.7	8.0 8.0	8.0	31.8 31.9	31.8	106.1 106.3	106.2	8.4 8.4	8.4	8.4	2.3 2.5	2.4	3.1	6.5 6.3	6.4	6.4
					Middle	5.4	17.7 17.7	17.7	8.0 8.0	8.0	32.0 32.0	32.0	105.2 104.8	105.0	8.3 8.3	8.3		3.4 3.2	3.3		5.0 5.6	5.3	
					Bottom	9.8	17.7 17.7	17.7	8.0 8.0	8.0	32.1 32.1	32.1	104.4 104.2	104.3	8.2 8.2	8.2	8.2	3.6 3.7	3.7		6.9 8.0	7.5	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR3 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:00	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	10.7	-	-		-	-	
					Middle	0.8	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	135.1 135.2	135.2	10.7 10.7	10.7		1.6 1.8	1.7	1.7	5.6 4.8	5.2	5.2
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
3-Feb-14	Sunny	Moderate	14:15	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	9.7	-	-		-	-	
					Middle	0.7	18.5 18.5	18.5	8.3 8.3	8.3	29.8 29.8	29.8	124.8 121.2	123.0	9.8 9.5	9.7		1.1 1.1	1.1	1.1	3.1 2.1	2.6	2.6
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
5-Feb-14	Sunny	Moderate	15:52	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	9.2	-	-		-	-	
					Middle	0.8	18.6 18.6	18.6	8.3 8.3	8.3	30.9 31.0	31.0	115.4 120.2	117.8	9.0 9.4	9.2		2.6 2.7	2.7	2.7	5.1 3.2	4.2	4.2
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
7-Feb-14	Sunny	Moderate	18:29	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	9.7	-	-		-	-	
					Middle	0.7	19.2 19.1	19.2	8.3 8.3	8.3	30.9 30.9	30.9	128.2 122.7	125.5	9.9 9.5	9.7		2.2 2.2	2.2	2.2	3.6 3.2	3.4	3.4
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
10-Feb-14	Fine	Moderate	21:41	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	8.3	-	-		-	-	
					Middle	0.7	17.2 17.2	17.2	8.2 8.2	8.2	30.6 30.6	30.6	105.3 102.7	104.0	8.4 8.2	8.3		1.7 1.6	1.7	1.7	8.9 8.1	8.5	8.5
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
12-Feb-14	Cloudy	Moderate	12:56	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.6	-	-		-	-	
					Middle	0.8	15.9 15.9	15.9	8.2 8.2	8.2	31.2 31.2	31.2	92.6 92.7	92.7	7.6 7.6	7.6		2.8 2.9	2.9	2.9	6.1 4.4	5.3	5.3
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
14-Feb-14	Sunny	Moderate	08:30	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	7.5	-	-		-	-	
					Middle	0.9	15.0 15.0	15.0	7.9 7.9	7.9	31.9 31.9	31.9	90.3 90.3	90.3	7.5 7.5	7.5		3.9 4.0	4.0	4.0	4.6 5.9	5.3	5.3
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
17-Feb-14	Sunny	Moderate	12:46	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-		-	-	
					Middle	0.8	16.2 16.2	16.2	7.8 7.8	7.8	33.8 33.7	33.8	97.6 96.0	96.8	7.8 7.7	7.8		5.4 5.6	5.5	5.5	7.0 7.9	7.5	7.5
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
19-Feb-14	Sunny	Moderate	14:16	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	8.2	-	-		-	-	
					Middle	0.8	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.4	33.4	100.1 102.6	101.4	8.1 8.3	8.2		9.1 8.9	9.0	9.0	14.8 14.9	14.9	14.9
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR3 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	15:26	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	8.1	-	-		-	-	
					Middle	0.9	15.7 15.7	15.7	7.8 7.8	7.8	33.8 33.7	33.7	99.5 99.8	99.7	8.1 8.1	8.1		5.8 5.4	5.6	5.6	9.4 10.0	9.7	9.7
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
24-Feb-14	Sunny	Moderate	19:13	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-		-	-	
					Middle	0.9	16.6 16.5	16.6	7.9 7.9	7.9	34.1 34.0	34.0	98.7 97.8	98.3	7.8 7.8	7.8		4.5 4.3	4.4	4.4	7.1 8.3	7.7	7.7
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
26-Feb-14	Cloudy	Moderate	12:21	1.0	Surface	-	-	-	-	-	-	-	-	-	-	-	8.0	-	-		-	-	
					Middle	0.5	17.5 17.5	17.5	7.9 7.9	7.9	33.1 33.1	33.1	102.2 102.2	102.2	8.0 8.0	8.0		4.5 4.3	4.4	4.4	6.1 7.1	6.6	6.6
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
28-Feb-14	Sunny	Moderate	13:15	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	8.1	-	-		-	-	
					Middle	0.7	17.9 17.9	17.9	8.1 8.1	8.1	32.1 32.1	32.1	104.2 103.8	104.0	8.2 8.1	8.1		4.3 4.2	4.3	4.3	6.6 8.6	7.6	7.6
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR3 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:26	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	10.7	-	-	2.6	-	-	6.1
					Middle	0.7	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.1	30.1	135.5 135.4	135.5	10.7 10.7	10.7		2.6 2.5	2.6		5.5 6.7	6.1	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
3-Feb-14	Sunny	Moderate	10:35	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	10.9	-	-	0.9	-	-	3.1
					Middle	0.7	18.5 18.5	18.5	8.3 8.3	8.3	29.8 29.8	29.8	138.7 139.3	139.0	10.9 10.9	10.9		0.9 0.9	0.9		3.3 2.9	3.1	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
5-Feb-14	Fine	Moderate	11:41	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	9.7	-	-	1.7	-	-	6.4
					Middle	0.8	18.5 18.5	18.5	8.3 8.3	8.3	29.8 29.8	29.8	123.0 123.0	123.0	9.7 9.7	9.7		1.7 1.6	1.7		5.6 7.2	6.4	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
7-Feb-14	Sunny	Moderate	13:06	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	9.9	-	-	1.8	-	-	3.3
					Middle	0.8	19.0 19.0	19.0	8.3 8.3	8.3	29.9 29.9	29.9	127.1 126.7	126.9	9.9 9.8	9.9		1.7 1.8	1.8		3.6 2.9	3.3	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
10-Feb-14	Fine	Moderate	11:15	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.7	-	-	1.6	-	-	4.6
					Middle	0.6	17.6 17.6	17.6	8.2 8.2	8.2	30.5 30.5	30.5	96.4 96.3	96.4	7.7 7.7	7.7		1.6 1.6	1.6		4.3 4.9	4.6	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
12-Feb-14	Cloudy	Moderate	15:37	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-	2.9	-	-	3.3
					Middle	0.8	15.9 15.9	15.9	8.0 8.0	8.0	30.9 30.7	30.8	94.6 96.1	95.4	7.8 7.9	7.8		3.0 2.7	2.9		3.6 3.0	3.3	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
14-Feb-14	Cloudy	Moderate	11:20	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	8.4	-	-	4.7	-	-	5.2
					Middle	0.8	15.1 15.1	15.1	7.9 7.9	7.9	32.1 32.1	32.1	102.1 100.4	101.3	8.4 8.3	8.4		4.9 4.5	4.7		5.6 4.8	5.2	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
17-Feb-14	Cloudy	Moderate	09:21	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.9	-	-	4.2	-	-	7.4
					Middle	0.8	15.5 15.5	15.5	7.9 7.9	7.9	32.6 32.6	32.6	97.2 97.2	97.2	8.0 7.9	7.9		4.3 4.1	4.2		6.6 8.1	7.4	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
19-Feb-14	Rainy	Moderate	10:24	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.7	-	-	8.5	-	-	16.2
					Middle	0.8	16.1 16.1	16.1	7.9 7.9	7.9	33.1 33.1	33.1	95.2 95.2	95.2	7.7 7.7	7.7		8.4 8.5	8.5		15.7 16.6	16.2	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR3 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	11:26	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	7.9	-	-		-	-	
					Middle	0.9	15.5 15.5	15.5	7.9 7.9	7.9	33.2 33.2	33.2	96.5 96.5	96.5	7.9 7.9	7.9		5.5 4.9	5.2	5.2	5.8 5.9	5.9	5.9
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
24-Feb-14	Sunny	Moderate	13:50	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	8.3	-	-		-	-	
					Middle	0.7	16.4 16.4	16.4	8.0 8.0	8.0	33.1 33.1	33.1	103.9 103.9	103.9	8.3 8.3	8.3		3.8 4.0	3.9	3.9	5.7 7.3	6.5	6.5
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
26-Feb-14	Cloudy	Moderate	14:50	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	8.0	-	-		-	-	
					Middle	0.7	17.4 17.3	17.4	7.9 7.9	7.9	33.2 33.1	33.2	100.4 103.7	102.1	7.9 8.2	8.0		2.9 2.9	2.9	2.9	7.5 7.0	7.3	7.3
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
28-Feb-14	Sunny	Moderate	16:13	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	8.2	-	-		-	-	
					Middle	0.7	18.4 18.4	18.4	7.9 7.9	7.9	32.0 32.0	32.0	105.7 105.9	105.8	8.2 8.2	8.2		4.6 4.8	4.7	4.7	4.1 4.9	4.5	4.5
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR4(N) - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:46	3.7	Surface	1.0	18.0 18.0	18.0	8.2 8.2	8.2	29.7 29.8	29.8	130.5 132.9	131.7	10.3 10.5	10.4	10.4	1.8 1.8	1.8	1.9	2.0 3.7	2.9	3.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	17.9 17.9	17.9	8.2 8.2	8.2	29.9 29.9	29.9	127.5 131.5	129.5	10.1 10.4	10.3	10.3	1.8 1.9	1.9		3.6 3.9	3.8	
3-Feb-14	Sunny	Moderate	15:00	3.5	Surface	1.0	18.2 18.1	18.2	8.2 8.2	8.2	29.9 30.0	29.9	131.9 131.8	131.9	10.4 10.4	10.4	10.4	0.9 1.0	1.0	1.1	3.1 5.1	4.1	4.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.1 18.1	18.1	8.2 8.2	8.2	30.1 30.0	30.0	131.7 131.6	131.7	10.4 10.4	10.4	10.4	1.1 1.1	1.1		4.1 4.2	4.2	
5-Feb-14	Sunny	Moderate	16:41	3.5	Surface	1.0	18.5 18.5	18.5	8.3 8.3	8.3	30.5 30.4	30.4	124.4 127.3	125.9	9.7 10.0	9.8	9.8	3.2 3.0	3.1	3.8	3.9 3.3	3.6	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.4 18.5	18.5	8.3 8.3	8.3	30.6 30.5	30.5	117.5 123.3	120.4	9.2 9.6	9.4	9.4	4.5 4.2	4.4		4.7 5.6	5.2	
7-Feb-14	Sunny	Moderate	19:09	3.7	Surface	1.0	19.3 19.3	19.3	8.3 8.3	8.3	30.4 30.4	30.4	129.1 131.6	130.4	9.9 10.1	10.0	10.0	1.5 1.5	1.5	1.6	3.3 3.5	3.4	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	19.4 19.3	19.3	8.3 8.3	8.3	30.5 30.4	30.5	125.9 131.1	128.5	9.7 10.1	9.9	9.9	1.5 1.6	1.6		4.5 5.0	4.8	
10-Feb-14	Fine	Moderate	22:20	3.6	Surface	1.0	17.3 17.3	17.3	8.2 8.2	8.2	31.4 31.4	31.4	99.8 101.0	100.4	7.9 8.0	8.0	8.0	4.5 4.5	4.5	4.5	9.6 9.5	9.6	9.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	17.3 17.3	17.3	8.2 8.2	8.2	31.4 31.4	31.4	100.2 102.5	101.4	8.0 8.2	8.1	8.1	4.5 4.4	4.5		11.0 9.1	10.1	
12-Feb-14	Cloudy	Moderate	12:07	3.4	Surface	1.0	15.9 16.1	16.0	8.2 8.2	8.2	31.6 31.7	31.7	94.5 94.5	94.5	7.7 7.7	7.7	7.7	2.3 2.4	2.4	4.1	3.0 4.6	3.8	4.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	16.1 16.4	16.3	8.2 8.2	8.2	32.0 32.2	32.1	94.7 95.2	95.0	7.7 7.7	7.7	7.7	5.7 5.9	5.8		5.7 4.4	5.1	
14-Feb-14	Sunny	Moderate	07:41	3.7	Surface	1.0	15.0 14.9	15.0	7.9 7.9	7.9	32.2 32.2	32.2	92.4 92.6	92.5	7.7 7.7	7.7	7.7	3.1 3.0	3.1	2.9	6.2 7.3	6.8	6.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	14.9 15.0	15.0	7.9 7.9	7.9	32.2 32.2	32.2	92.5 92.4	92.5	7.7 7.7	7.7	7.7	2.7 2.6	2.7		6.6 6.2	6.4	
17-Feb-14	Sunny	Moderate	13:34	3.5	Surface	1.0	16.9 16.9	16.9	7.9 7.9	7.9	33.2 33.3	33.3	94.9 94.3	94.6	7.5 7.5	7.5	7.5	3.2 3.4	3.3	3.4	3.5 5.3	4.4	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	16.8 16.8	16.8	7.9 7.9	7.9	33.3 33.3	33.3	94.2 93.9	94.1	7.5 7.5	7.5	7.5	3.4 3.4	3.4		5.5 4.9	5.2	
19-Feb-14	Sunny	Moderate	14:55	3.6	Surface	1.0	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	101.1 99.3	100.2	8.2 8.0	8.1	8.1	5.0 5.1	5.1	5.2	6.9 6.7	6.8	7.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	15.9 15.9	15.9	7.9 7.9	7.9	33.1 33.1	33.1	102.6 100.0	101.3	8.3 8.1	8.2	8.2	5.1 5.2	5.2		7.8 6.7	7.3	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR4(N) - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:08	3.5	Surface	1.0	16.2 16.2	16.2	7.9 7.9	7.9	33.6 33.6	33.6	100.3 98.9	99.6	8.0 7.9	8.0	8.0	5.6 5.6	5.6	5.7	8.0 7.7	7.9	7.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	16.2 16.2	16.2	7.9 7.9	7.9	33.6 33.6	33.6	99.5 101.4	100.5	8.0 8.1	8.1	8.1	5.6 5.7	5.7		7.5 6.6	7.1	
24-Feb-14	Sunny	Moderate	19:50	3.3	Surface	1.0	16.9 16.9	16.9	8.0 8.0	8.0	33.7 33.7	33.7	99.9 99.6	99.8	7.9 7.9	7.9	7.9	4.0 4.1	4.1	4.2	5.3 6.1	5.7	6.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	16.9 16.9	16.9	8.0 8.0	8.0	33.7 33.7	33.7	99.5 99.4	99.5	7.9 7.9	7.9	7.9	4.1 4.2	4.2		8.0 6.4	7.2	
26-Feb-14	Cloudy	Moderate	11:37	3.6	Surface	1.0	17.8 17.7	17.7	7.9 7.9	7.9	33.1 33.2	33.1	94.4 94.1	94.3	7.4 7.4	7.4	7.4	3.5 3.6	3.6	3.6	9.3 7.6	8.5	8.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	17.5 17.5	17.5	7.9 7.8	7.9	33.2 33.2	33.2	93.7 94.3	94.0	7.3 7.4	7.4	7.4	3.6 3.5	3.6		8.7 7.3	8.0	
28-Feb-14	Sunny	Moderate	12:29	3.4	Surface	1.0	17.7 17.7	17.7	8.0 8.0	8.0	32.1 32.1	32.1	106.8 107.0	106.9	8.4 8.4	8.4	8.4	3.0 3.1	3.1	3.1	6.2 5.8	6.0	6.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	17.7 17.7	17.7	8.0 8.0	8.0	32.1 32.1	32.1	106.7 106.6	106.7	8.4 8.4	8.4	8.4	3.0 3.1	3.1		6.9 5.8	6.4	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR4(N) - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:45	3.6	Surface	1.0	17.8 17.8	17.8	8.2 8.2	8.2	29.8 29.8	29.8	125.2 123.9	124.6	10.0 9.9	9.9	9.9	1.6 1.6	1.6	1.7	5.0 4.0	4.5	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	17.8 17.8	17.8	8.1 8.1	8.1	29.8 29.8	29.8	122.0 124.6	123.3	9.7 9.9	9.8	9.8	1.7 1.7	1.7		3.9 6.2	5.1	
3-Feb-14	Sunny	Moderate	09:56	3.5	Surface	1.0	18.3 18.3	18.3	8.2 8.2	8.2	29.5 29.5	29.5	134.2 134.5	134.4	10.6 10.6	10.6	10.6	1.1 1.1	1.1	1.2	4.1 2.9	3.5	3.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	18.3 18.3	18.3	8.2 8.2	8.2	29.5 29.5	29.5	133.8 134.3	134.1	10.6 10.6	10.6	10.6	1.2 1.3	1.3		4.3 3.3	3.8	
5-Feb-14	Fine	Moderate	10:54	3.8	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	124.6 124.9	124.8	9.8 9.8	9.8	9.8	2.1 2.3	2.2	2.3	4.4 5.5	5.0	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.8	18.2 18.2	18.2	8.2 8.2	8.2	30.0 30.0	30.0	124.7 124.4	124.6	9.8 9.8	9.8	9.8	2.4 2.3	2.4		5.2 3.8	4.5	
7-Feb-14	Sunny	Moderate	12:26	3.7	Surface	1.0	18.8 18.8	18.8	8.3 8.3	8.3	29.7 29.8	29.8	127.3 130.0	128.7	9.9 10.1	10.0	10.0	2.5 2.5	2.5	2.6	4.2 5.4	4.8	4.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	18.8 18.8	18.8	8.3 8.3	8.3	29.8 29.8	29.8	128.8 122.7	125.8	10.1 9.6	9.8	9.8	2.5 2.6	2.6		4.2 4.7	4.5	
10-Feb-14	Fine	Moderate	10:39	3.7	Surface	1.0	17.1 17.1	17.1	8.2 8.1	8.2	30.5 30.5	30.5	94.4 95.3	94.9	7.6 7.7	7.6	7.6	2.6 2.8	2.7	2.7	6.2 4.6	5.4	5.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	17.2 17.2	17.2	8.2 8.2	8.2	30.6 30.6	30.6	96.7 94.7	95.7	7.7 7.6	7.7	7.7	2.8 2.6	2.7		5.1 5.6	5.4	
12-Feb-14	Cloudy	Moderate	16:26	3.5	Surface	1.0	15.9 15.9	15.9	8.2 8.1	8.2	31.4 31.3	31.4	97.2 98.5	97.9	7.9 8.1	8.0	8.0	3.5 3.3	3.4	3.5	2.7 3.0	2.9	3.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.9 16.1	16.0	8.1 8.1	8.1	31.4 31.8	31.6	98.1 98.5	98.3	8.0 8.0	8.0	8.0	3.6 3.4	3.5		4.6 3.1	3.9	
14-Feb-14	Cloudy	Moderate	12:04	3.5	Surface	1.0	15.2 15.2	15.2	7.9 7.9	7.9	32.2 32.2	32.2	98.8 96.6	97.7	8.1 8.0	8.1	8.1	3.3 3.0	3.2	3.1	5.7 4.3	5.0	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.5	15.2 15.2	15.2	7.9 7.9	7.9	32.2 32.2	32.2	100.6 97.8	99.2	8.3 8.1	8.2	8.2	2.8 3.1	3.0		4.6 4.4	4.5	
17-Feb-14	Cloudy	Moderate	08:33	3.6	Surface	1.0	15.9 15.9	15.9	7.8 7.8	7.8	32.9 32.9	32.9	92.4 91.8	92.1	7.5 7.4	7.5	7.5	6.1 5.9	6.0	5.8	8.8 8.2	8.5	8.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	15.9 15.9	15.9	7.8 7.8	7.8	32.9 32.9	32.9	94.7 92.1	93.4	7.7 7.5	7.6	7.6	5.3 5.8	5.6		9.2 7.1	8.2	
19-Feb-14	Rainy	Moderate	09:45	3.7	Surface	1.0	15.7 15.7	15.7	7.9 7.9	7.9	32.9 32.9	32.9	96.2 97.9	97.1	7.8 8.0	7.9	7.9	8.7 8.9	8.8	8.8	13.3 12.3	12.8	12.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	15.7 15.7	15.7	7.9 7.9	7.9	32.9 32.9	32.9	97.0 99.5	98.3	7.9 8.1	8.0	8.0	8.7 8.7	8.7		11.5 11.6	11.6	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR4(N) - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:42	3.6	Surface	1.0	16.0 16.0	16.0	7.9 7.9	7.9	33.3 33.3	33.3	95.5 93.5	94.5	7.7 7.6	7.6	7.6	5.6 5.1	5.4	5.9	4.9 6.4	5.7	5.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.6	15.9 16.0	15.9	7.8 7.9	7.9	33.3 33.3	33.3	97.0 94.2	95.6	7.8 7.6	7.7	7.7	6.6 6.0	6.3		4.0 5.0	4.5	
24-Feb-14	Sunny	Moderate	13:13	3.4	Surface	1.0	16.8 16.9	16.9	8.0 8.0	8.0	33.3 33.3	33.3	96.5 97.9	97.2	7.7 7.8	7.7	7.7	5.1 5.1	5.1	5.2	7.0 6.1	6.6	7.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.4	16.8 17.0	16.9	8.0 8.0	8.0	33.3 33.2	33.2	96.4 96.6	96.5	7.7 7.7	7.7	7.7	5.3 5.2	5.3		8.2 7.7	8.0	
26-Feb-14	Cloudy	Moderate	15:31	3.7	Surface	1.0	18.1 18.2	18.1	7.9 7.9	7.9	33.3 33.3	33.3	100.7 100.6	100.7	7.8 7.8	7.8	7.8	3.5 3.5	3.5	3.6	5.3 4.9	5.1	5.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.7	18.1 18.0	18.1	7.9 7.9	7.9	33.3 33.2	33.3	99.1 100.2	99.7	7.7 7.8	7.7	7.7	3.5 3.6	3.6		6.8 5.1	6.0	
28-Feb-14	Sunny	Moderate	17:15	3.3	Surface	1.0	17.8 17.8	17.8	8.0 8.0	8.0	32.0 32.0	32.0	106.6 106.4	106.5	8.4 8.3	8.4	8.4	5.5 5.3	5.4	5.7	6.0 7.9	7.0	7.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2.3	17.8 17.8	17.8	8.0 8.0	8.0	32.1 32.1	32.1	106.1 106.6	106.4	8.3 8.4	8.3	8.3	5.9 6.1	6.0		6.7 8.7	7.7	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR5 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	13:37	5.3	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.2 30.2	30.2	106.4 106.8	106.6	8.5 8.5	8.5	8.5	3.9 4.2	4.1	4.4	3.7 3.5	3.6	5.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.3	18.1 18.0	18.1	8.4 8.4	8.4	30.2 30.2	30.2	106.3 105.3	105.8	8.5 8.4	8.4	8.4	4.7 4.4	4.6		7.1 6.2	6.7	
3-Feb-14	Sunny	Moderate	15:42	4.7	Surface	1.0	18.4 18.4	18.4	8.4 8.4	8.4	29.6 29.6	29.6	124.7 121.5	123.1	9.8 9.6	9.7	9.7	3.2 3.3	3.3	3.5	5.5 5.4	5.5	5.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.7	18.3 18.3	18.3	8.4 8.4	8.4	29.6 29.6	29.6	123.2 120.5	121.9	9.7 9.5	9.6	9.6	3.7 3.7	3.7		5.7 5.3	5.5	
5-Feb-14	Sunny	Moderate	17:15	4.8	Surface	1.0	18.5 18.4	18.4	8.5 8.5	8.5	29.6 29.7	29.6	123.6 125.5	124.6	9.7 9.9	9.8	9.8	1.9 1.8	1.9	1.9	3.0 3.0	3.0	3.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	18.4 18.4	18.4	8.5 8.5	8.5	29.8 29.8	29.8	124.8 120.2	122.5	9.8 9.5	9.6	9.6	1.8 1.9	1.9		3.3 4.0	3.7	
7-Feb-14	Sunny	Moderate	19:19	5.4	Surface	1.0	19.4 19.3	19.3	8.5 8.5	8.5	28.5 28.6	28.6	128.9 132.8	130.9	10.0 10.3	10.2	10.2	1.1 1.3	1.2	1.3	3.0 2.6	2.8	3.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	18.8 18.8	18.8	8.5 8.5	8.5	29.6 29.6	29.6	119.5 129.6	124.6	9.3 10.1	9.7	9.7	1.4 1.3	1.4		4.1 3.4	3.8	
10-Feb-14	Fine	Moderate	22:41	5.8	Surface	1.0	17.4 17.4	17.4	8.3 8.3	8.3	31.6 31.6	31.6	97.4 96.9	97.2	7.7 7.7	7.7	7.7	13.7 13.0	13.4	12.3	22.3 20.6	21.5	22.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.8	17.7 17.7	17.7	8.3 8.3	8.3	32.2 32.3	32.2	97.4 98.7	98.1	7.7 7.7	7.7	7.7	10.8 11.5	11.2		23.3 22.2	22.8	
12-Feb-14	Cloudy	Moderate	12:06	4.8	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.2 94.2	94.2	7.5 7.5	7.5	7.5	2.4 2.4	2.4	2.4	5.5 4.4	5.0	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.0 94.2	94.1	7.5 7.5	7.5	7.5	2.4 2.4	2.4		5.2 4.0	4.6	
14-Feb-14	Sunny	Moderate	07:29	4.8	Surface	1.0	15.7 15.7	15.7	8.3 8.2	8.3	33.4 33.4	33.4	91.7 91.7	91.7	7.4 7.4	7.4	7.4	12.9 12.9	12.9	12.7	8.6 7.9	8.3	8.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	15.7 15.7	15.7	8.2 8.2	8.2	33.4 33.4	33.4	91.8 91.7	91.8	7.4 7.4	7.4	7.4	12.4 12.5	12.5		8.6 8.1	8.4	
17-Feb-14	Sunny	Moderate	14:07	4.6	Surface	1.0	16.7 16.6	16.6	8.3 8.3	8.3	33.4 33.5	33.4	95.4 95.7	95.6	7.6 7.6	7.6	7.6	3.2 3.5	3.4	3.5	4.7 4.5	4.6	4.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.6	16.6 16.3	16.5	8.3 8.3	8.3	33.4 33.4	33.4	94.7 95.0	94.9	7.5 7.6	7.6	7.6	3.4 3.5	3.5		5.0 3.5	4.3	
19-Feb-14	Sunny	Moderate	15:01	5.7	Surface	1.0	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	96.0 94.7	95.4	7.7 7.6	7.7	7.7	8.7 8.2	8.5	8.5	11.0 12.1	11.6	11.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	16.2 16.2	16.2	8.3 8.3	8.3	33.4 33.4	33.4	95.1 98.5	96.8	7.6 7.9	7.8	7.8	8.3 8.7	8.5		12.2 11.9	12.1	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR5 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	16:49	4.9	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	97.2 95.9	96.6	7.8 7.7	7.8	7.8	3.3 3.0	3.2	3.2	5.5 6.4	6.0	6.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.9	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	98.5 96.4	97.5	7.9 7.8	7.8	7.8	3.1 3.1	3.1		6.5 6.0	6.3	
24-Feb-14	Sunny	Moderate	20:38	4.7	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	96.0 95.5	95.8	7.6 7.6	7.6	7.6	1.5 1.5	1.5	1.5	3.5 4.2	3.9	4.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.7	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.6 96.7	96.2	7.6 7.7	7.6	7.6	1.5 1.5	1.5		4.2 5.0	4.6	
26-Feb-14	Cloudy	Moderate	11:18	5.7	Surface	1.0	17.1 17.1	17.1	8.3 8.3	8.3	32.6 32.8	32.7	101.6 101.6	101.6	8.0 8.0	8.0	8.0	2.4 2.6	2.5	2.6	5.2 4.5	4.9	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	17.1 17.1	17.1	8.3 8.3	8.3	33.6 33.6	33.6	101.3 101.0	101.2	8.0 8.0	8.0	8.0	2.7 2.5	2.6		5.3 4.5	4.9	
28-Feb-14	Sunny	Moderate	12:38	4.6	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	105.6 105.5	105.6	8.3 8.3	8.3	8.3	2.2 2.1	2.2	2.3	4.8 4.4	4.6	4.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.6	17.7 17.7	17.7	8.3 8.3	8.3	32.5 32.5	32.5	105.5 105.5	105.5	8.3 8.3	8.3	8.3	2.2 2.3	2.3		4.5 4.4	4.5	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR5 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:53	5.3	Surface	1.0	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.6 105.5	105.6	8.4 8.4	8.4	8.4	4.9 4.7	4.8	4.9	2.5 2.0	2.3	3.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.3	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	105.3 105.3	105.3	8.4 8.4	8.4	8.4	4.8 5.1	5.0		3.1 4.4	3.8	
3-Feb-14	Sunny	Moderate	09:59	4.9	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	29.6 29.6	29.6	126.4 126.6	126.5	10.0 10.0	10.0	10.0	2.3 2.3	2.3	2.3	4.9 5.0	5.0	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.9	18.3 18.3	18.3	8.4 8.4	8.4	29.6 29.6	29.6	125.9 126.4	126.2	9.9 10.0	9.9	9.9	2.3 2.3	2.3		4.6 4.8	4.7	
5-Feb-14	Fine	Moderate	11:08	4.7	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.1 30.1	30.1	118.1 118.3	118.2	9.3 9.3	9.3	9.3	3.8 3.7	3.8	3.8	4.3 4.2	4.3	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.7	18.2 18.2	18.2	8.4 8.4	8.4	30.1 30.1	30.1	117.9 118.1	118.0	9.3 9.3	9.3	9.3	3.6 3.7	3.7		3.8 5.1	4.5	
7-Feb-14	Sunny	Moderate	12:37	5.6	Surface	1.0	18.9 18.8	18.9	8.4 8.4	8.4	29.8 30.0	29.9	125.4 124.7	125.1	9.8 9.7	9.7	9.7	3.6 3.6	3.6	3.7	3.7 3.2	3.5	4.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	18.7 18.8	18.7	8.4 8.4	8.4	30.2 30.1	30.2	124.3 124.6	124.5	9.7 9.7	9.7	9.7	3.8 3.7	3.8		4.5 5.5	5.0	
10-Feb-14	Fine	Moderate	10:49	5.5	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	31.8 31.8	31.8	97.3 97.0	97.2	7.7 7.6	7.6	7.6	4.4 4.2	4.3	4.1	6.7 6.2	6.5	7.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	17.9 17.8	17.9	8.3 8.3	8.3	31.9 31.9	31.9	97.1 97.1	97.1	7.6 7.6	7.6	7.6	3.7 3.9	3.8		7.9 8.3	8.1	
12-Feb-14	Cloudy	Moderate	17:09	4.8	Surface	1.0	16.4 16.4	16.4	8.3 8.3	8.3	32.8 32.8	32.8	98.2 102.0	100.1	7.9 8.2	8.0	8.0	2.7 2.7	2.7	2.8	5.0 5.0	5.0	5.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	16.4 16.4	16.4	8.3 8.3	8.3	32.8 32.8	32.8	99.9 104.6	102.3	8.0 8.4	8.2	8.2	2.7 2.9	2.8		7.1 6.3	6.7	
14-Feb-14	Cloudy	Moderate	12:41	4.9	Surface	1.0	16.2 16.2	16.2	8.2 8.2	8.2	33.4 33.4	33.4	90.8 92.3	91.6	7.3 7.4	7.3	7.3	3.8 3.9	3.9	3.9	17.4 15.7	16.6	16.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.9	16.2 16.2	16.2	8.2 8.2	8.2	33.4 33.4	33.4	90.9 92.7	91.8	7.3 7.4	7.4	7.4	3.9 3.9	3.9		17.4 16.9	17.2	
17-Feb-14	Cloudy	Moderate	08:34	4.8	Surface	1.0	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	93.4 93.3	93.4	7.5 7.5	7.5	7.5	12.5 12.6	12.6	12.5	14.8 13.5	14.2	15.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	93.2 93.3	93.3	7.5 7.5	7.5	7.5	12.4 12.4	12.4		16.2 15.1	15.7	
19-Feb-14	Rainy	Moderate	09:48	5.6	Surface	1.0	16.3 16.3	16.3	8.3 8.3	8.3	33.6 33.6	33.6	92.8 92.8	92.8	7.4 7.4	7.4	7.4	9.3 9.0	9.2	9.5	15.6 15.9	15.8	15.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	16.3 16.3	16.3	8.3 8.3	8.3	33.6 33.6	33.6	92.7 92.6	92.7	7.4 7.4	7.4	7.4	9.6 9.9	9.8		14.6 16.2	15.4	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR5 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:37	4.7	Surface	1.0	16.1 16.1	16.1	8.3 8.3	8.3	33.7 33.7	33.7	90.5 90.6	90.6	7.3 7.3	7.3	7.3	6.0 6.1	6.1	6.0	7.9 8.6	8.3	8.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.7	16.1 16.1	16.1	8.3 8.3	8.3	33.7 33.7	33.7	90.4 90.5	90.5	7.3 7.3	7.3	7.3	5.7 6.1	5.9		6.9 8.5	7.7	
24-Feb-14	Sunny	Moderate	13:35	4.8	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	33.8 33.8	33.8	96.0 95.9	96.0	7.6 7.6	7.6	7.6	3.8 4.0	3.9	3.9	6.8 5.8	6.3	6.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	16.5 16.6	16.6	8.3 8.3	8.3	33.8 33.8	33.8	95.7 95.8	95.8	7.6 7.6	7.6	7.6	3.8 3.9	3.9		6.5 6.8	6.7	
26-Feb-14	Cloudy	Moderate	15:44	5.8	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	30.8 31.0	30.9	114.0 106.7	110.4	9.0 8.5	8.7	8.7	2.9 3.0	3.0	3.3	3.9 3.2	3.6	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.8	17.4 17.5	17.5	8.3 8.3	8.3	31.7 31.3	31.5	102.2 109.8	106.0	8.1 8.7	8.4	8.4	3.5 3.4	3.5		4.2 5.9	5.1	
28-Feb-14	Sunny	Moderate	17:39	4.8	Surface	1.0	18.0 18.0	18.0	8.4 8.4	8.4	31.3 31.2	31.2	108.7 106.0	107.4	8.5 8.3	8.4	8.4	2.2 2.1	2.2	2.2	4.3 4.7	4.5	5.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	18.0 17.8	17.9	8.4 8.3	8.4	31.5 31.8	31.7	108.1 103.3	105.7	8.5 8.1	8.3	8.3	2.2 2.1	2.2		5.9 5.6	5.8	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR6 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	12:41	5.5	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.1 30.1	30.1	107.3 107.2	107.3	8.5 8.5	8.5	8.5	2.9 2.8	2.9	3.3	2.7 3.3	3.0	3.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.1 18.2	18.2	8.4 8.4	8.4	30.2 30.2	30.2	106.6 106.9	106.8	8.5 8.5	8.5	8.5	3.6 3.6	3.6		3.6 3.5	3.6	
3-Feb-14	Sunny	Moderate	14:40	4.1	Surface	1.0	18.5 18.4	18.4	8.3 8.3	8.3	29.0 29.0	29.0	126.9 126.3	126.6	10.0 10.0	10.0	10.0	2.5 2.5	2.5	2.7	3.2 3.0	3.1	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	18.2 18.3	18.2	8.3 8.3	8.3	29.3 29.1	29.2	125.7 126.2	126.0	10.0 10.0	10.0	10.0	2.8 2.8	2.8		4.1 3.9	4.0	
5-Feb-14	Sunny	Moderate	16:14	4.0	Surface	1.0	18.6 18.6	18.6	8.5 8.5	8.5	29.5 29.5	29.5	130.6 130.1	130.4	10.2 10.2	10.2	10.2	1.6 1.5	1.6	1.6	2.9 4.4	3.7	3.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.0	18.6 18.5	18.6	8.5 8.5	8.5	29.6 29.7	29.6	129.9 129.1	129.5	10.2 10.1	10.2	10.2	1.5 1.5	1.5		3.7 2.1	2.9	
7-Feb-14	Sunny	Moderate	18:27	5.5	Surface	1.0	19.1 19.1	19.1	8.5 8.5	8.5	28.6 28.7	28.7	136.6 135.5	136.1	10.7 10.6	10.6	10.6	1.1 1.2	1.2	1.4	2.2 2.4	2.3	2.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.9 19.1	19.0	8.5 8.5	8.5	29.8 28.9	29.3	133.6 135.8	134.7	10.4 10.6	10.5	10.5	1.5 1.4	1.5		3.3 3.6	3.5	
10-Feb-14	Fine	Moderate	21:42	5.3	Surface	1.0	17.5 17.5	17.5	8.4 8.4	8.4	32.1 32.0	32.0	98.6 98.7	98.7	7.8 7.8	7.8	7.8	2.3 2.5	2.4	2.5	8.3 8.3	8.3	7.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.3	17.6 17.7	17.7	8.3 8.3	8.3	32.3 32.5	32.4	99.0 99.2	99.1	7.8 7.8	7.8	7.8	2.5 2.5	2.5		8.4 6.5	7.5	
12-Feb-14	Cloudy	Moderate	13:00	4.1	Surface	1.0	16.5 16.5	16.5	8.3 8.3	8.3	32.9 32.9	32.9	94.9 94.8	94.9	7.6 7.6	7.6	7.6	2.4 2.5	2.5	2.5	4.0 3.9	4.0	4.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	16.5 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	94.8 94.7	94.8	7.6 7.6	7.6	7.6	2.4 2.5	2.5		5.2 5.2	5.2	
14-Feb-14	Sunny	Moderate	08:30	4.3	Surface	1.0	16.0 16.1	16.1	8.3 8.3	8.3	33.6 33.6	33.6	91.0 91.0	91.0	7.3 7.3	7.3	7.3	3.9 4.0	4.0	4.0	7.5 5.9	6.7	6.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	16.1 16.1	16.1	8.3 8.3	8.3	33.6 33.6	33.6	90.9 90.9	90.9	7.3 7.3	7.3	7.3	3.9 3.9	3.9		6.4 6.7	6.6	
17-Feb-14	Sunny	Moderate	13:08	4.0	Surface	1.0	16.5 16.4	16.4	8.3 8.3	8.3	33.4 33.4	33.4	94.8 94.8	94.8	7.6 7.6	7.6	7.6	4.7 4.8	4.8	4.9	7.1 6.2	6.7	6.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.0	16.4 16.4	16.4	8.3 8.3	8.3	33.5 33.6	33.5	94.6 94.4	94.5	7.6 7.6	7.6	7.6	4.8 4.9	4.9		7.0 6.5	6.8	
19-Feb-14	Sunny	Moderate	14:08	5.7	Surface	1.0	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	92.1 92.0	92.1	7.4 7.4	7.4	7.4	4.7 4.9	4.8	4.9	9.2 8.2	8.7	8.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	16.3 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	92.0 91.8	91.9	7.4 7.4	7.4	7.4	4.7 5.1	4.9		7.6 8.8	8.2	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR6 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	15:50	4.3	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	95.2 95.2	95.2	7.7 7.7	7.7	7.7	1.7 1.6	1.7	1.7	5.3 5.1	5.2	5.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	16.0 16.0	16.0	8.3 8.3	8.3	33.5 33.5	33.5	95.1 95.2	95.2	7.7 7.7	7.7	7.7	1.6 1.7	1.7		5.2 6.6	5.9	
24-Feb-14	Sunny	Moderate	19:37	4.1	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.0 95.0	95.0	7.6 7.6	7.6	7.6	1.4 1.3	1.4	1.4	5.7 4.2	5.0	5.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	94.9 94.9	94.9	7.5 7.5	7.5	7.5	1.4 1.4	1.4		5.4 4.9	5.2	
26-Feb-14	Cloudy	Moderate	12:14	5.6	Surface	1.0	17.2 17.2	17.2	8.3 8.3	8.3	31.7 31.7	31.7	104.0 104.5	104.3	8.3 8.3	8.3	8.3	2.4 2.3	2.4	2.3	3.5 4.9	4.2	5.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	17.1 17.1	17.1	8.3 8.3	8.3	33.5 33.5	33.5	102.5 103.1	102.8	8.1 8.1	8.1	8.1	2.0 2.1	2.1		6.6 6.1	6.4	
28-Feb-14	Sunny	Moderate	13:38	4.2	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	32.0 32.0	32.0	107.3 107.2	107.3	8.4 8.4	8.4	8.4	2.6 2.7	2.7	2.7	4.3 4.2	4.3	4.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	17.8 17.8	17.8	8.3 8.3	8.3	32.0 32.0	32.0	107.1 107.2	107.2	8.4 8.4	8.4	8.4	2.6 2.6	2.6		5.0 4.3	4.7	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR6 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	09:53	5.4	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	30.0 30.0	30.0	104.3 104.4	104.4	8.3 8.3	8.3	8.3	5.8 6.1	6.0	6.7	4.3 4.1	4.2	3.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	18.1 18.1	18.1	8.3 8.3	8.3	30.1 30.2	30.1	104.1 104.0	104.1	8.3 8.3	8.3	8.3	7.2 7.5	7.4		3.7 2.9	3.3	
3-Feb-14	Sunny	Moderate	11:01	4.3	Surface	1.0	18.4 18.3	18.3	8.3 8.3	8.3	29.0 29.0	29.0	125.1 125.3	125.2	9.9 9.9	9.9	9.9	2.1 2.1	2.1	2.2	5.4 4.2	4.8	4.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	18.2 18.2	18.2	8.3 8.3	8.3	29.5 29.2	29.3	124.5 124.8	124.7	9.9 9.9	9.9	9.9	2.2 2.2	2.2		5.2 4.0	4.6	
5-Feb-14	Fine	Moderate	12:05	4.4	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	30.1 30.1	30.1	121.6 121.6	121.6	9.6 9.6	9.6	9.6	3.1 3.3	3.2	3.3	5.9 6.8	6.4	6.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.4	18.2 18.2	18.2	8.4 8.4	8.4	30.2 30.2	30.2	121.3 121.5	121.4	9.6 9.6	9.6	9.6	3.3 3.4	3.4		7.7 6.1	6.9	
7-Feb-14	Sunny	Moderate	13:28	5.5	Surface	1.0	19.0 19.1	19.1	8.5 8.5	8.5	29.0 28.8	28.9	131.9 133.5	132.7	10.3 10.4	10.4	10.4	1.3 1.3	1.3	1.4	2.9 2.9	2.9	3.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.8 18.8	18.8	8.5 8.5	8.5	29.7 29.5	29.6	130.5 131.7	131.1	10.2 10.3	10.2	10.2	1.3 1.4	1.4		3.5 3.5	3.5	
10-Feb-14	Fine	Moderate	11:44	5.5	Surface	1.0	17.8 17.8	17.8	8.3 8.3	8.3	31.8 31.8	31.8	97.3 97.7	97.5	7.6 7.7	7.7	7.7	3.8 4.0	3.9	3.3	7.2 8.0	7.6	7.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	17.8 17.9	17.8	8.3 8.3	8.3	31.8 31.9	31.9	97.4 97.0	97.2	7.7 7.6	7.6	7.6	2.7 2.5	2.6		7.0 7.6	7.3	
12-Feb-14	Cloudy	Moderate	15:55	4.4	Surface	1.0	16.5 16.5	16.5	8.3 8.3	8.3	32.9 32.9	32.9	96.0 95.8	95.9	7.7 7.7	7.7	7.7	3.4 3.4	3.4	3.4	7.5 6.6	7.1	7.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.4	16.5 16.5	16.5	8.3 8.3	8.3	32.9 32.9	32.9	96.0 95.8	95.9	7.7 7.7	7.7	7.7	3.4 3.4	3.4		6.6 8.3	7.5	
14-Feb-14	Cloudy	Moderate	11:39	4.2	Surface	1.0	16.2 16.2	16.2	8.2 8.2	8.2	33.4 33.4	33.4	92.2 92.2	92.2	7.4 7.4	7.4	7.4	3.7 3.7	3.7	3.7	7.2 8.3	7.8	7.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	16.2 16.2	16.2	8.2 8.2	8.2	33.4 33.4	33.4	92.1 92.1	92.1	7.4 7.4	7.4	7.4	3.6 3.6	3.6		8.1 7.1	7.6	
17-Feb-14	Cloudy	Moderate	09:33	4.2	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.5 94.5	94.5	7.6 7.6	7.6	7.6	12.4 12.3	12.4	12.1	13.2 13.6	13.4	13.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.8	33.8	94.4 94.4	94.4	7.6 7.6	7.6	7.6	11.6 11.9	11.8		13.1 12.6	12.9	
19-Feb-14	Rainy	Moderate	10:45	5.9	Surface	1.0	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.5	33.5	92.9 93.0	93.0	7.5 7.5	7.5	7.5	8.7 8.3	8.5	9.3	9.8 11.4	10.6	10.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.9	16.2 16.2	16.2	8.3 8.3	8.3	33.5 33.6	33.6	92.8 92.7	92.8	7.4 7.4	7.4	7.4	10.4 9.6	10.0		11.0 9.9	10.5	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR6 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	11:29	4.3	Surface	1.0	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	94.1 94.0	94.1	7.6 7.6	7.6	7.6	3.8 4.0	3.9	4.0	5.2 5.8	5.5	5.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	15.7 15.7	15.7	8.3 8.3	8.3	33.6 33.6	33.6	93.9 94.0	94.0	7.6 7.6	7.6	7.6	4.2 3.9	4.1		5.1 5.3	5.2	
24-Feb-14	Sunny	Moderate	14:30	4.3	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	33.8 33.8	33.8	97.3 97.3	97.3	7.7 7.7	7.7	7.7	2.3 2.1	2.2	2.2	5.3 4.9	5.1	5.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	16.6 16.5	16.6	8.3 8.3	8.3	33.8 33.8	33.8	97.2 97.1	97.2	7.7 7.7	7.7	7.7	2.2 2.1	2.2		5.5 4.8	5.2	
26-Feb-14	Cloudy	Moderate	14:46	5.4	Surface	1.0	17.1 17.1	17.1	8.3 8.3	8.3	32.2 32.2	32.2	105.9 106.1	106.0	8.4 8.4	8.4	8.4	2.5 2.6	2.6	2.8	4.8 3.2	4.0	4.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	17.1 17.1	17.1	8.3 8.3	8.3	32.4 32.5	32.4	105.8 105.4	105.6	8.4 8.4	8.4	8.4	3.0 2.9	3.0		5.0 5.2	5.1	
28-Feb-14	Sunny	Moderate	16:44	4.2	Surface	1.0	18.1 18.1	18.1	8.4 8.4	8.4	30.2 30.3	30.2	117.4 117.0	117.2	9.3 9.2	9.2	9.2	2.2 2.2	2.2	2.2	4.8 4.5	4.7	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	18.0 18.0	18.0	8.4 8.4	8.4	30.4 30.4	30.4	117.2 117.5	117.4	9.3 9.3	9.3	9.3	2.2 2.2	2.2		5.6 4.5	5.1	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR7 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:08	5.5	Surface	1.0	18.1 18.1	18.1	8.3 8.3	8.3	30.3 30.2	30.3	105.4 105.3	105.4	8.4 8.4	8.4	8.4	3.2 3.1	3.2	3.2	3.0 4.7	3.9	4.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.1 18.1	18.1	8.3 8.3	8.3	30.3 30.3	30.3	105.2 105.0	105.1	8.4 8.4	8.4	8.4	3.2 3.1	3.2		4.2 4.6	4.4	
3-Feb-14	Sunny	Moderate	16:11	4.2	Surface	1.0	18.3 18.3	18.3	8.4 8.4	8.4	29.7 29.7	29.7	125.5 126.3	125.9	9.9 10.0	9.9	9.9	1.9 1.9	1.9	1.9	3.7 3.4	3.6	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	18.2 18.2	18.2	8.4 8.4	8.4	29.7 29.7	29.7	126.1 124.6	125.4	10.0 9.8	9.9	9.9	1.8 1.9	1.9		3.7 4.6	4.2	
5-Feb-14	Sunny	Moderate	17:45	4.1	Surface	1.0	18.5 18.5	18.5	8.5 8.5	8.5	29.6 29.6	29.6	128.0 126.9	127.5	10.1 10.0	10.0	10.0	2.1 2.2	2.2	2.2	2.2 4.0	3.1	3.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	18.5 18.4	18.4	8.5 8.5	8.5	29.7 29.8	29.8	127.6 126.1	126.9	10.0 9.9	10.0	10.0	2.1 2.1	2.1		4.8 4.2	4.5	
7-Feb-14	Sunny	Moderate	19:45	5.7	Surface	1.0	18.8 18.9	18.8	8.5 8.5	8.5	29.7 29.3	29.5	124.7 126.8	125.8	9.7 9.9	9.8	9.8	1.7 1.7	1.7	1.8	3.1 2.3	2.7	3.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	18.6 18.7	18.7	8.5 8.5	8.5	30.0 29.9	29.9	124.1 124.4	124.3	9.7 9.7	9.7	9.7	1.7 1.9	1.8		3.6 3.6	3.6	
10-Feb-14	Fine	Moderate	23:12	5.5	Surface	1.0	17.6 17.6	17.6	8.3 8.3	8.3	32.6 32.6	32.6	97.5 97.7	97.6	7.7 7.7	7.7	7.7	1.6 1.6	1.6	1.7	8.0 6.1	7.1	7.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	17.6 17.6	17.6	8.3 8.3	8.3	32.7 32.6	32.6	97.8 97.5	97.7	7.7 7.7	7.7	7.7	1.7 1.7	1.7		6.6 8.0	7.3	
12-Feb-14	Cloudy	Moderate	11:35	4.1	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	32.9 32.9	32.9	97.1 99.9	98.5	7.8 8.0	7.9	7.9	3.5 3.7	3.6	3.7	5.8 5.6	5.7	5.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	16.6 16.6	16.6	8.3 8.2	8.3	32.9 32.9	32.9	97.7 102.7	100.2	7.8 8.2	8.0	8.0	3.6 3.7	3.7		5.2 5.5	5.4	
14-Feb-14	Sunny	Moderate	07:01	4.2	Surface	1.0	15.7 15.7	15.7	8.0 8.1	8.0	33.4 33.4	33.4	99.6 96.5	98.1	8.1 7.8	7.9	7.9	4.4 4.4	4.4	4.5	4.8 4.5	4.7	5.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	15.7 15.7	15.7	7.9 8.0	8.0	33.4 33.4	33.4	101.9 97.8	99.9	8.3 7.9	8.1	8.1	4.5 4.4	4.5		5.2 5.5	5.4	
17-Feb-14	Sunny	Moderate	14:36	4.2	Surface	1.0	16.7 16.8	16.8	8.3 8.3	8.3	33.6 33.5	33.5	96.5 96.5	96.5	7.7 7.6	7.7	7.7	3.1 3.1	3.1	3.3	5.6 5.8	5.7	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	16.4 16.3	16.3	8.3 8.3	8.3	33.5 33.5	33.5	95.7 95.2	95.5	7.7 7.6	7.6	7.6	3.2 3.5	3.4		7.1 6.6	6.9	
19-Feb-14	Sunny	Moderate	15:29	5.5	Surface	1.0	16.5 16.5	16.5	8.2 8.2	8.2	33.7 33.7	33.7	88.5 88.7	88.6	7.1 7.1	7.1	7.1	3.2 3.2	3.2	3.2	5.8 7.0	6.4	6.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	16.5 16.5	16.5	8.2 8.2	8.2	33.7 33.7	33.7	88.5 88.6	88.6	7.1 7.1	7.1	7.1	3.2 3.2	3.2		6.5 8.1	7.3	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR7 - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	17:18	4.2	Surface	1.0	16.1 16.1	16.1	8.3 8.3	8.3	33.5 33.5	33.5	92.9 93.0	93.0	7.5 7.5	7.5	7.5	3.6 3.8	3.7	3.7	7.6 6.9	7.3	7.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	16.1 16.1	16.1	8.3 8.3	8.3	33.6 33.5	33.6	93.1 92.8	93.0	7.5 7.5	7.5	7.5	3.7 3.6	3.7		7.2 6.9	7.1	
24-Feb-14	Sunny	Moderate	21:07	4.2	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.9 95.8	95.9	7.6 7.6	7.6	7.6	2.6 2.5	2.6	2.6	4.2 4.1	4.2	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	16.7 16.7	16.7	8.3 8.3	8.3	33.5 33.5	33.5	95.7 95.8	95.8	7.6 7.6	7.6	7.6	2.4 2.6	2.5		5.4 2.6	4.0	
26-Feb-14	Cloudy	Moderate	10:47	5.4	Surface	1.0	17.2 17.2	17.2	8.3 8.3	8.3	32.2 32.1	32.2	102.2 101.0	101.6	8.1 8.0	8.1	8.1	2.6 2.4	2.5	2.8	3.5 3.3	3.4	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	17.1 17.1	17.1	8.3 8.3	8.3	33.6 33.7	33.6	101.6 97.2	99.4	8.0 7.7	7.8	7.8	2.8 3.2	3.0		6.1 4.7	5.4	
28-Feb-14	Sunny	Moderate	12:09	4.1	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.4 32.4	32.4	102.3 103.4	102.9	8.0 8.1	8.1	8.1	2.9 3.0	3.0	2.9	4.2 6.3	5.3	6.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.1	17.7 17.7	17.7	8.3 8.3	8.3	32.4 32.5	32.5	103.0 101.1	102.1	8.1 7.9	8.0	8.0	2.8 2.7	2.8		6.8 7.3	7.1	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR7 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	08:25	5.6	Surface	1.0	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	106.6 106.9	106.8	8.5 8.5	8.5	8.5	3.6 3.5	3.6	4.4	4.8 5.0	4.9	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	18.0 18.0	18.0	8.3 8.3	8.3	30.2 30.2	30.2	106.4 106.9	106.7	8.5 8.5	8.5	8.5	5.0 5.3	5.2		3.8 5.6	4.7	
3-Feb-14	Sunny	Moderate	09:30	4.2	Surface	1.0	18.1 18.2	18.2	8.3 8.3	8.3	29.7 29.7	29.7	120.5 117.9	119.2	9.5 9.3	9.4	9.4	4.4 4.3	4.4	4.4	5.8 5.4	5.6	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.2	18.1 18.1	18.1	8.3 8.3	8.3	29.7 29.7	29.7	119.4 113.4	116.4	9.4 9.0	9.2	9.2	4.3 4.3	4.3		7.0 7.0	7.0	
5-Feb-14	Fine	Moderate	10:40	4.3	Surface	1.0	18.2 18.2	18.2	8.4 8.4	8.4	30.3 30.3	30.3	115.5 112.9	114.2	9.1 8.9	9.0	9.0	2.9 2.8	2.9	2.9	3.5 3.5	3.5	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	18.2 18.2	18.2	8.4 8.4	8.4	30.4 30.5	30.4	114.2 110.0	112.1	9.0 8.7	8.8	8.8	2.8 2.9	2.9		3.5 4.9	4.2	
7-Feb-14	Sunny	Moderate	12:09	5.5	Surface	1.0	18.9 18.9	18.9	8.5 8.4	8.5	29.7 29.7	29.7	127.9 124.2	126.1	10.0 9.7	9.8	9.8	1.7 1.5	1.6	2.0	3.4 3.6	3.5	3.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.6 18.6	18.6	8.4 8.4	8.4	30.4 30.4	30.4	117.8 124.4	121.1	9.2 9.7	9.5	9.5	2.3 2.2	2.3		2.1 3.4	2.8	
10-Feb-14	Fine	Moderate	10:17	5.4	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	31.7 31.7	31.7	101.5 99.7	100.6	8.0 7.9	7.9	7.9	5.3 5.3	5.3	5.5	7.1 7.1	7.1	8.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	17.8 17.8	17.8	8.3 8.3	8.3	31.8 31.8	31.8	100.3 106.2	103.3	7.9 8.4	8.1	8.1	5.6 5.5	5.6		8.6 9.5	9.1	
12-Feb-14	Cloudy	Moderate	17:39	4.0	Surface	1.0	16.7 16.7	16.7	8.3 8.3	8.3	32.9 32.9	32.9	93.4 93.2	93.3	7.5 7.4	7.4	7.4	6.3 6.3	6.3	6.4	8.6 8.6	8.6	9.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.0	16.7 16.7	16.7	8.3 8.3	8.3	32.9 32.9	32.9	93.4 93.4	93.4	7.5 7.5	7.5	7.5	6.4 6.3	6.4		10.9 9.0	10.0	
14-Feb-14	Cloudy	Moderate	13:07	4.3	Surface	1.0	15.9 15.9	15.9	8.3 8.3	8.3	33.2 33.2	33.2	92.8 92.9	92.9	7.5 7.5	7.5	7.5	6.7 6.5	6.6	6.7	8.2 8.2	8.2	7.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	15.9 15.8	15.9	8.3 8.3	8.3	33.2 33.2	33.2	92.9 92.7	92.8	7.5 7.5	7.5	7.5	6.7 6.6	6.7		7.9 6.7	7.3	
17-Feb-14	Cloudy	Moderate	08:05	4.4	Surface	1.0	16.0 16.0	16.0	8.3 8.3	8.3	33.8 33.9	33.9	94.8 95.0	94.9	7.6 7.6	7.6	7.6	6.3 6.2	6.3	6.4	9.0 8.5	8.8	8.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.4	16.0 16.0	16.0	8.3 8.3	8.3	33.9 33.9	33.9	95.0 94.8	94.9	7.6 7.6	7.6	7.6	6.5 6.4	6.5		9.3 8.3	8.8	
19-Feb-14	Rainy	Moderate	09:18	5.5	Surface	1.0	16.2 16.2	16.2	8.2 8.2	8.2	33.6 33.6	33.6	94.8 96.1	95.5	7.6 7.7	7.6	7.6	7.6 7.9	7.8	7.9	10.6 10.2	10.4	10.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	16.2 16.3	16.3	8.2 8.2	8.2	33.6 33.6	33.6	98.6 95.3	97.0	7.9 7.6	7.8	7.8	8.0 8.0	8.0		11.7 10.2	11.0	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR7 - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	10:05	4.3	Surface	1.0	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	94.2 95.0	94.6	7.6 7.7	7.6	7.6	5.6 5.3	5.5	5.4	9.2 8.1	8.7	9.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	15.9 15.9	15.9	8.3 8.3	8.3	33.7 33.7	33.7	97.0 94.5	95.8	7.8 7.6	7.7	7.7	5.4 5.1	5.3		9.5 9.8	9.7	
24-Feb-14	Sunny	Moderate	13:08	4.6	Surface	1.0	16.6 16.6	16.6	8.3 8.3	8.3	33.7 33.8	33.8	94.2 94.2	94.2	7.5 7.5	7.5	7.5	2.2 2.2	2.2	2.3	8.4 8.4	8.4	7.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.6	16.6 16.6	16.6	8.3 8.3	8.3	33.8 33.8	33.8	94.0 94.0	94.0	7.5 7.5	7.5	7.5	2.3 2.3	2.3		6.5 8.1	7.3	
26-Feb-14	Cloudy	Moderate	16:12	5.7	Surface	1.0	17.4 17.4	17.4	8.3 8.3	8.3	31.5 31.6	31.5	108.3 108.6	108.5	8.6 8.6	8.6	8.6	2.7 2.8	2.8	2.9	3.4 3.8	3.6	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	17.2 17.2	17.2	8.3 8.3	8.3	32.9 33.0	33.0	108.7 107.7	108.2	8.6 8.5	8.5	8.5	3.0 3.0	3.0		4.7 4.4	4.6	
28-Feb-14	Sunny	Moderate	18:08	4.3	Surface	1.0	17.7 17.7	17.7	8.3 8.3	8.3	32.3 32.3	32.3	104.5 104.4	104.5	8.2 8.2	8.2	8.2	5.2 5.1	5.2	5.4	4.4 4.7	4.6	4.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.3	17.7 17.7	17.7	8.3 8.3	8.3	32.3 32.3	32.3	104.4 104.4	104.4	8.2 8.2	8.2	8.2	5.5 5.4	5.5		5.2 4.8	5.0	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10A - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:52	6.5	Surface	1.0	17.6 17.6	17.6	8.1 8.1	8.1	31.1 31.0	31.0	113.7 115.5	114.6	9.0 9.2	9.1	9.1	1.4 1.4	1.4	1.5	4.8 4.3	4.6	5.2
					Middle	3.3	17.6 17.6	17.6	8.1 8.1	8.1	31.0 31.1	31.1	115.5 112.6	114.1	9.2 8.9	9.0		1.5 1.5	1.5		5.1 4.9	5.0	
					Bottom	5.5	17.6 17.6	17.6	8.1 8.1	8.1	31.1 31.1	31.1	110.7 114.7	112.7	8.8 9.1	8.9	8.9	1.5 1.5	1.5		4.9 7.0	6.0	
3-Feb-14	Sunny	Moderate	16:09	6.5	Surface	1.0	18.0 18.0	18.0	8.2 8.2	8.2	30.8 30.8	30.8	121.4 124.0	122.7	9.6 9.8	9.7	9.6	0.8 0.9	0.9	1.1	2.9 3.4	3.2	3.7
					Middle	3.3	17.9 17.9	17.9	8.1 8.2	8.2	31.1 31.0	31.0	118.3 122.3	120.3	9.3 9.6	9.5		1.1 1.2	1.2		3.5 3.4	3.5	
					Bottom	5.5	17.9 17.9	17.9	8.1 8.2	8.1	31.1 31.1	31.1	115.6 122.0	118.8	9.1 9.6	9.4	9.4	1.2 1.2	1.2		4.2 4.7	4.5	
5-Feb-14	Sunny	Moderate	17:51	6.7	Surface	1.0	18.2 18.2	18.2	8.2 8.2	8.2	31.3 31.4	31.3	124.4 119.5	122.0	9.7 9.4	9.5	9.4	1.3 1.4	1.4	1.5	5.1 6.2	5.7	4.9
					Middle	3.4	18.1 18.1	18.1	8.2 8.2	8.2	31.4 31.4	31.4	115.6 123.1	119.4	9.0 9.6	9.3		1.6 1.6	1.6		4.0 3.4	3.7	
					Bottom	5.7	18.2 18.1	18.1	8.2 8.2	8.2	31.3 31.4	31.4	111.5 121.5	116.5	8.7 9.5	9.1	9.1	1.6 1.5	1.6		5.5 5.3	5.4	
7-Feb-14	Sunny	Moderate	20:26	6.6	Surface	1.0	18.7 18.7	18.7	8.2 8.2	8.2	31.0 31.0	31.0	125.2 123.5	124.4	9.7 9.6	9.7	9.7	1.5 1.5	1.5	1.5	3.5 2.4	3.0	3.1
					Middle	3.3	18.7 18.7	18.7	8.2 8.2	8.2	31.0 31.0	31.0	124.8 122.5	123.7	9.7 9.5	9.6		1.4 1.5	1.5		2.9 3.1	3.0	
					Bottom	5.6	18.7 18.7	18.7	8.2 8.2	8.2	31.0 31.0	31.0	120.2 124.1	122.2	9.3 9.6	9.5	9.5	1.5 1.5	1.5		3.9 2.8	3.4	
10-Feb-14	Fine	Moderate	23:36	6.5	Surface	1.0	17.6 17.5	17.6	8.2 8.2	8.2	33.4 33.4	33.4	100.3 99.8	100.1	7.8 7.8	7.8	7.9	2.2 2.2	2.2	2.2	2.8 2.8	2.8	3.3
					Middle	3.3	17.6 17.5	17.6	8.2 8.2	8.2	33.4 33.4	33.4	101.7 99.6	100.7	8.0 7.8	7.9		2.2 2.2	2.2		3.1 3.6	3.4	
					Bottom	5.5	17.6 17.5	17.6	8.1 8.2	8.2	33.4 33.4	33.4	106.1 99.5	102.8	8.3 7.8	8.0	8.0	2.1 2.2	2.2		4.5 2.6	3.6	
12-Feb-14	Cloudy	Moderate	10:54	6.7	Surface	1.0	17.2 17.2	17.2	8.1 8.1	8.1	33.2 33.1	33.1	95.0 95.9	95.5	7.5 7.6	7.5	7.6	1.9 1.8	1.9	1.8	4.7 6.2	5.5	5.4
					Middle	3.4	17.2 17.2	17.2	8.1 8.1	8.1	33.2 33.0	33.1	94.9 97.0	96.0	7.5 7.7	7.6		1.7 1.8	1.8		5.6 6.0	5.8	
					Bottom	5.7	17.2 17.2	17.2	8.1 8.1	8.1	33.1 33.0	33.1	95.3 97.9	96.6	7.5 7.7	7.6	7.6	1.8 1.8	1.8		5.1 4.8	5.0	
14-Feb-14	Sunny	Moderate	06:33	6.6	Surface	1.0	16.7 16.7	16.7	7.8 7.7	7.8	33.3 33.3	33.3	92.4 93.0	92.7	7.4 7.4	7.4	7.4	2.1 2.2	2.2	2.4	5.2 4.8	5.0	4.5
					Middle	3.3	16.7 16.7	16.7	7.7 7.8	7.8	33.3 33.3	33.3	93.0 92.3	92.7	7.4 7.3	7.4		2.2 2.3	2.3		4.1 4.7	4.4	
					Bottom	5.6	16.7 16.7	16.7	7.8 7.8	7.8	33.3 33.3	33.3	93.1 92.4	92.8	7.4 7.4	7.4	7.4	2.6 2.5	2.6		3.8 4.5	4.2	
17-Feb-14	Sunny	Moderate	14:42	6.7	Surface	1.0	16.7 16.6	16.6	7.9 7.9	7.9	33.6 33.6	33.6	90.6 90.1	90.4	7.2 7.2	7.2	7.2	4.3 4.3	4.3	4.6	5.4 5.3	5.4	5.0
					Middle	3.4	16.6 16.6	16.6	7.9 7.9	7.9	33.6 33.6	33.6	90.7 90.0	90.4	7.2 7.2	7.2		4.4 4.8	4.6		5.5 5.2	5.4	
					Bottom	5.7	16.6 16.6	16.6	7.9 7.9	7.9	33.6 33.6	33.6	90.1 90.9	90.5	7.2 7.2	7.2	7.2	4.8 4.8	4.8		3.8 4.6	4.2	
19-Feb-14	Sunny	Moderate	16:11	6.4	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	94.4 92.1	93.3	7.5 7.3	7.4	7.5	2.1 2.0	2.1	2.2	5.3 4.6	5.0	4.9
					Middle	3.2	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	95.5 92.5	94.0	7.6 7.4	7.5		2.2 2.1	2.2		5.1 4.9	5.0	
					Bottom	5.4	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	93.0 99.4	96.2	7.4 7.9	7.7	7.7	2.3 2.3	2.3		4.5 4.9	4.7	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10A - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	17:18	6.7	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.7 33.7	33.7	94.1 92.5	93.3	7.5 7.4	7.4	7.5	1.8 1.8	1.8	1.8	4.4 5.3	4.9	4.4
					Middle	3.4	16.5 16.5	16.5	7.9 7.9	7.9	33.8 33.8	33.8	92.6 95.6	94.1	7.4 7.6	7.5		1.7 1.5	1.6		5.3 3.5	4.4	
					Bottom	5.7	16.5 16.5	16.5	7.9 7.9	7.9	33.8 33.8	33.8	92.8 97.0	94.9	7.4 7.7	7.6	7.6	1.8 2.0	1.9		4.4 3.4	3.9	
24-Feb-14	Sunny	Moderate	21:01	6.8	Surface	1.0	16.6 16.6	16.6	8.0 8.0	8.0	33.6 33.6	33.6	94.4 91.7	93.1	7.5 7.3	7.4	7.4	0.7 0.7	0.7	0.8	2.6 2.4	2.5	3.0
					Middle	3.4	16.6 16.6	16.6	8.0 8.0	8.0	33.6 33.6	33.6	92.8 91.5	92.2	7.4 7.3	7.3		0.7 0.8	0.8		2.6 2.6	2.6	
					Bottom	5.8	16.6 16.6	16.6	8.0 8.0	8.0	33.6 33.6	33.6	92.4 91.4	91.9	7.4 7.3	7.3	7.3	0.7 0.8	0.8		4.4 3.6	4.0	
26-Feb-14	Cloudy	Moderate	10:04	6.5	Surface	1.0	16.8 16.8	16.8	7.8 7.8	7.8	33.2 33.2	33.2	88.9 89.4	89.2	7.1 7.1	7.1	7.1	1.4 1.5	1.5	1.6	3.1 3.3	3.2	3.5
					Middle	3.3	16.8 16.8	16.8	7.8 7.8	7.8	33.2 33.2	33.2	89.6 88.8	89.2	7.1 7.1	7.1		1.6 1.5	1.6		4.1 3.4	3.8	
					Bottom	5.5	16.8 16.8	16.8	7.8 7.8	7.8	33.2 33.2	33.2	90.2 89.0	89.6	7.2 7.1	7.1	7.1	1.6 1.6	1.6		4.3 2.8	3.6	
28-Feb-14	Sunny	Moderate	11:13	6.6	Surface	1.0	17.3 17.3	17.3	7.9 7.9	7.9	32.7 32.7	32.7	94.5 94.7	94.6	7.5 7.5	7.5	7.5	1.4 1.4	1.4	1.5	3.2 2.5	2.9	3.0
					Middle	3.3	17.3 17.3	17.3	7.9 7.8	7.9	32.7 32.7	32.7	94.3 94.7	94.5	7.4 7.5	7.5		1.4 1.5	1.5		2.3 4.0	3.2	
					Bottom	5.6	17.3 17.3	17.3	7.9 7.8	7.8	32.7 32.7	32.7	94.3 95.3	94.8	7.4 7.5	7.5	7.5	1.5 1.6	1.6		2.9 3.1	3.0	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10A - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	07:37	6.5	Surface	1.0	17.5 17.5	17.5	8.0 8.0	8.0	30.7 30.7	30.7	112.7 111.3	112.0	9.0 8.9	8.9	8.9	1.7 1.7	1.7	1.9	5.2 4.9	5.1	4.6
					Middle	3.3	17.5 17.5	17.5	8.0 8.0	8.0	30.8 30.8	30.8	112.3 110.2	111.3	8.9 8.8	8.8		1.8 1.9	1.9		2.8 4.7	3.8	
					Bottom	5.5	17.5 17.5	17.5	8.0 8.0	8.0	30.8 30.8	30.8	111.7 108.4	110.1	8.9 8.6	8.8	8.8	1.9 2.0	2.0		4.9 4.8	4.9	
3-Feb-14	Sunny	Moderate	08:52	6.5	Surface	1.0	18.0 17.9	18.0	8.2 8.2	8.2	30.2 30.2	30.2	121.5 119.3	120.4	9.6 9.4	9.5	9.5	1.5 1.4	1.5	1.6	4.3 4.4	4.4	4.8
					Middle	3.3	17.9 17.9	17.9	8.2 8.2	8.2	30.2 30.2	30.2	117.0 120.7	118.9	9.3 9.6	9.4		1.5 1.6	1.6		4.2 4.1	4.2	
					Bottom	5.5	17.9 17.9	17.9	8.2 8.2	8.2	30.3 30.3	30.3	114.7 120.1	117.4	9.1 9.5	9.3	9.3	1.6 1.6	1.6		5.1 6.4	5.8	
5-Feb-14	Fine	Moderate	09:49	6.8	Surface	1.0	18.0 18.0	18.0	8.2 8.2	8.2	31.0 31.0	31.0	118.5 116.3	117.4	9.3 9.2	9.2	9.2	1.8 1.7	1.8	2.0	4.5 3.2	3.9	4.4
					Middle	3.4	18.0 18.0	18.0	8.2 8.2	8.2	31.0 31.1	31.0	117.8 113.7	115.8	9.3 8.9	9.1		2.1 2.2	2.2		4.2 5.0	4.6	
					Bottom	5.8	18.0 18.0	18.0	8.2 8.2	8.2	31.1 31.1	31.1	117.2 110.1	113.7	9.2 8.7	8.9	8.9	2.0 2.1	2.1		3.7 5.8	4.8	
7-Feb-14	Sunny	Moderate	11:22	6.6	Surface	1.0	18.5 18.5	18.5	8.2 8.2	8.2	30.3 30.3	30.3	122.8 124.8	123.8	9.6 9.8	9.7	9.7	1.6 1.6	1.6	1.6	2.3 3.8	3.1	2.8
					Middle	3.3	18.5 18.5	18.5	8.2 8.2	8.2	30.3 30.3	30.3	121.0 124.2	122.6	9.5 9.7	9.6		1.6 1.5	1.6		2.6 2.1	2.4	
					Bottom	5.6	18.5 18.5	18.5	8.2 8.2	8.2	30.3 30.5	30.4	123.6 118.0	120.8	9.7 9.2	9.4	9.4	1.6 1.6	1.6		2.0 3.8	2.9	
10-Feb-14	Fine	Moderate	09:30	6.5	Surface	1.0	17.9 17.9	17.9	8.2 8.2	8.2	32.9 32.9	32.9	99.6 100.0	99.8	7.8 7.8	7.8	7.8	1.6 1.6	1.6	1.6	4.8 3.8	4.3	4.5
					Middle	3.3	18.0 17.9	18.0	8.2 8.1	8.2	32.9 32.8	32.9	100.0 100.3	100.2	7.8 7.8	7.8		1.6 1.6	1.6		5.2 3.8	4.5	
					Bottom	5.5	18.0 17.9	18.0	8.1 8.2	8.2	32.8 32.9	32.9	102.0 99.6	100.8	7.9 7.8	7.9	7.9	1.7 1.7	1.7		5.1 4.2	4.7	
12-Feb-14	Cloudy	Moderate	17:44	6.8	Surface	1.0	17.1 17.1	17.1	8.1 8.1	8.1	33.4 33.4	33.4	96.4 94.4	95.4	7.6 7.4	7.5	7.6	1.3 1.4	1.4	1.5	4.6 3.1	3.9	4.9
					Middle	3.4	17.1 17.1	17.1	8.1 8.0	8.1	33.4 33.4	33.4	94.6 97.4	96.0	7.5 7.7	7.6		1.3 1.2	1.3		5.4 6.0	5.7	
					Bottom	5.8	17.1 17.1	17.1	8.1 8.0	8.1	33.4 33.3	33.4	95.2 100.3	97.8	7.5 7.9	7.7	7.7	1.8 2.0	1.9		5.1 5.1	5.1	
14-Feb-14	Cloudy	Moderate	13:11	6.3	Surface	1.0	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	94.6 92.3	93.5	7.5 7.3	7.4	7.5	2.0 1.8	1.9	1.9	3.1 4.2	3.7	4.0
					Middle	3.2	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	92.6 96.7	94.7	7.4 7.7	7.5		2.0 1.9	2.0		4.4 3.4	3.9	
					Bottom	5.3	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	99.0 93.2	96.1	7.9 7.4	7.6	7.6	1.9 1.9	1.9		5.3 3.6	4.5	
17-Feb-14	Cloudy	Moderate	07:26	6.8	Surface	1.0	16.2 16.2	16.2	7.8 7.8	7.8	33.1 33.1	33.1	92.1 93.3	92.7	7.4 7.5	7.5	7.5	4.2 4.2	4.2	4.4	5.6 6.0	5.8	6.5
					Middle	3.4	16.2 16.2	16.2	7.8 7.7	7.8	33.1 33.1	33.1	92.2 93.9	93.1	7.4 7.6	7.5		4.4 4.3	4.4		7.0 7.2	7.1	
					Bottom	5.8	16.2 16.2	16.2	7.8 7.7	7.7	33.1 33.1	33.1	92.5 95.0	93.8	7.4 7.6	7.5	7.5	4.3 4.6	4.5		7.1 6.2	6.7	
19-Feb-14	Rainy	Moderate	08:41	6.5	Surface	1.0	16.5 16.5	16.5	7.8 7.8	7.8	33.2 33.2	33.2	89.4 88.9	89.2	7.1 7.1	7.1	7.1	3.3 3.4	3.4	3.5	9.1 8.8	9.0	9.2
					Middle	3.3	16.5 16.5	16.5	7.8 7.8	7.8	33.2 33.2	33.2	90.0 89.0	89.5	7.2 7.1	7.1		3.5 3.4	3.5		8.5 8.6	8.6	
					Bottom	5.5	16.5 16.5	16.5	7.8 7.8	7.8	33.2 33.2	33.2	89.0 92.1	90.6	7.1 7.4	7.2	7.2	3.5 3.6	3.6		9.9 9.9	9.9	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10A - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	09:19	6.5	Surface	1.0	16.5 16.5	16.5	7.9 7.8	7.9	33.4 33.4	33.4	91.7 92.7	92.2	7.3 7.4	7.4	7.4	1.7 1.8	1.8	2.1	5.5 4.1	4.8	5.2
					Middle	3.3	16.4 16.5	16.5	7.8 7.9	7.8	33.4 33.4	33.4	93.7 91.7	92.7	7.5 7.3	7.4		2.3 2.1	2.2		5.4 4.7	5.1	
					Bottom	5.5	16.4 16.5	16.4	7.8 7.9	7.8	33.4 33.4	33.4	96.6 91.8	94.2	7.7 7.3	7.5	7.5	2.3 2.2	2.3		6.5 4.8	5.7	
24-Feb-14	Sunny	Moderate	12:10	6.4	Surface	1.0	16.6 16.6	16.6	7.9 7.9	7.9	33.1 33.2	33.2	96.9 91.1	94.0	7.7 7.3	7.5	7.5	1.0 1.0	1.0	1.1	3.0 4.2	3.6	3.6
					Middle	3.2	16.6 16.6	16.6	7.9 7.9	7.9	33.2 33.2	33.2	94.2 90.7	92.5	7.5 7.2	7.4		1.1 1.0	1.1		4.1 3.4	3.8	
					Bottom	5.4	16.7 16.6	16.6	7.8 7.9	7.9	33.0 33.1	33.1	91.7 90.7	91.2	7.3 7.2	7.3	7.3	1.1 1.1	1.1		3.4 3.2	3.3	
26-Feb-14	Cloudy	Moderate	16:50	6.5	Surface	1.0	16.9 16.9	16.9	7.8 7.9	7.9	33.4 33.3	33.3	90.0 89.5	89.8	7.1 7.1	7.1	7.1	1.7 1.7	1.7	1.8	2.8 2.7	2.8	3.1
					Middle	3.3	16.9 16.9	16.9	7.8 7.8	7.8	33.3 33.4	33.4	89.5 90.4	90.0	7.1 7.2	7.1		1.8 1.8	1.8		2.0 2.8	2.4	
					Bottom	5.5	16.9 16.9	16.9	7.8 7.8	7.8	33.4 33.4	33.4	89.6 91.0	90.3	7.1 7.2	7.2	7.2	1.9 1.8	1.9		5.4 2.6	4.0	
28-Feb-14	Sunny	Moderate	18:37	6.8	Surface	1.0	17.4 17.4	17.4	8.0 8.0	8.0	32.9 32.9	32.9	95.5 95.1	95.3	7.5 7.5	7.5	7.5	1.7 1.7	1.7	1.8	4.6 5.5	5.1	4.2
					Middle	3.4	17.4 17.4	17.4	8.0 8.0	8.0	32.9 32.9	32.9	95.0 95.5	95.3	7.5 7.5	7.5		1.7 1.6	1.7		3.8 3.9	3.9	
					Bottom	5.8	17.4 17.4	17.4	8.0 8.0	8.0	32.9 32.9	32.9	95.0 95.8	95.4	7.5 7.5	7.5	7.5	1.9 1.9	1.9		4.3 3.0	3.7	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10B(N) - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	14:59	4.9	Surface	1.0	17.7 17.6	17.6	8.1 8.1	8.1	31.0 31.1	31.0	110.3 114.1	112.2	8.7 9.0	8.9	8.9	1.5 1.5	1.5	1.6	4.7 4.8	4.8	4.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.9	17.6 17.6	17.6	8.1 8.1	8.1	31.1 31.0	31.0	112.8 106.3	109.6	8.9 8.4	8.7	8.7	1.6 1.5	1.6		4.7 4.1	4.4	
3-Feb-14	Sunny	Moderate	16:21	5.5	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	30.8 30.8	30.8	125.1 125.5	125.3	9.8 9.9	9.9	9.9	0.7 0.7	0.7	0.8	3.1 3.3	3.2	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.0 17.9	18.0	8.2 8.2	8.2	30.9 30.9	30.9	125.2 124.8	125.0	9.9 9.8	9.8	9.8	0.8 0.9	0.9		4.9 2.9	3.9	
5-Feb-14	Sunny	Moderate	18:07	5.4	Surface	1.0	18.1 18.1	18.1	8.2 8.2	8.2	31.4 31.4	31.4	126.1 126.2	126.2	9.9 9.9	9.9	9.9	1.3 1.4	1.4	1.3	3.4 3.1	3.3	4.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	18.1 18.1	18.1	8.2 8.2	8.2	31.4 31.4	31.4	126.1 125.9	126.0	9.9 9.9	9.9	9.9	1.2 1.1	1.2		5.5 4.0	4.8	
7-Feb-14	Sunny	Moderate	20:36	4.9	Surface	1.0	18.7 18.7	18.7	8.2 8.2	8.2	31.0 31.0	31.0	126.3 126.3	126.3	9.8 9.8	9.8	9.8	1.6 1.6	1.6	1.6	2.9 2.5	2.7	2.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.9	18.7 18.7	18.7	8.2 8.2	8.2	31.0 31.0	31.0	126.0 126.2	126.1	9.8 9.8	9.8	9.8	1.6 1.5	1.6		3.1 2.9	3.0	
10-Feb-14	Fine	Moderate	23:46	4.8	Surface	1.0	17.5 17.5	17.5	8.2 8.2	8.2	33.4 33.4	33.4	99.4 99.6	99.5	7.8 7.8	7.8	7.8	2.1 2.2	2.2	2.2	2.8 3.6	3.2	3.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.8	17.5 17.5	17.5	8.2 8.2	8.2	33.4 33.4	33.4	99.4 99.3	99.4	7.8 7.8	7.8	7.8	2.1 2.2	2.2		2.9 3.3	3.1	
12-Feb-14	Cloudy	Moderate	10:38	5.6	Surface	1.0	17.2 17.2	17.2	8.1 8.1	8.1	32.9 33.1	33.0	96.4 94.9	95.7	7.6 7.5	7.6	7.6	1.6 1.5	1.6	1.7	4.0 4.8	4.4	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	17.2 17.2	17.2	8.1 8.1	8.1	33.1 32.8	32.9	95.2 97.8	96.5	7.5 7.7	7.6	7.6	1.8 1.7	1.8		3.4 5.2	4.3	
14-Feb-14	Sunny	Moderate	06:16	5.5	Surface	1.0	16.7 16.7	16.7	7.6 7.7	7.6	33.1 32.9	33.0	100.4 108.8	104.6	8.0 8.7	8.3	8.3	2.6 2.7	2.7	2.8	3.0 3.9	3.5	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	16.7 16.6	16.7	7.7 7.6	7.6	33.1 32.7	32.9	103.7 112.1	107.9	8.3 9.0	8.6	8.6	2.8 2.9	2.9		2.6 4.5	3.6	
17-Feb-14	Sunny	Moderate	14:58	5.6	Surface	1.0	16.7 16.7	16.7	7.9 7.9	7.9	33.6 33.6	33.6	90.1 89.9	90.0	7.2 7.1	7.2	7.2	4.0 3.7	3.9	3.8	5.3 3.9	4.6	5.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	16.7 16.7	16.7	7.9 7.9	7.9	33.6 33.6	33.6	89.8 89.8	89.8	7.1 7.1	7.1	7.1	3.7 3.5	3.6		5.8 5.9	5.9	
19-Feb-14	Sunny	Moderate	16:21	4.9	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	90.1 89.9	90.0	7.2 7.2	7.2	7.2	2.0 2.2	2.1	2.1	3.9 3.7	3.8	5.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.9	16.5 16.5	16.5	7.9 7.9	7.9	33.4 33.4	33.4	89.8 90.0	89.9	7.2 7.2	7.2	7.2	2.1 2.1	2.1		6.4 6.8	6.6	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10B(N) - Mid-EbbTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	17:34	5.5	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.7 33.7	33.7	91.8 91.8	91.8	7.3 7.3	7.3	7.3	1.7 1.8	1.8	1.8	5.8 4.4	5.1	5.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	16.5 16.5	16.5	7.9 7.9	7.9	33.7 33.7	33.7	91.8 91.7	91.8	7.3 7.3	7.3	7.3	1.7 1.6	1.7		5.0 5.6	5.3	
24-Feb-14	Sunny	Moderate	21:09	5.0	Surface	1.0	16.6 16.6	16.6	8.0 8.0	8.0	33.6 33.6	33.6	90.3 90.5	90.4	7.2 7.2	7.2	7.2	0.8 0.8	0.8	0.9	3.9 2.7	3.3	3.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.0	16.6 16.6	16.6	8.0 8.0	8.0	33.6 33.6	33.6	90.3 90.4	90.4	7.2 7.2	7.2	7.2	0.8 0.9	0.9		4.5 4.1	4.3	
26-Feb-14	Cloudy	Moderate	09:58	4.7	Surface	1.0	16.8 16.8	16.8	7.8 7.8	7.8	33.1 33.0	33.0	89.8 90.1	90.0	7.1 7.2	7.2	7.2	1.8 1.8	1.8	1.8	4.3 3.2	3.8	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.7	16.8 16.8	16.8	7.8 7.8	7.8	33.0 33.0	33.0	89.8 90.5	90.2	7.1 7.2	7.2	7.2	1.7 1.8	1.8		6.7 5.3	6.0	
28-Feb-14	Sunny	Moderate	11:01	5.4	Surface	1.0	17.2 17.2	17.2	7.8 7.8	7.8	32.8 32.8	32.8	92.1 91.9	92.0	7.3 7.3	7.3	7.3	2.0 2.2	2.1	2.2	3.2 4.2	3.7	3.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	17.2 17.2	17.2	7.7 7.8	7.8	32.8 32.8	32.8	92.4 91.8	92.1	7.3 7.3	7.3	7.3	2.1 2.4	2.3		2.3 3.1	2.7	

Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

Water Quality Monitoring Results at SR10B(N) - Mid-FloodTide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (^{o}C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
1-Feb-14	Sunny	Moderate	07:30	5.2	Surface	1.0	17.5 17.5	17.5	8.0 8.0	8.0	30.7 30.8	30.8	112.6 112.9	112.8	9.0 9.0	9.0	9.0	1.7 1.7	1.7	1.8	6.0 4.3	5.2	4.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.2	17.5 17.5	17.5	8.0 8.0	8.0	30.6 30.8	30.7	108.5 112.7	110.6	8.6 9.0	8.8	8.8	1.8 1.8	1.8		4.4 4.5	4.5	
3-Feb-14	Sunny	Moderate	08:41	5.4	Surface	1.0	17.9 17.9	17.9	8.1 8.1	8.1	30.3 30.2	30.2	118.4 119.0	118.7	9.4 9.4	9.4	9.4	1.9 2.0	2.0	2.2	3.7 4.6	4.2	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	17.9 17.9	17.9	8.1 8.1	8.1	30.2 30.2	30.2	116.9 119.9	118.4	9.3 9.5	9.4	9.4	2.3 2.4	2.4		4.0 5.0	4.5	
5-Feb-14	Fine	Moderate	09:34	5.6	Surface	1.0	18.0 18.0	18.0	8.1 8.2	8.2	31.3 31.3	31.3	117.1 115.3	116.2	9.2 9.1	9.1	9.1	1.9 2.1	2.0	2.1	2.2 3.6	2.9	3.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.6	18.0 18.0	18.0	8.2 8.1	8.2	31.3 31.3	31.3	113.8 116.3	115.1	8.9 9.1	9.0	9.0	2.0 2.1	2.1		4.0 4.4	4.2	
7-Feb-14	Sunny	Moderate	11:17	5.5	Surface	1.0	18.3 18.3	18.3	8.2 8.2	8.2	31.5 31.5	31.5	115.4 116.0	115.7	9.0 9.1	9.0	9.0	1.7 1.8	1.8	1.8	4.1 4.1	4.1	4.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	18.3 18.3	18.3	8.1 8.2	8.2	31.5 31.5	31.5	114.2 115.4	114.8	8.9 9.0	9.0	9.0	1.8 1.7	1.8		3.2 4.6	3.9	
10-Feb-14	Fine	Moderate	09:23	5.5	Surface	1.0	17.9 17.9	17.9	8.1 8.1	8.1	32.6 32.7	32.6	98.3 97.6	98.0	7.7 7.6	7.7	7.7	1.6 1.6	1.6	1.6	6.4 6.4	6.4	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	17.9 17.9	17.9	8.1 8.1	8.1	32.5 32.6	32.6	99.6 97.6	98.6	7.8 7.6	7.7	7.7	1.6 1.6	1.6		4.9 7.4	6.2	
12-Feb-14	Cloudy	Moderate	18:02	5.7	Surface	1.0	17.1 17.1	17.1	8.1 8.1	8.1	33.4 33.4	33.4	93.8 93.8	93.8	7.4 7.4	7.4	7.4	1.5 1.5	1.5	1.6	3.7 3.2	3.5	4.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	17.1 17.1	17.1	8.1 8.1	8.1	33.4 33.4	33.4	93.6 93.7	93.7	7.4 7.4	7.4	7.4	1.6 1.7	1.7		5.7 4.6	5.2	
14-Feb-14	Cloudy	Moderate	13:31	5.4	Surface	1.0	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	91.3 91.2	91.3	7.3 7.3	7.3	7.3	1.7 1.7	1.7	1.8	2.6 2.7	2.7	3.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.4	16.7 16.7	16.7	7.9 7.9	7.9	33.4 33.4	33.4	91.1 91.1	91.1	7.3 7.2	7.2	7.2	1.8 2.0	1.9		4.1 3.4	3.8	
17-Feb-14	Cloudy	Moderate	07:10	5.7	Surface	1.0	16.5 16.5	16.5	7.7 7.7	7.7	33.2 33.2	33.2	92.3 90.1	91.2	7.4 7.2	7.3	7.3	4.4 4.7	4.6	4.6	6.7 7.6	7.2	7.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	16.5 16.5	16.5	7.7 7.7	7.7	33.2 33.2	33.2	95.0 90.2	92.6	7.6 7.2	7.4	7.4	4.5 4.6	4.6		7.1 6.2	6.7	
19-Feb-14	Rainy	Moderate	08:34	5.0	Surface	1.0	16.6 16.6	16.6	7.8 7.8	7.8	33.0 33.1	33.0	93.9 90.8	92.4	7.5 7.3	7.4	7.4	3.6 3.6	3.6	3.7	8.3 7.6	8.0	7.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.0	16.6 16.5	16.6	7.8 7.8	7.8	33.1 32.9	33.0	91.7 98.6	95.2	7.3 7.9	7.6	7.6	3.6 3.7	3.7		5.5 6.4	6.0	

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

Appendix J - Marine Water Quality Monitoring Results

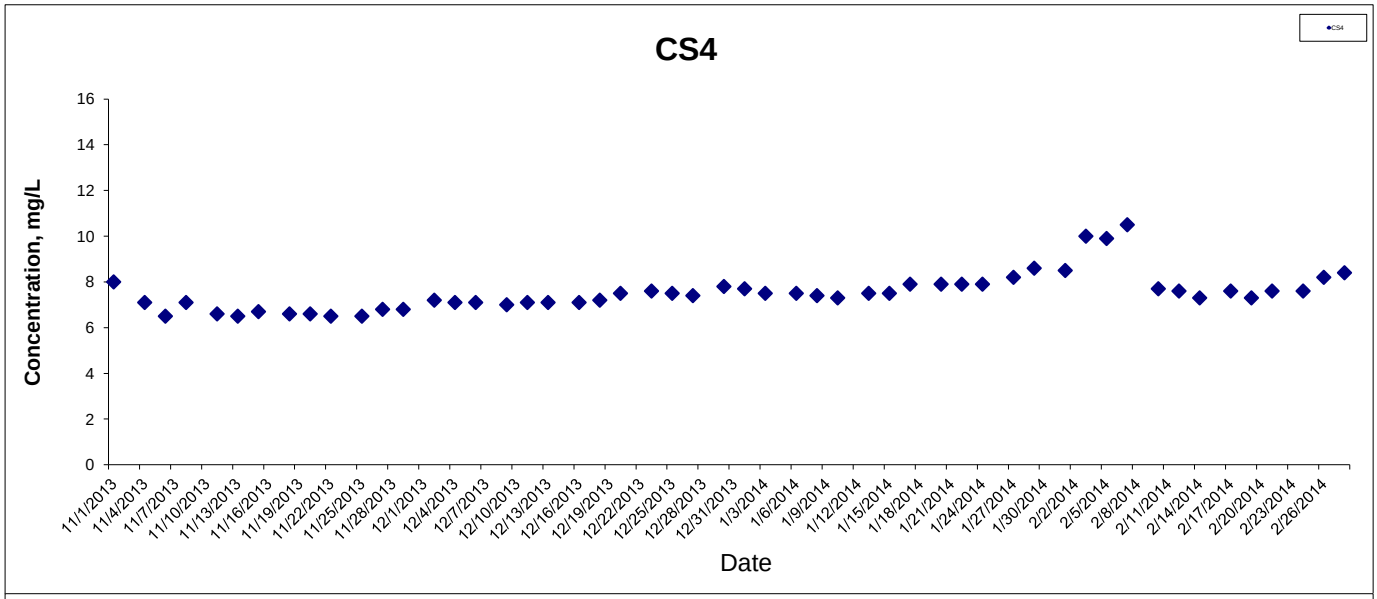
Water Quality Monitoring Results at SR10B(N) - Mid-FloodTide

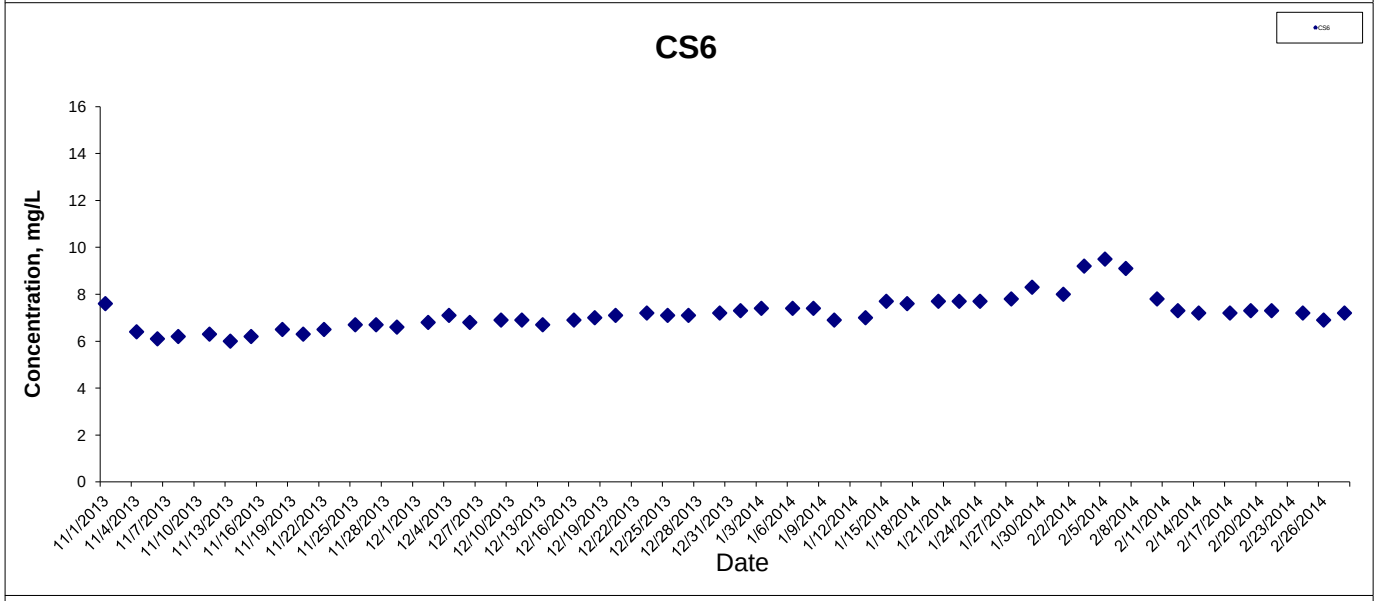
Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
21-Feb-14	Sunny	Moderate	09:03	5.7	Surface	1.0	16.4 16.4	16.4	7.8 7.8	7.8	33.2 33.3	33.2	92.4 91.6	92.0	7.4 7.3	7.4	7.4	1.8 1.9	1.9	2.1	4.4 5.0	4.7	5.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.7	16.4 16.4	16.4	7.8 7.8	7.8	33.2 33.3	33.2	93.1 91.7	92.4	7.5 7.3	7.4	7.4	2.2 2.1	2.2		5.2 5.4	5.3	
24-Feb-14	Sunny	Moderate	12:06	4.6	Surface	1.0	16.5 16.5	16.5	7.9 7.9	7.9	33.0 33.0	33.0	93.7 91.2	92.5	7.5 7.3	7.4	7.4	1.0 1.0	1.0	1.1	4.0 3.8	3.9	4.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3.6	16.5 16.5	16.5	7.9 7.9	7.9	32.9 33.0	33.0	91.6 90.2	90.9	7.3 7.2	7.3	7.3	1.1 1.0	1.1		3.3 4.8	4.1	
26-Feb-14	Cloudy	Moderate	16:59	5.1	Surface	1.0	16.9 16.9	16.9	7.9 7.9	7.9	33.3 33.3	33.3	89.1 89.3	89.2	7.1 7.1	7.1	7.1	1.6 1.6	1.6	1.6	4.8 3.8	4.3	3.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.1	16.9 16.9	16.9	7.9 7.9	7.9	33.3 33.3	33.3	89.0 89.0	89.0	7.1 7.1	7.1	7.1	1.6 1.6	1.6		2.6 4.3	3.5	
28-Feb-14	Sunny	Moderate	18:49	5.5	Surface	1.0	17.3 17.3	17.3	7.9 7.9	7.9	32.9 32.9	32.9	95.7 95.9	95.8	7.5 7.6	7.5	7.5	1.6 1.8	1.7	1.7	2.3 2.7	2.5	2.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4.5	17.3 17.3	17.3	7.9 7.9	7.9	32.9 32.9	32.9	96.4 95.7	96.1	7.6 7.5	7.6	7.6	1.7 1.7	1.7		3.4 2.8	3.1	

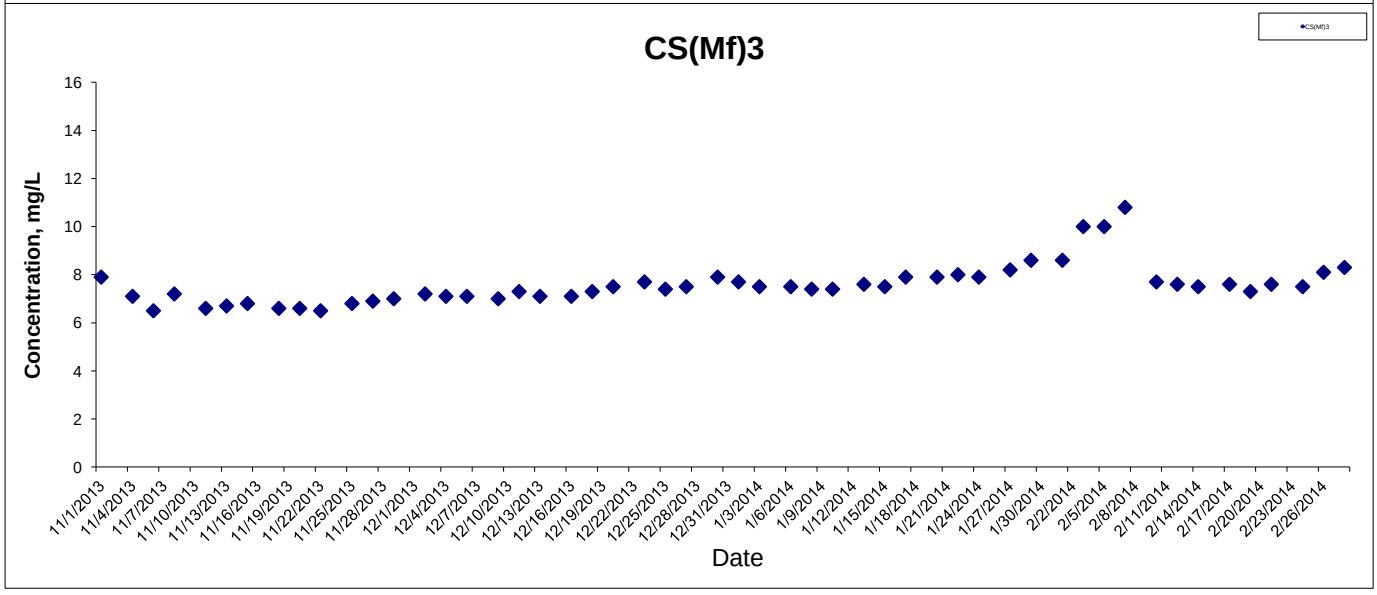
Remarks:
Bolded values means the measured values exceed the Action Level; Underlined bolded values means the measured values exceed the Limit Level.

Remarks:
* DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher
*** Cancelled due to Thunderstorm Warning and safety concern.

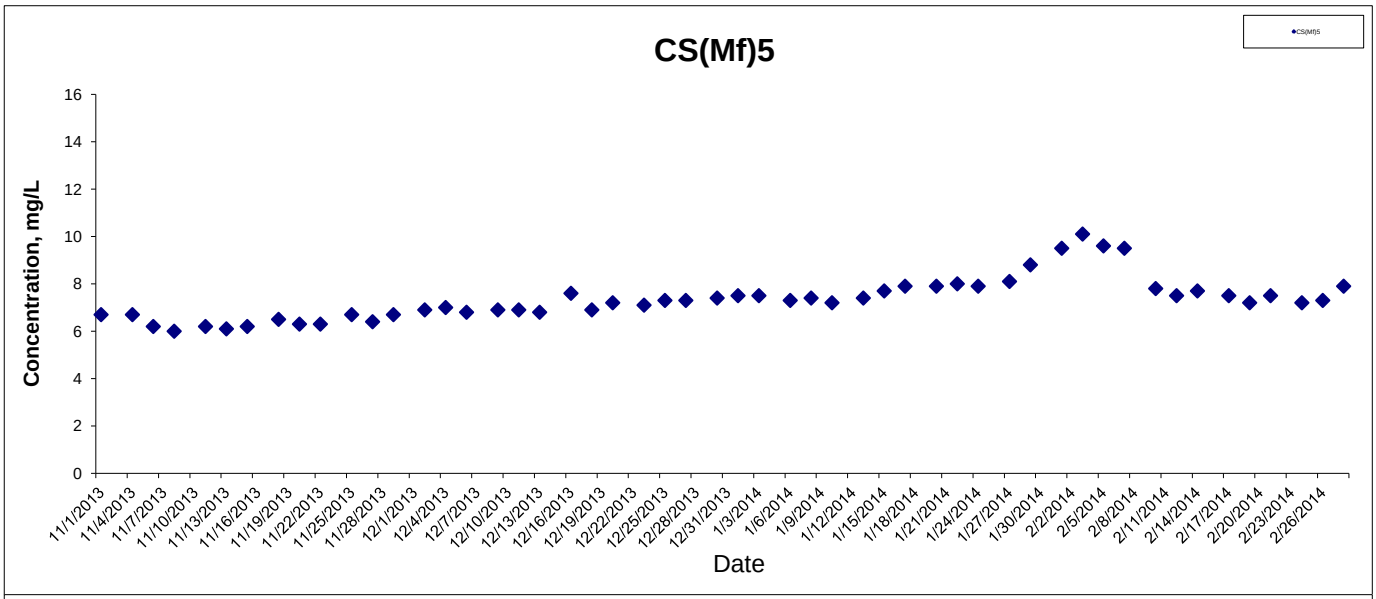
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

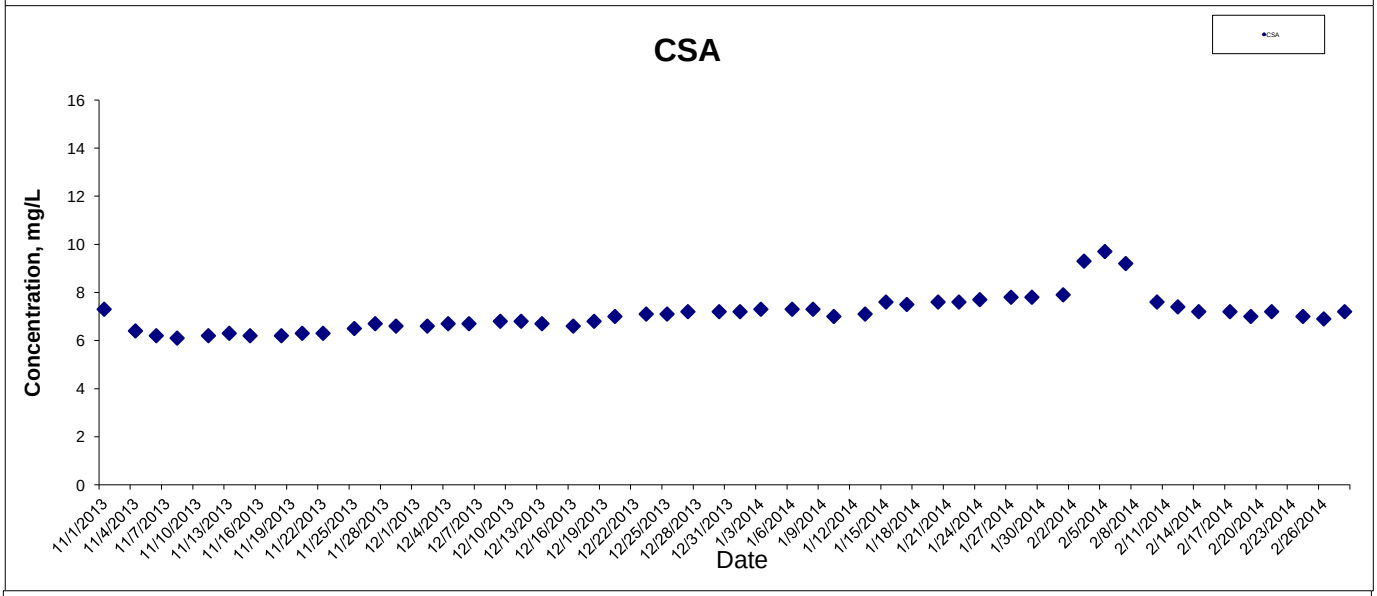


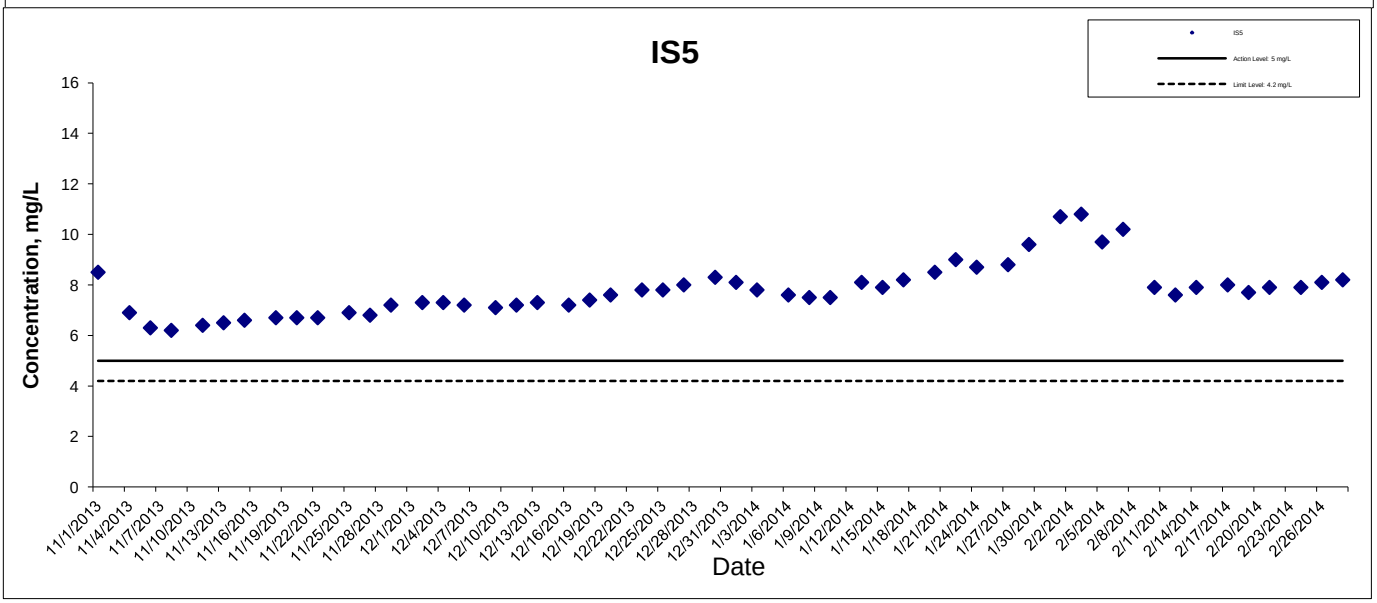




Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide





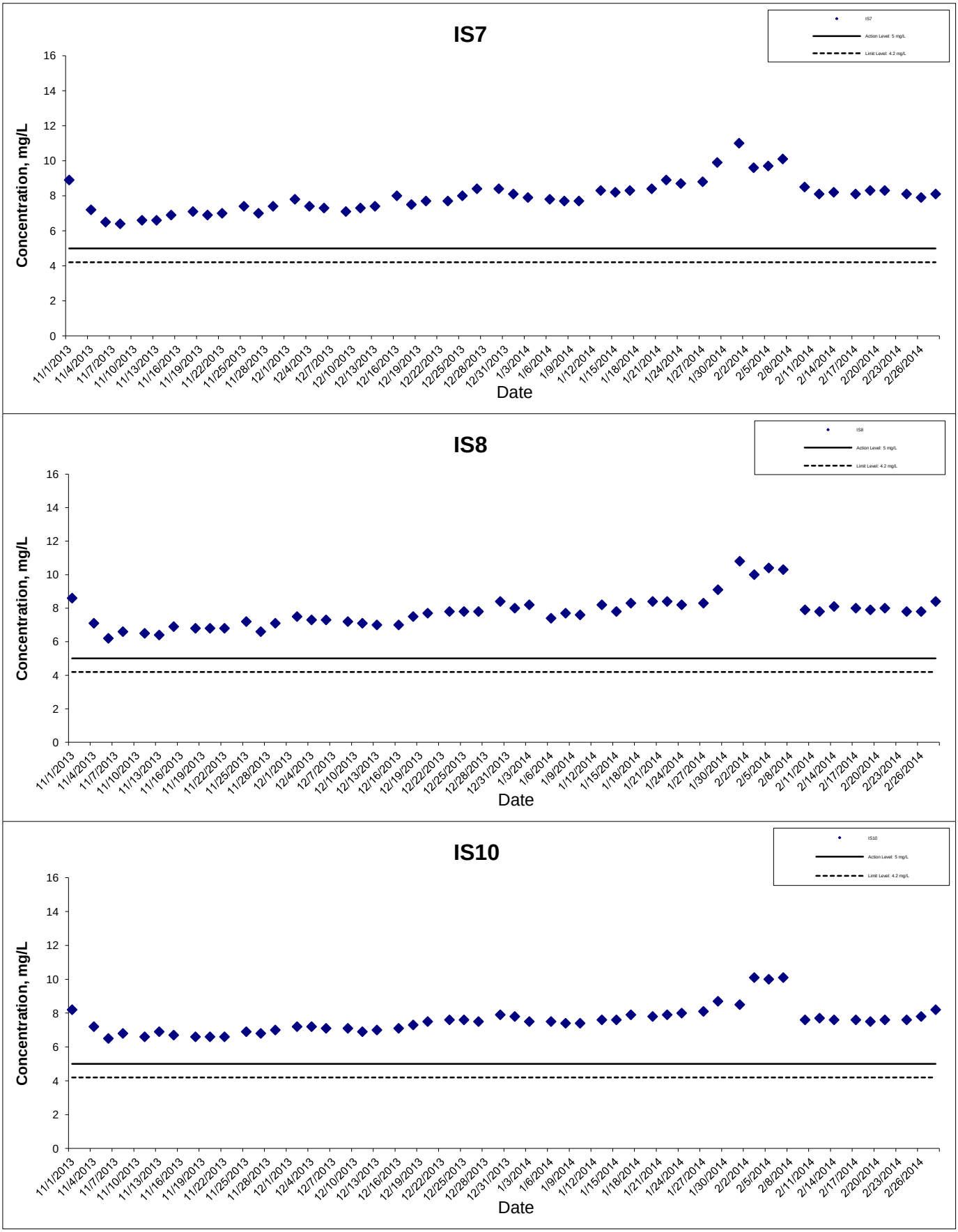


HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

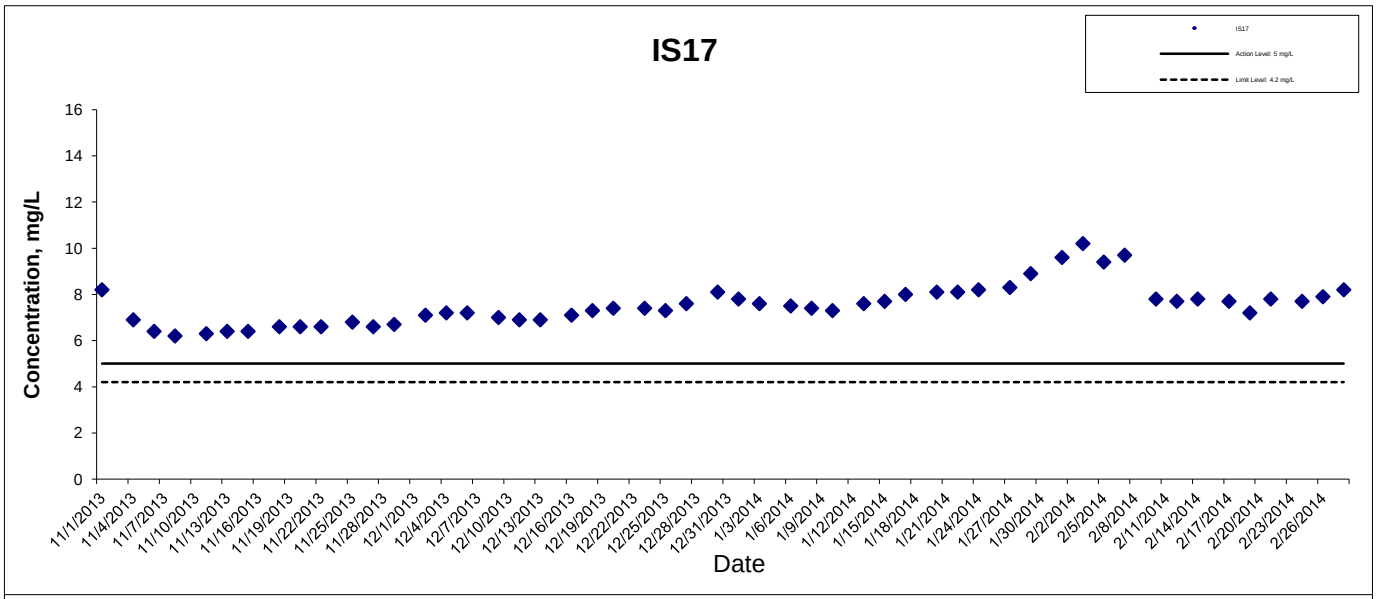
Graphical Presentation of Impact Water Quality Monitoring Results

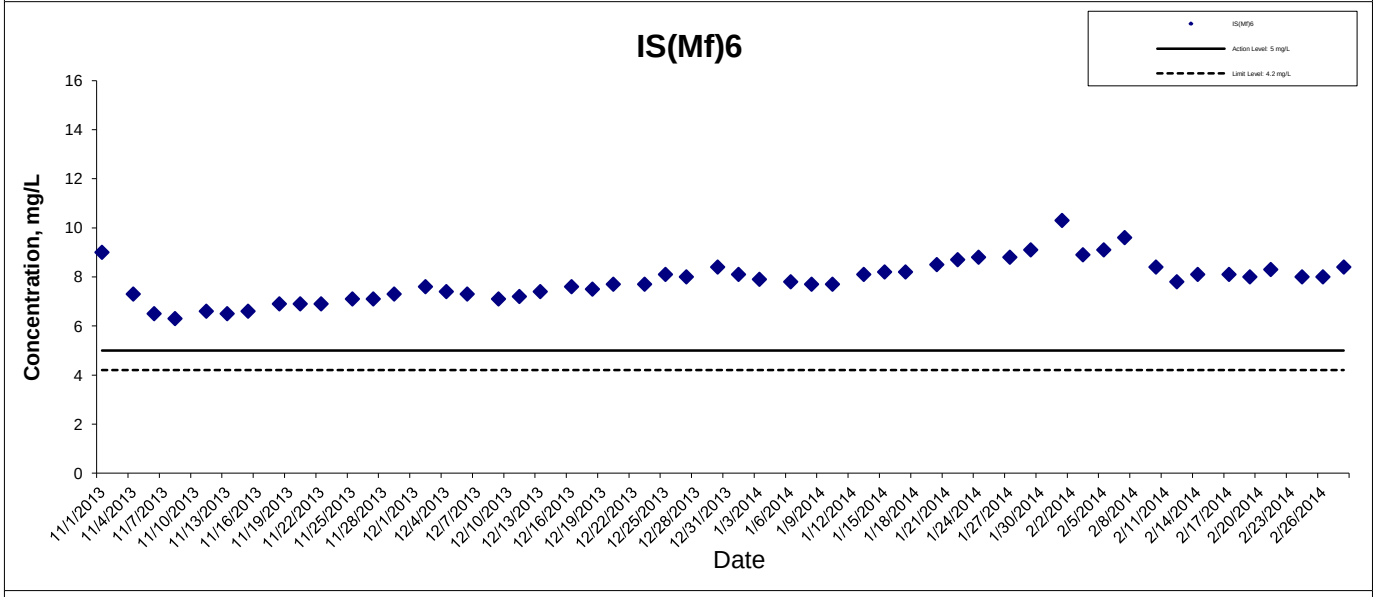
Project No.: 60249820 **Date: Mar 2014** **Appendix J**

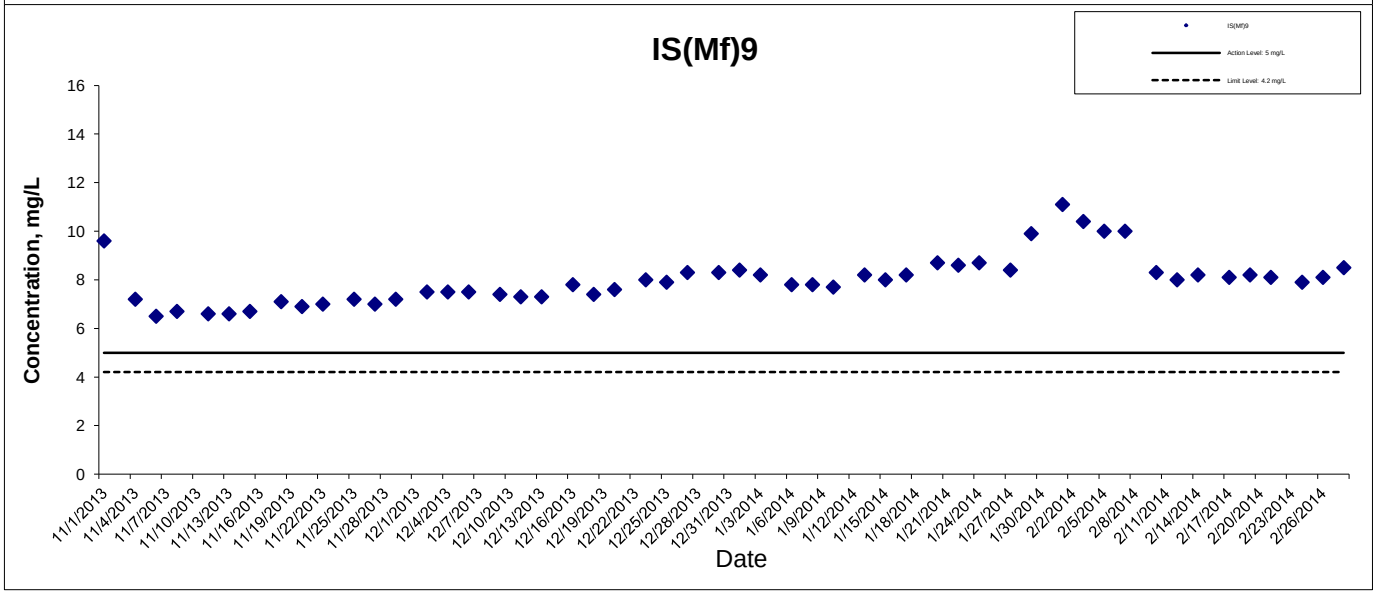
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



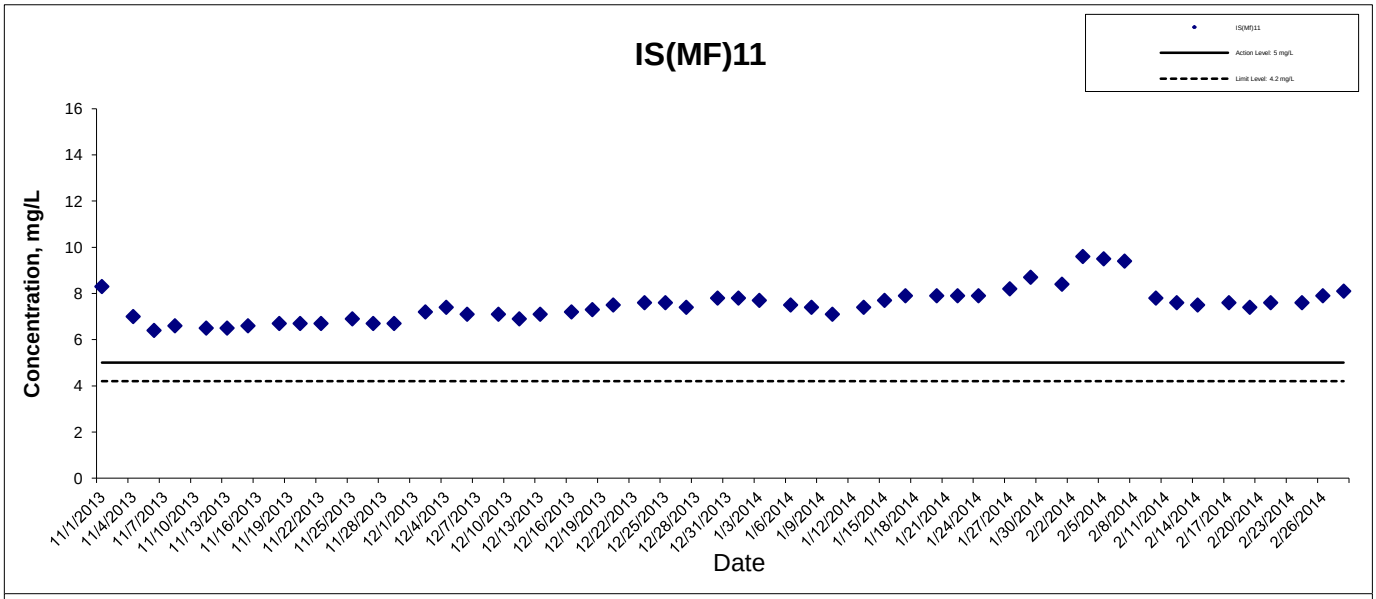
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

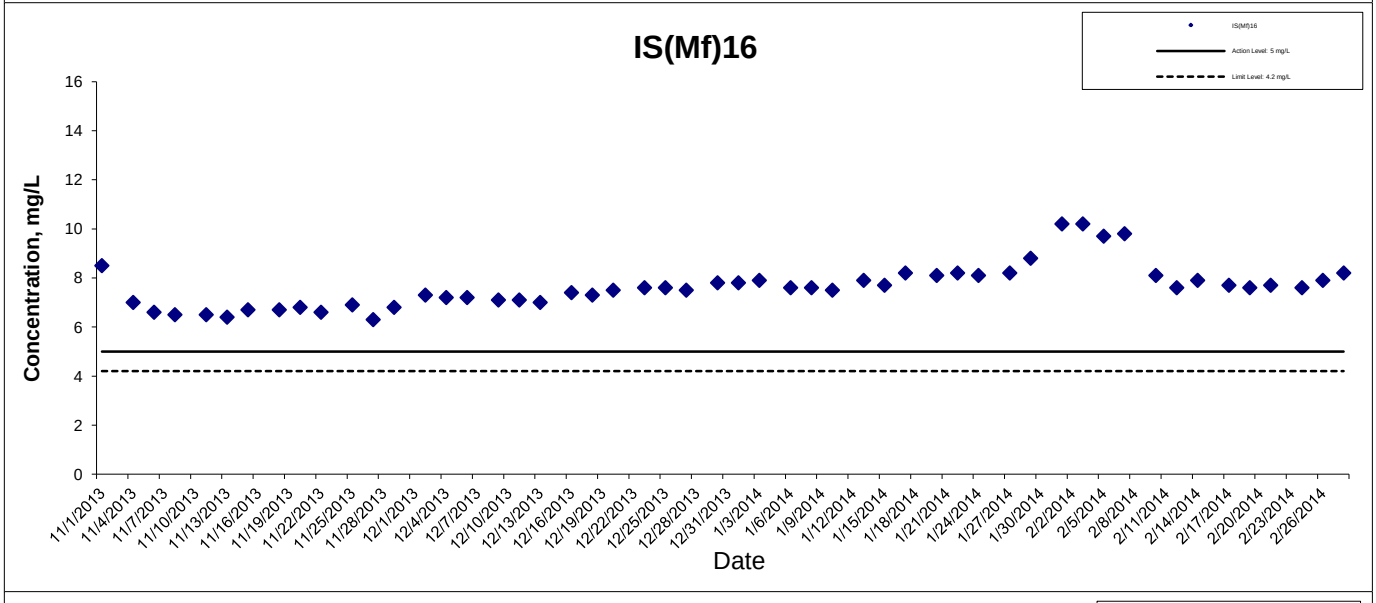


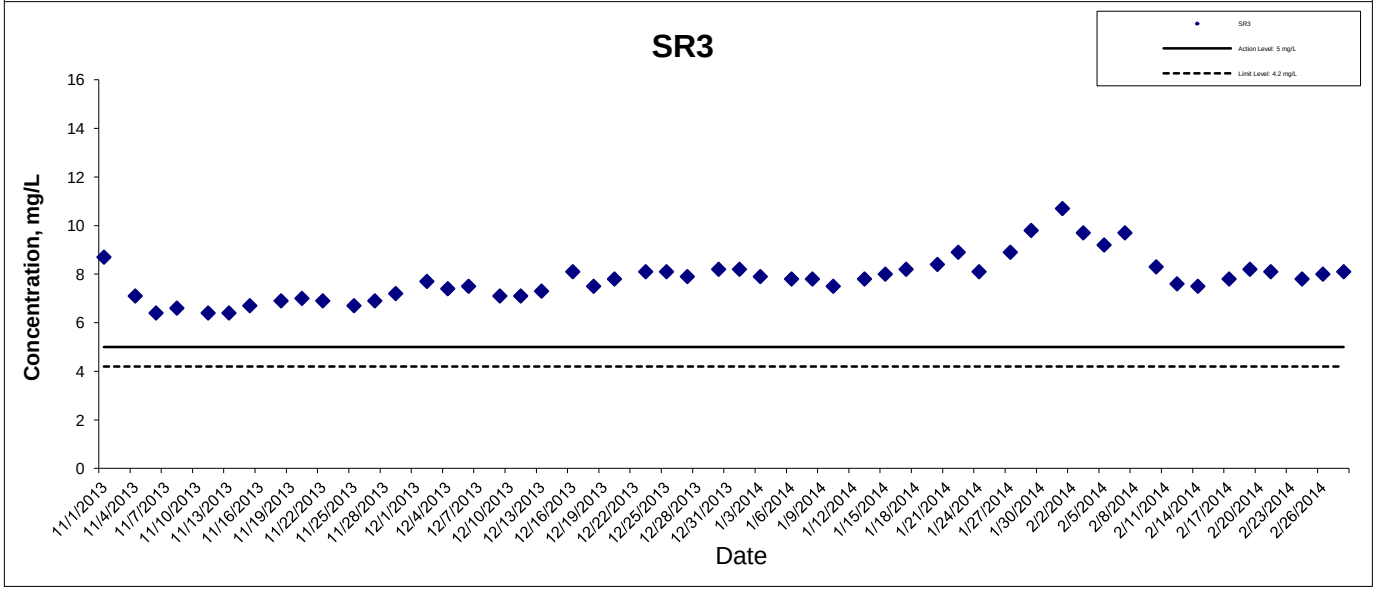




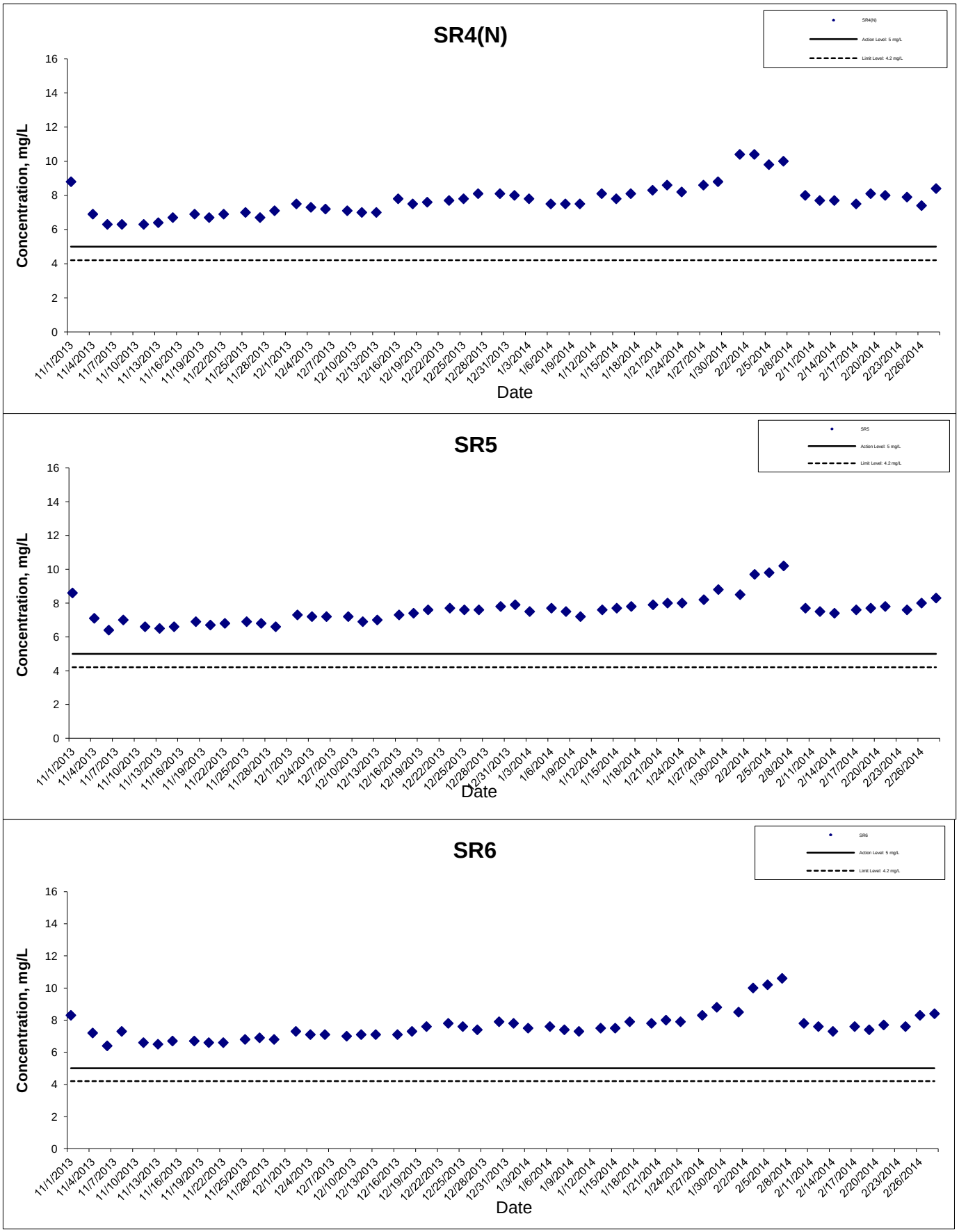
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



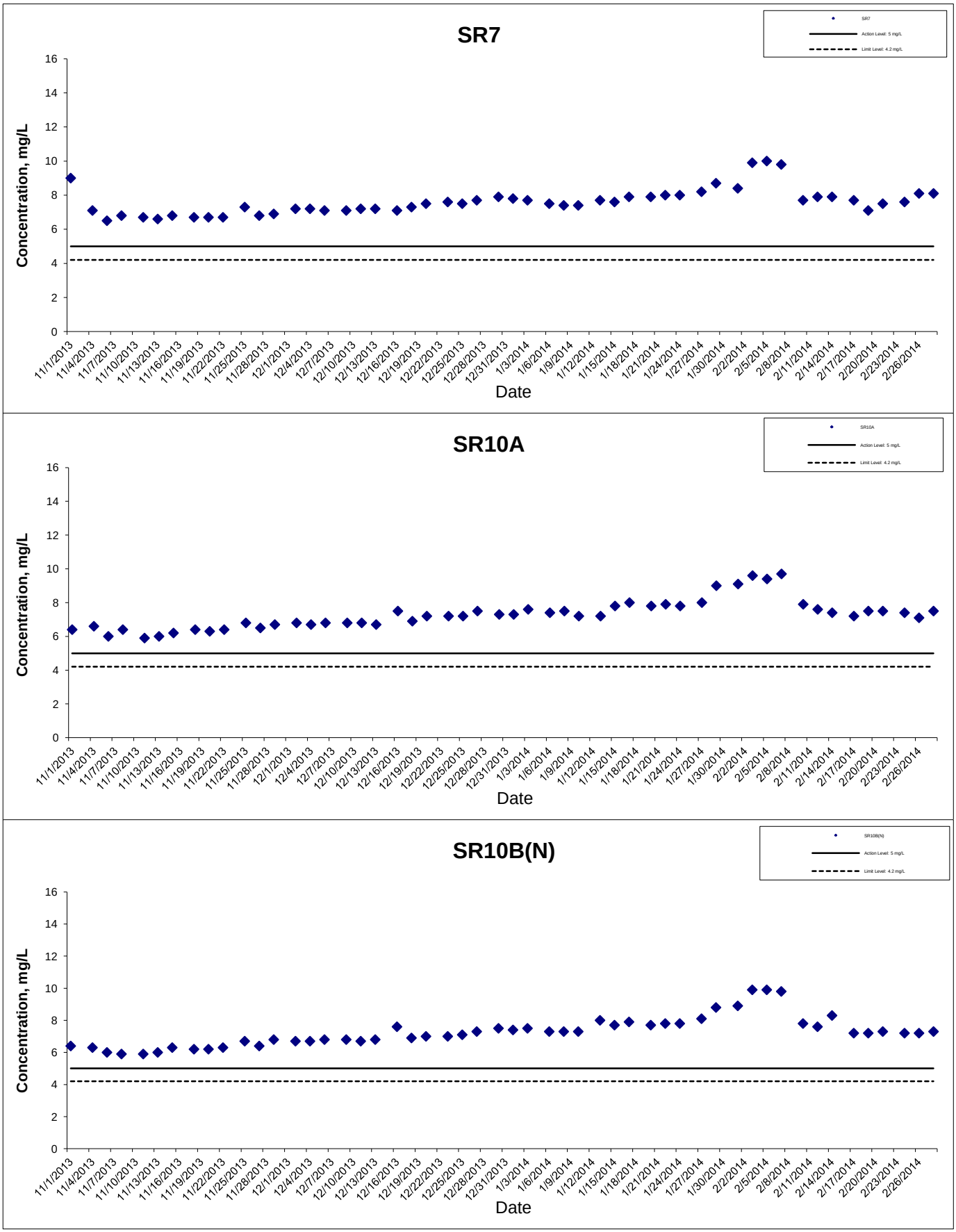




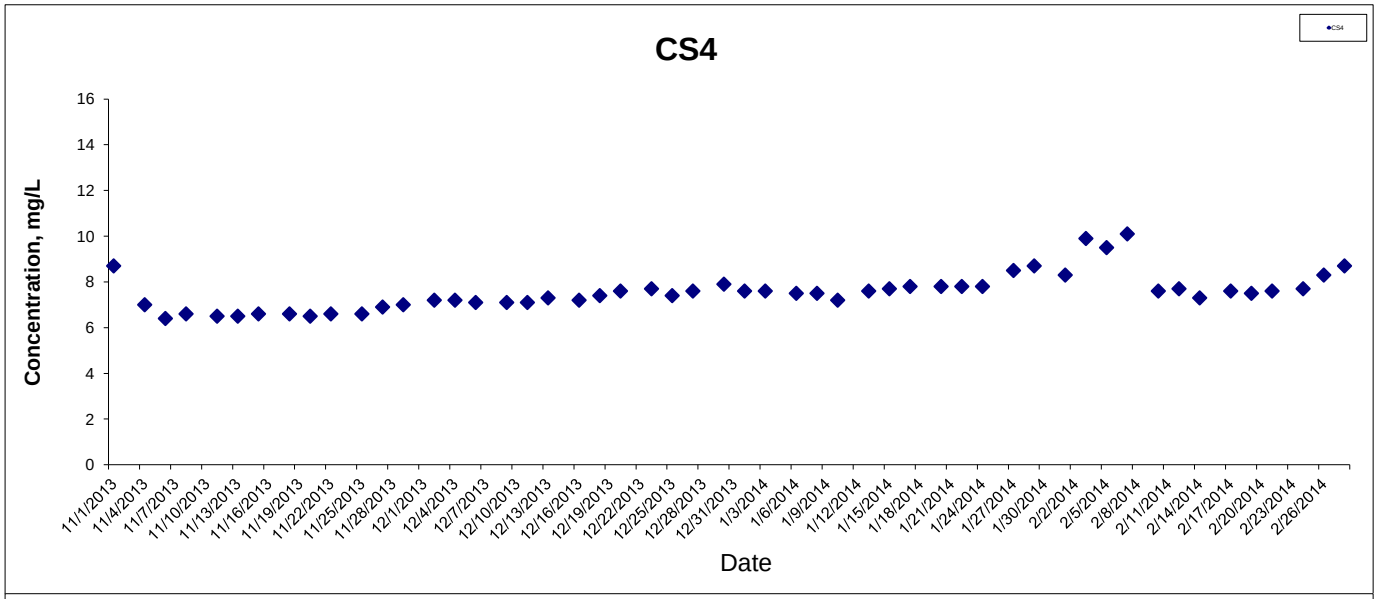
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

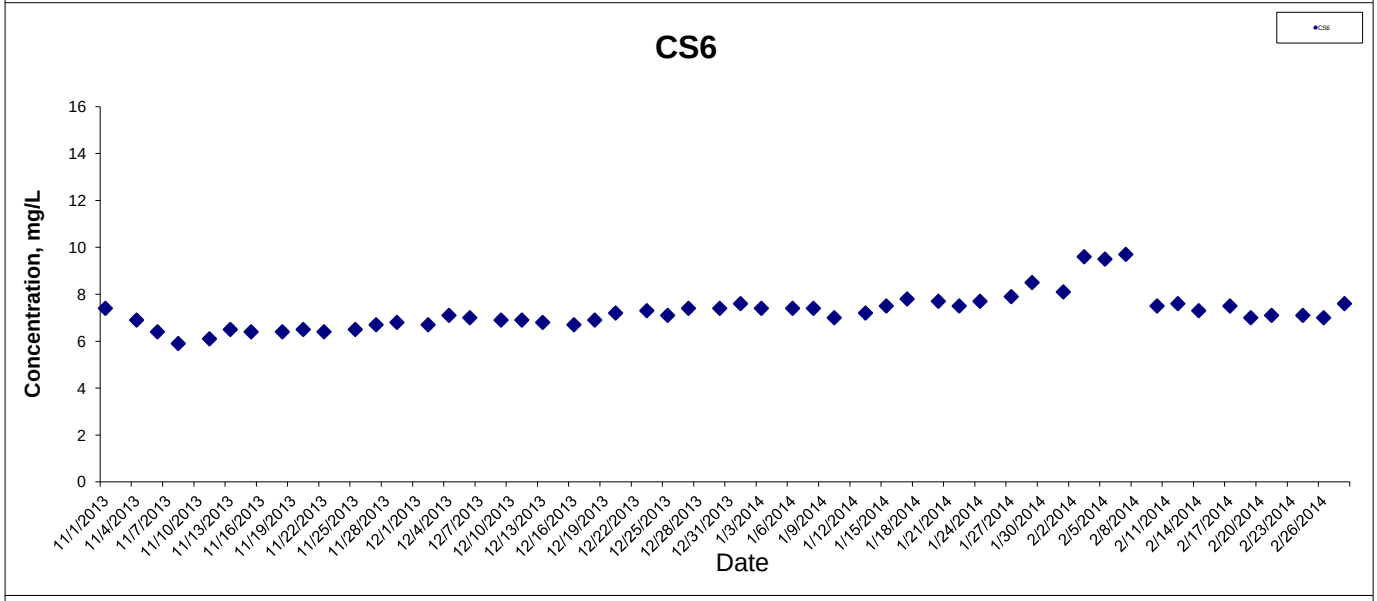


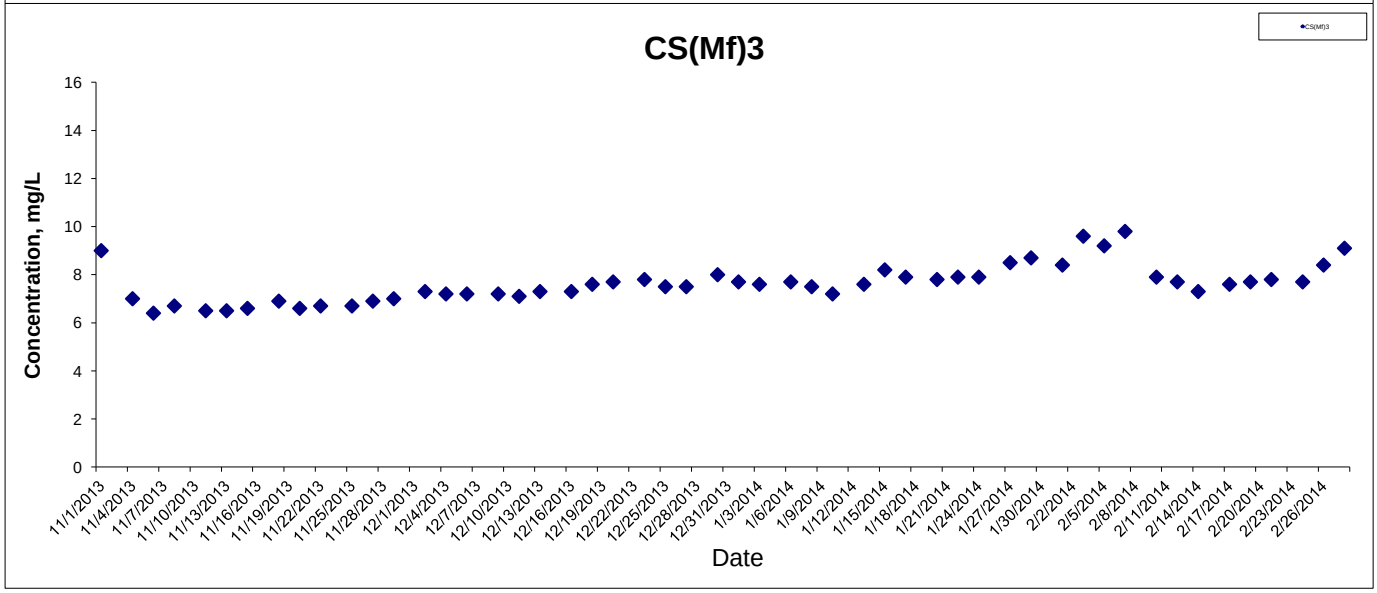
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



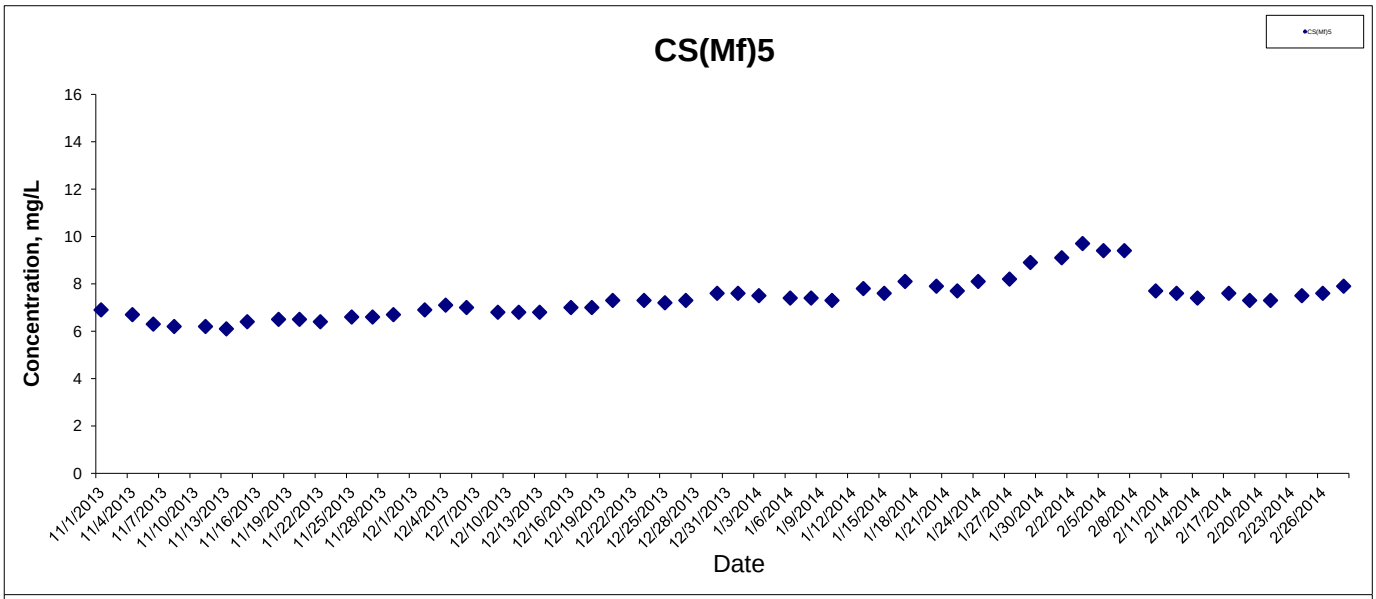
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide

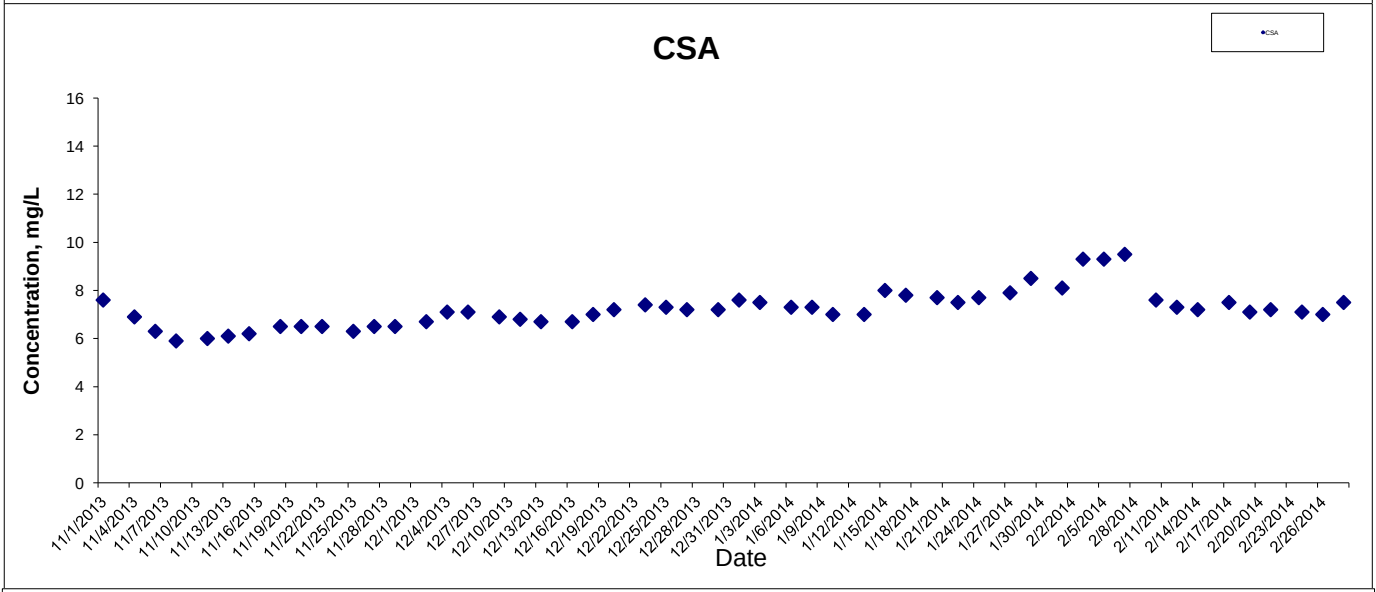


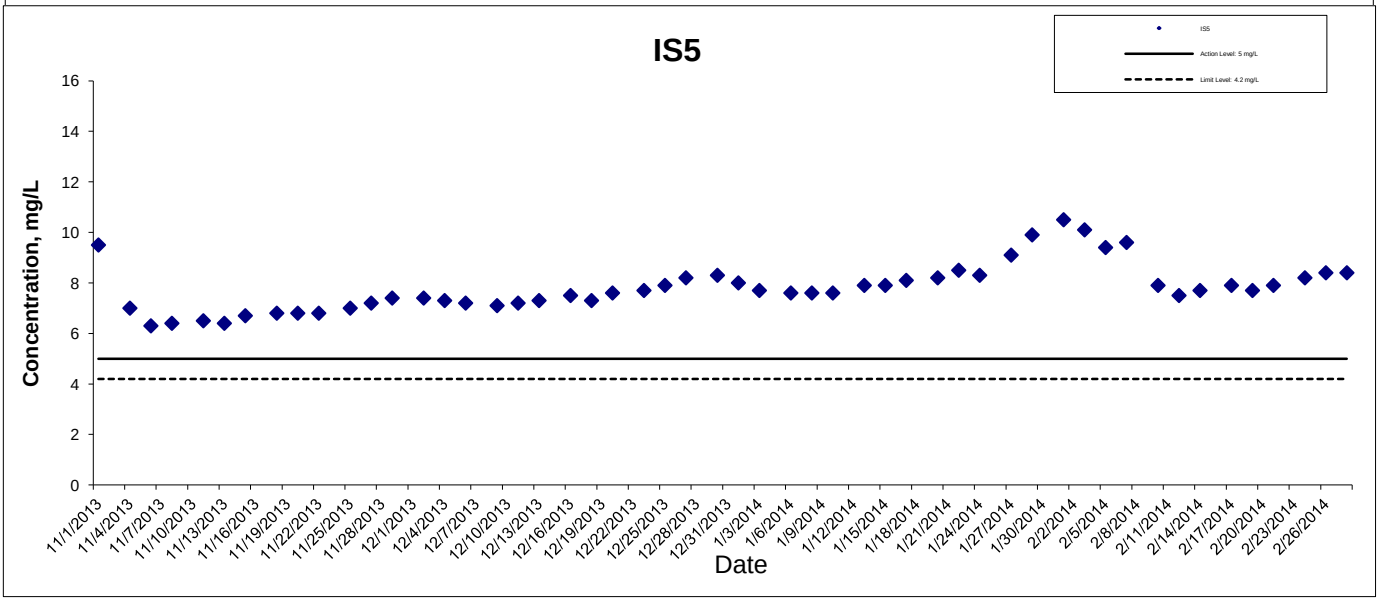




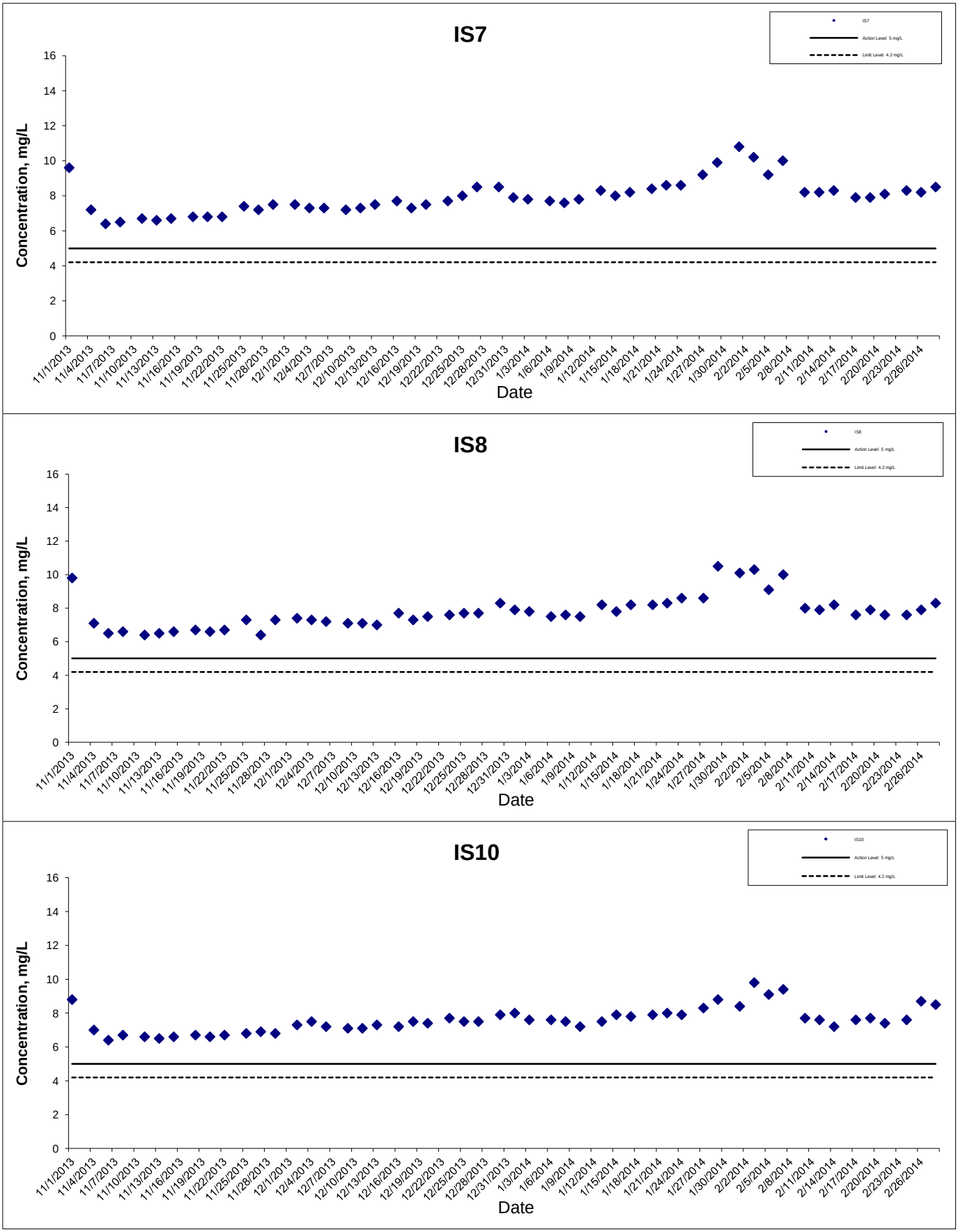
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



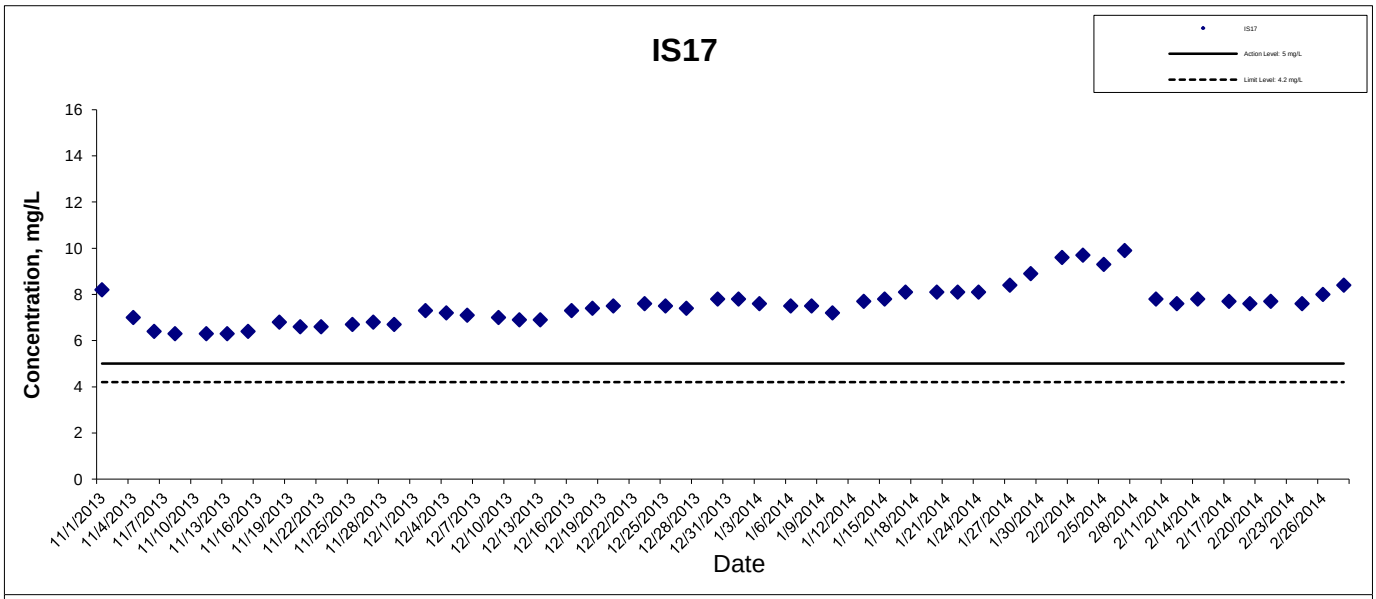


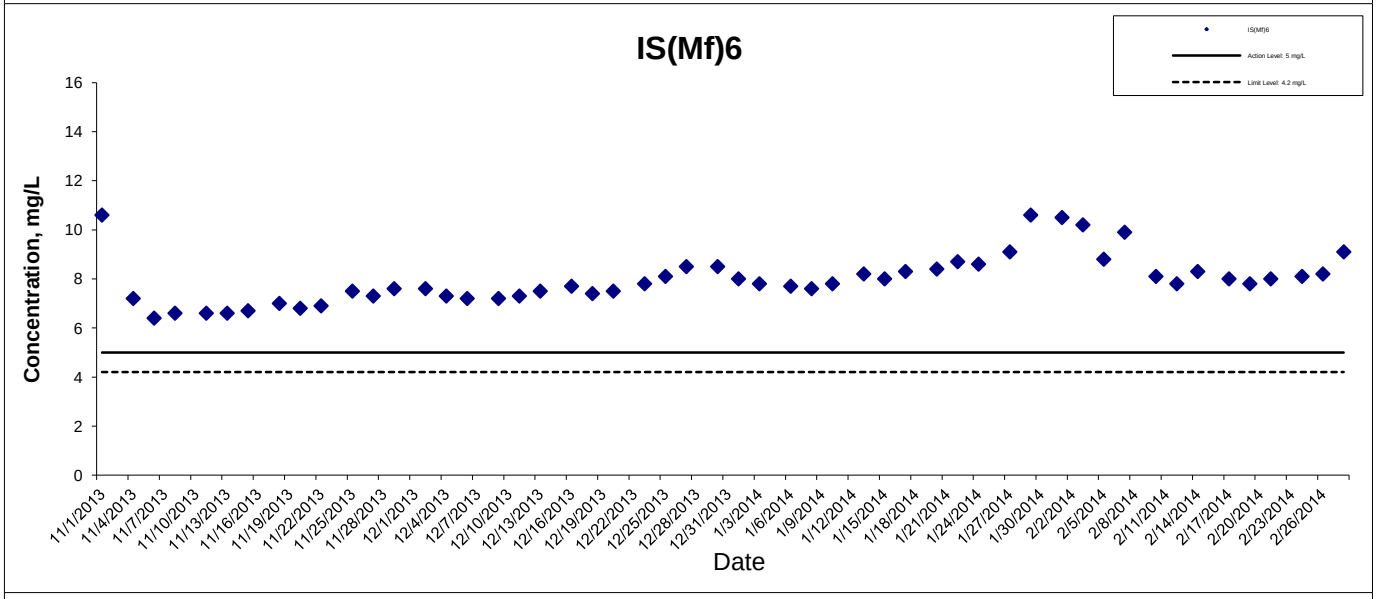


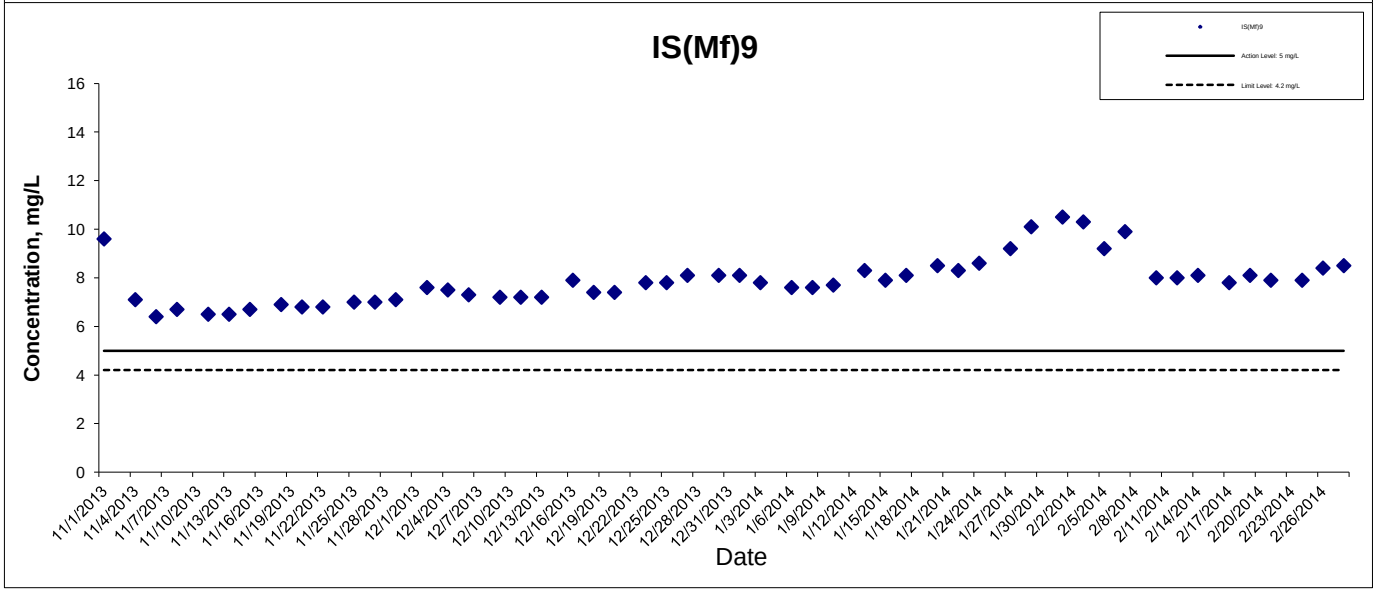
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



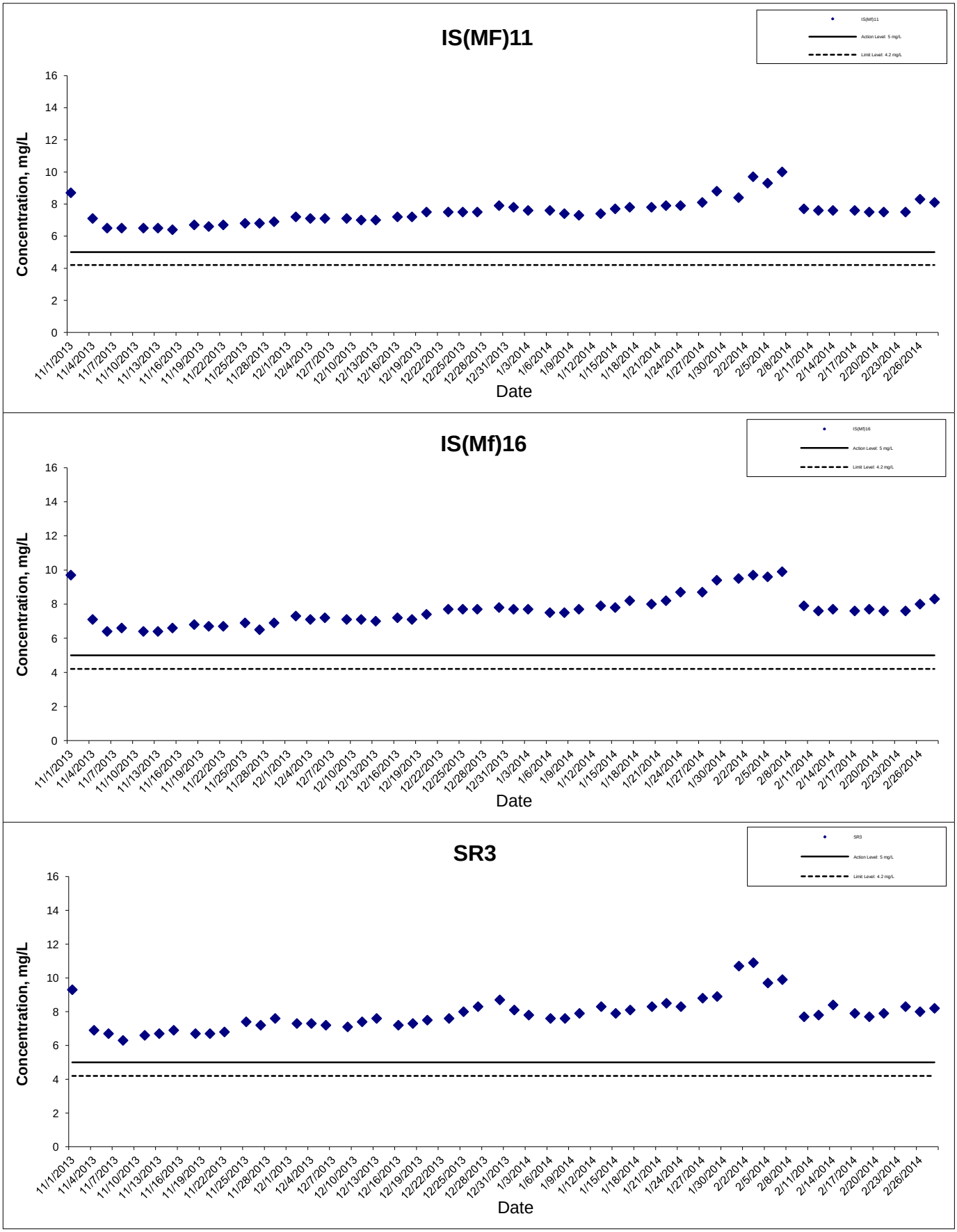
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



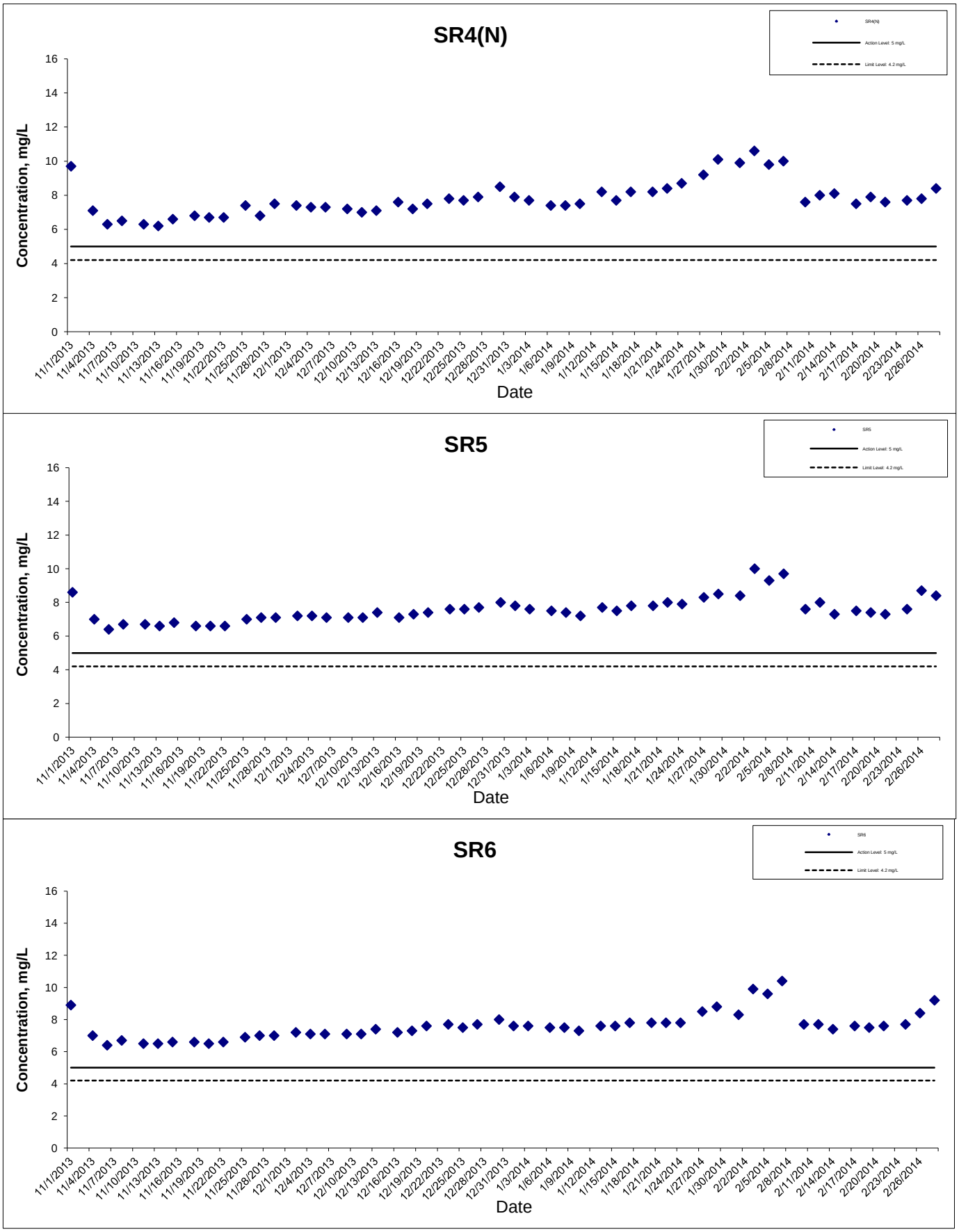




Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



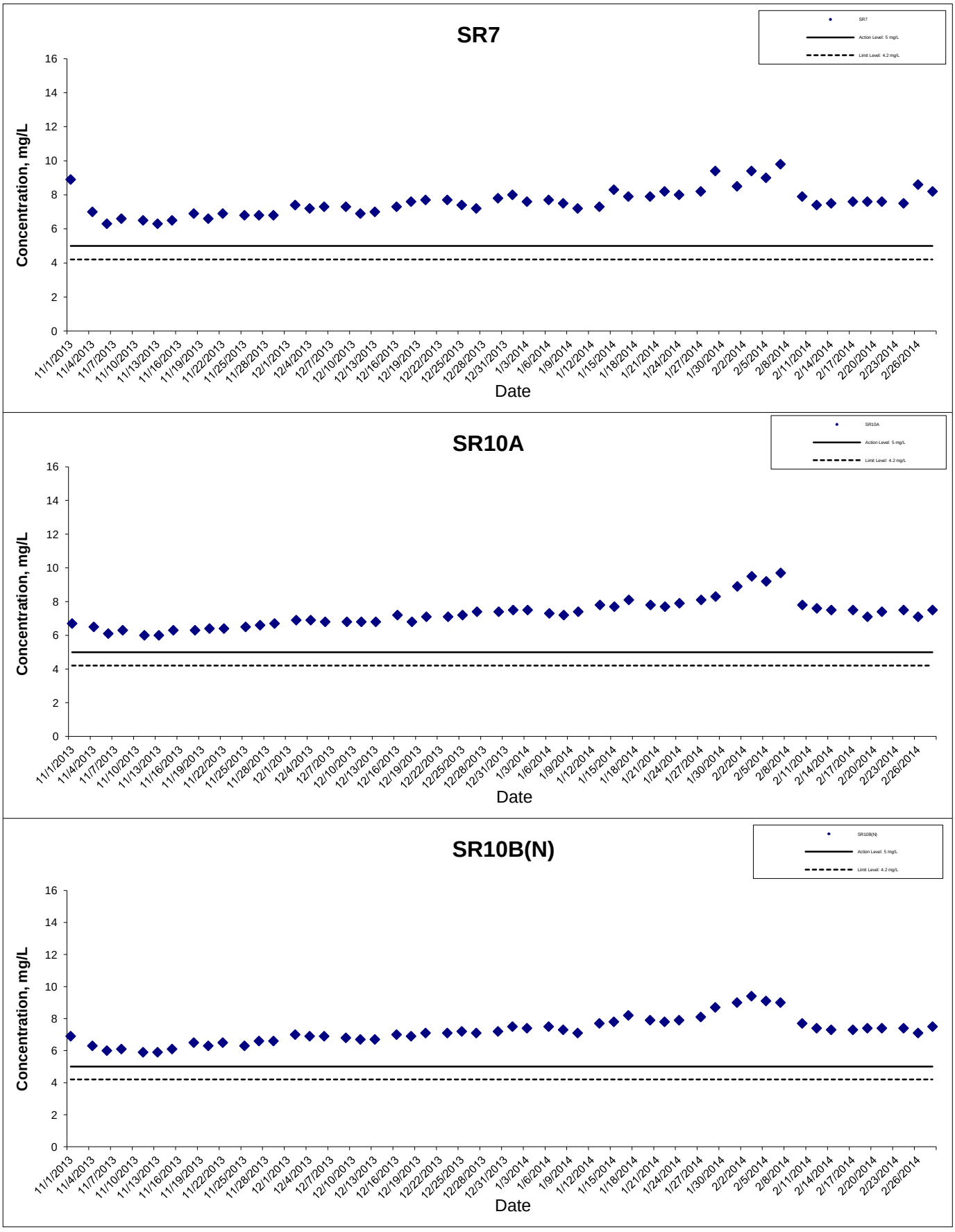
HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

Graphical Presentation of Impact Water Quality Monitoring Results

Project No.: 60249820 **Date: Mar 2014**

Appendix J

Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



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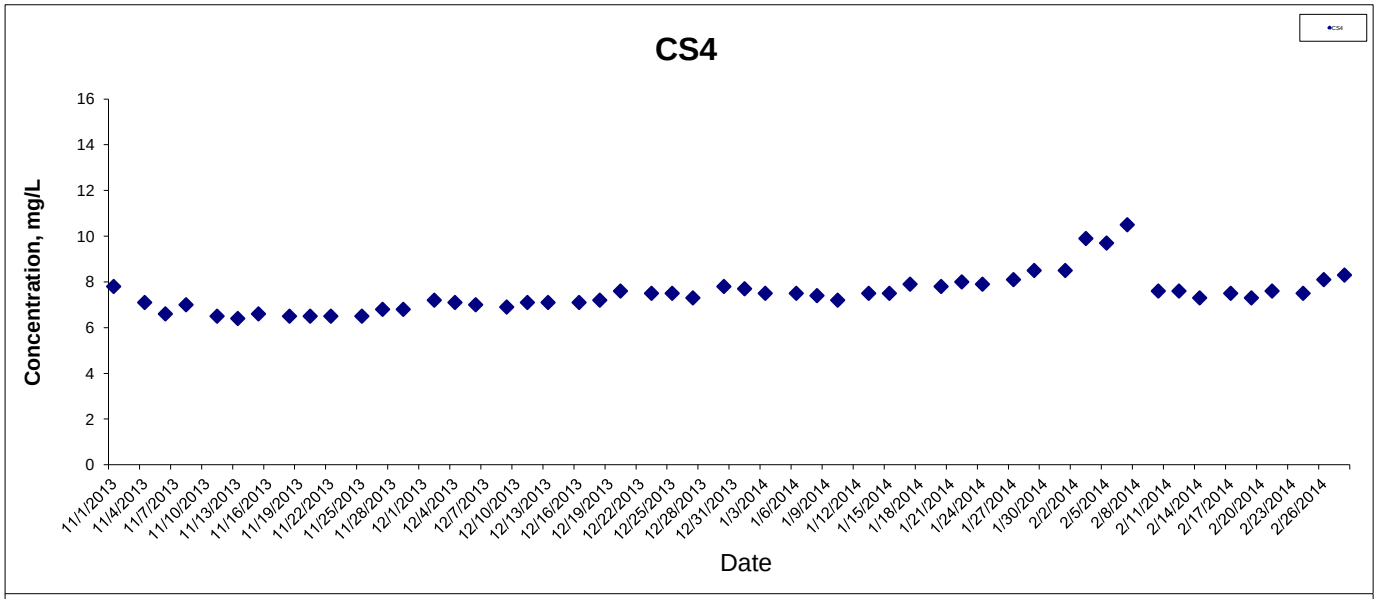
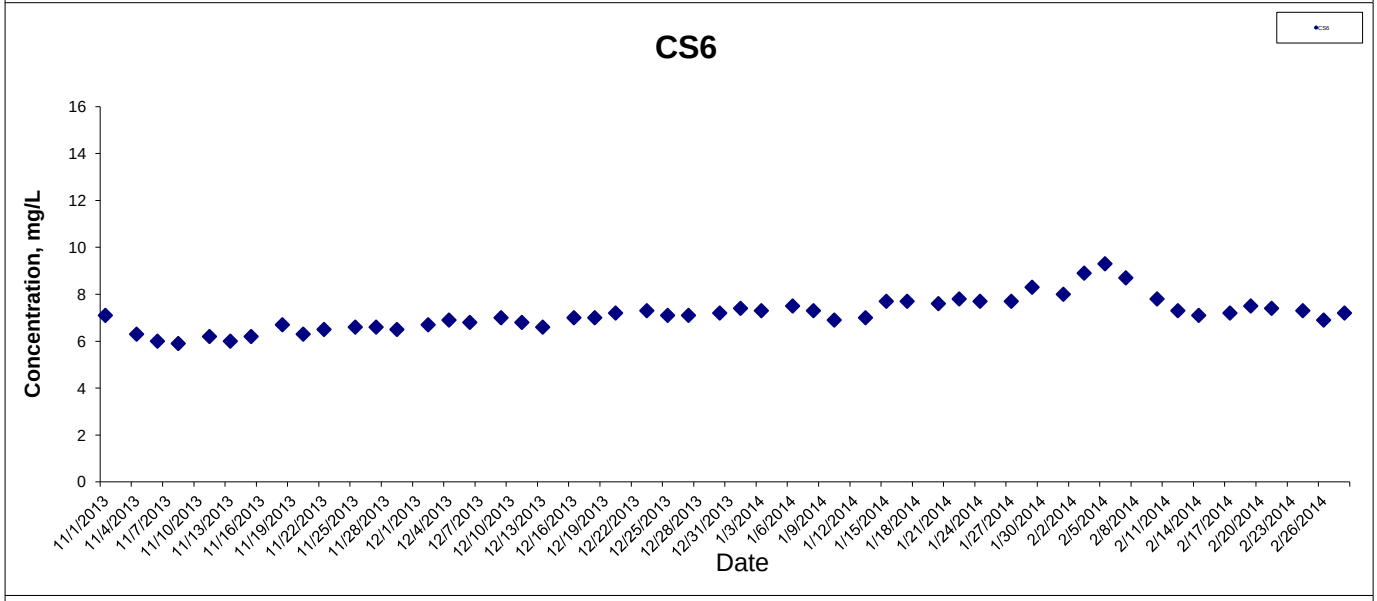
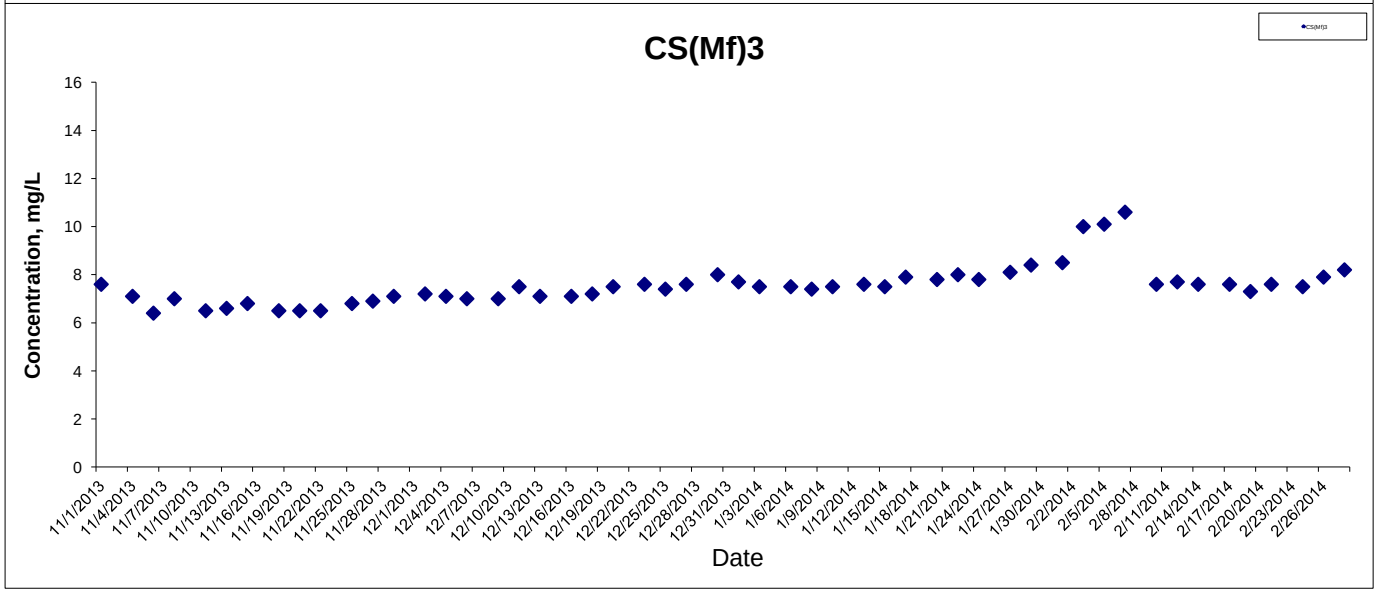
Graphical Presentation of Impact Water Quality Monitoring Results

Project No.: 60249820 **Date: Mar 2014** **Appendix J**

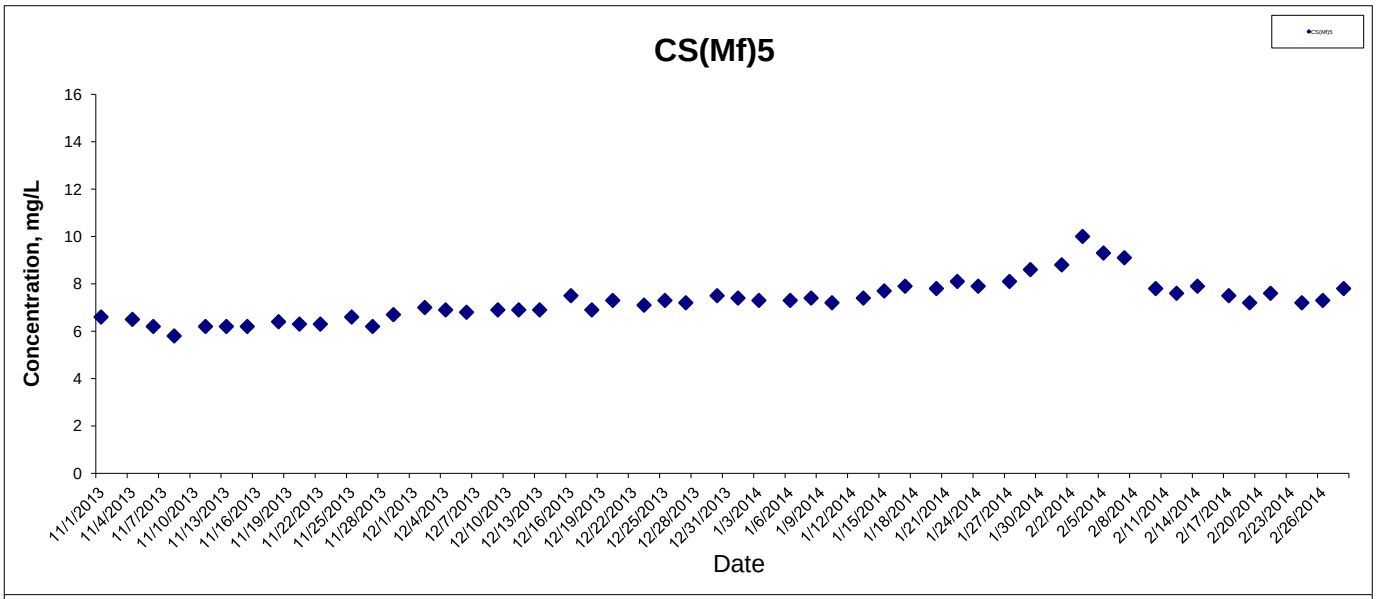
Dissolved Oxygen (Bottom) at Mid-Ebb Tide

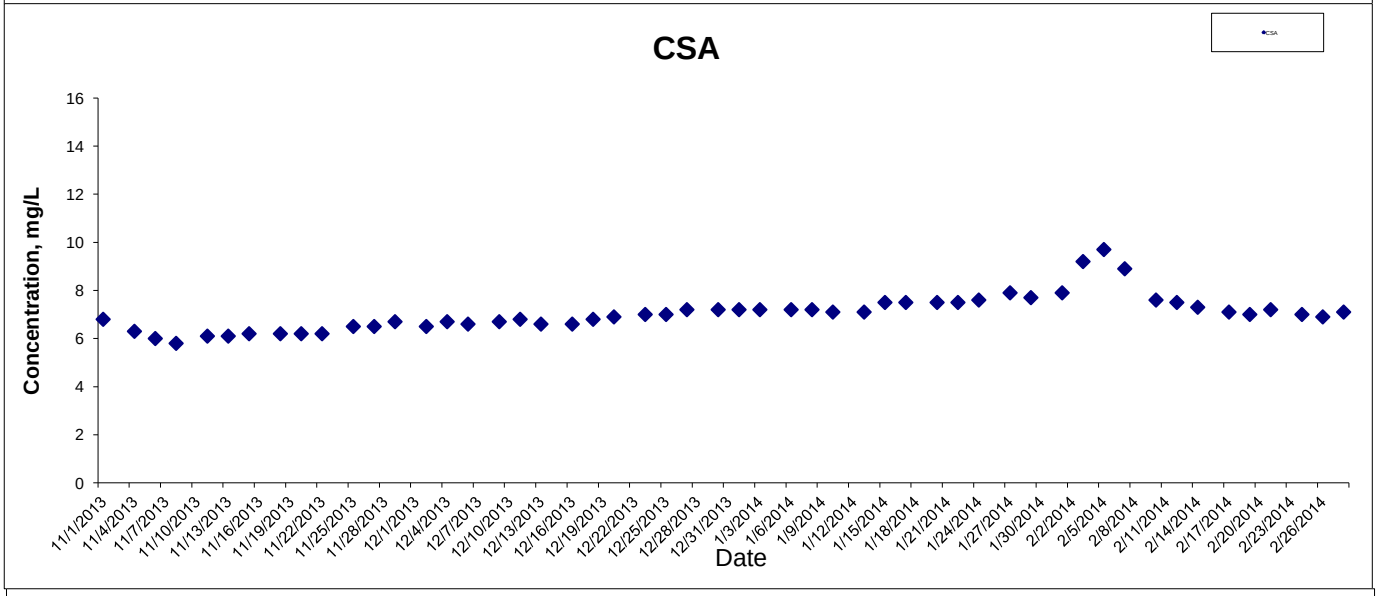


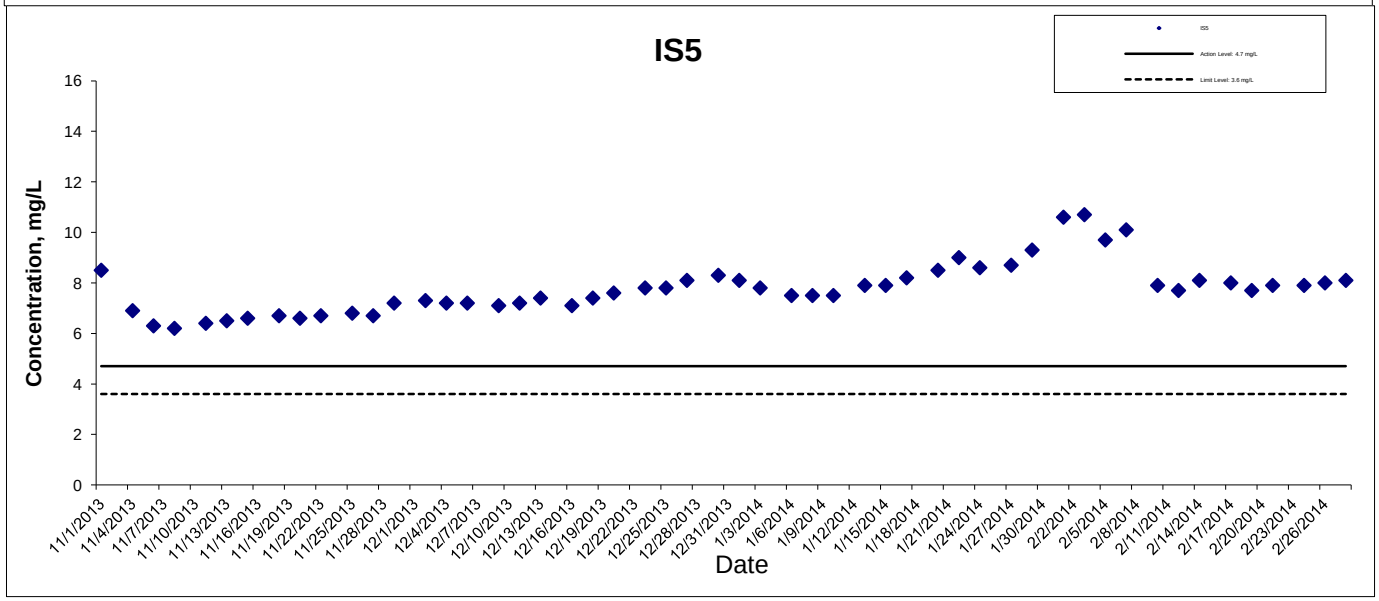




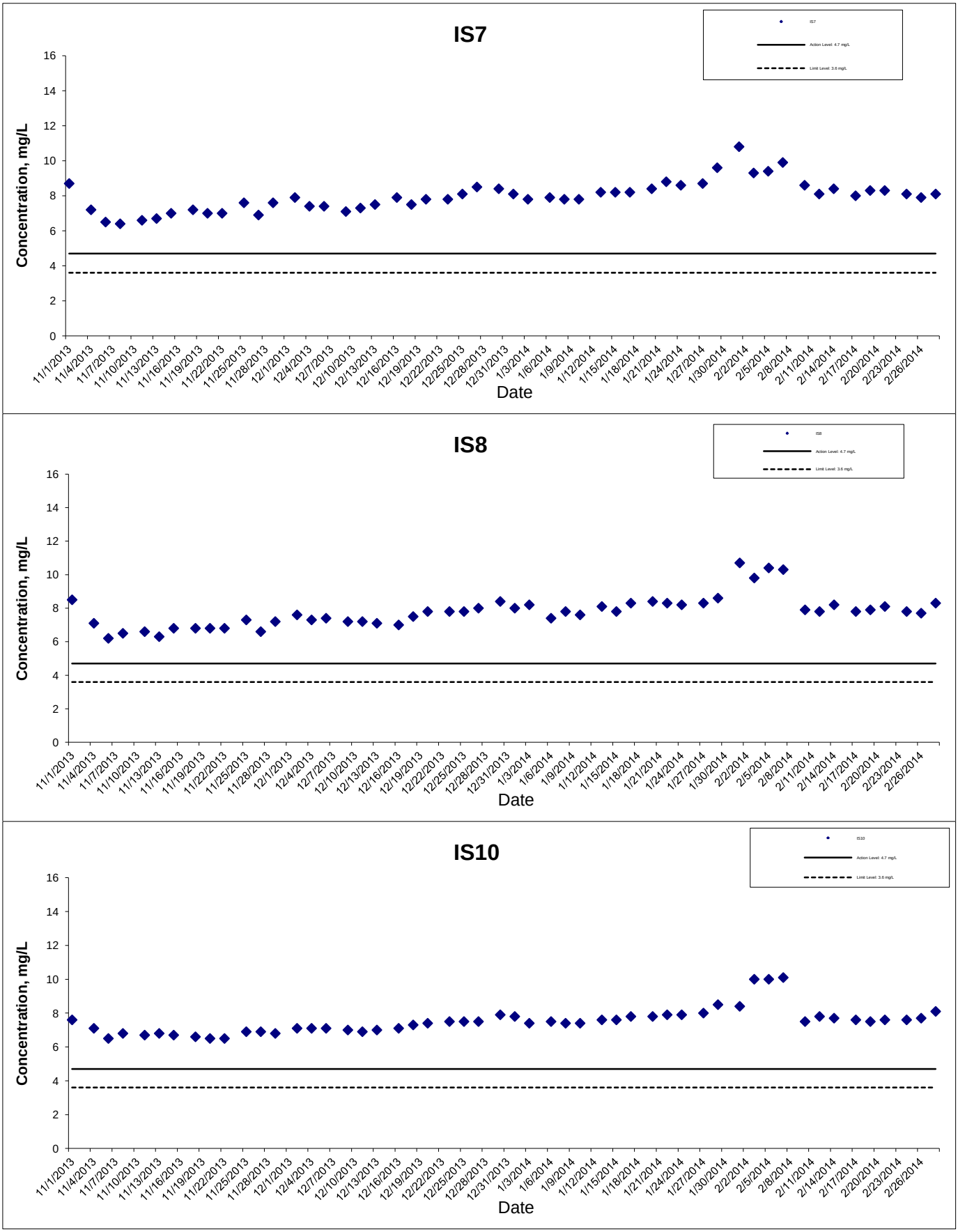
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



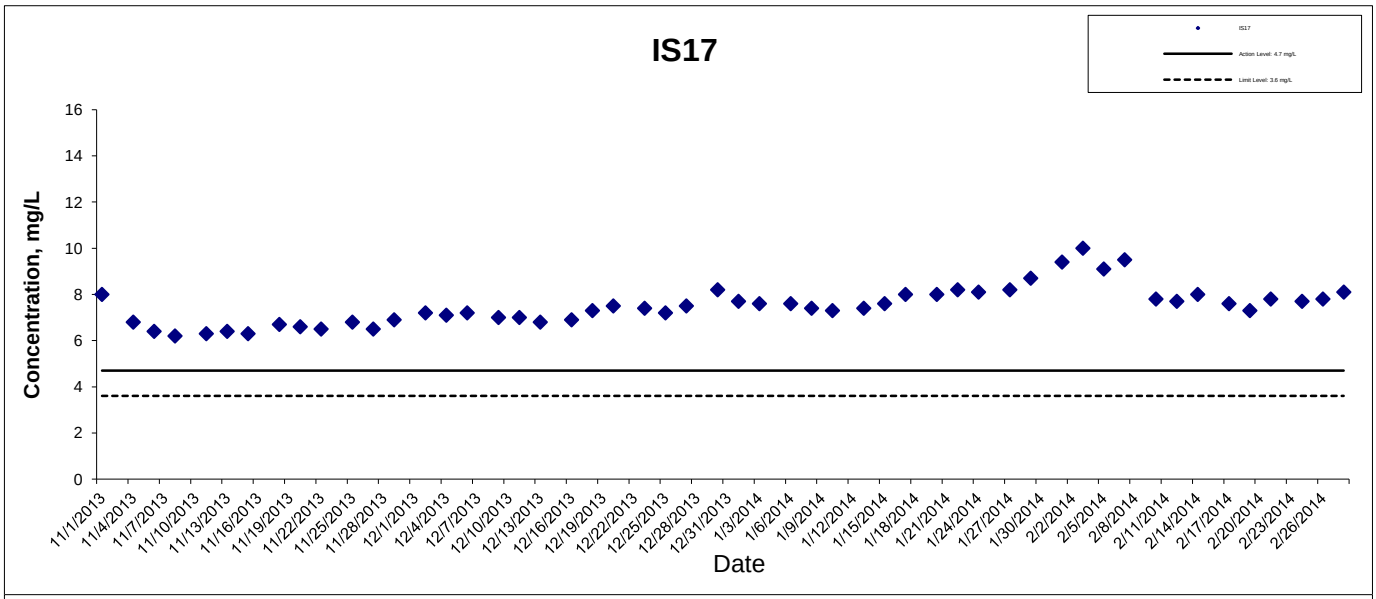


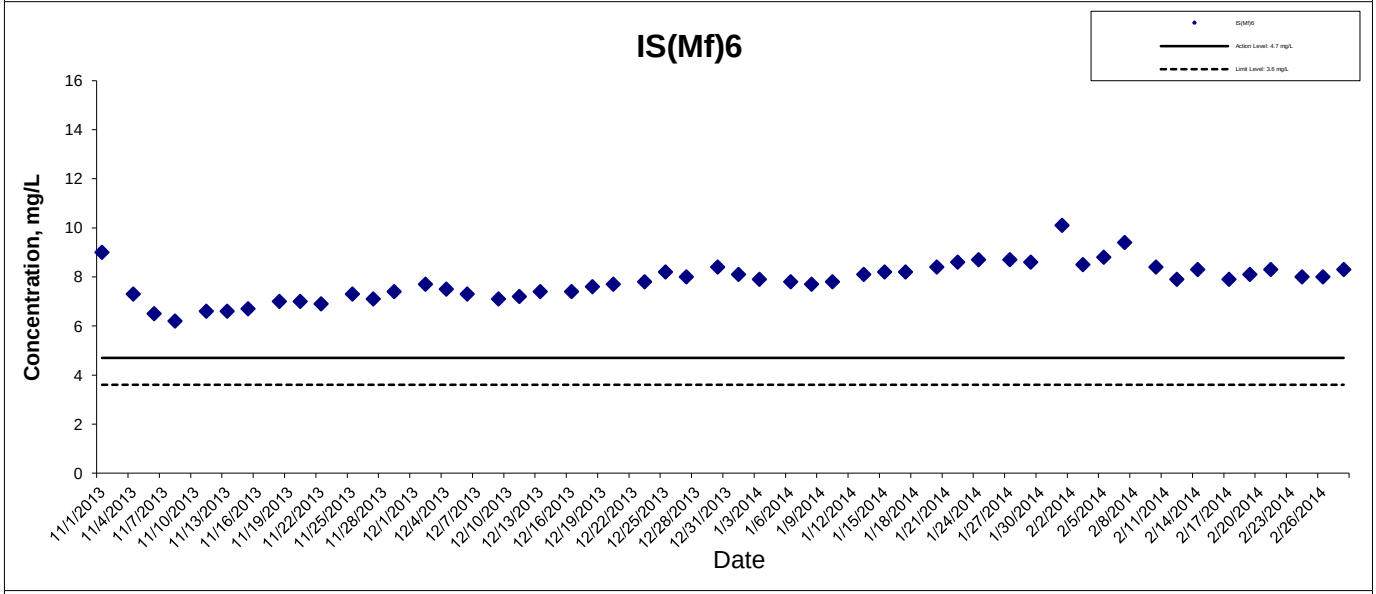


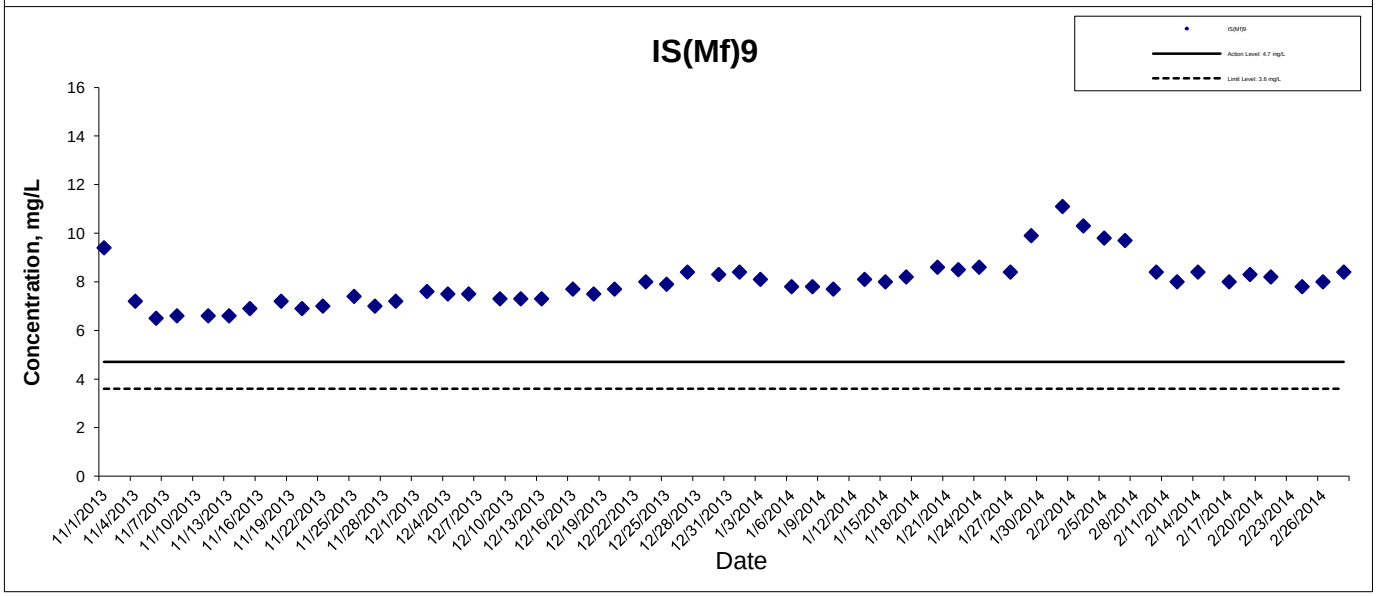
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



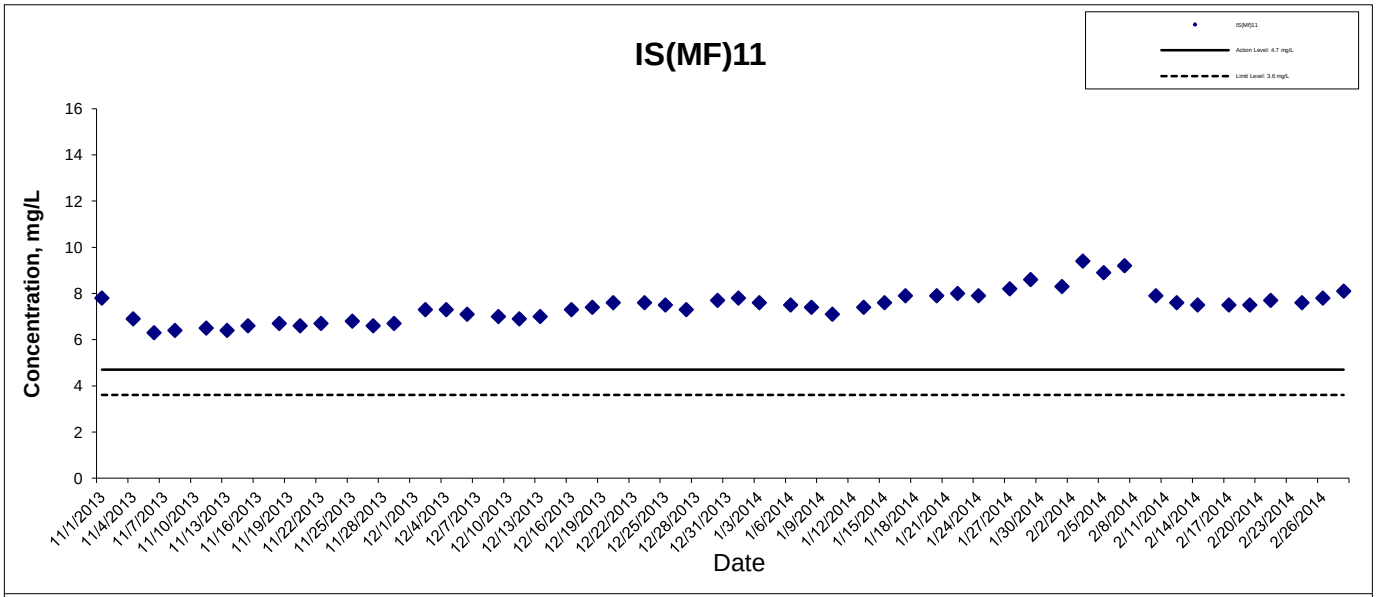
Dissolved Oxygen (Bottom) at Mid-Ebb Tide

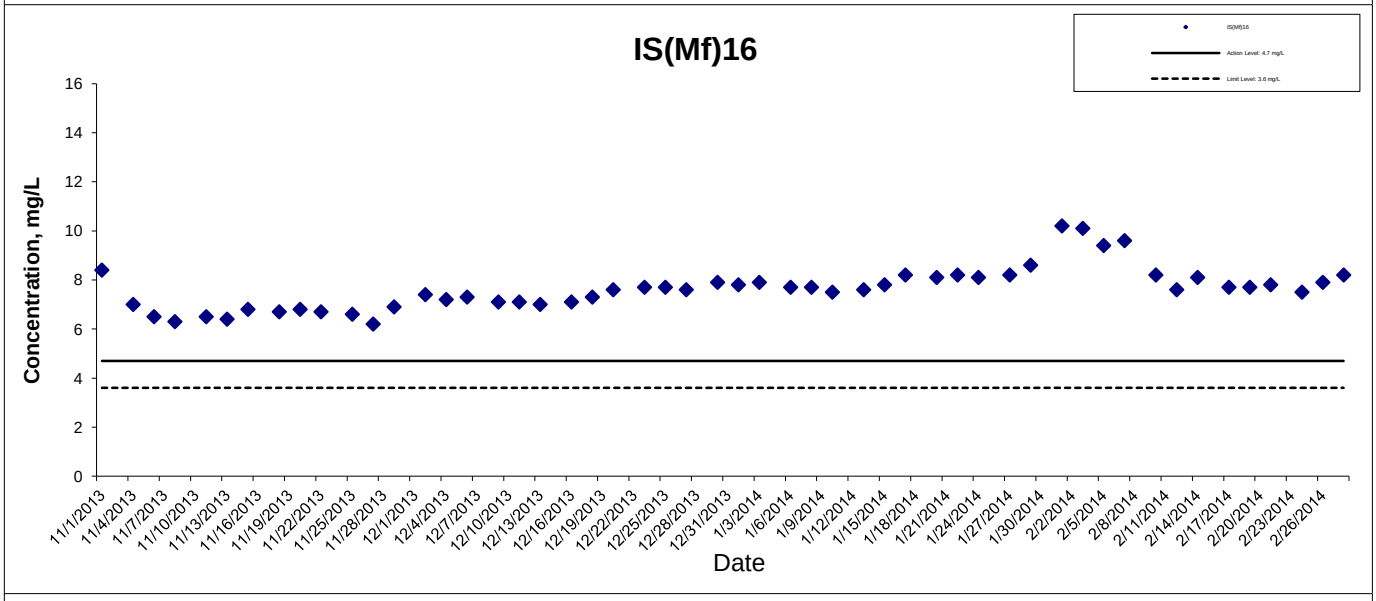


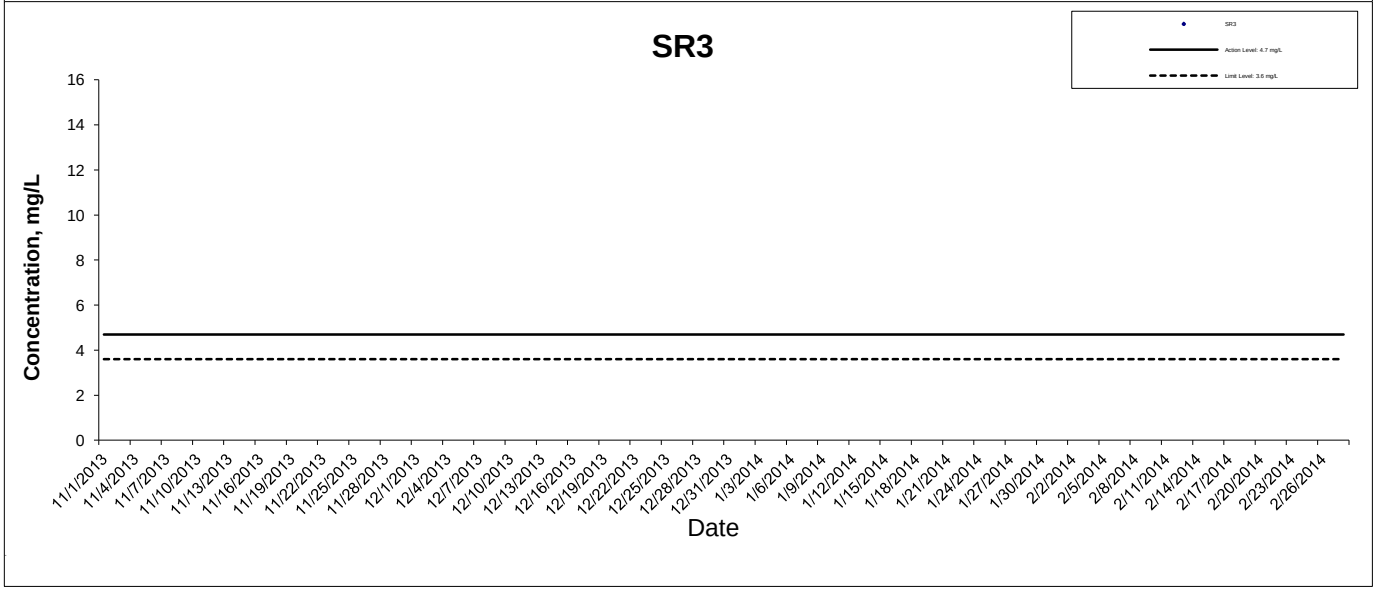




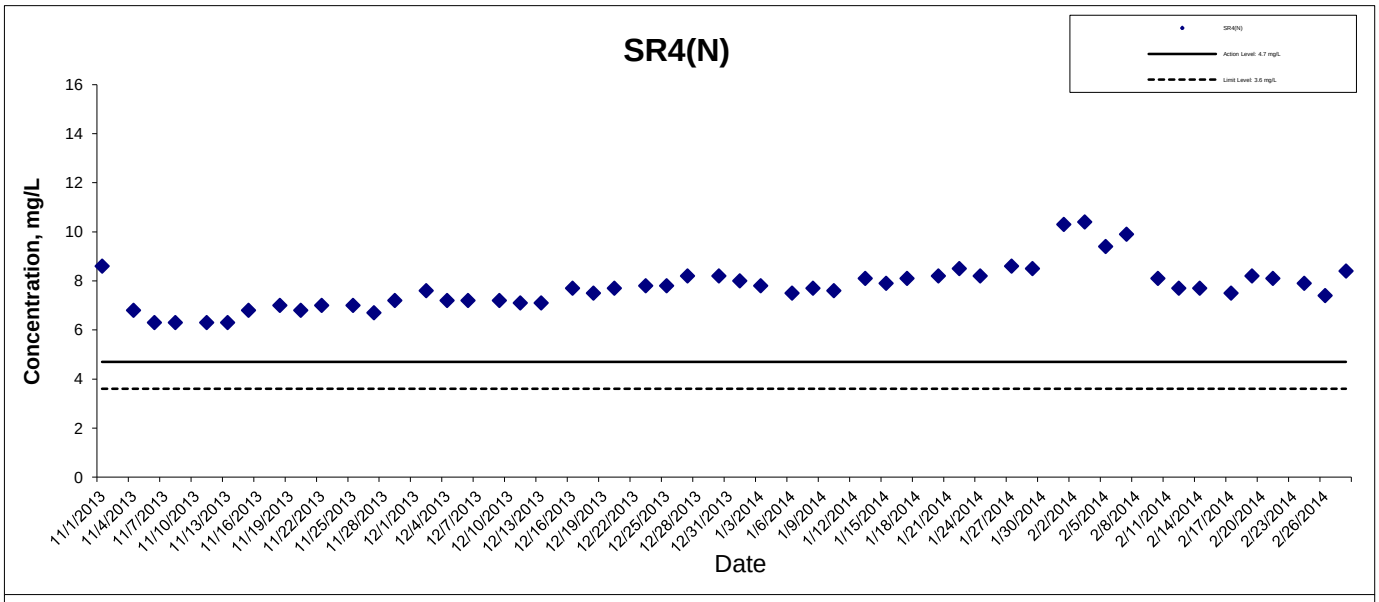
Dissolved Oxygen (Bottom) at Mid-Ebb Tide

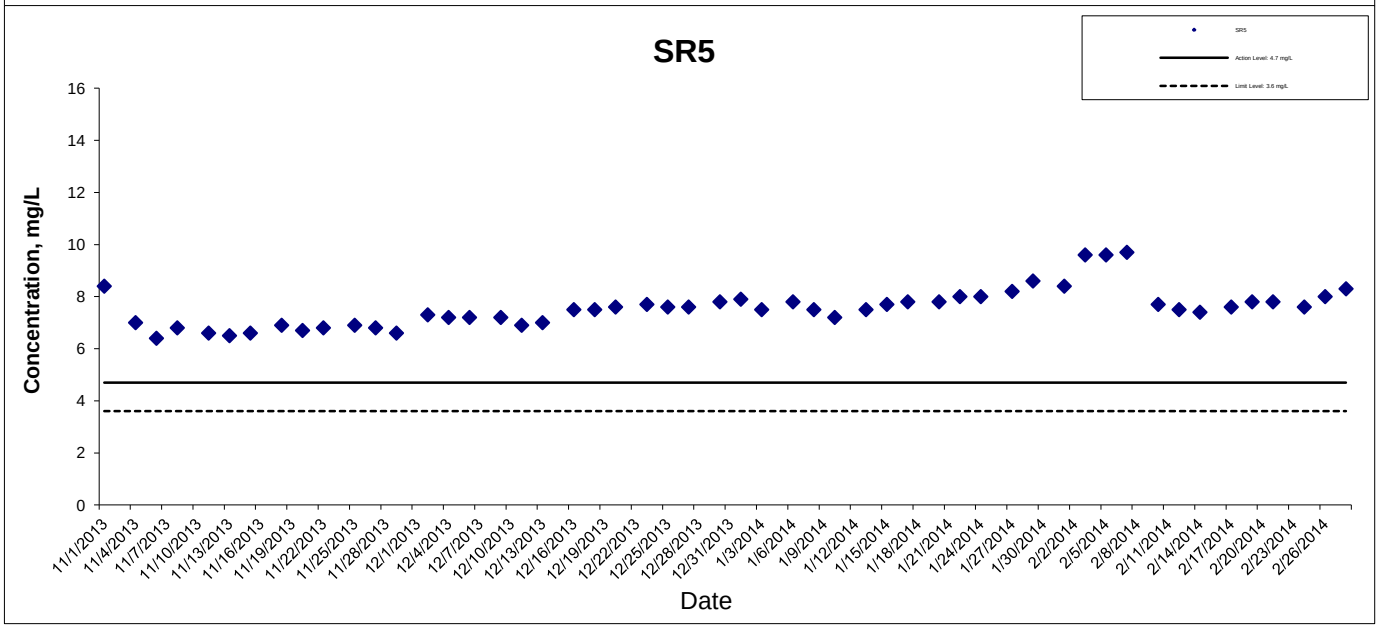


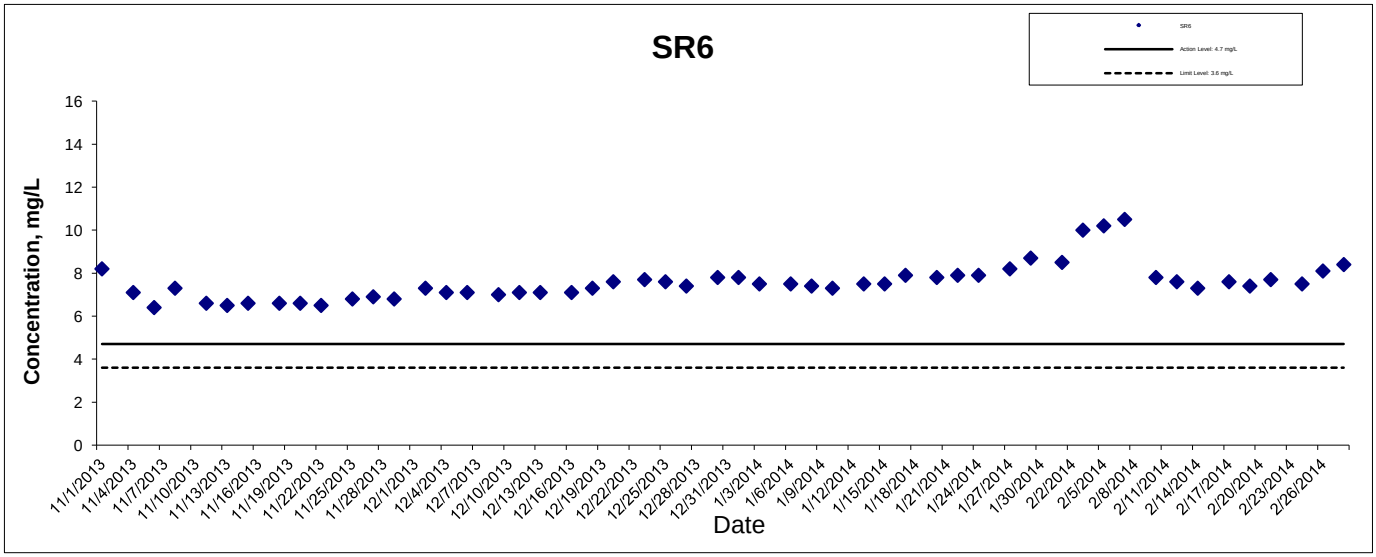




Dissolved Oxygen (Bottom) at Mid-Ebb Tide







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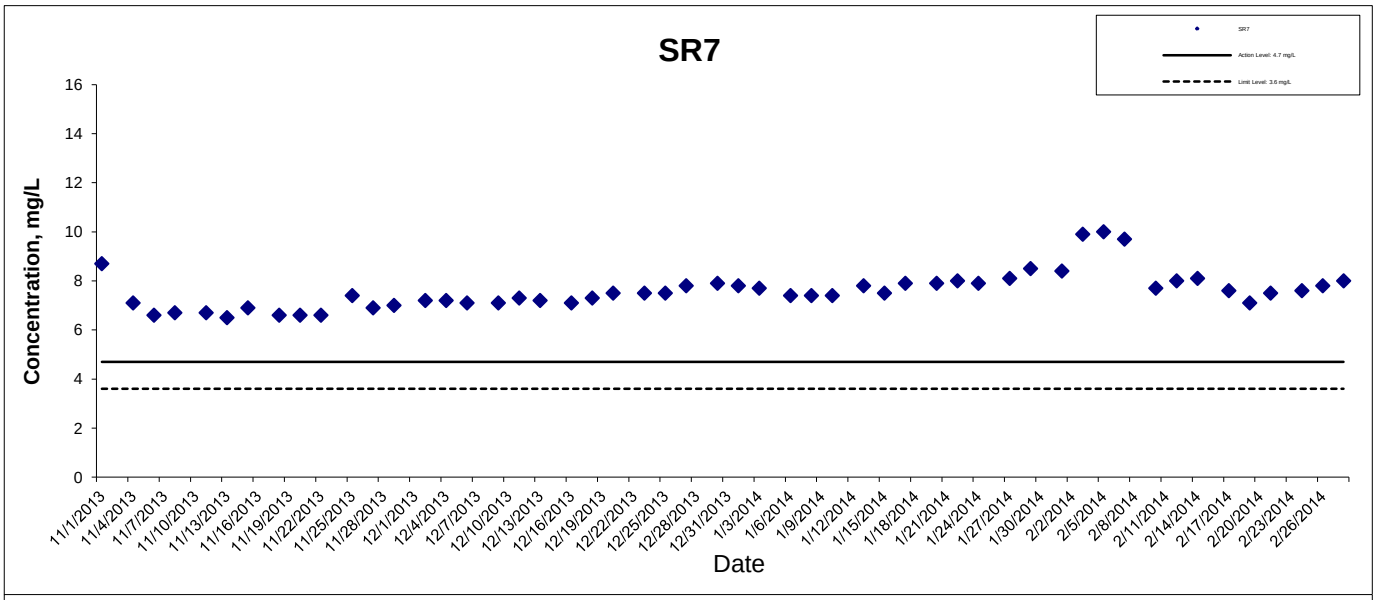
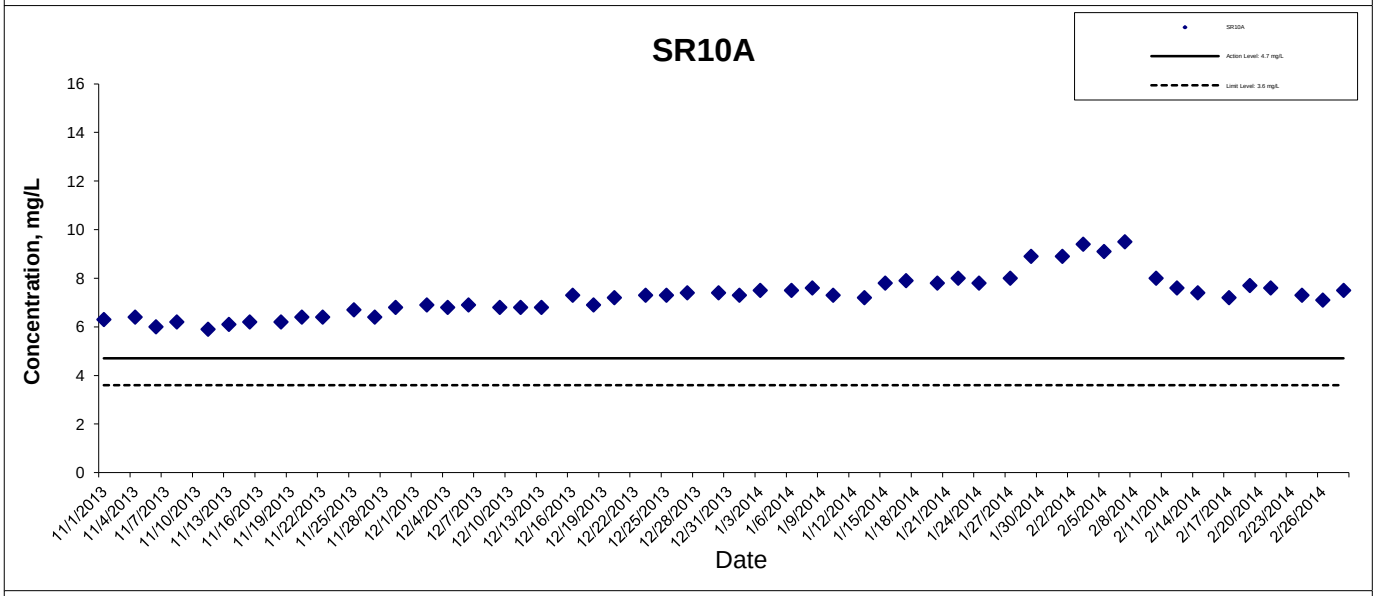
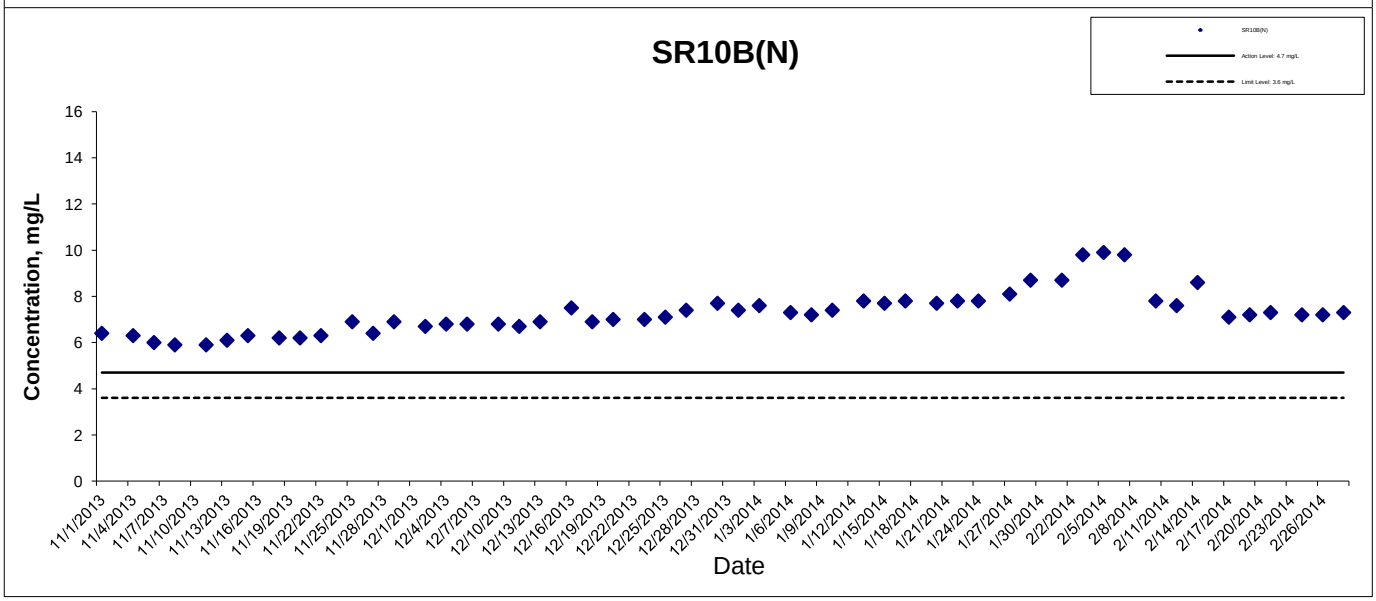
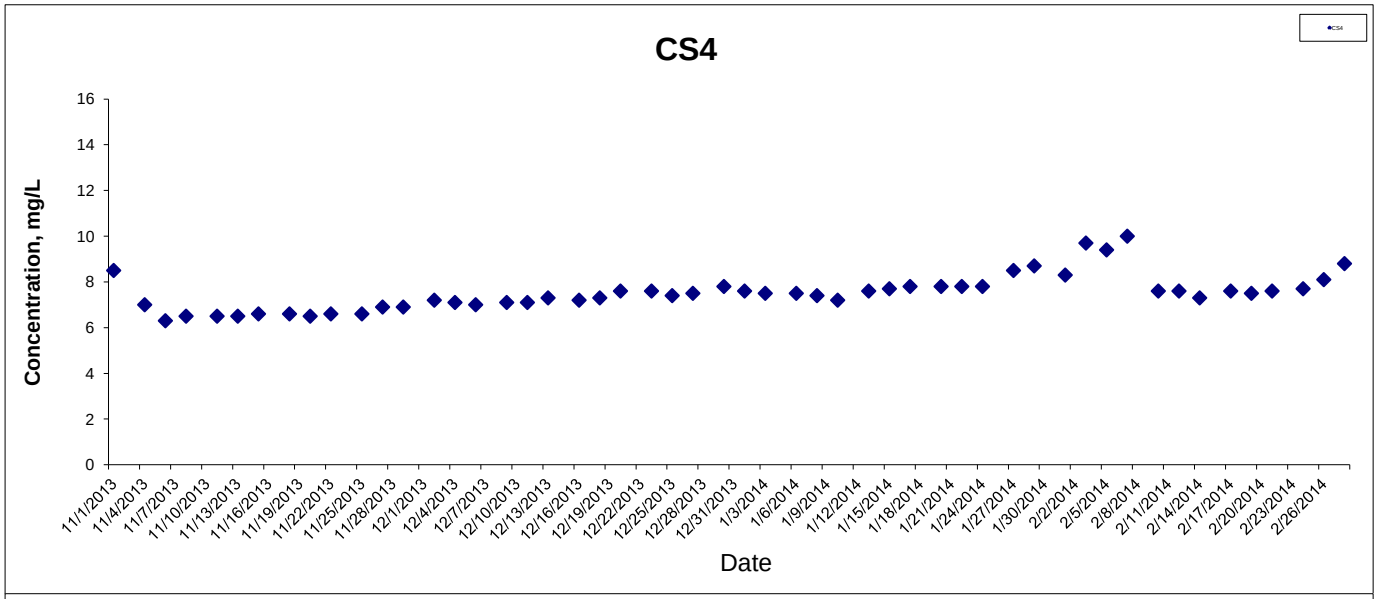
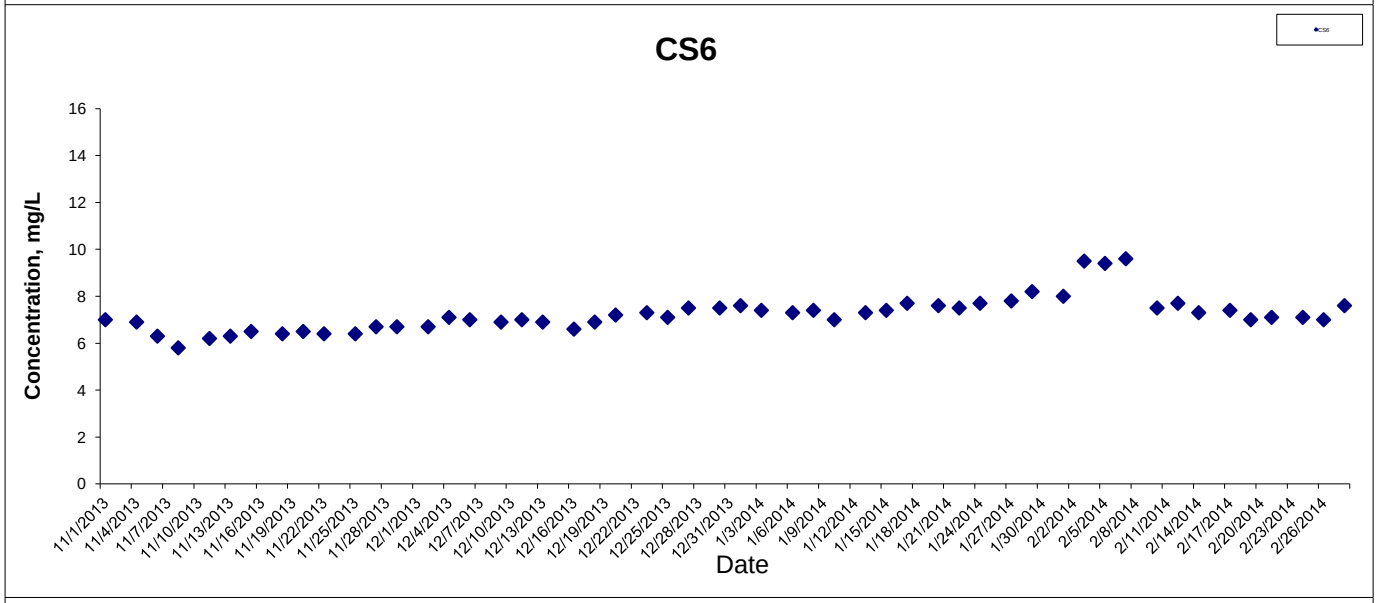


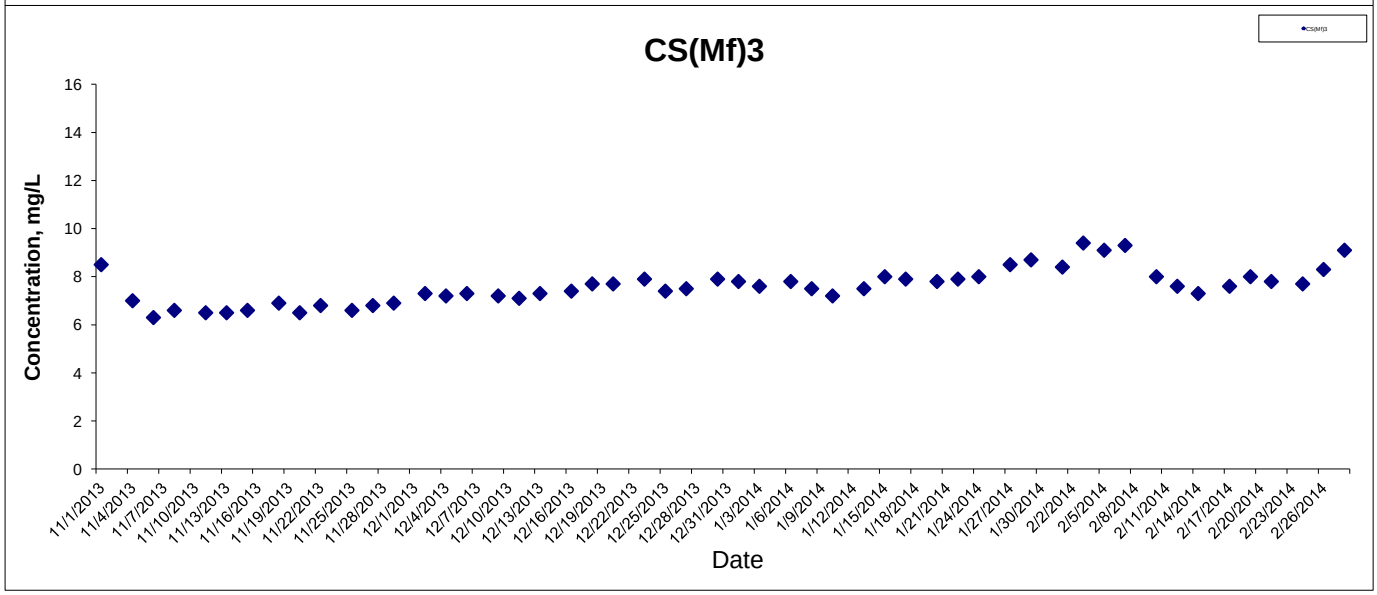




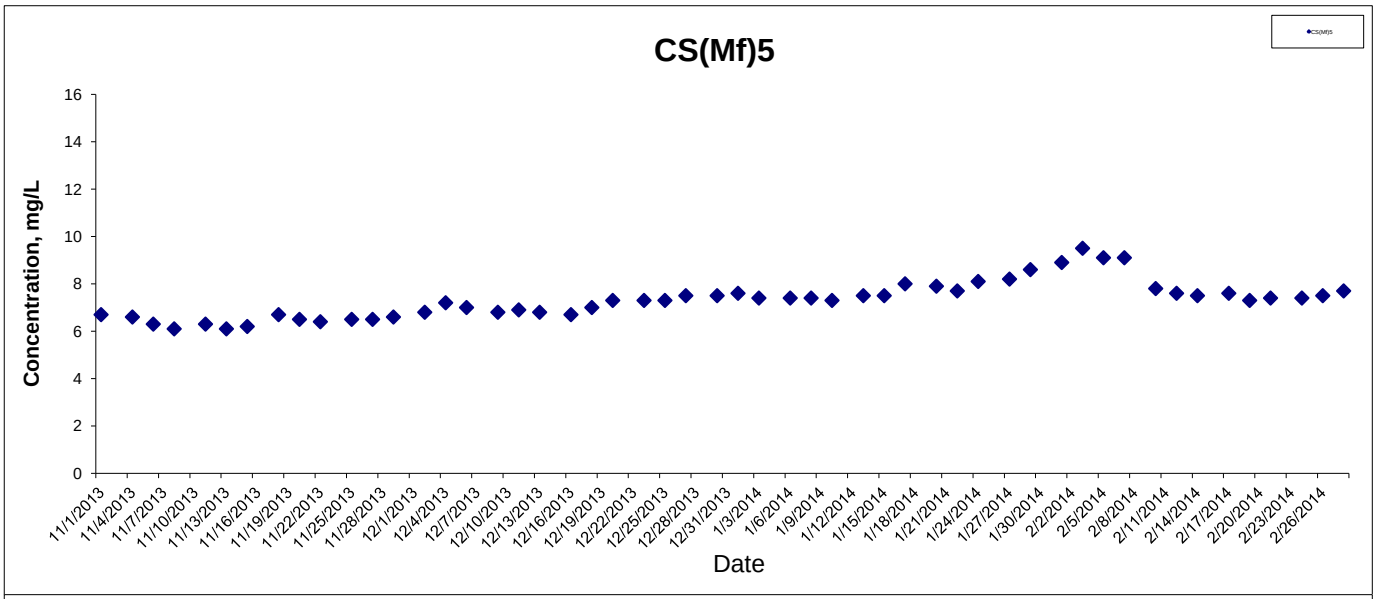
Dissolved Oxygen (Bottom) at Mid-Flood Tide

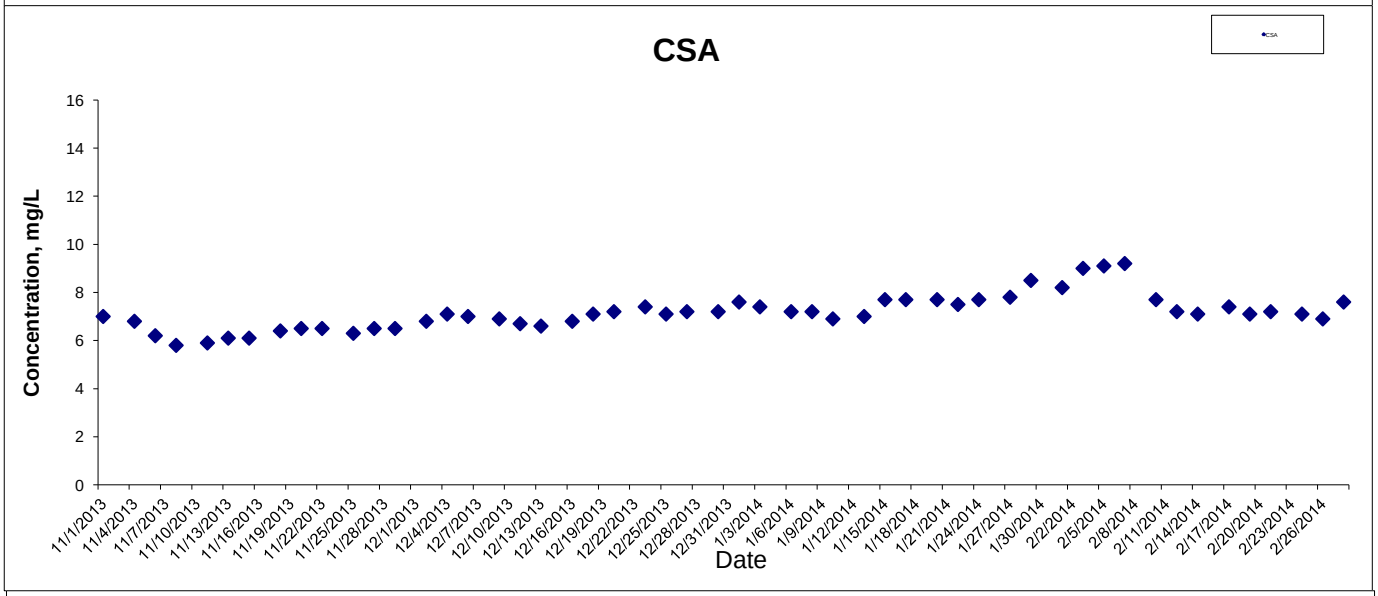


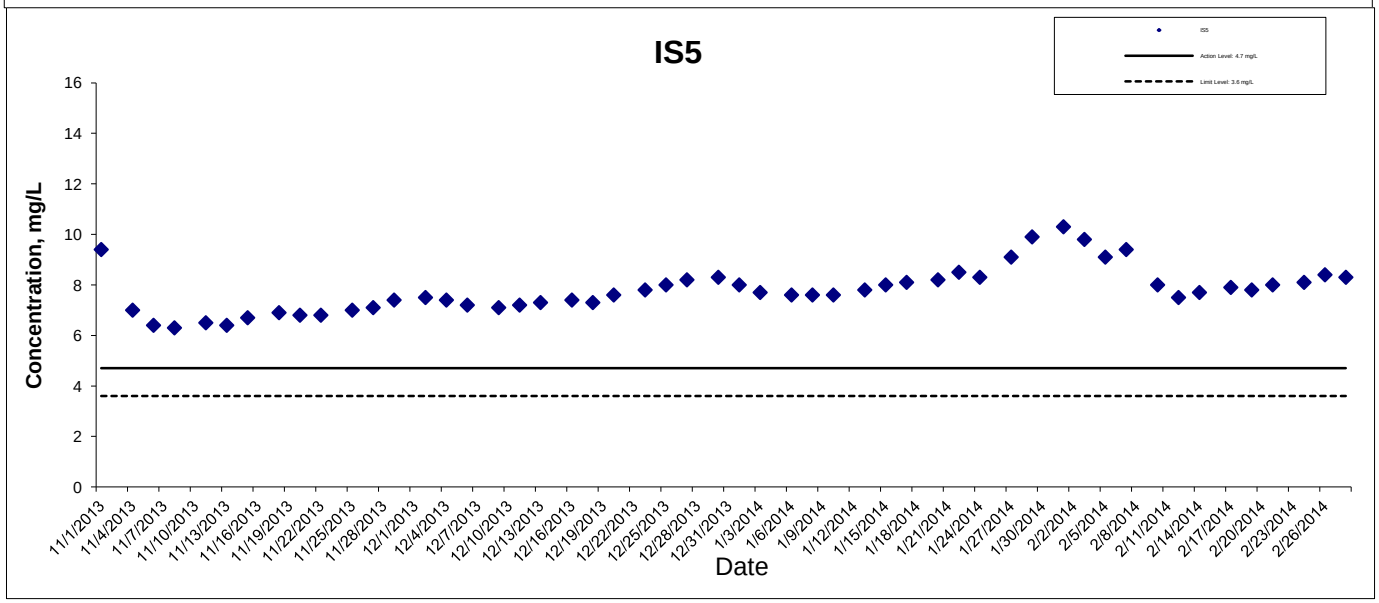




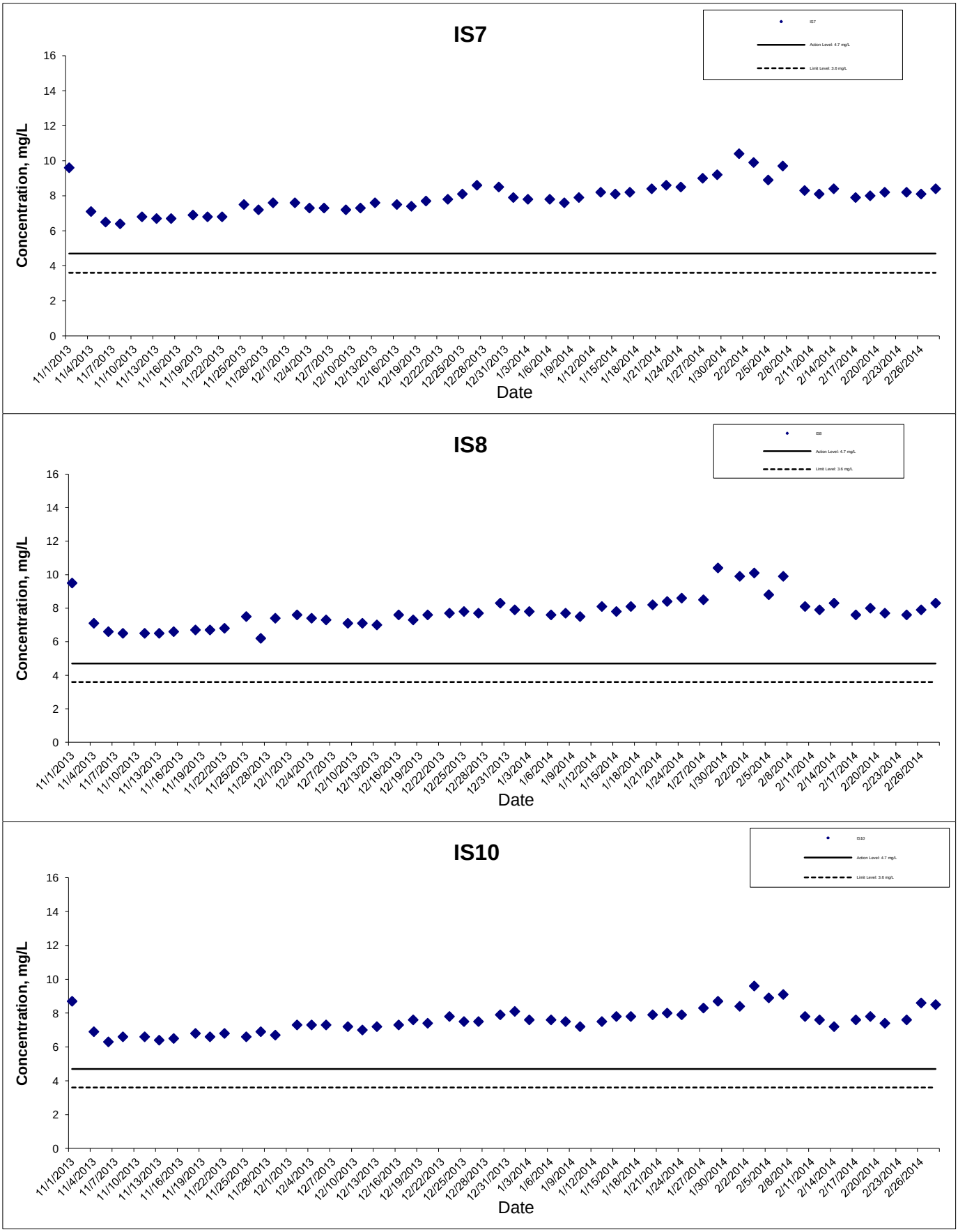
Dissolved Oxygen (Bottom) at Mid-Flood Tide



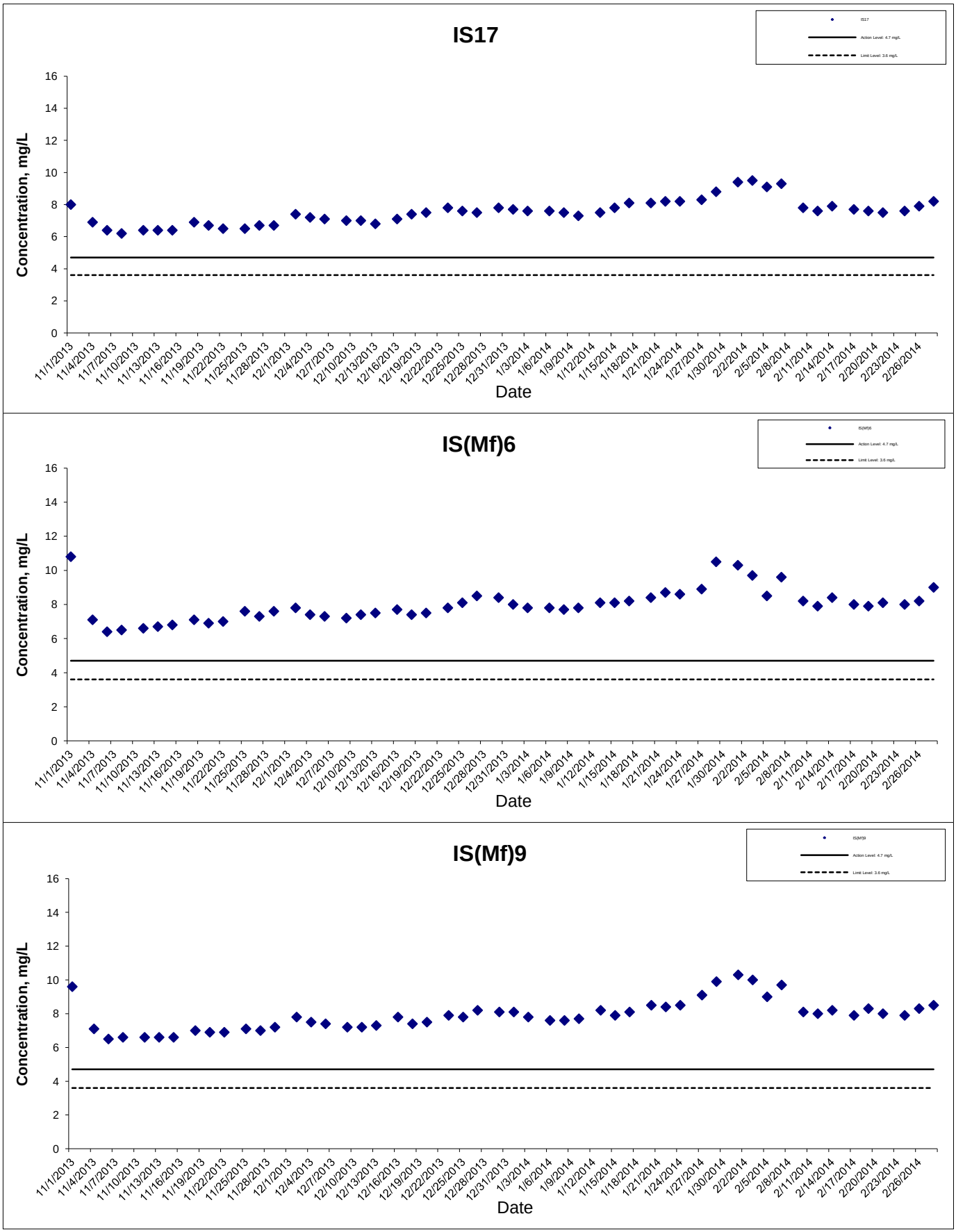




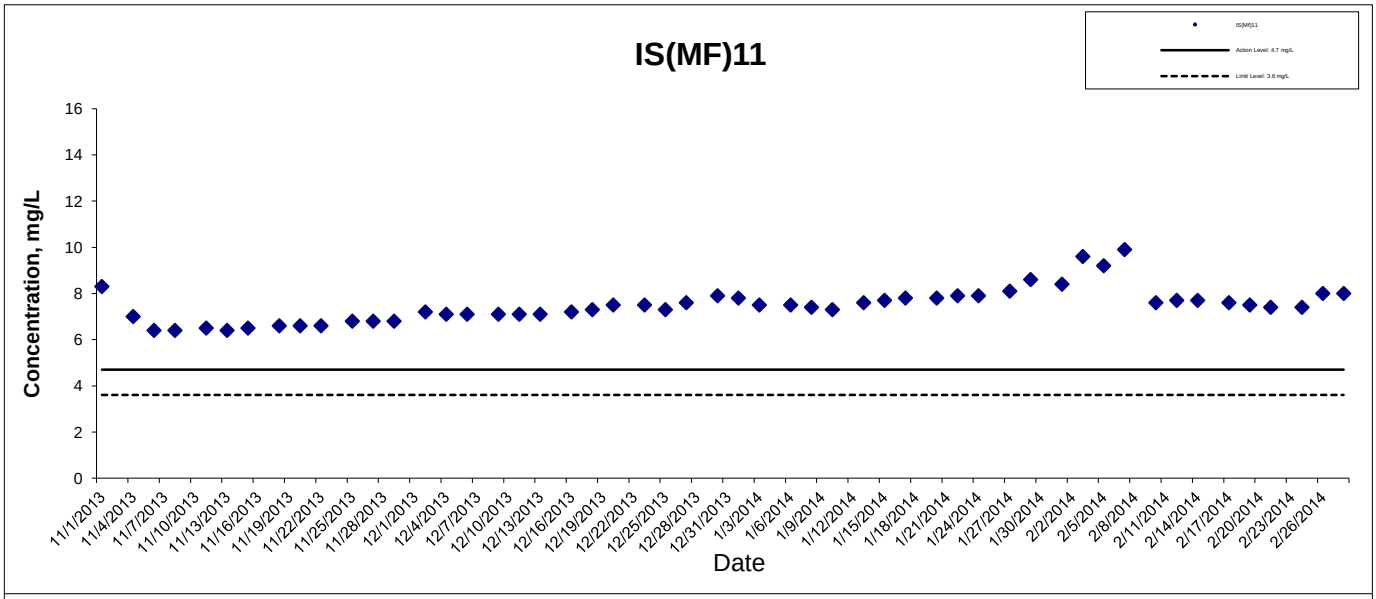
Dissolved Oxygen (Bottom) at Mid-Flood Tide

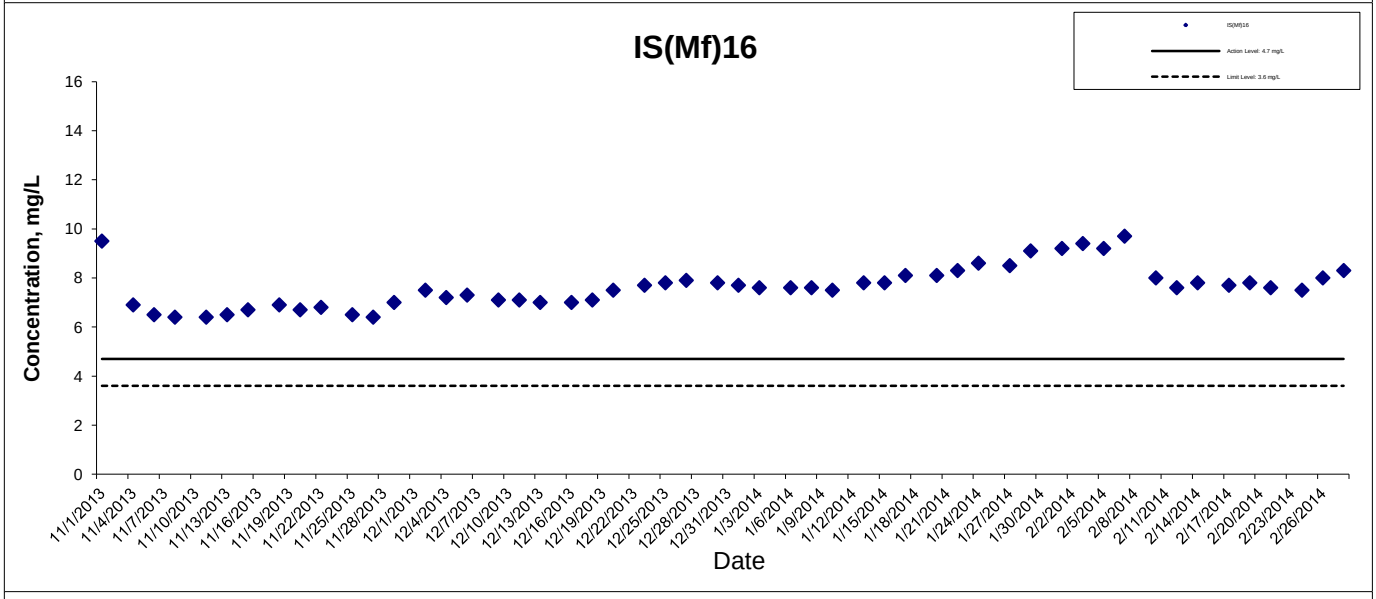


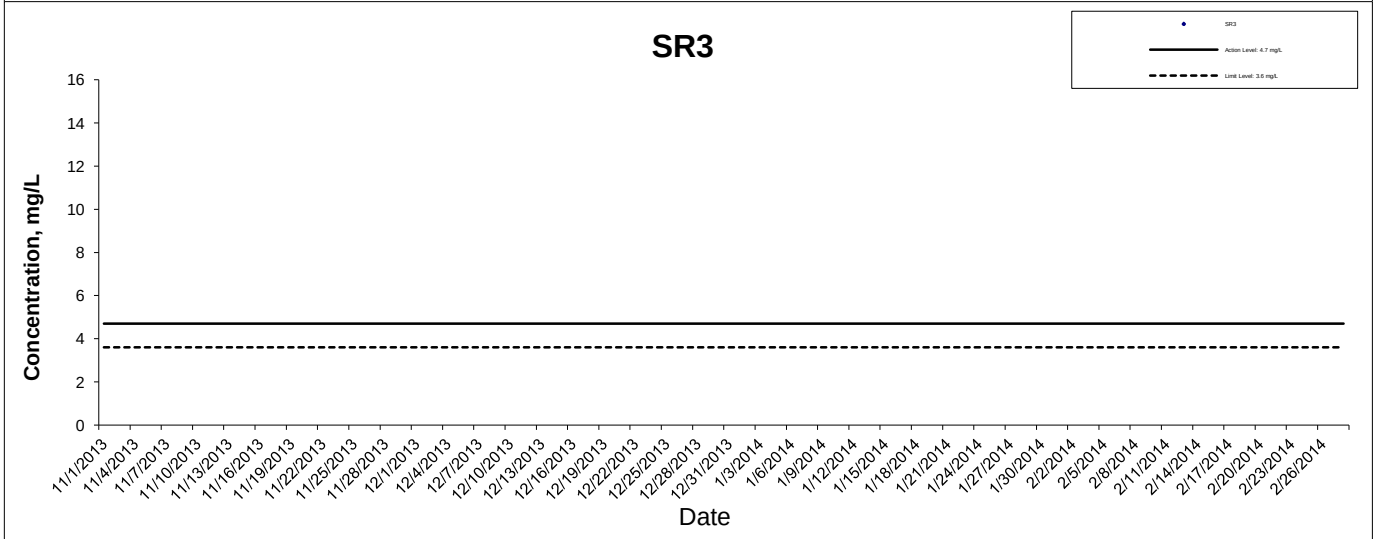
Dissolved Oxygen (Bottom) at Mid-Flood Tide



Dissolved Oxygen (Bottom) at Mid-Flood Tide

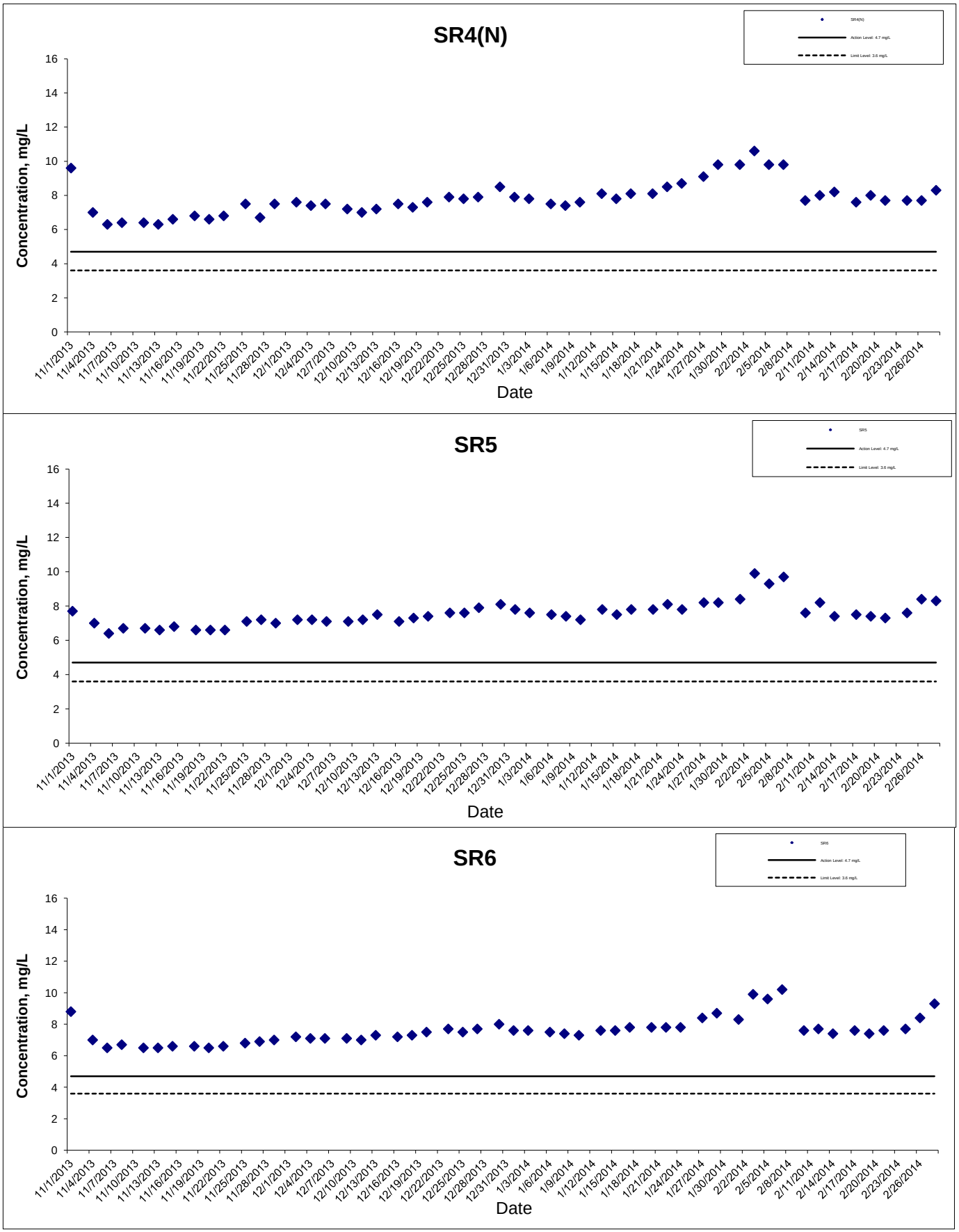




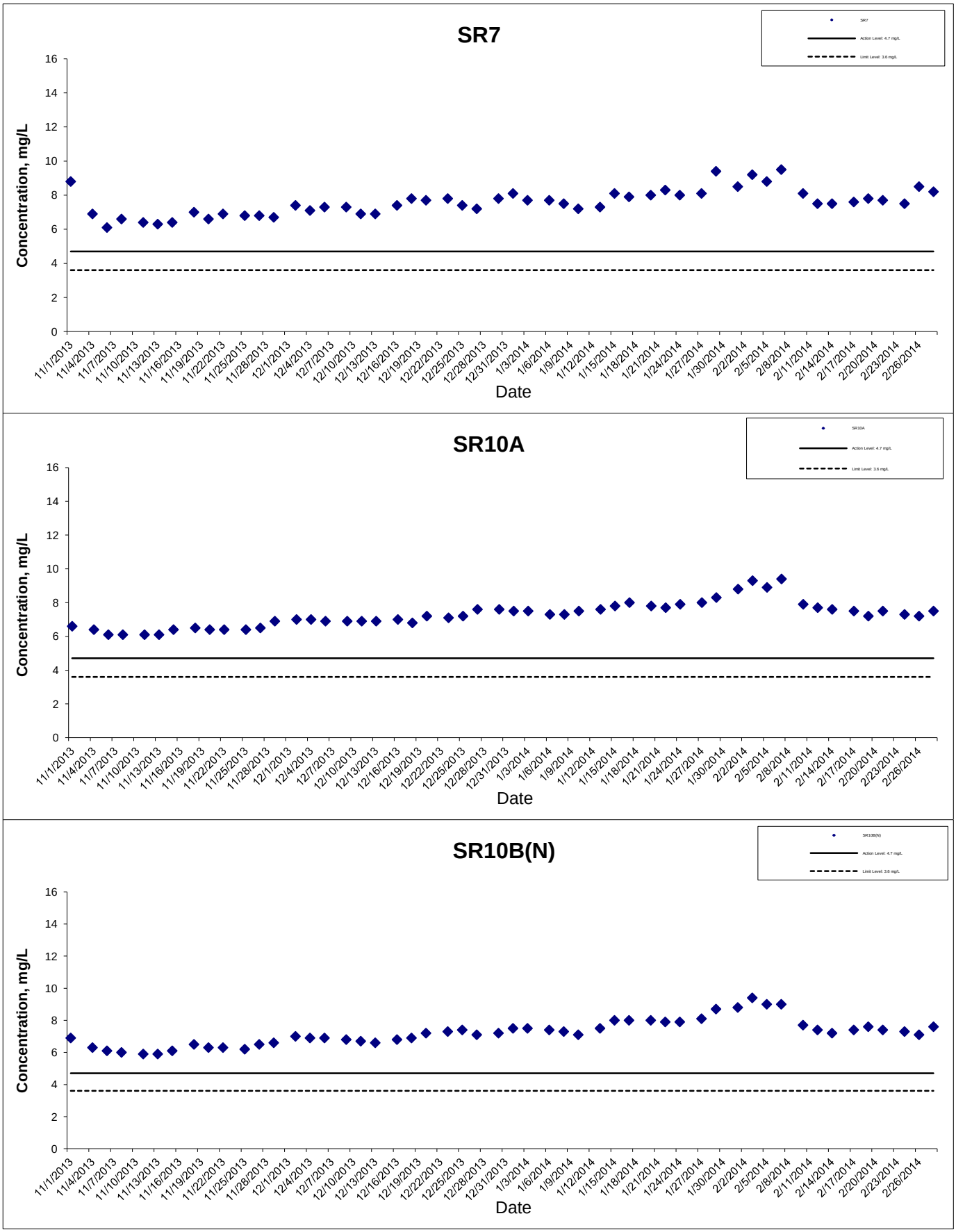


As the measured water depths were less than 3 m during all monitoring days, water samples are collected at mid-depth only .

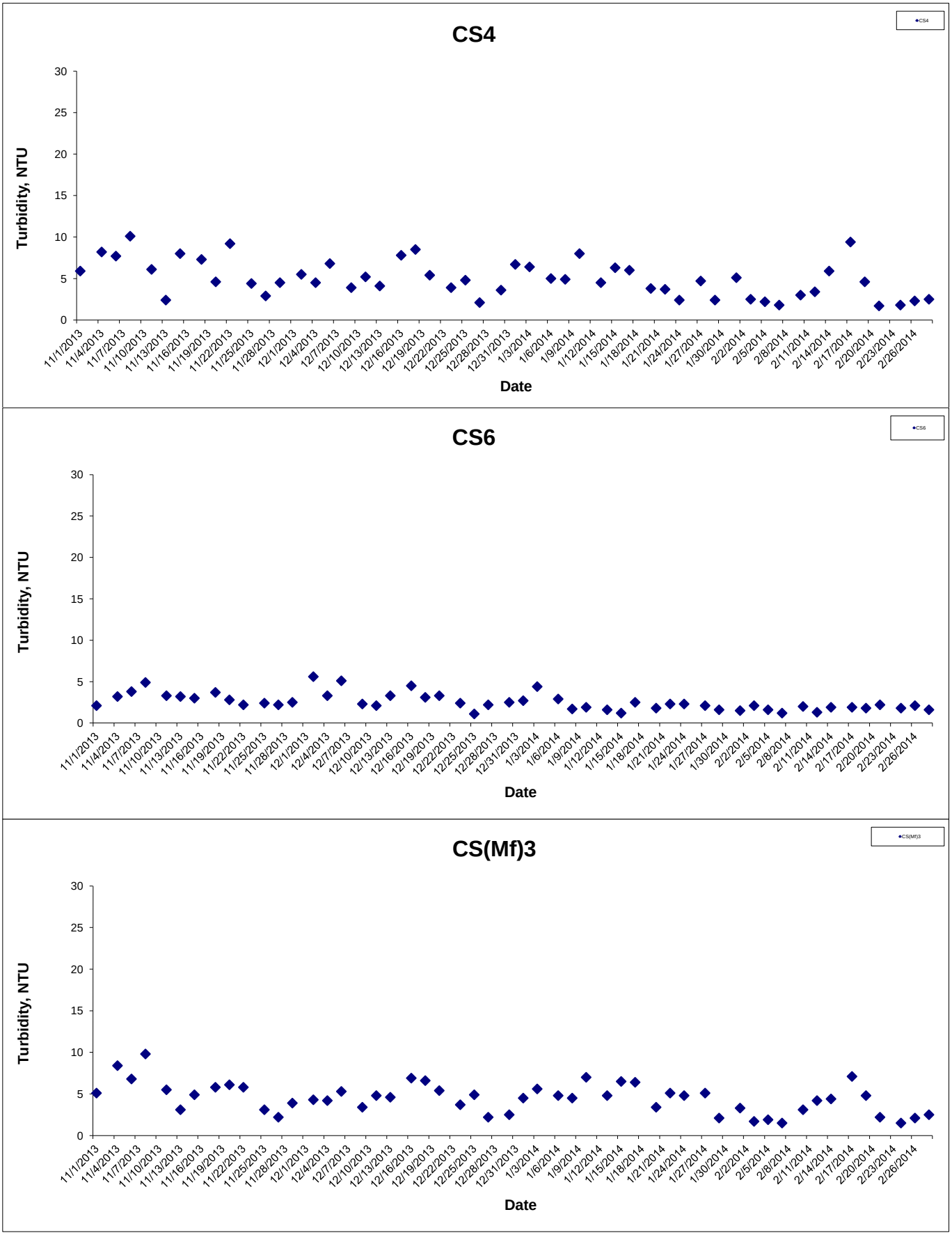
Dissolved Oxygen (Bottom) at Mid-Flood Tide



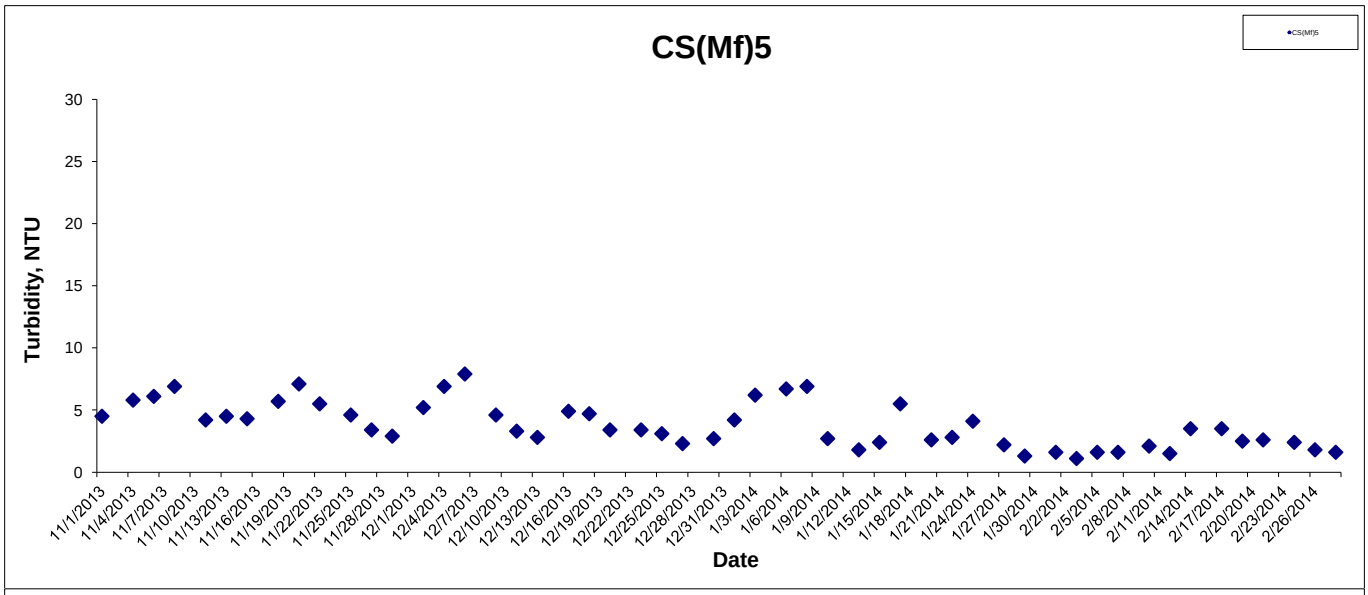
Dissolved Oxygen (Bottom) at Mid-Flood Tide

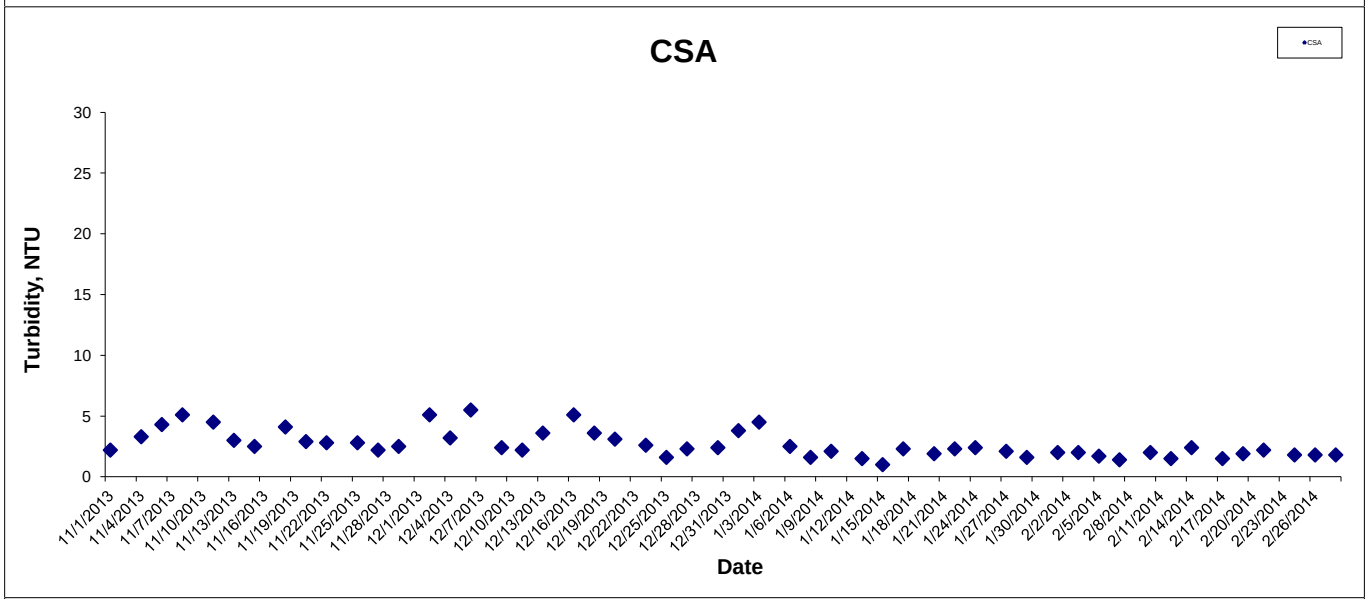


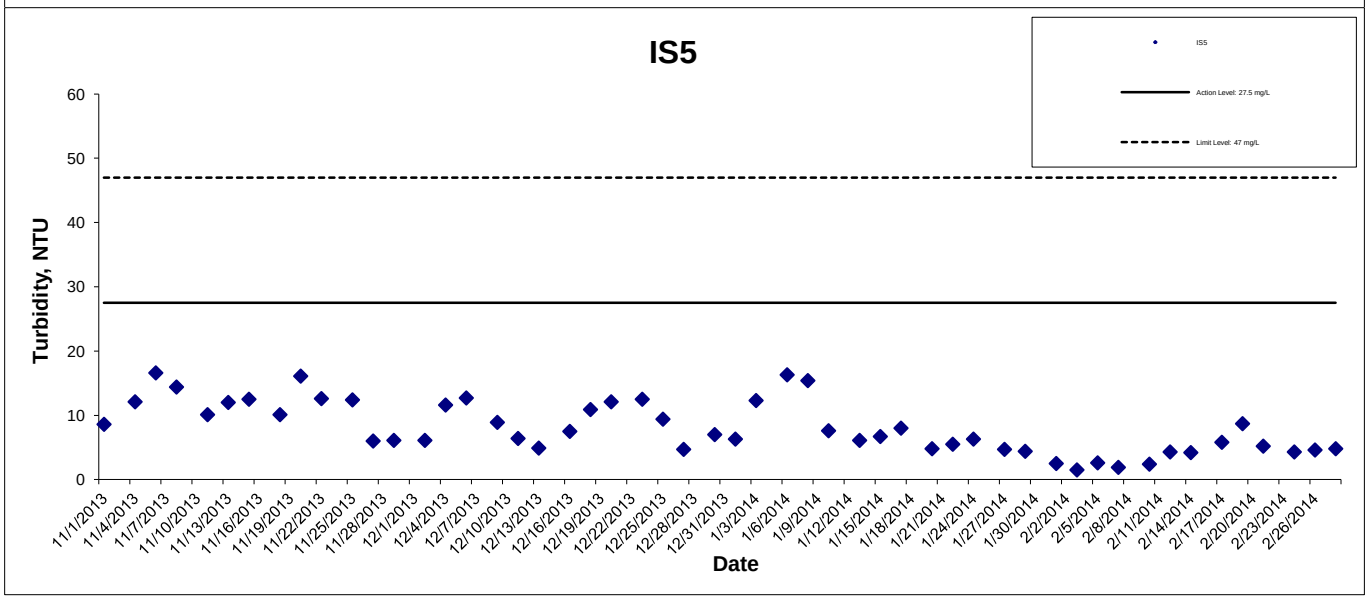
Turbidity at Mid-Ebb Tide



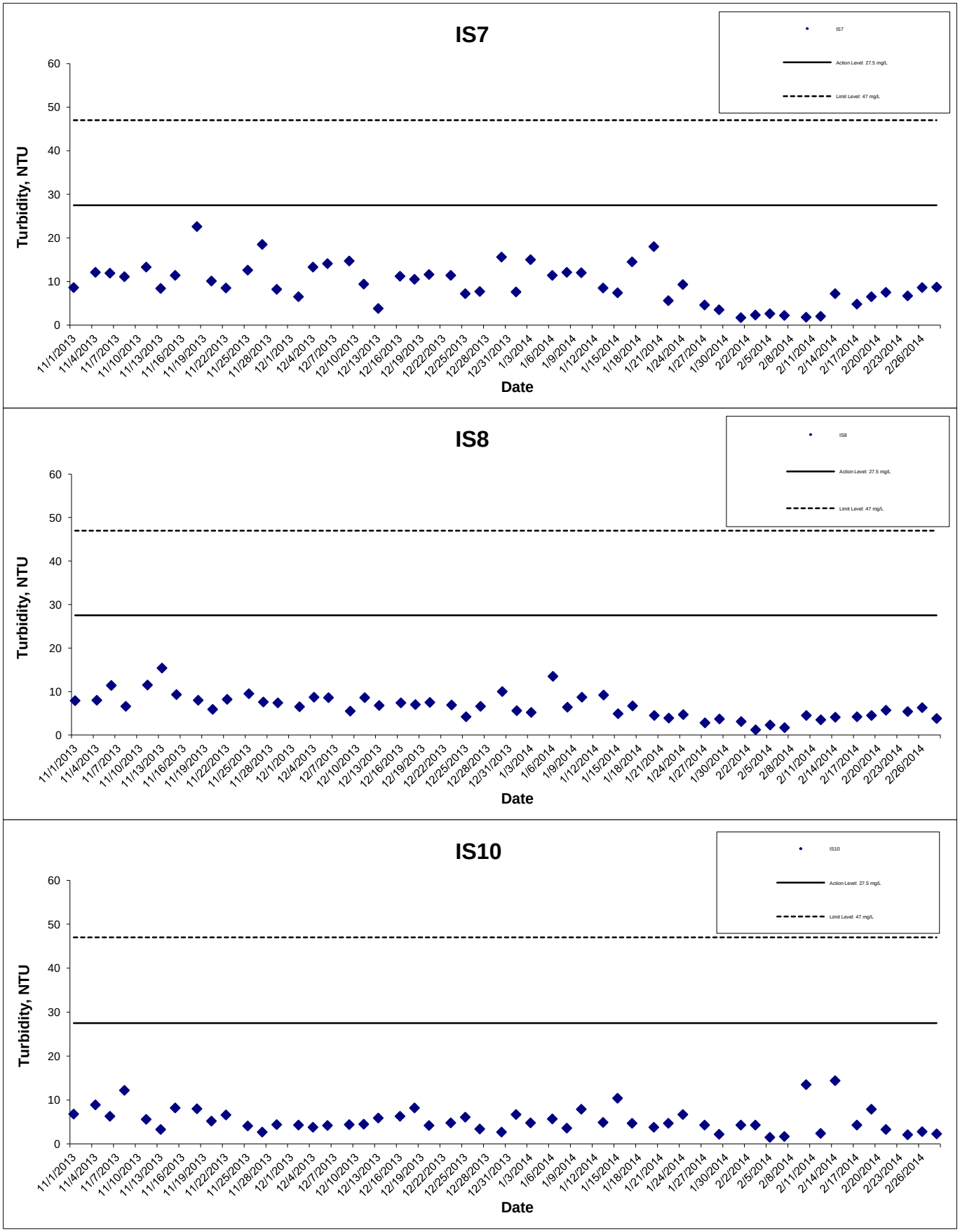
Turbidity at Mid-Ebb Tide







Turbidity at Mid-Ebb Tide



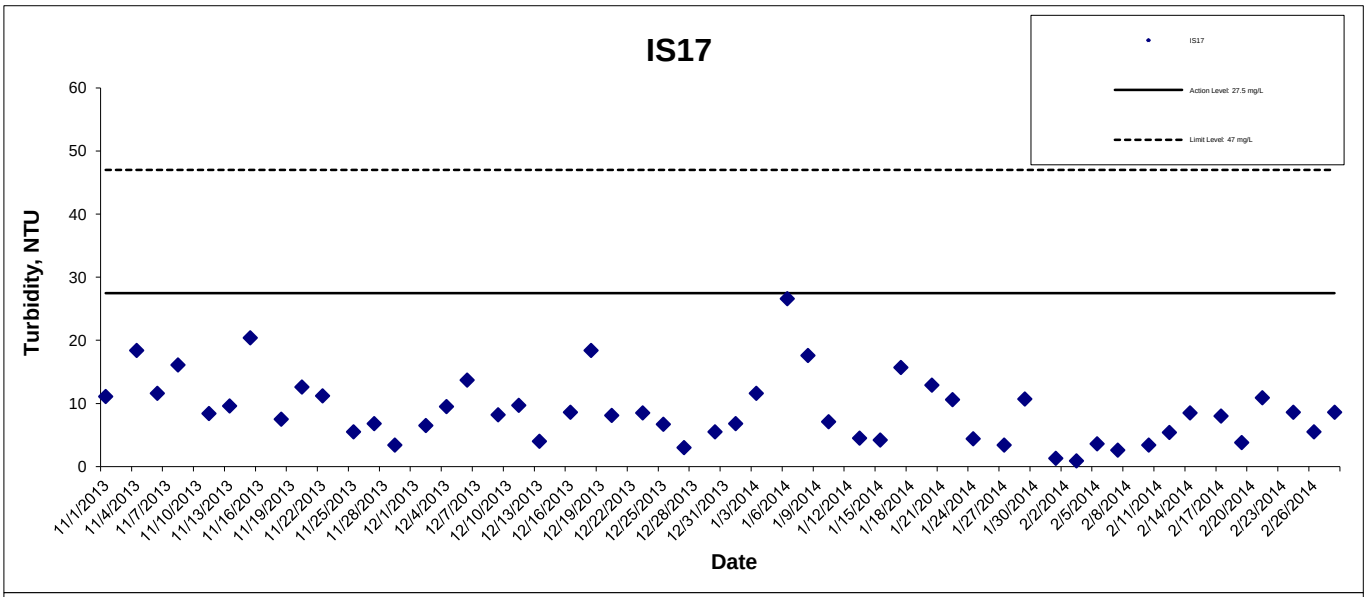
HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

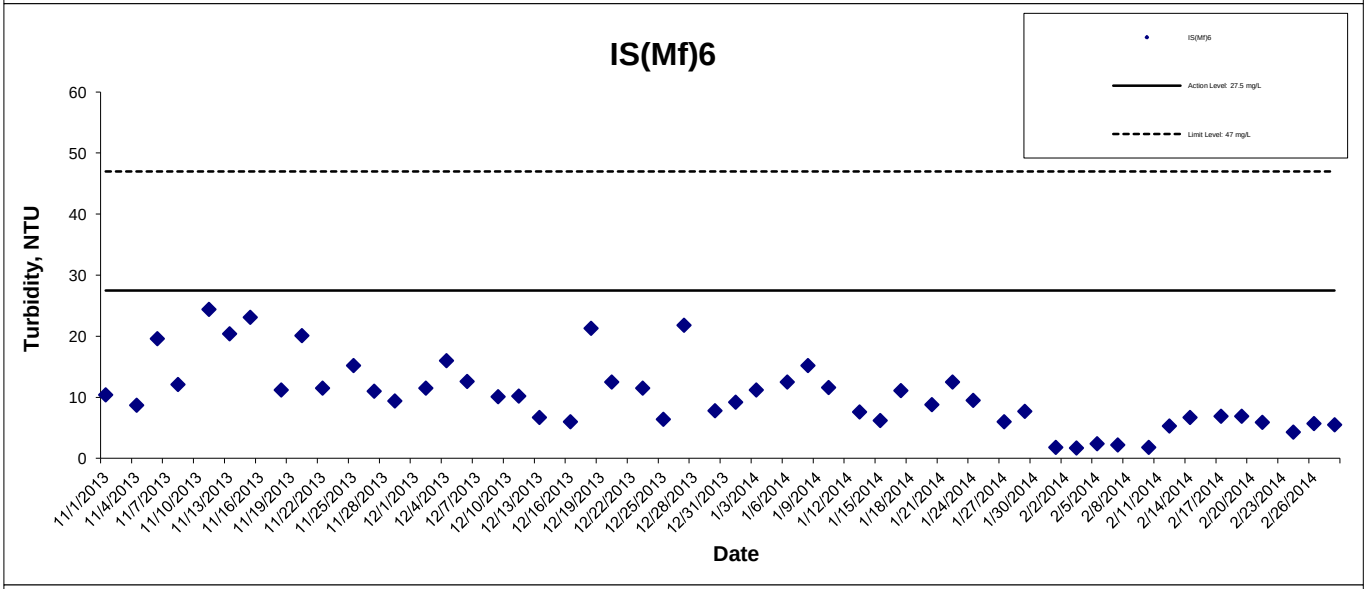
AECOM

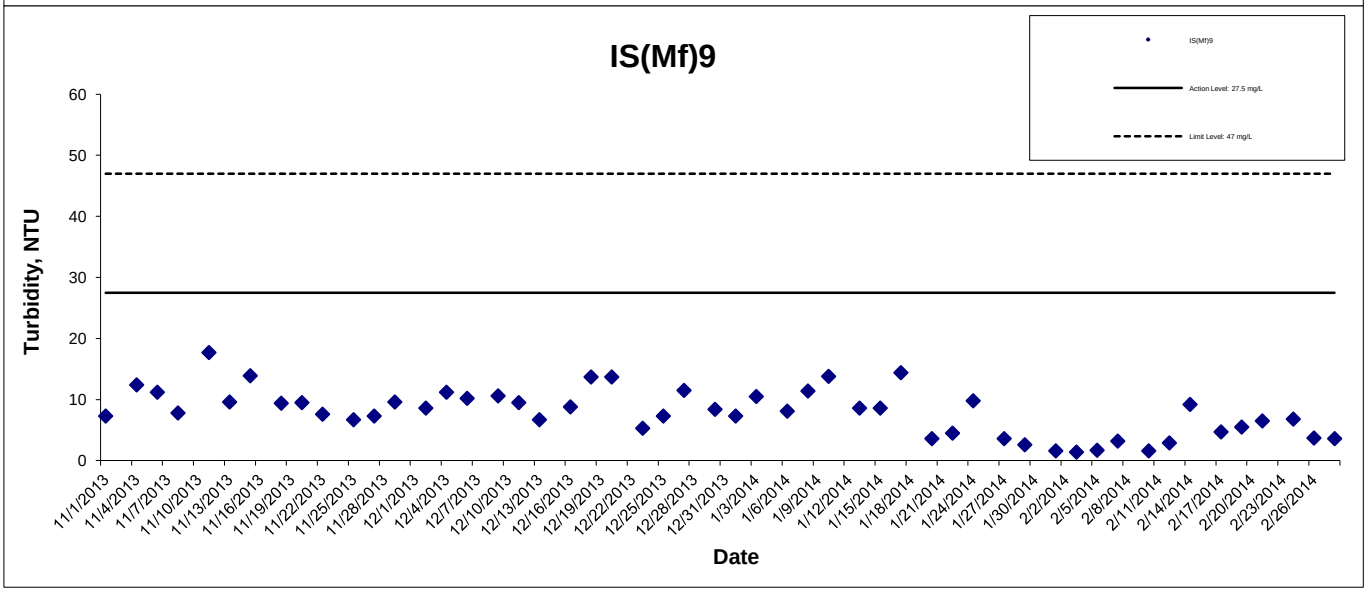
Graphical Presentation of Impact Water Quality Monitoring Results

Project No.: 60249820 **Date: Mar 2014** **Appendix J**

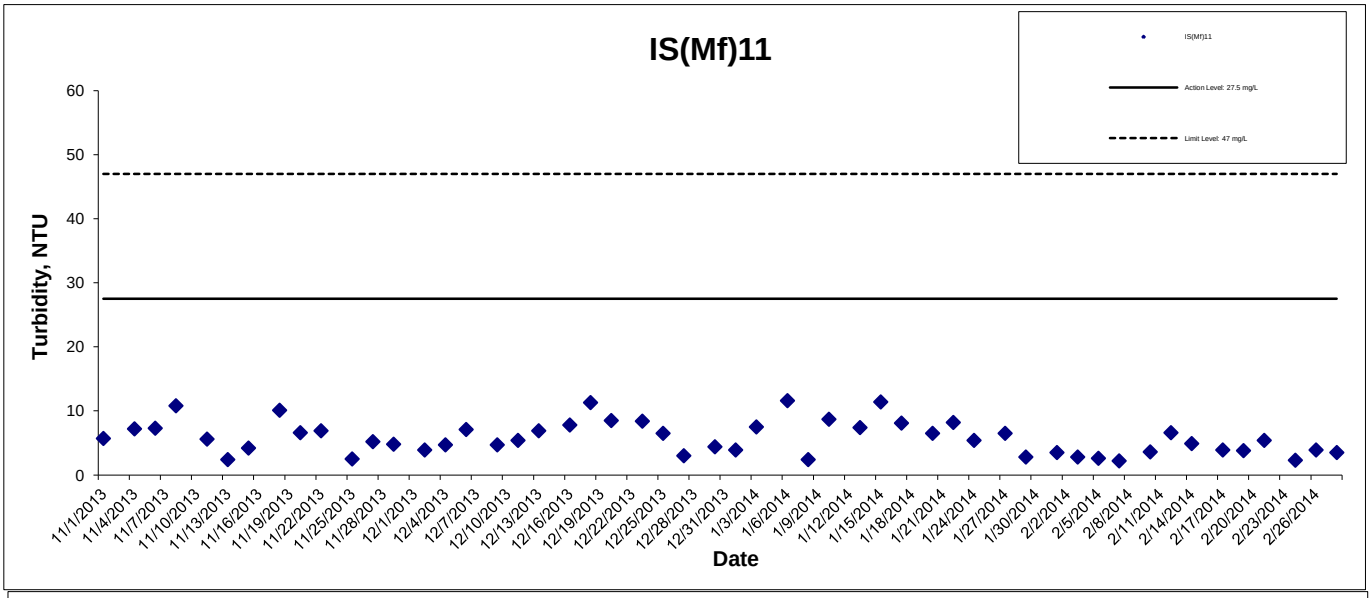
Turbidity at Mid-Ebb Tide

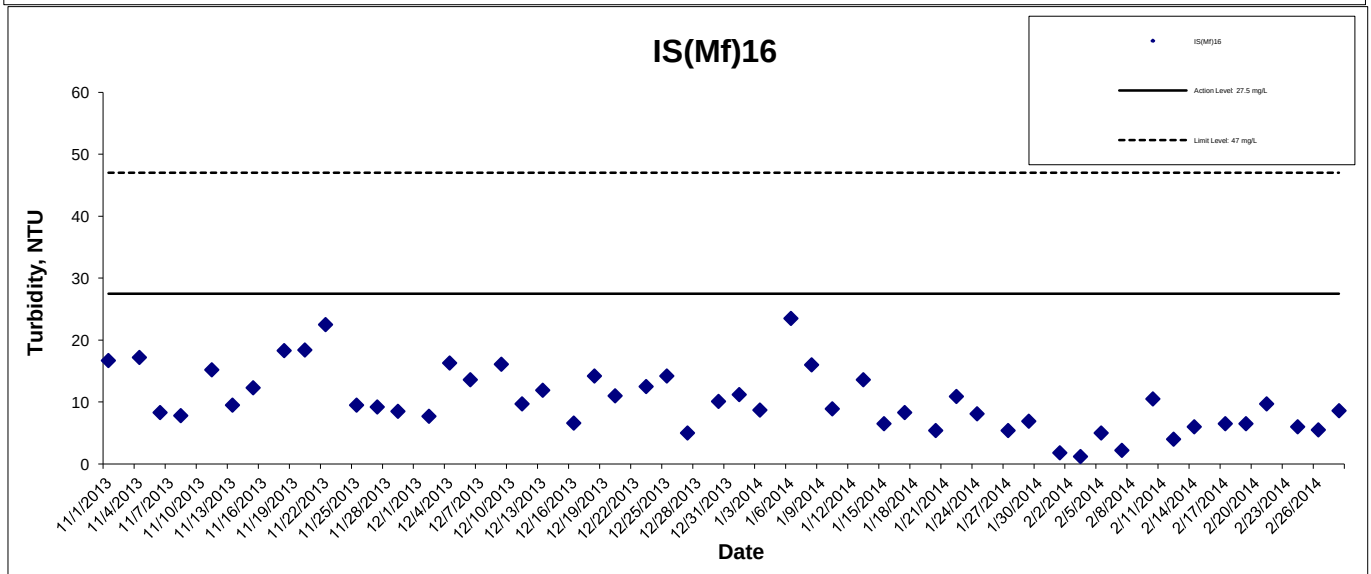


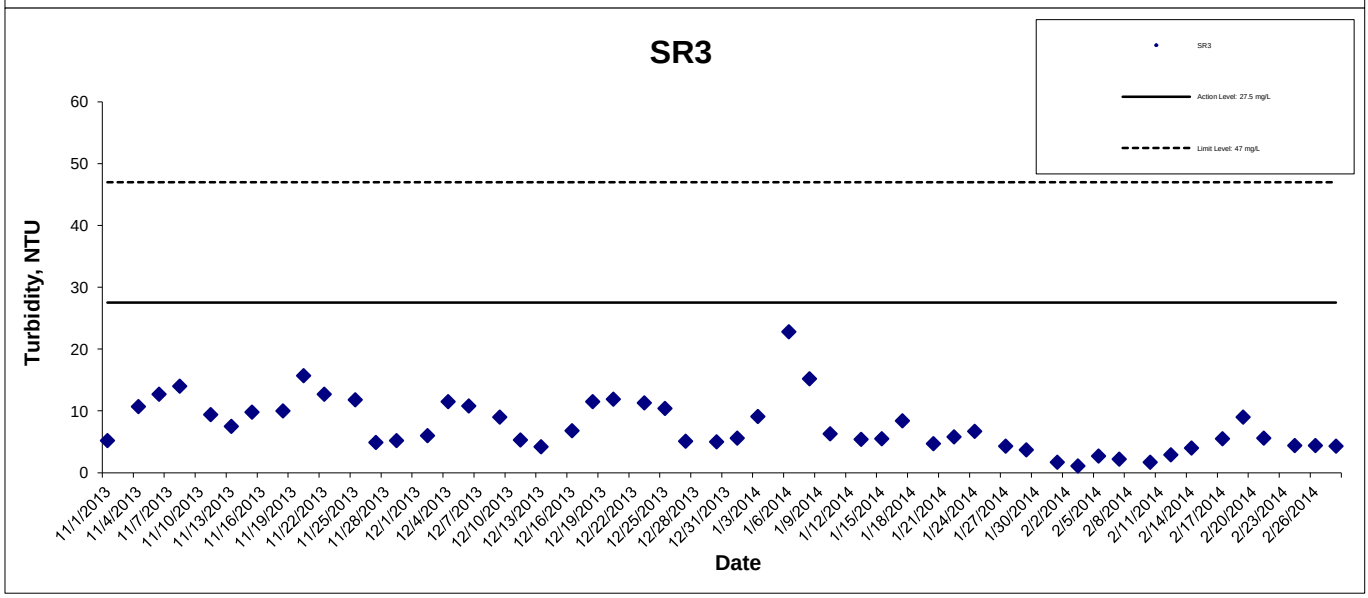




Turbidity at Mid-Ebb Tide







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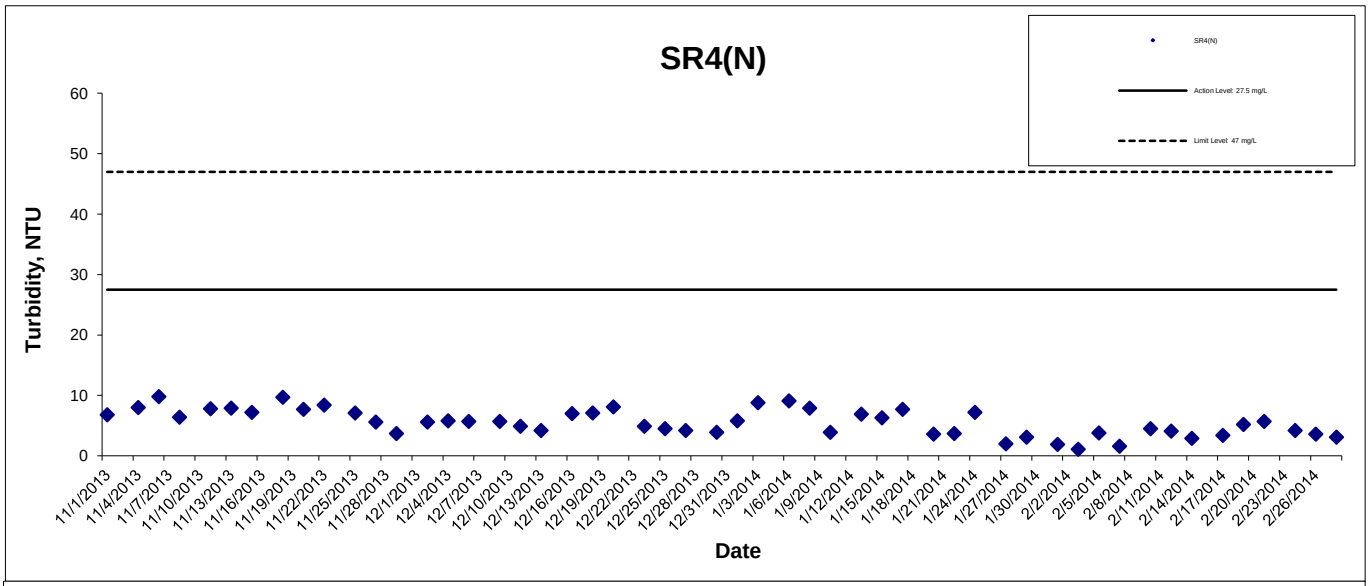

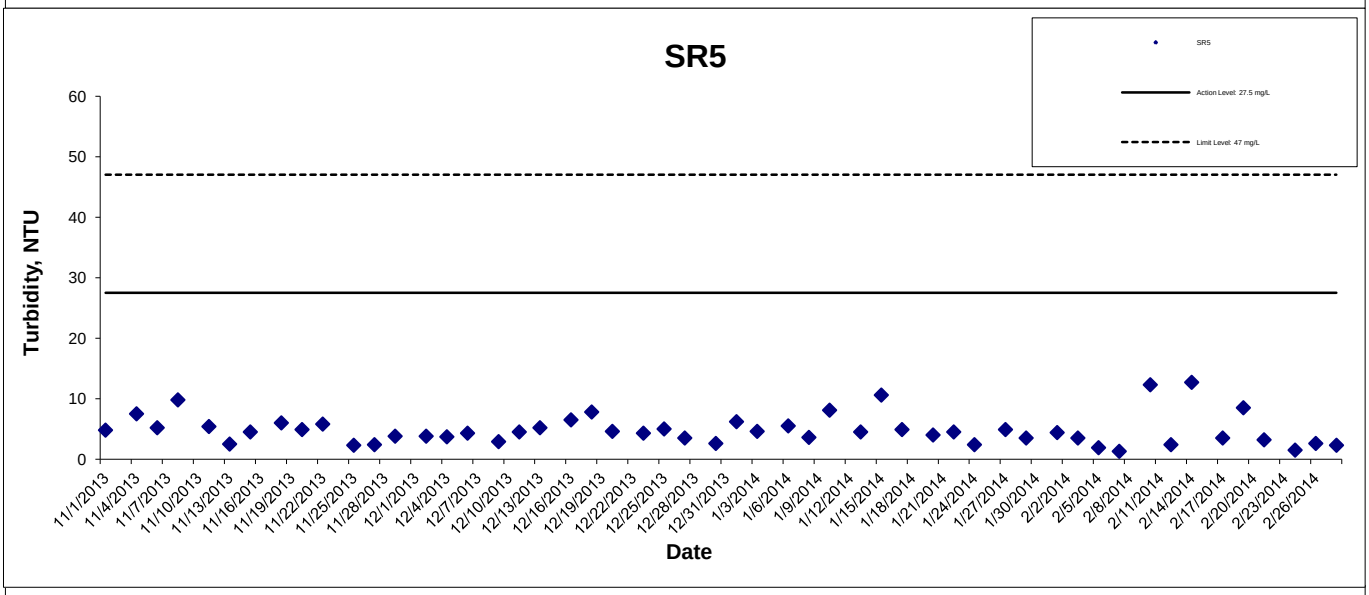

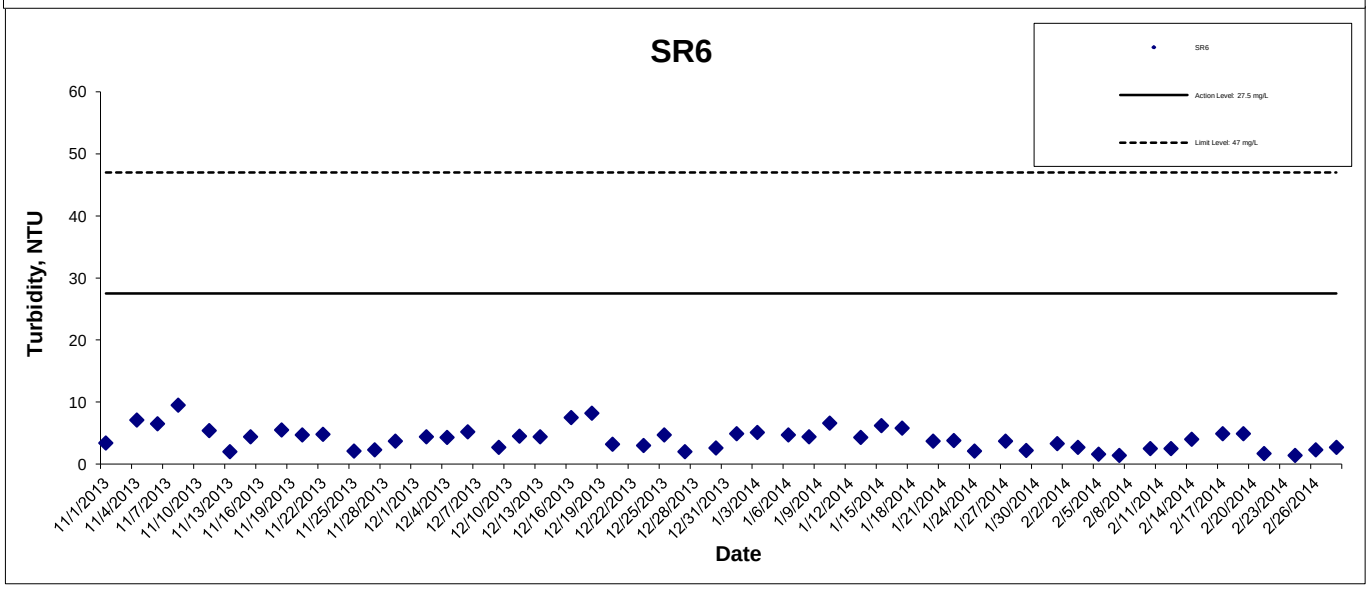

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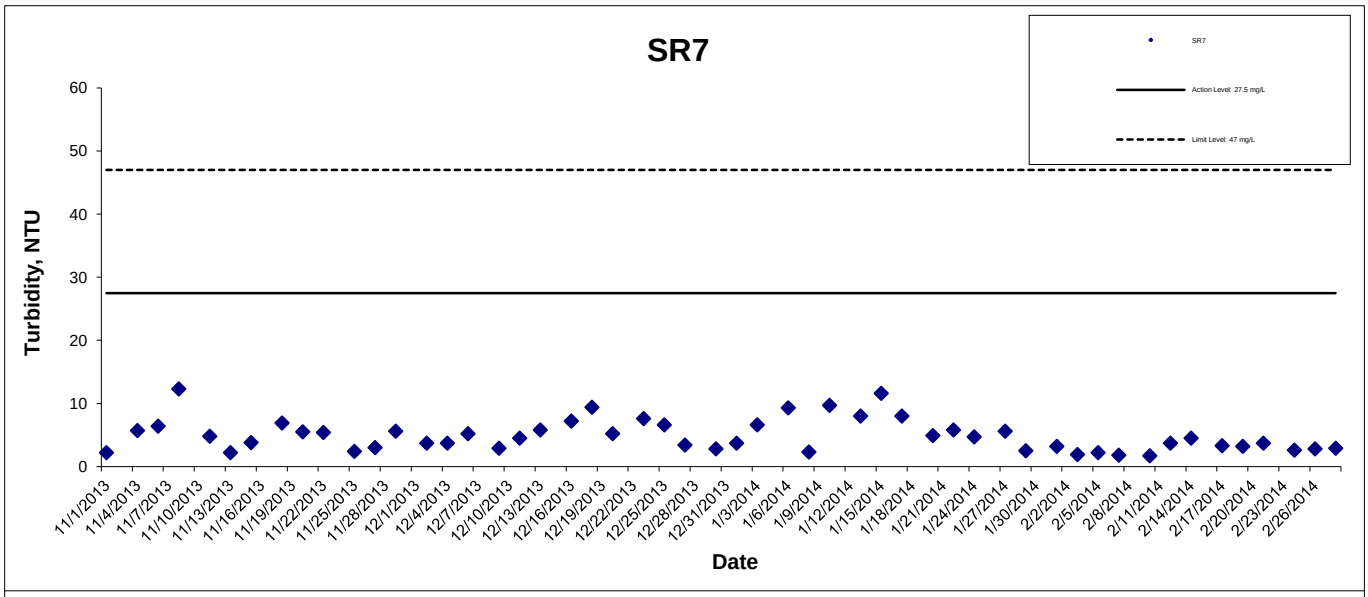
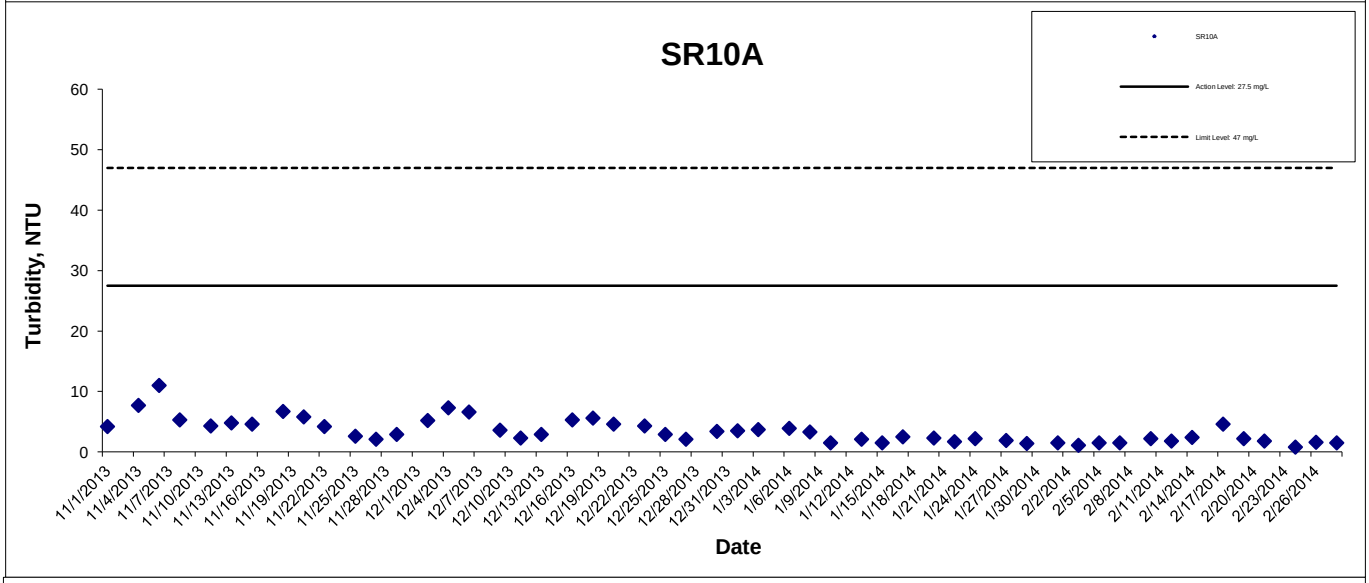
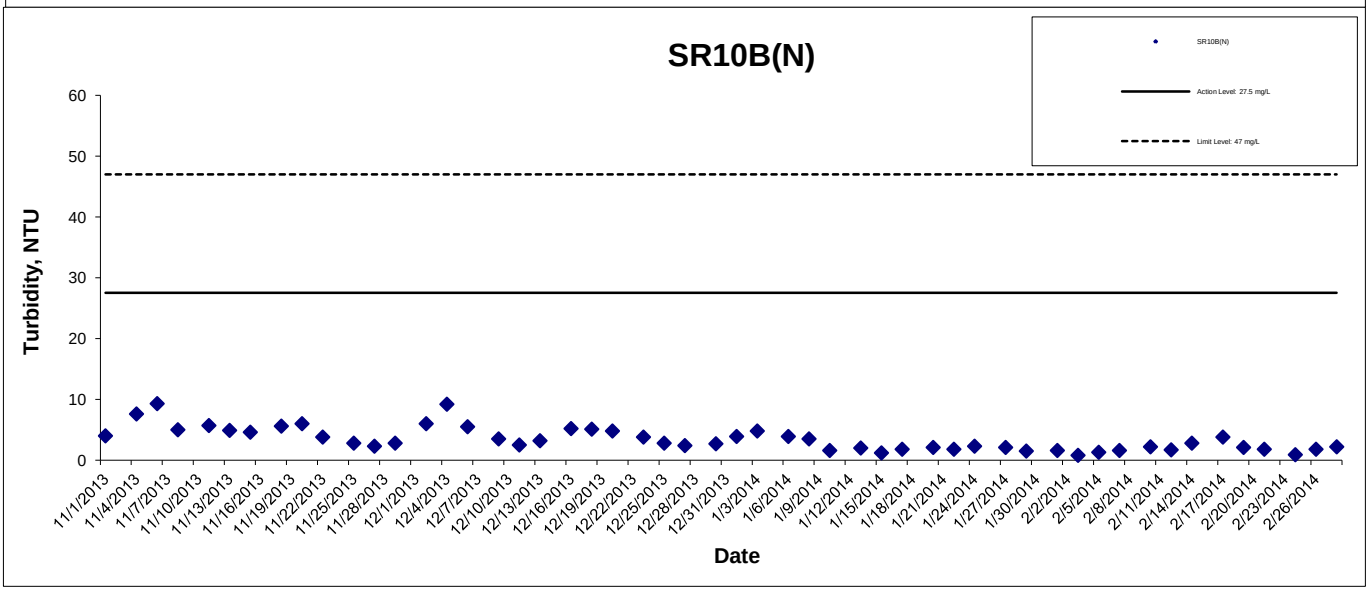
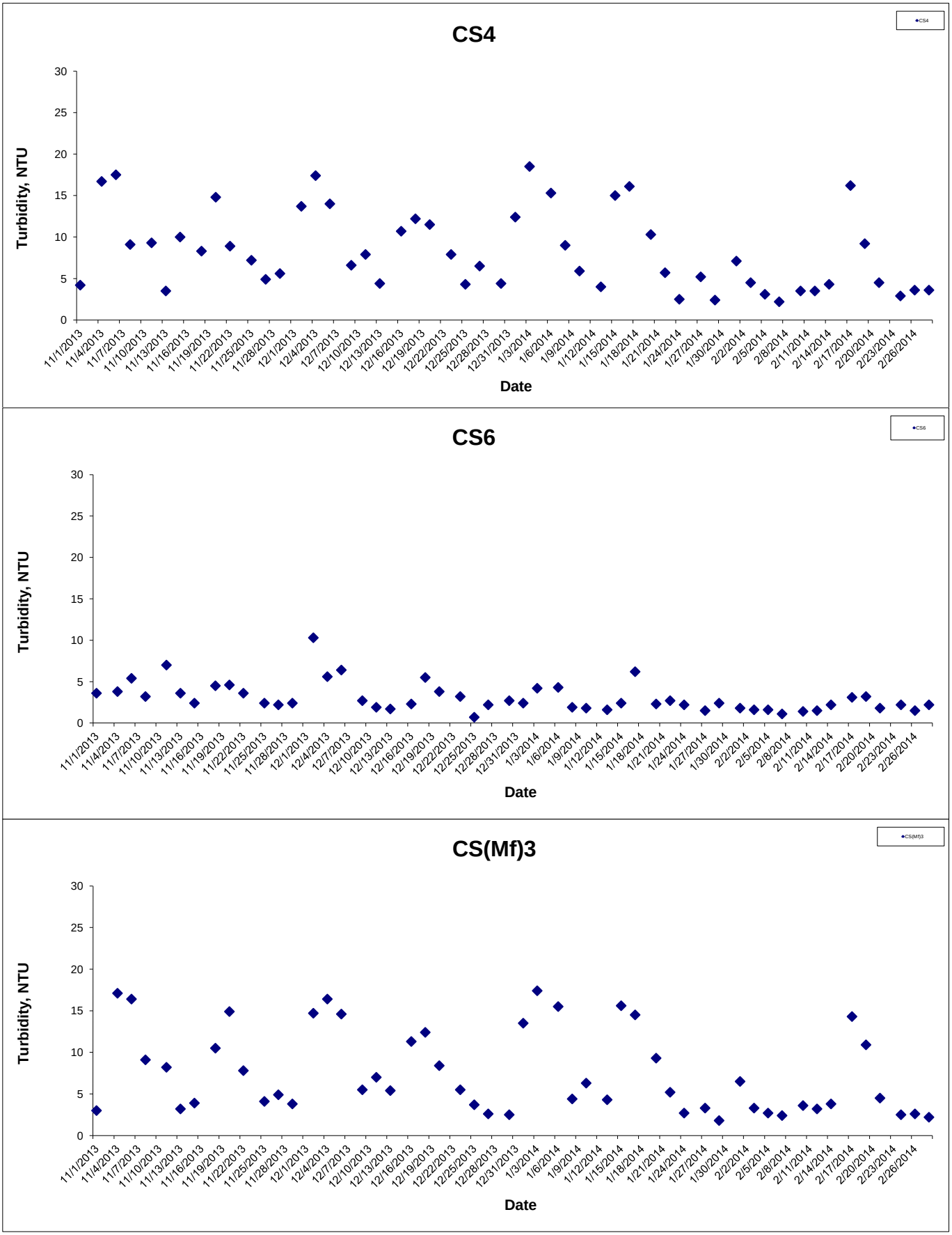






Turbidity at Mid-Flood Tide



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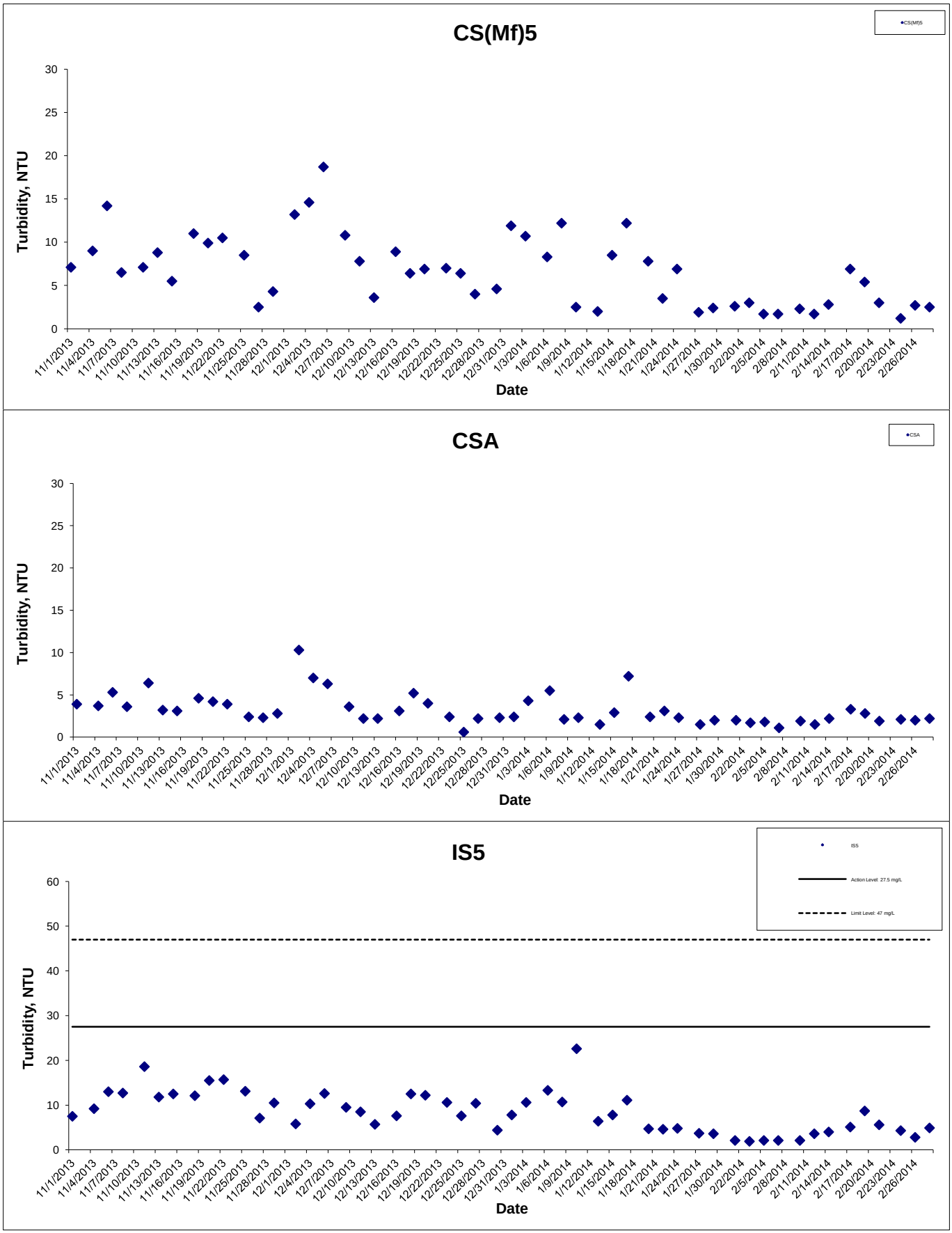

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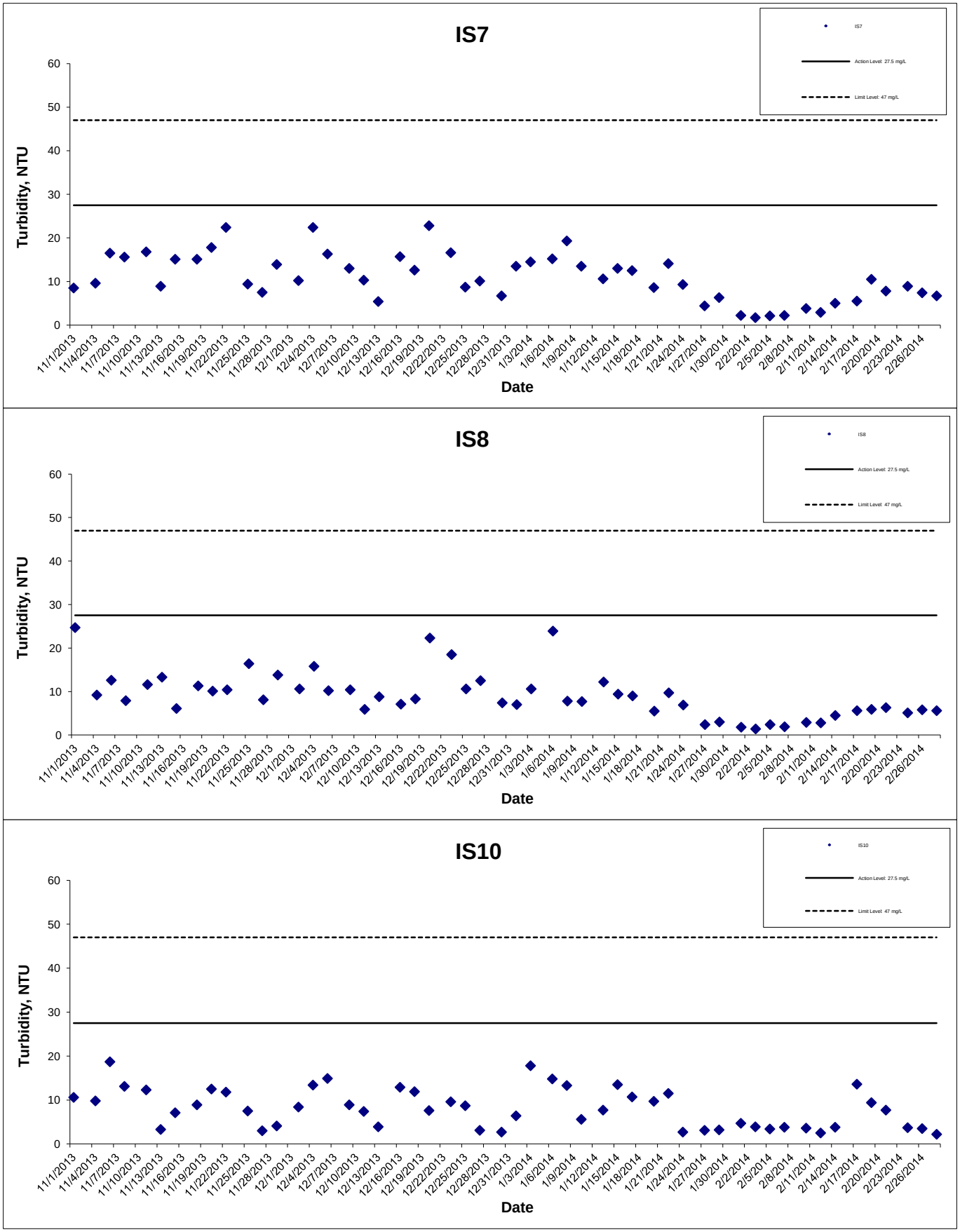

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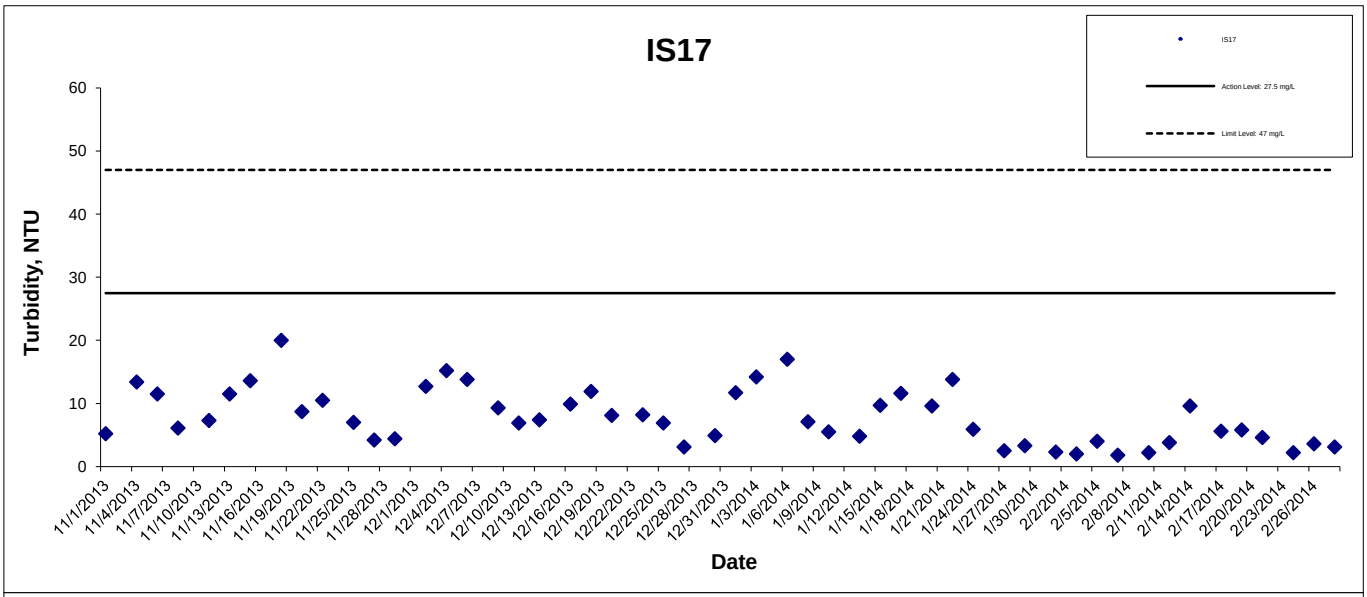

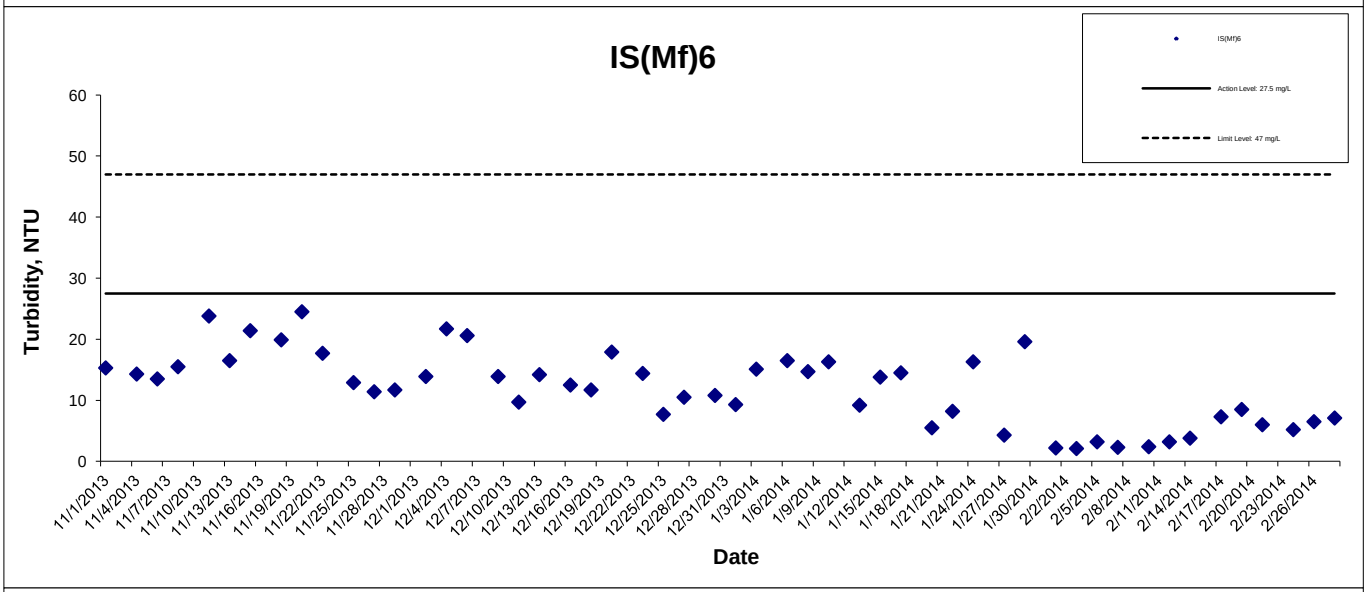

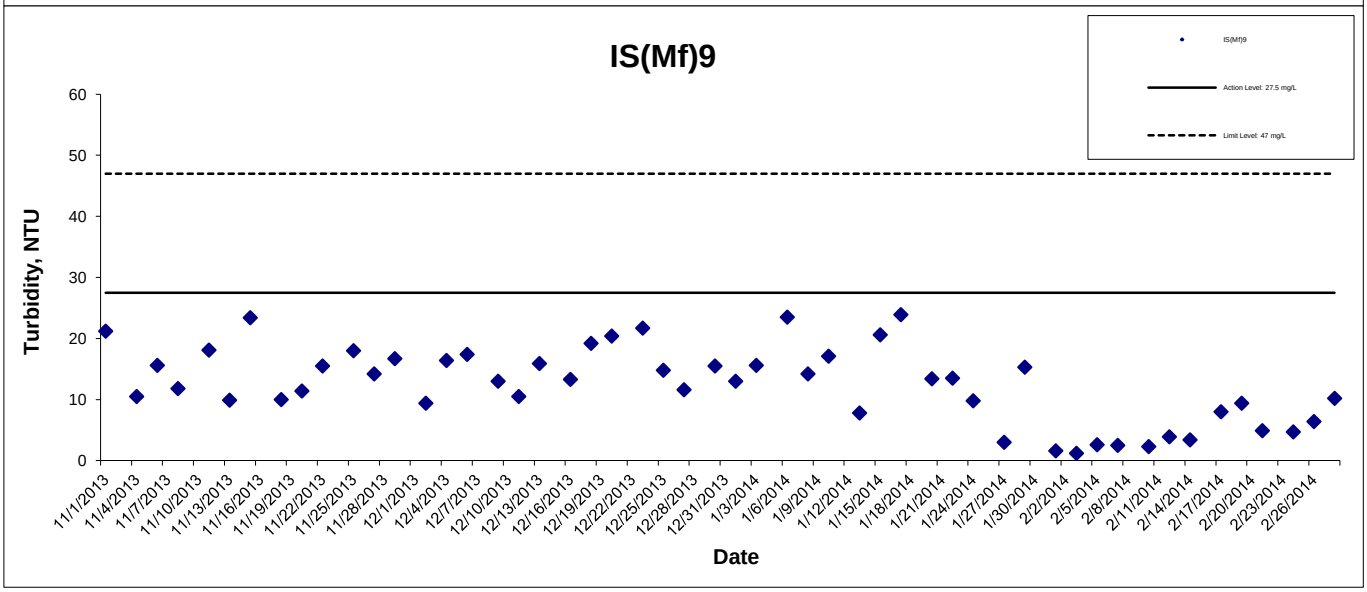

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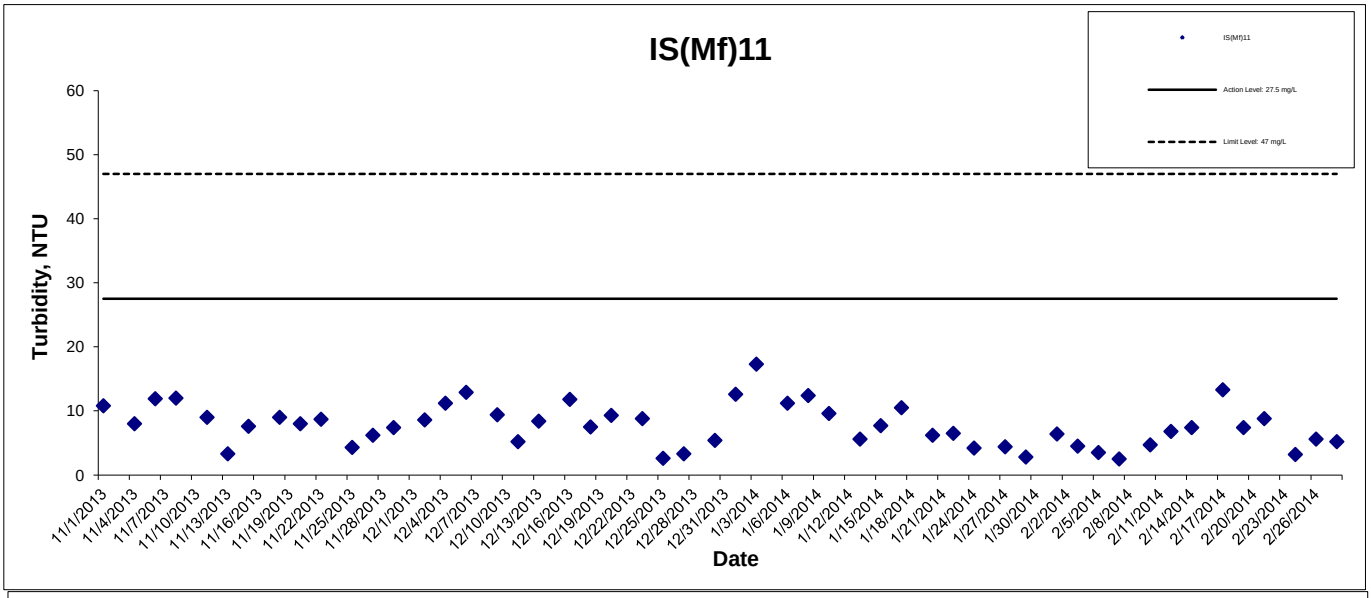
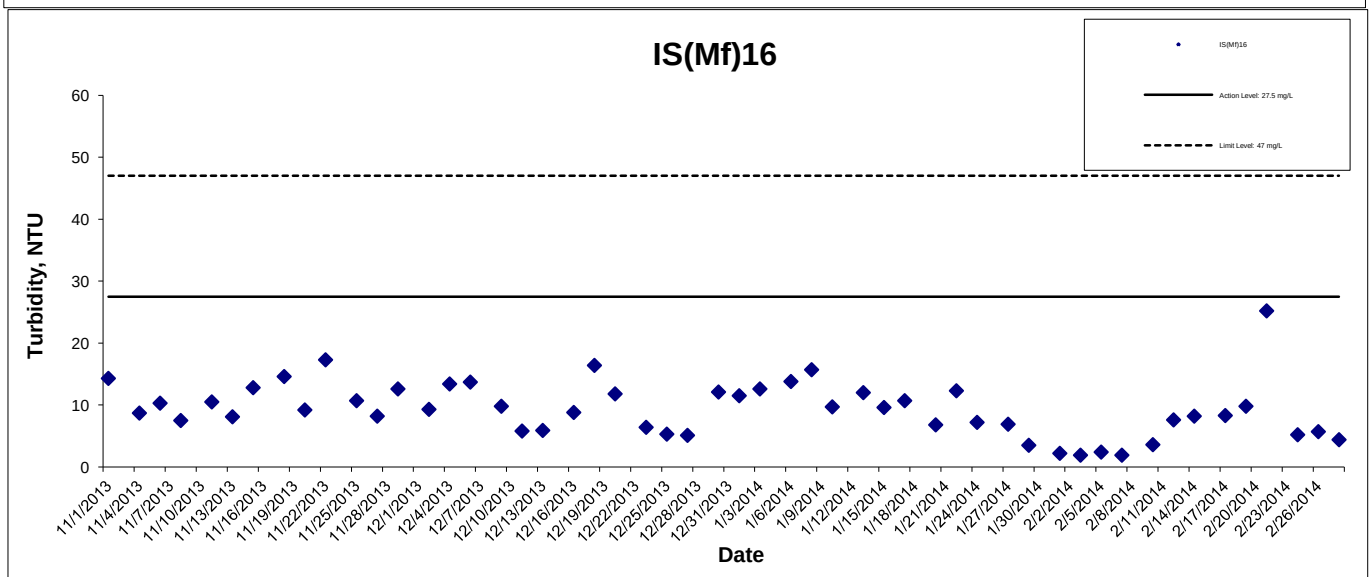
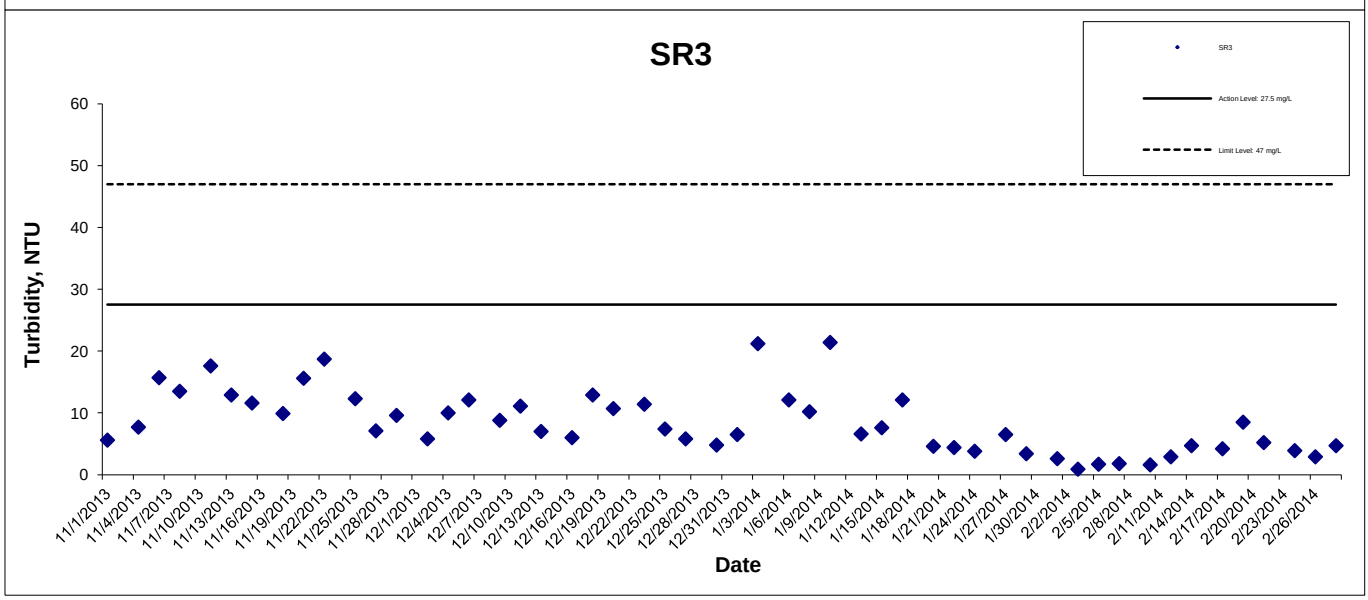
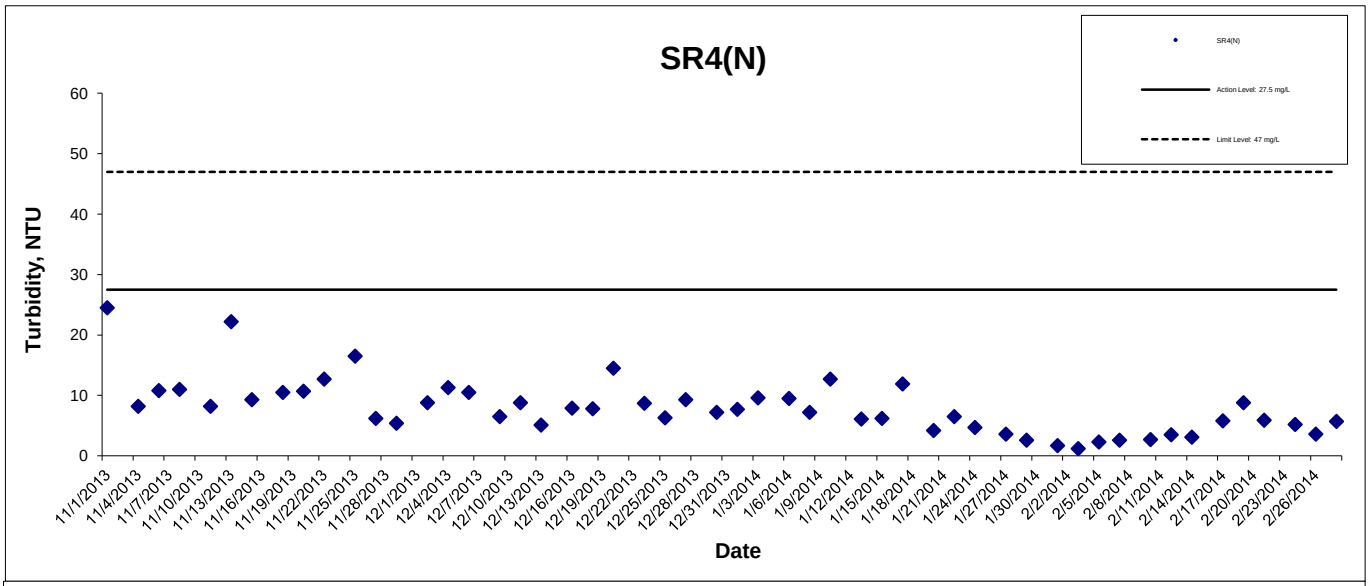
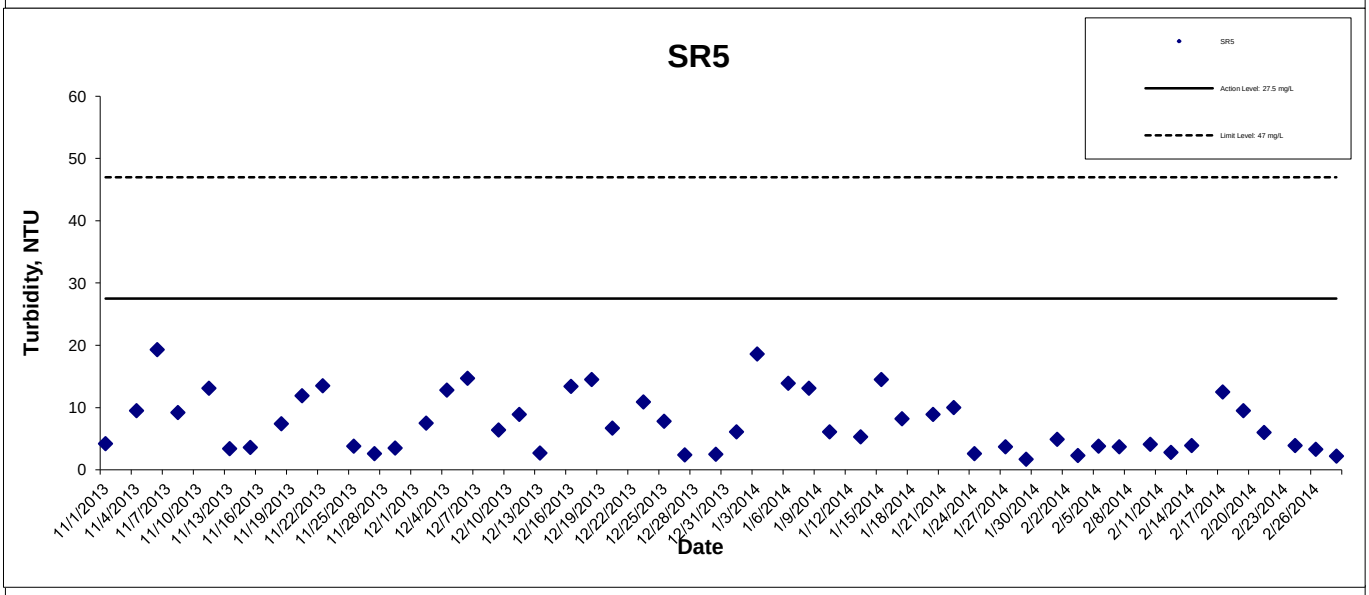


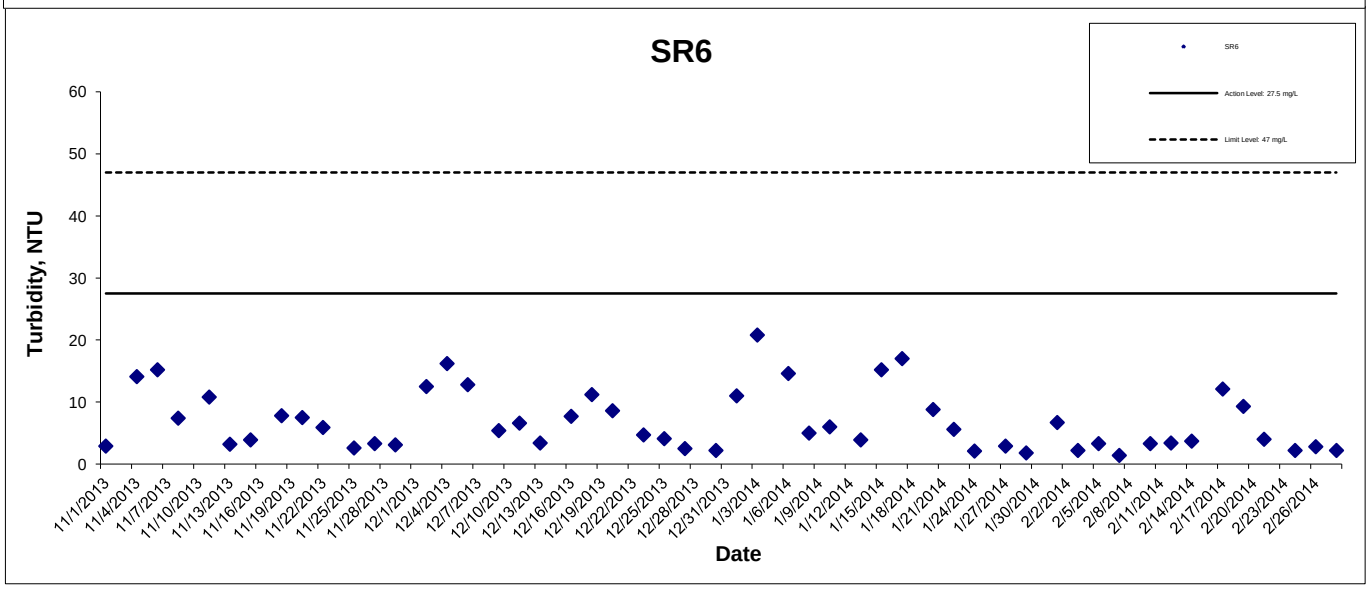




Turbidity at Mid-Flood Tide







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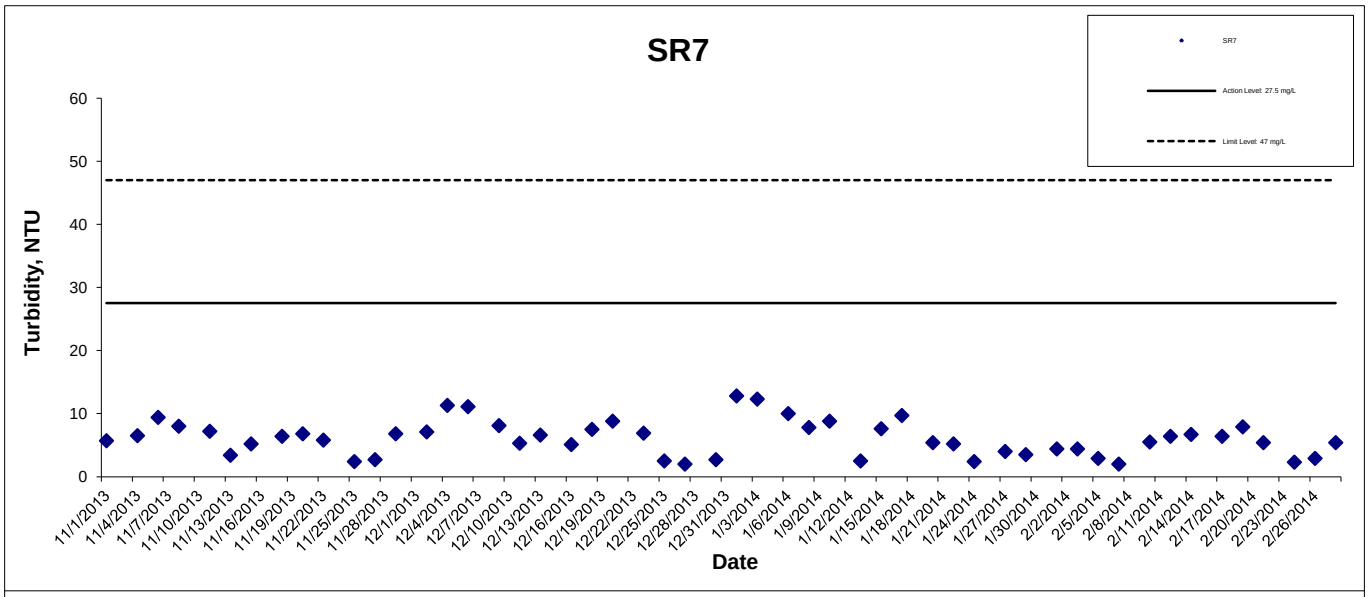
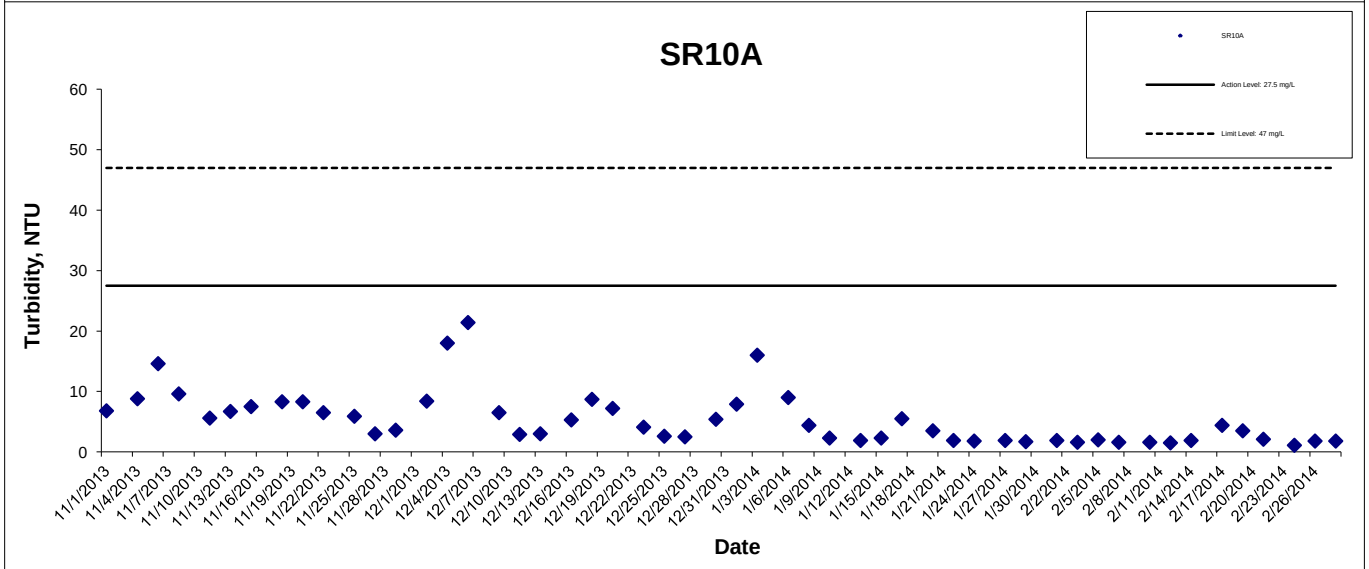
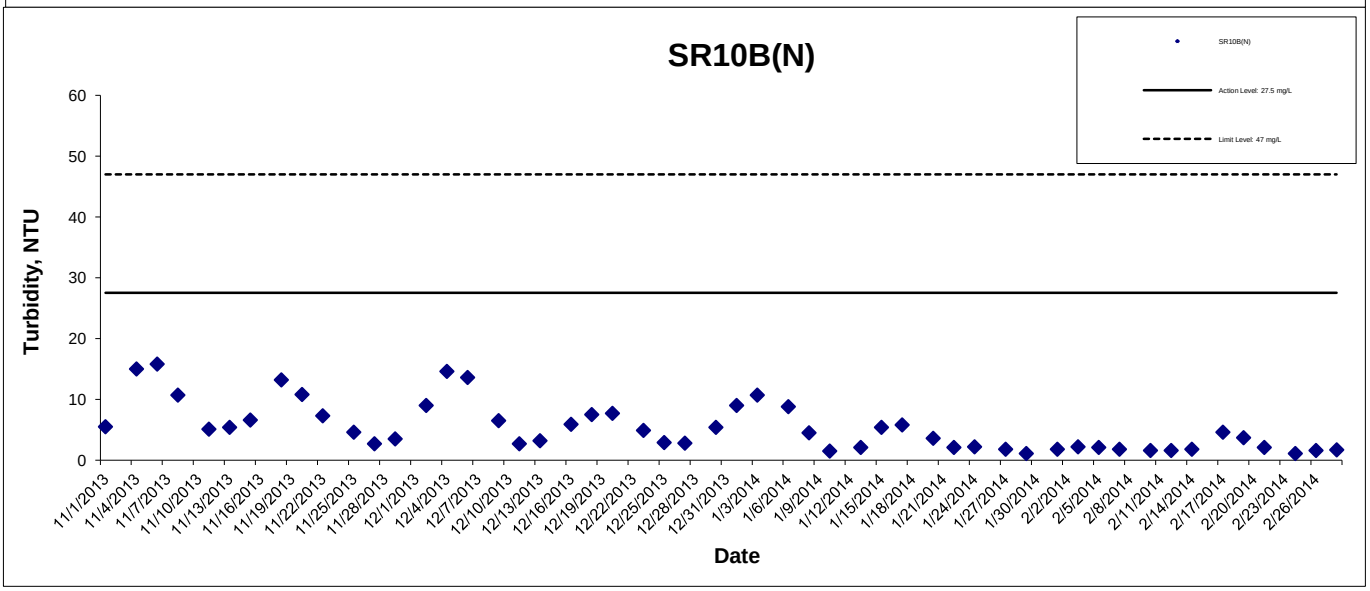
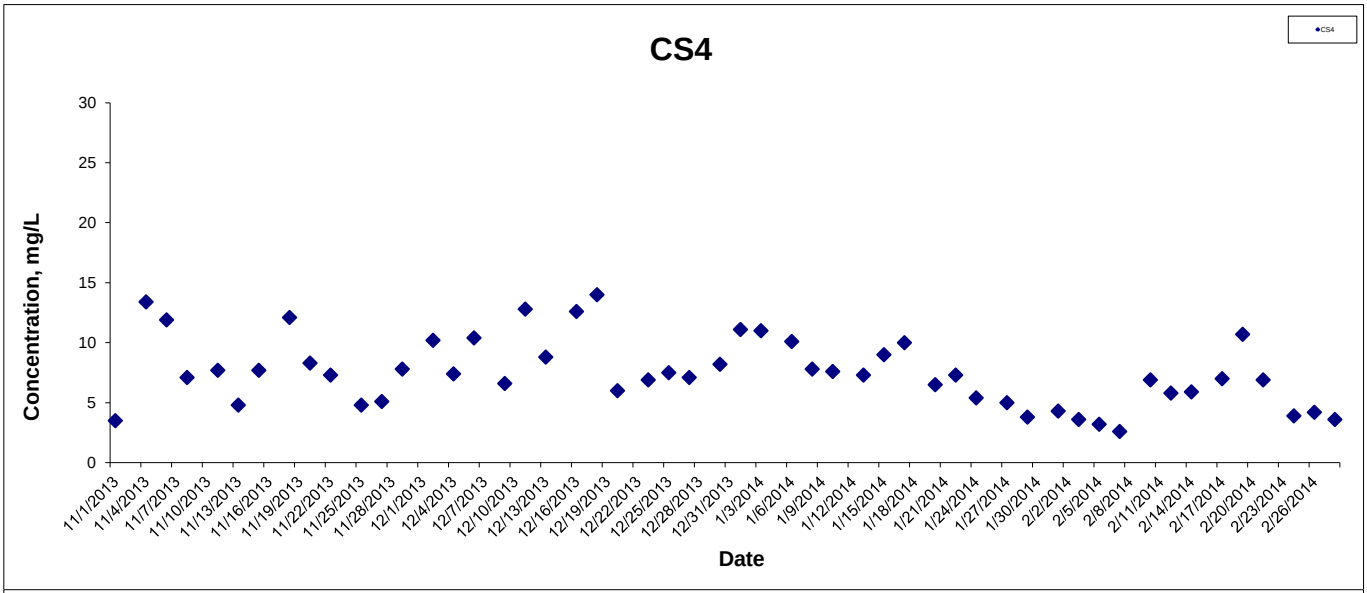
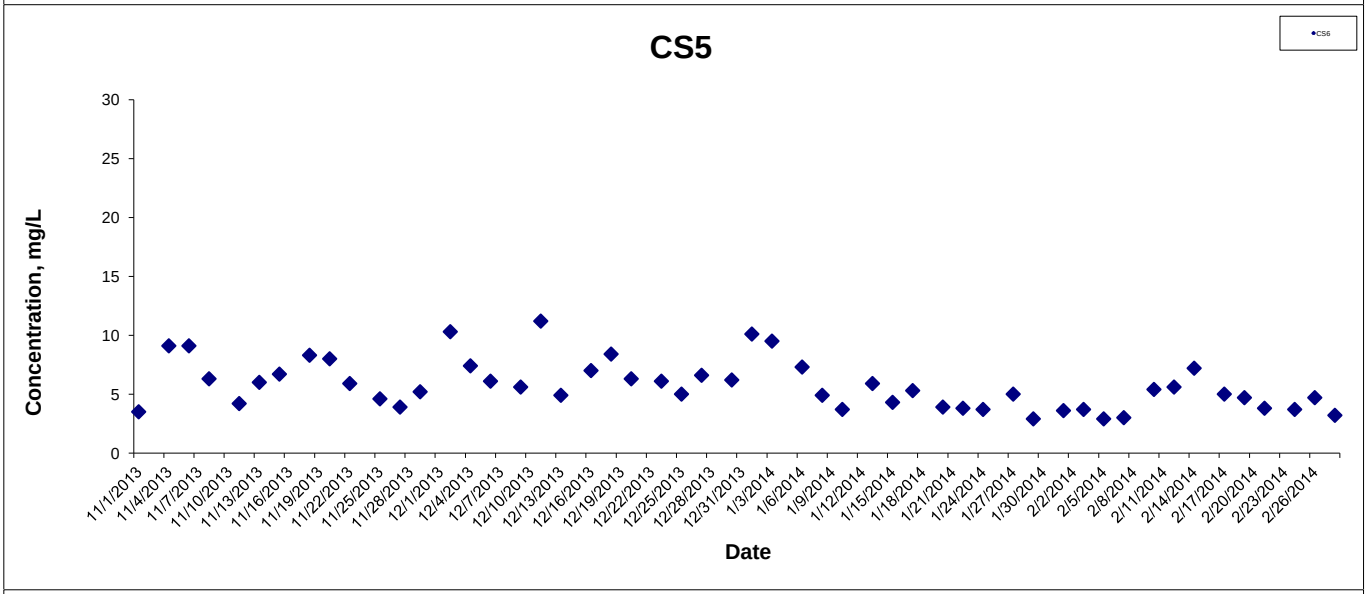


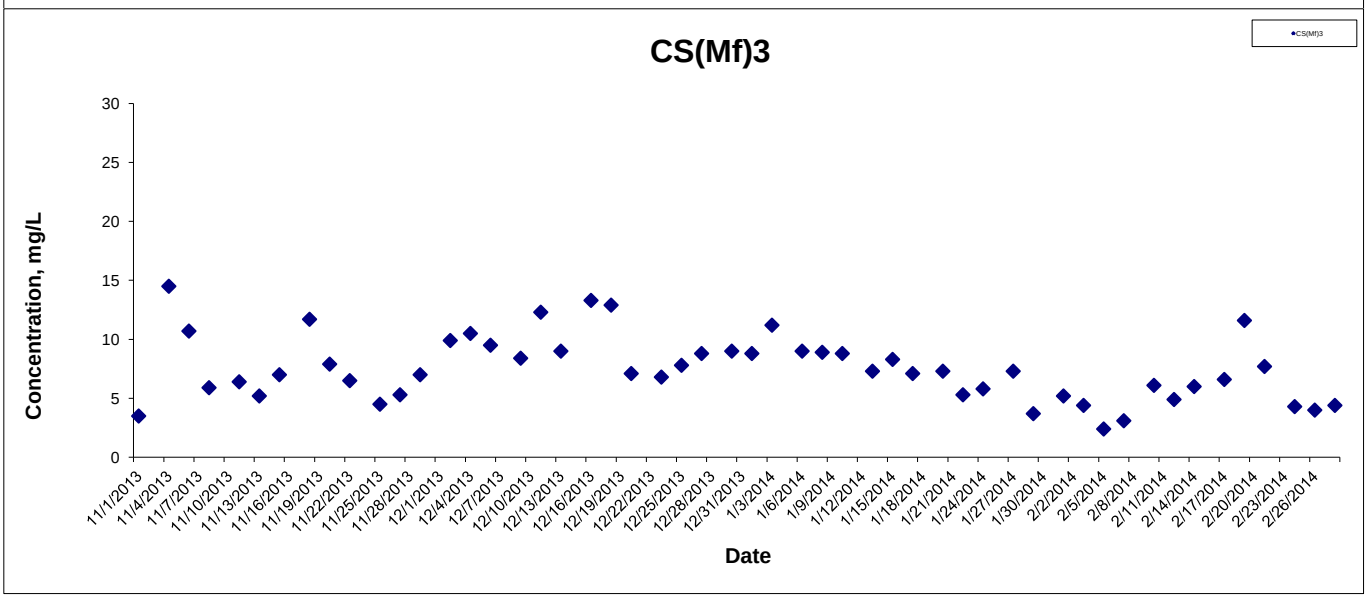




Suspended Solids at Mid-Ebb Tide







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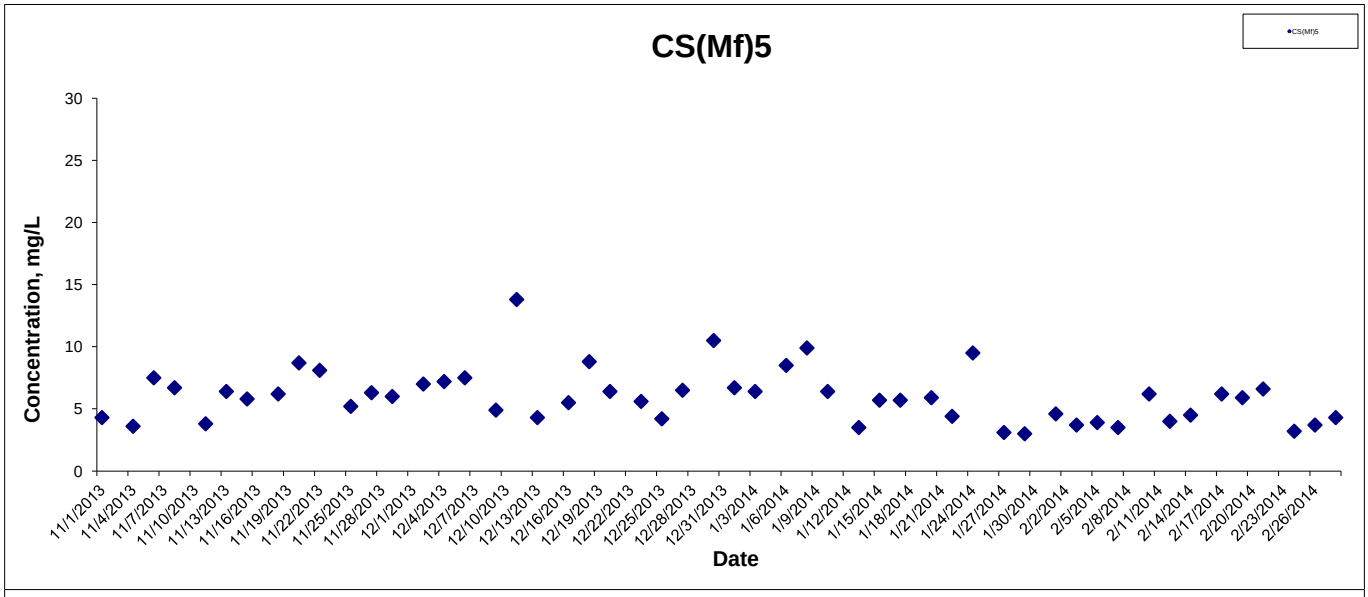
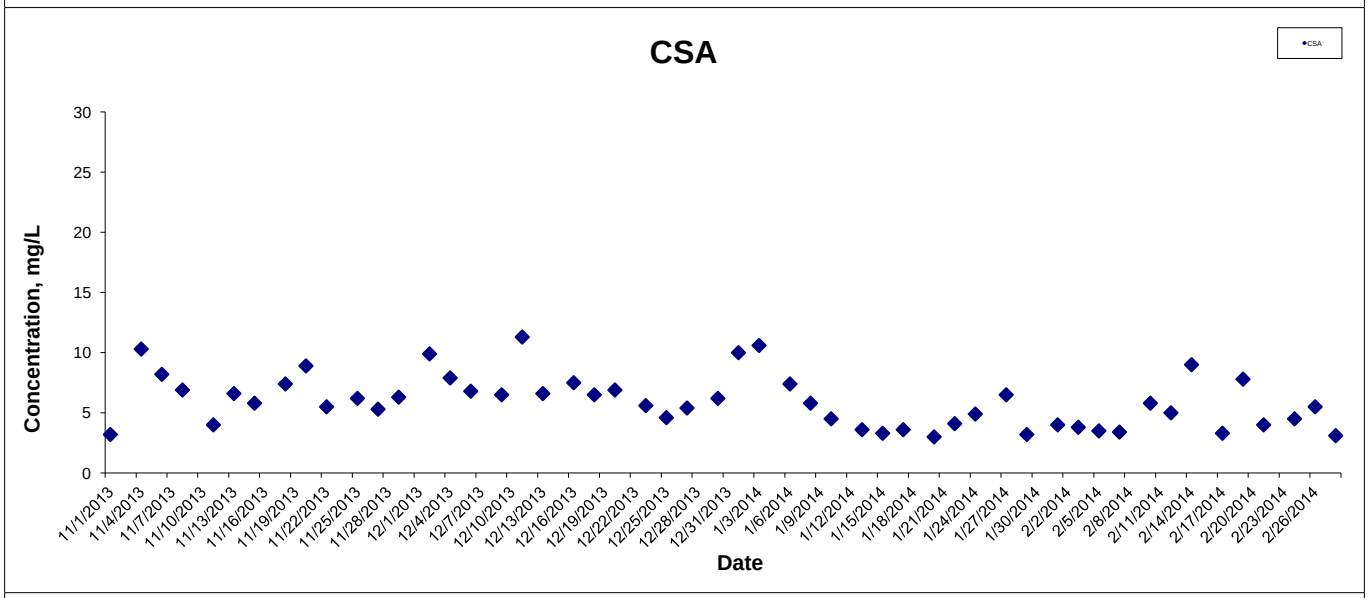
Graphical Presentation of Impact Water Quality Monitoring Results

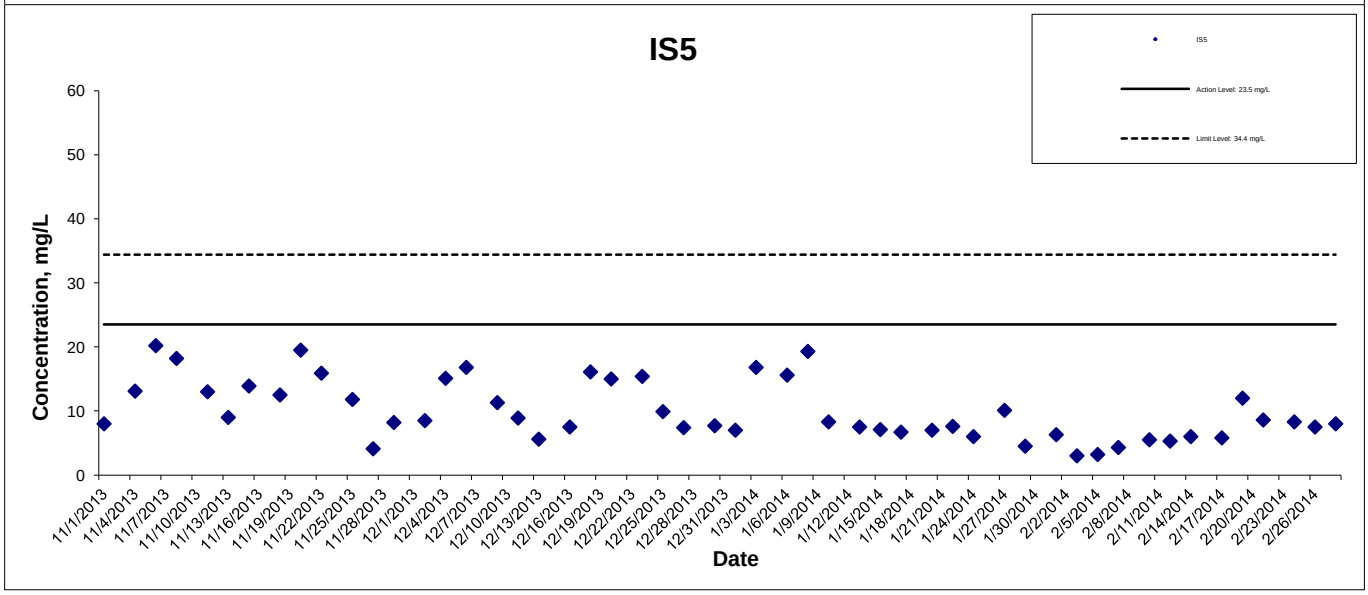
Project No.: 60249820 Date: Mar 2014

Appendix J

Suspended Solids at Mid-Ebb Tide







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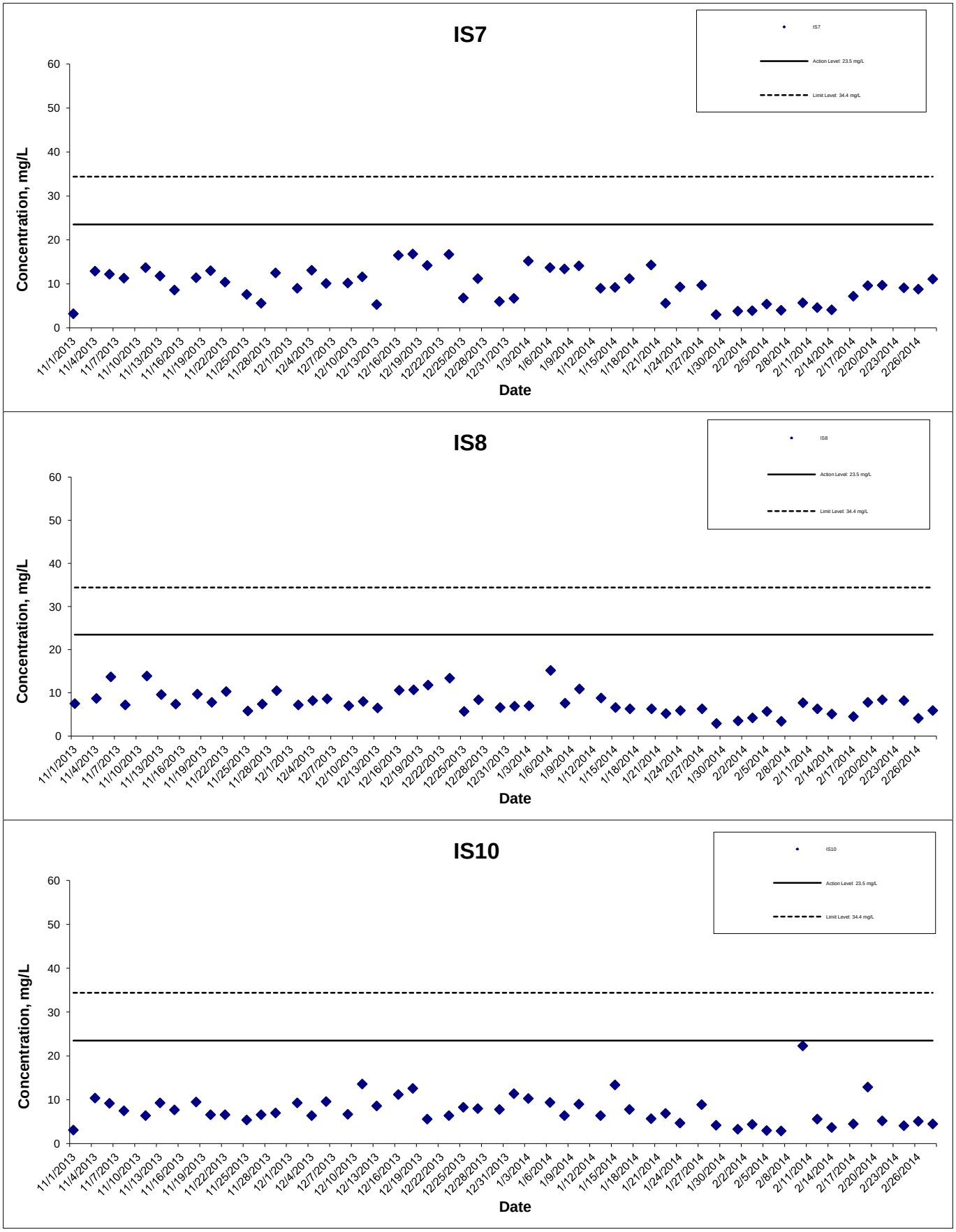

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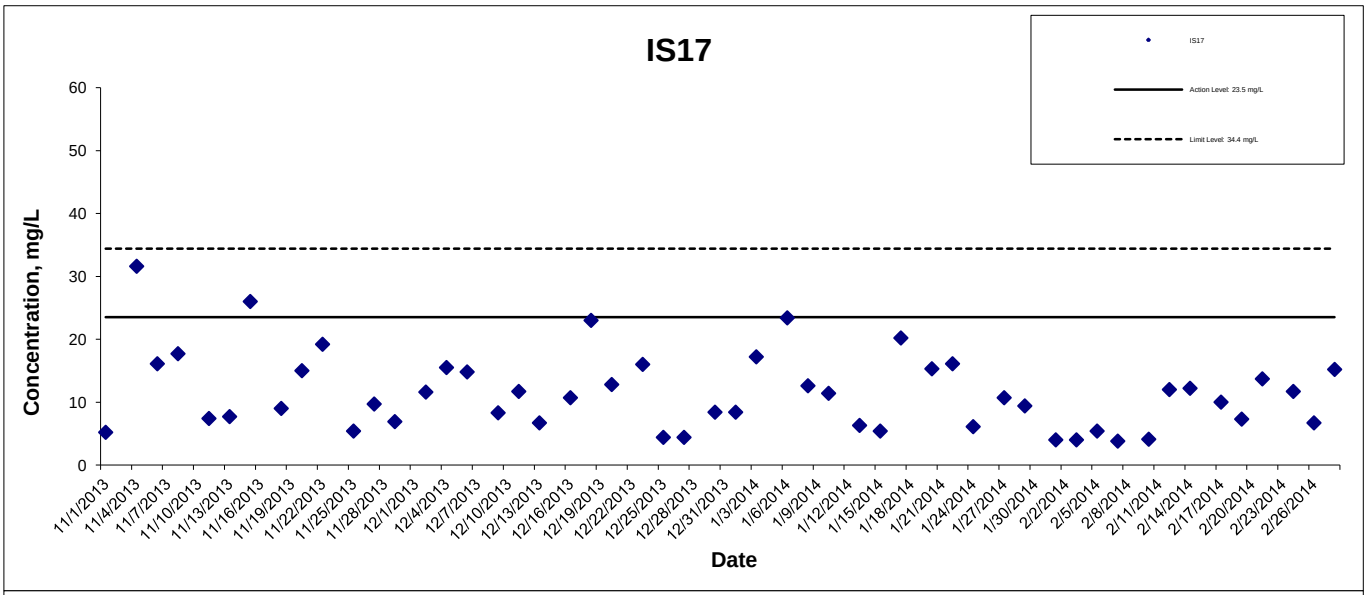

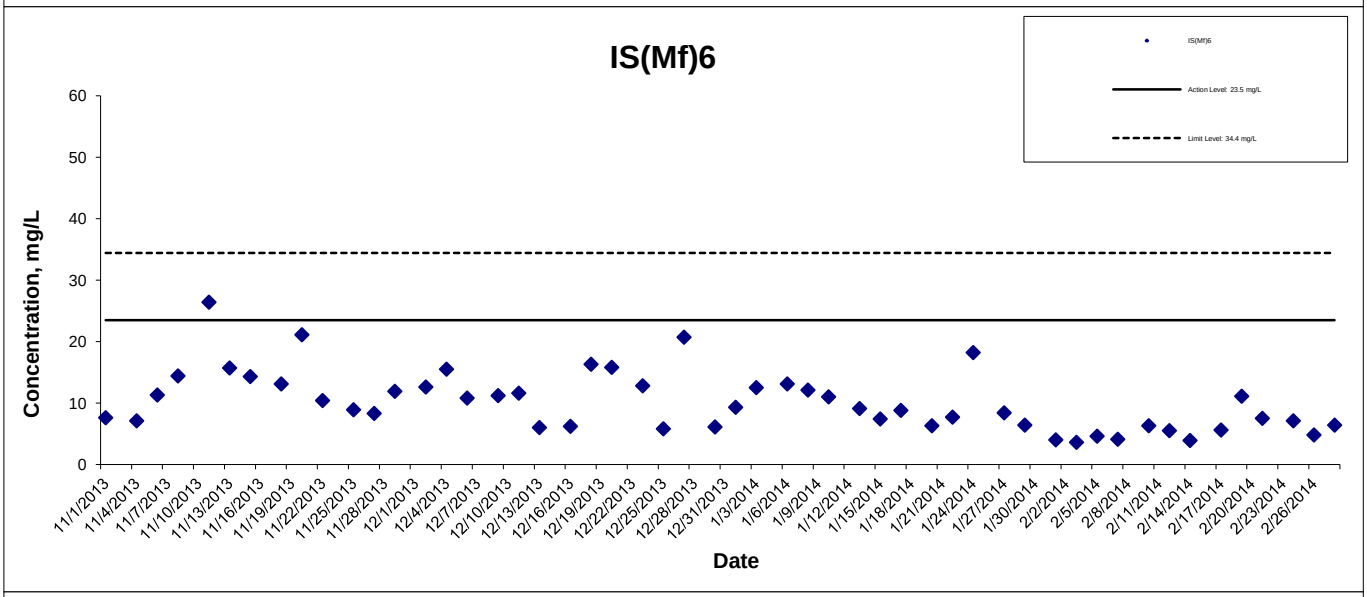

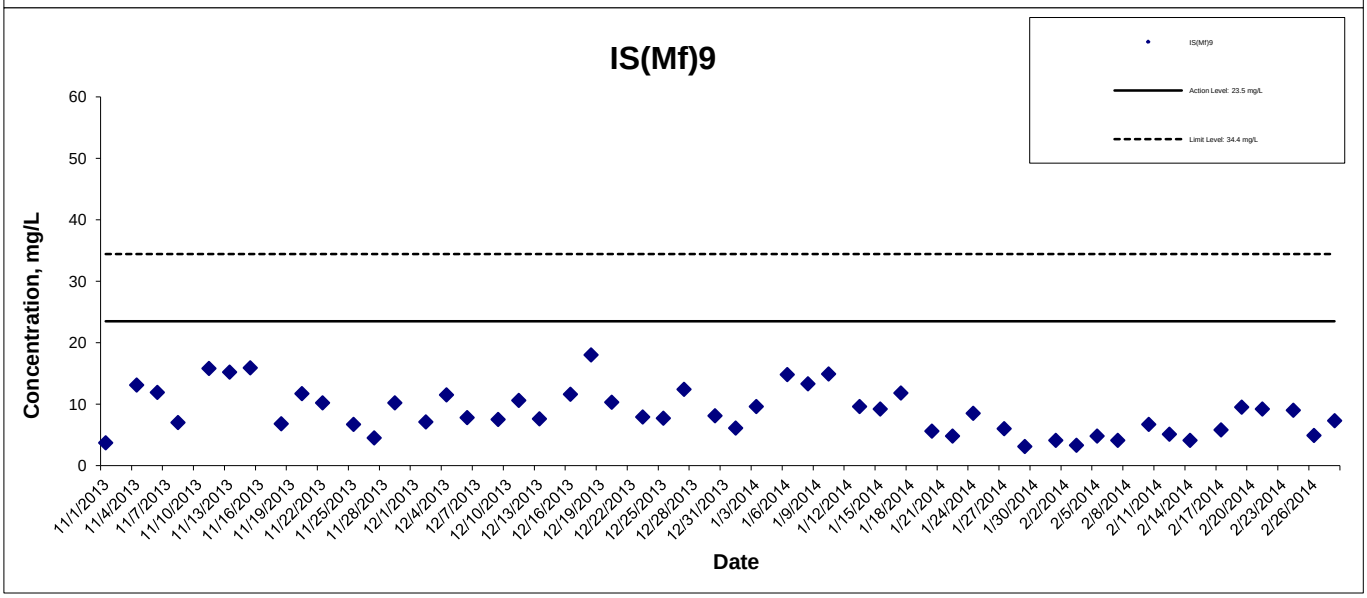

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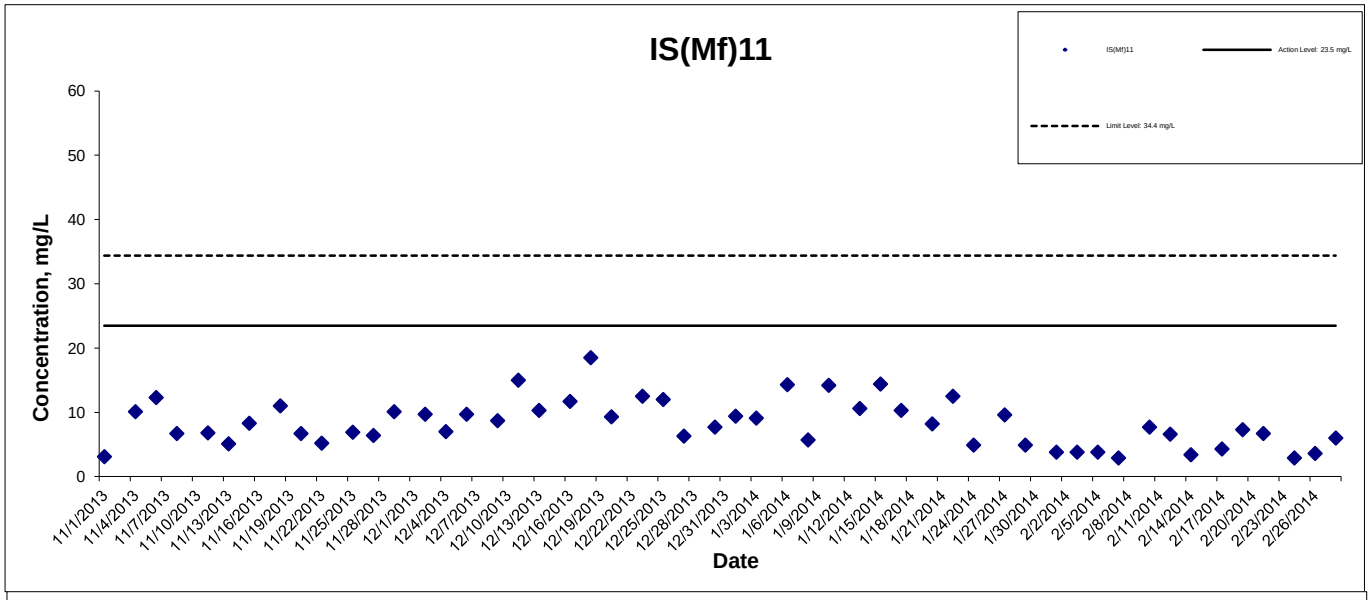

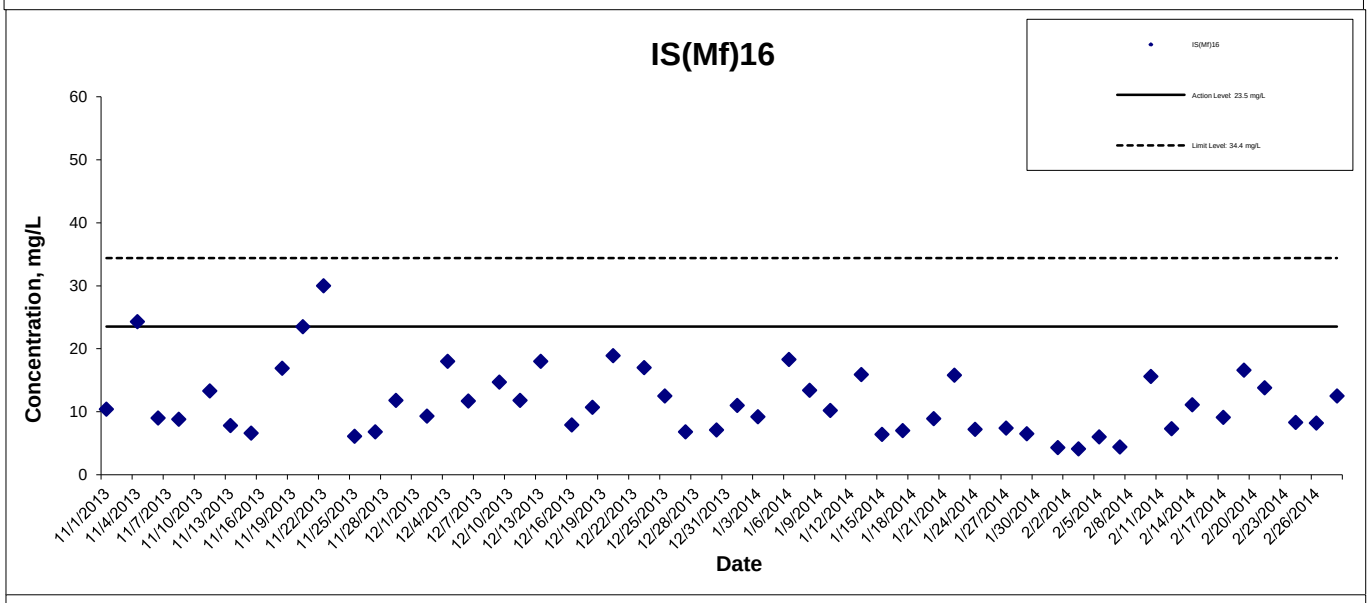

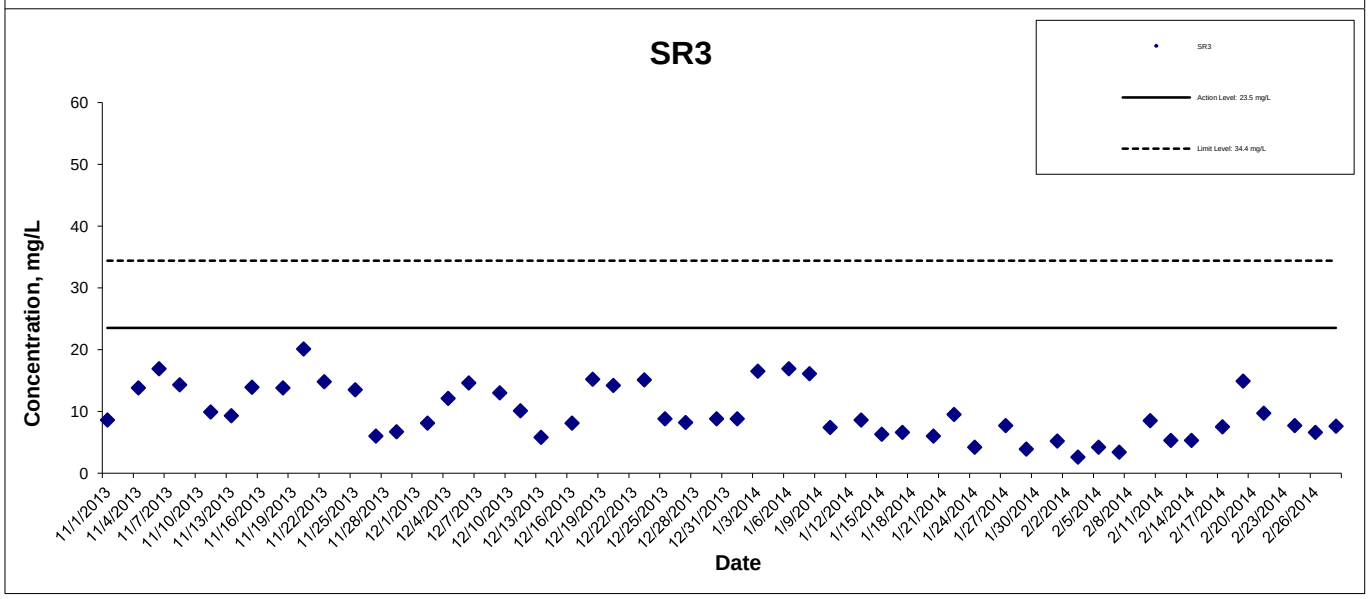

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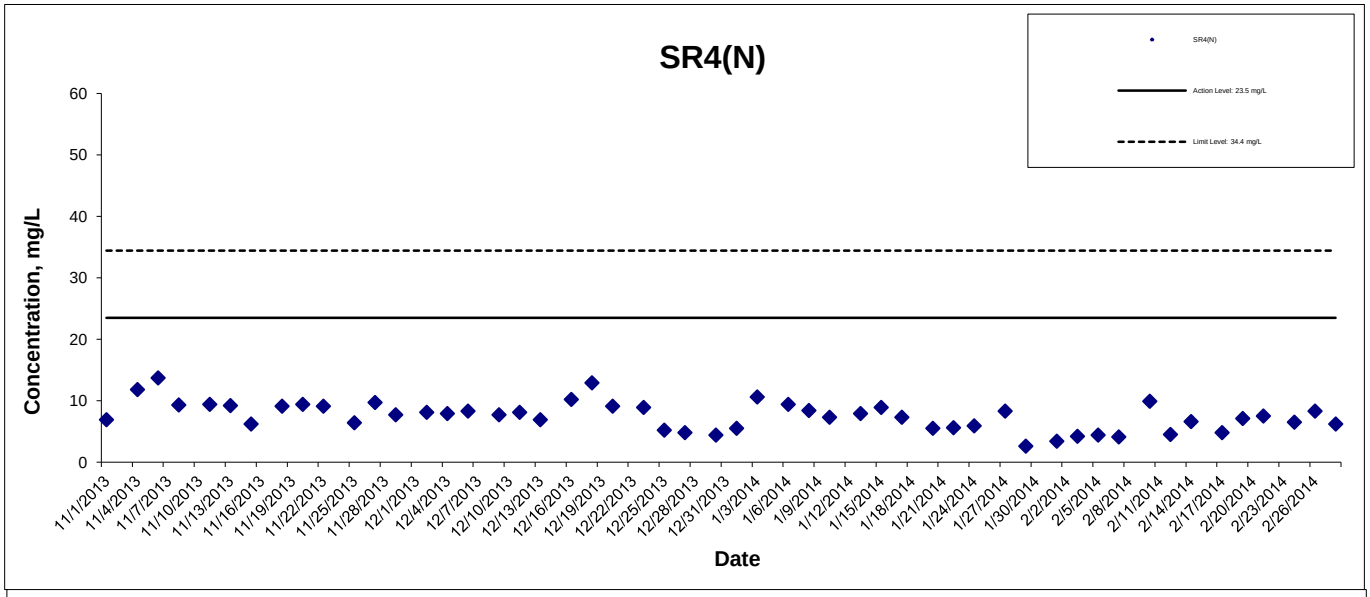

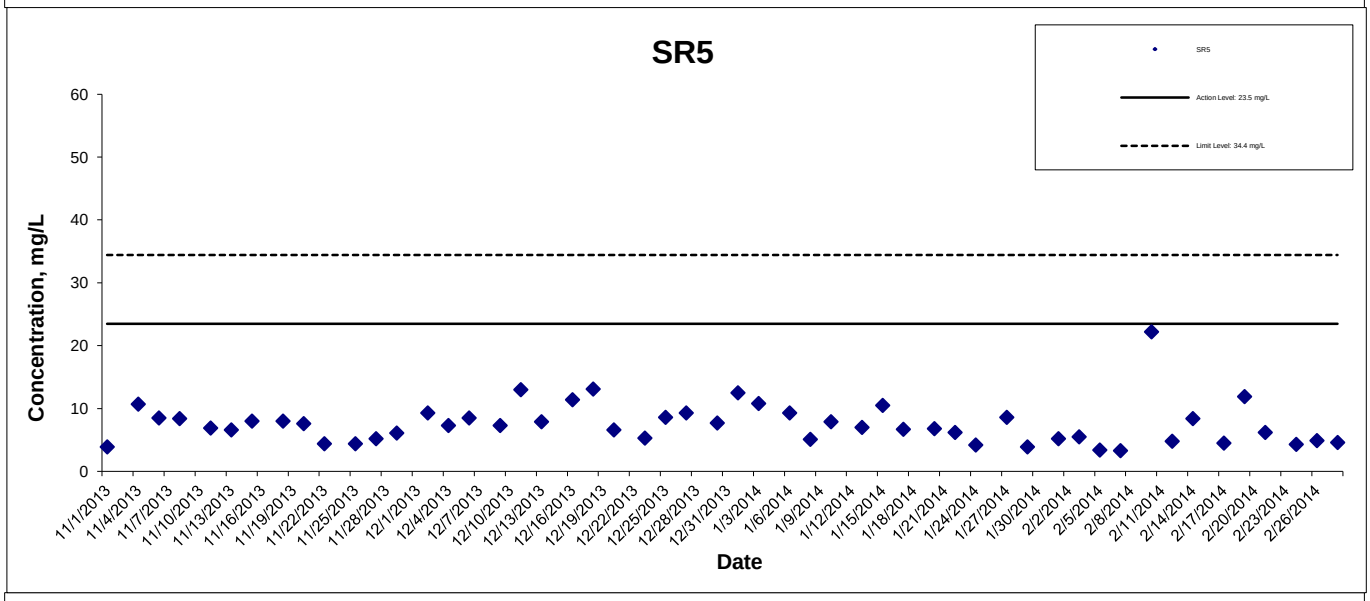

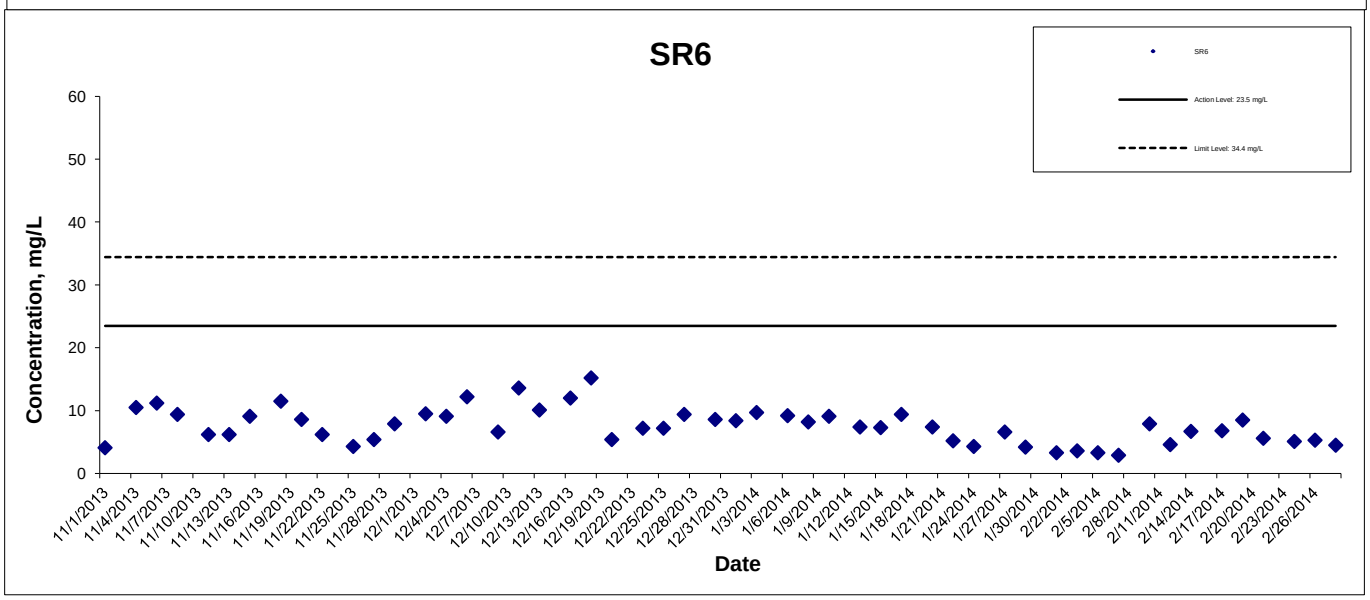

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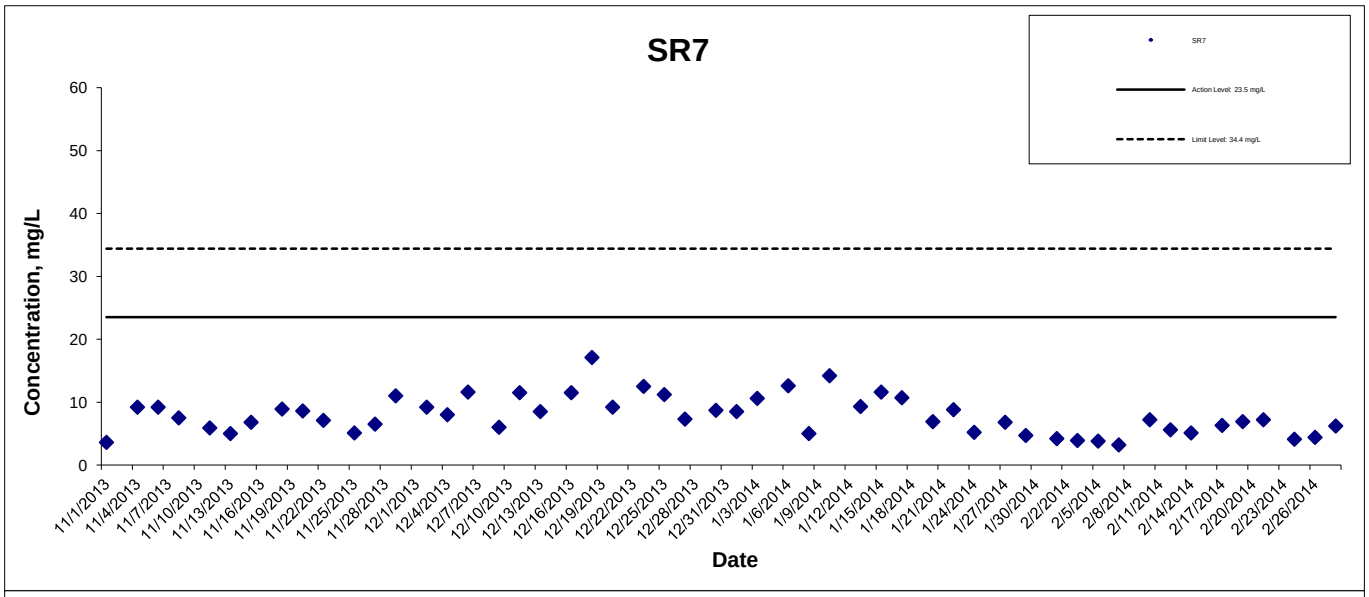
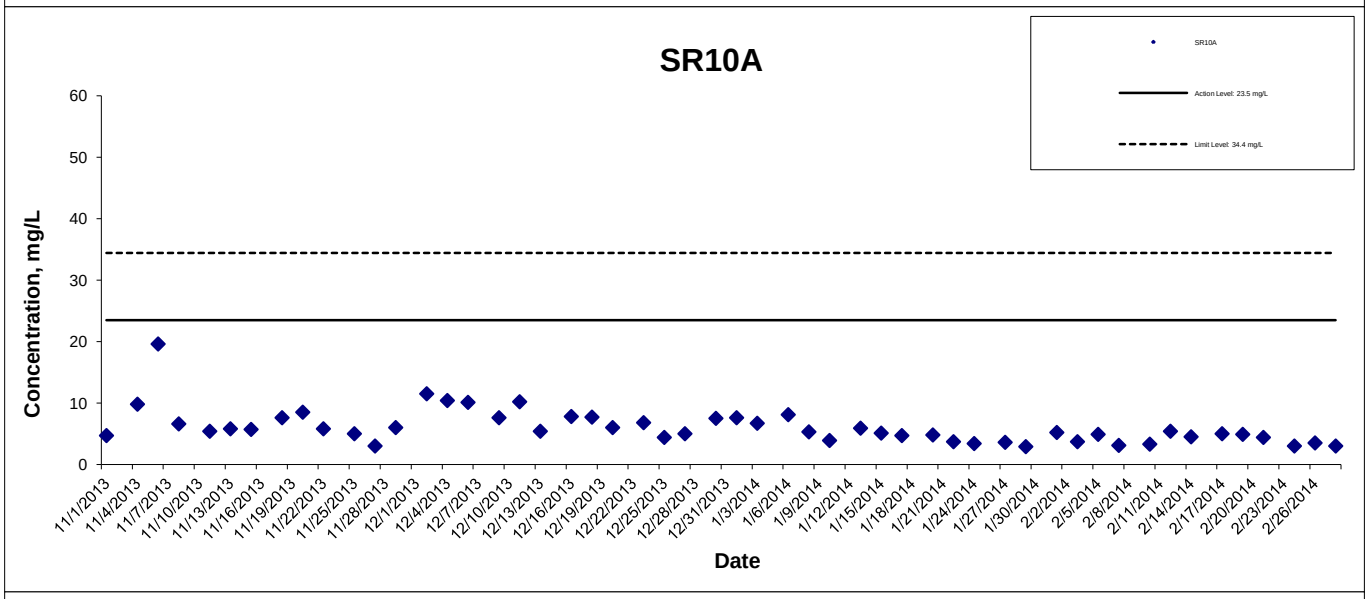
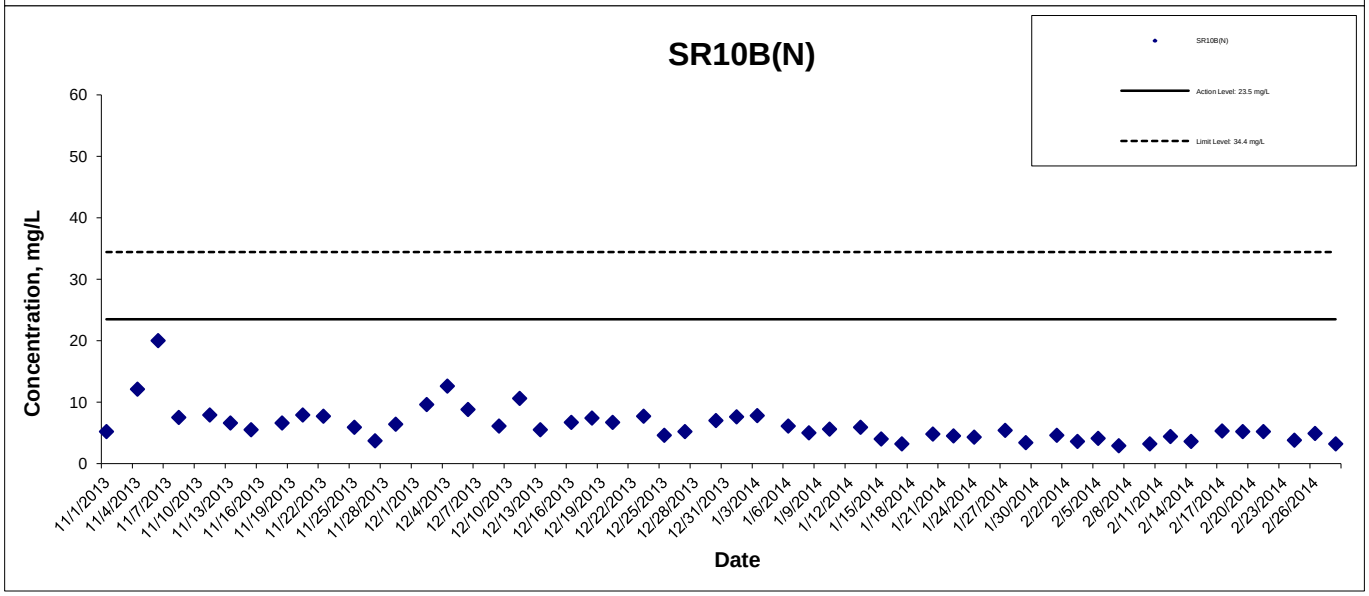
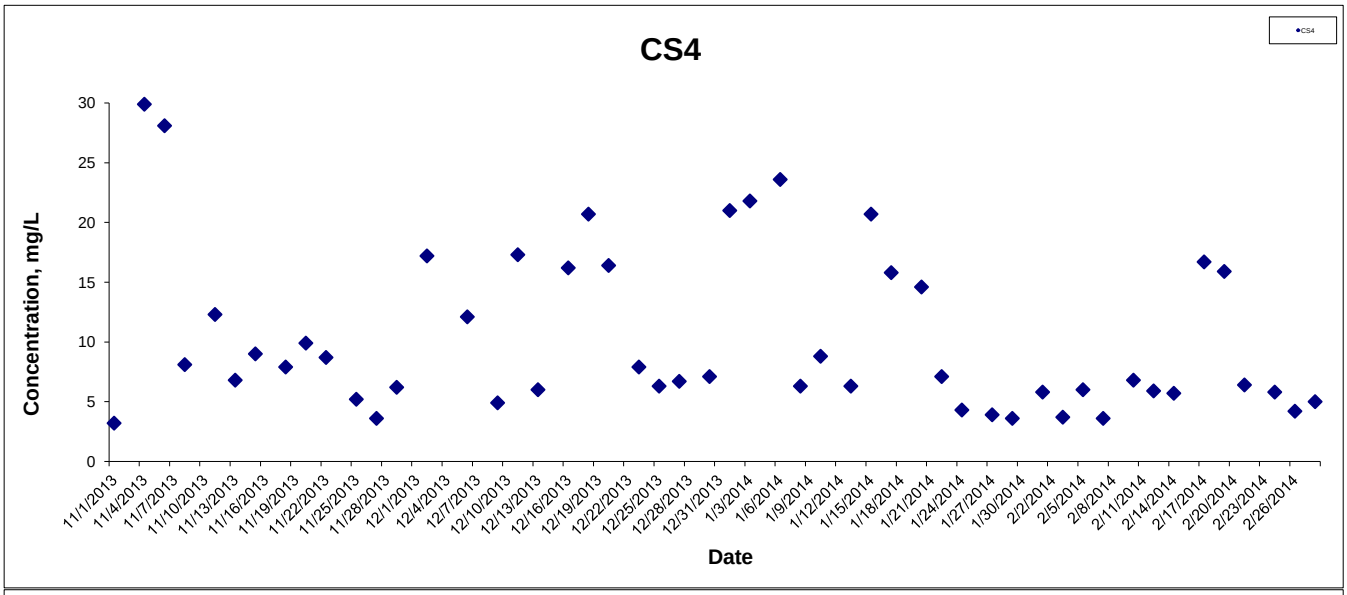
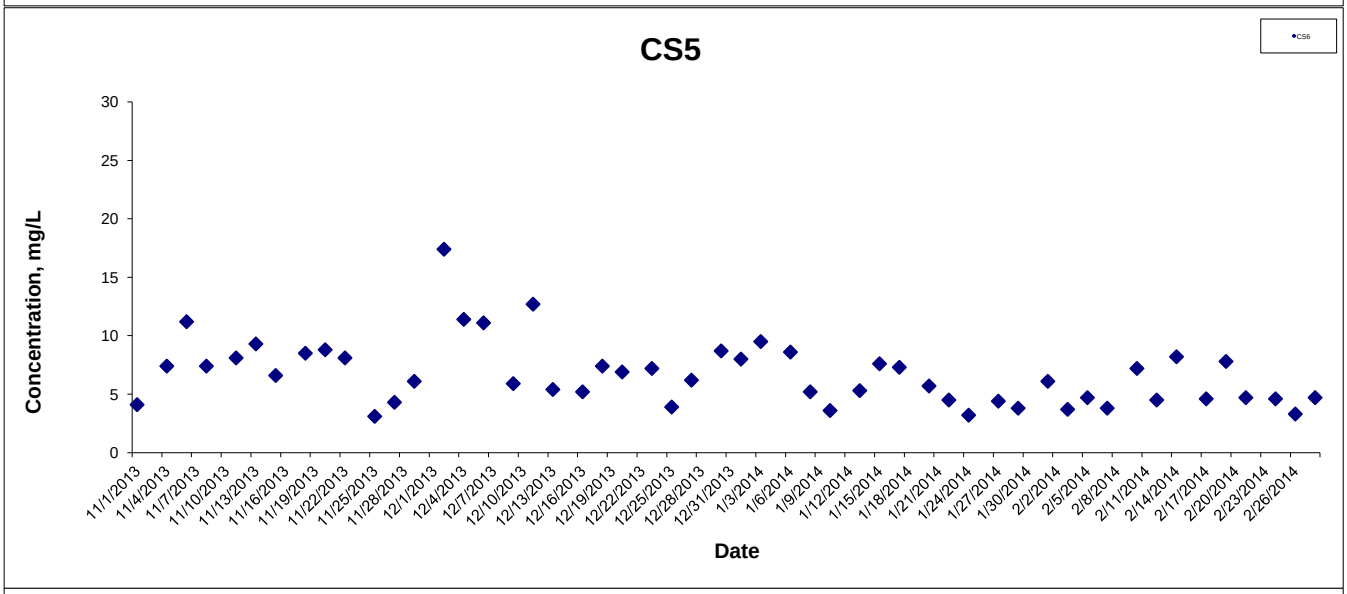


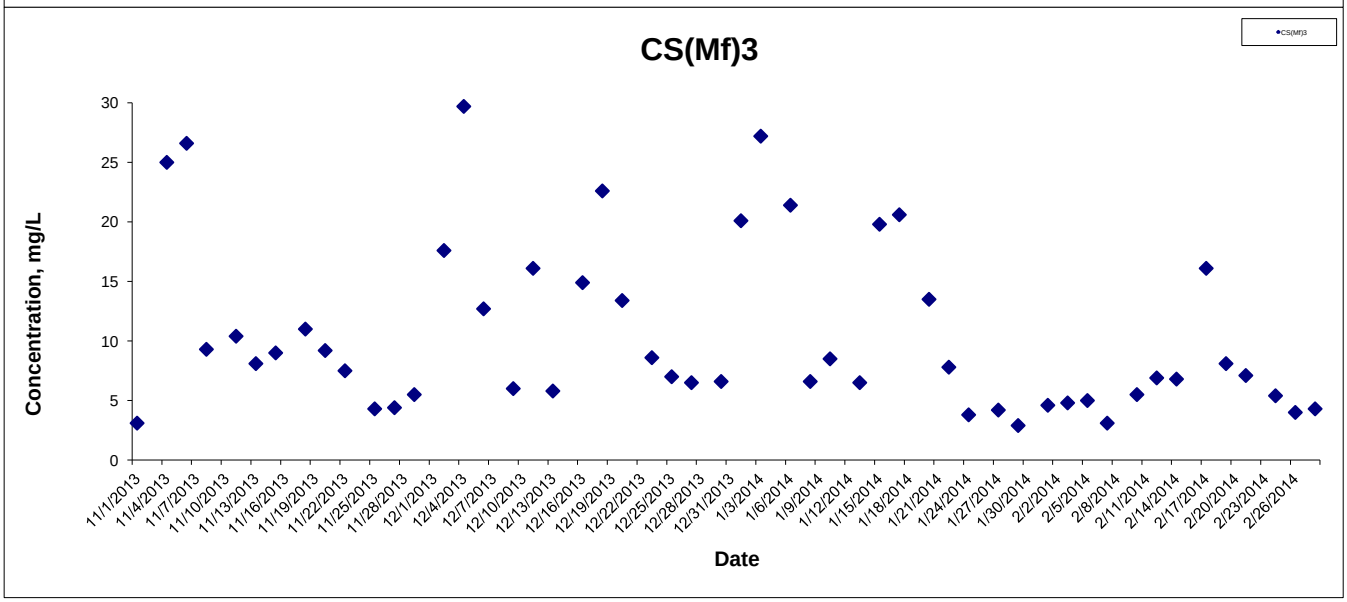




Suspended Solids at Mid-Flood Tide







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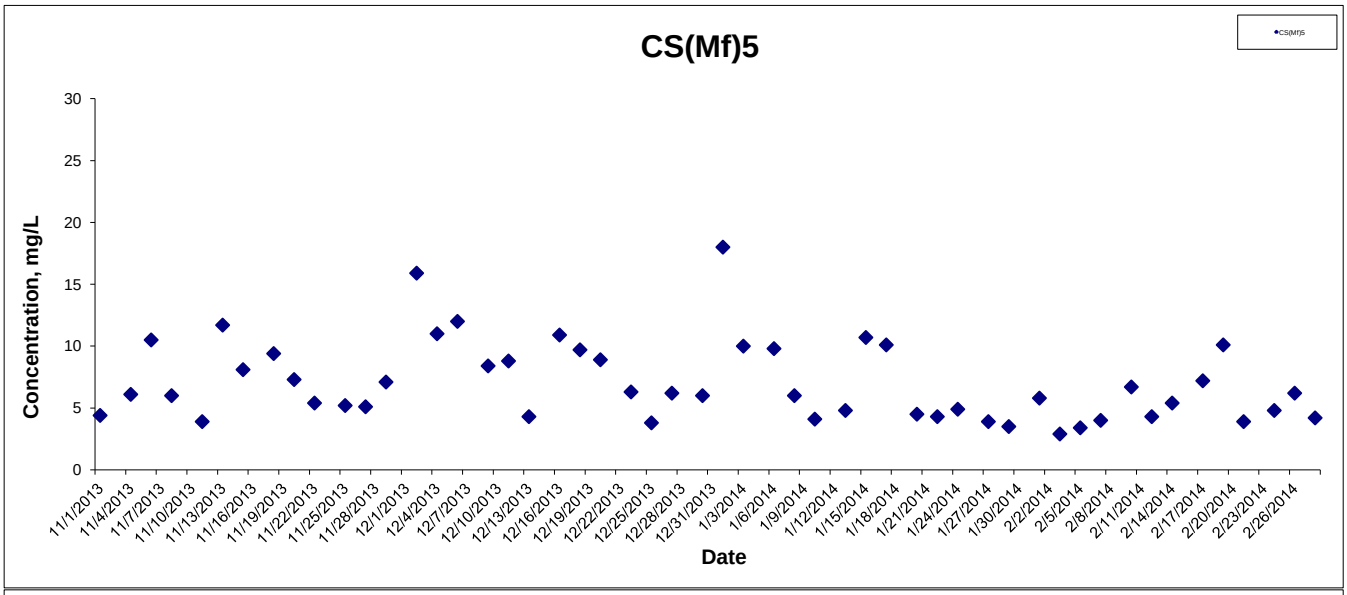

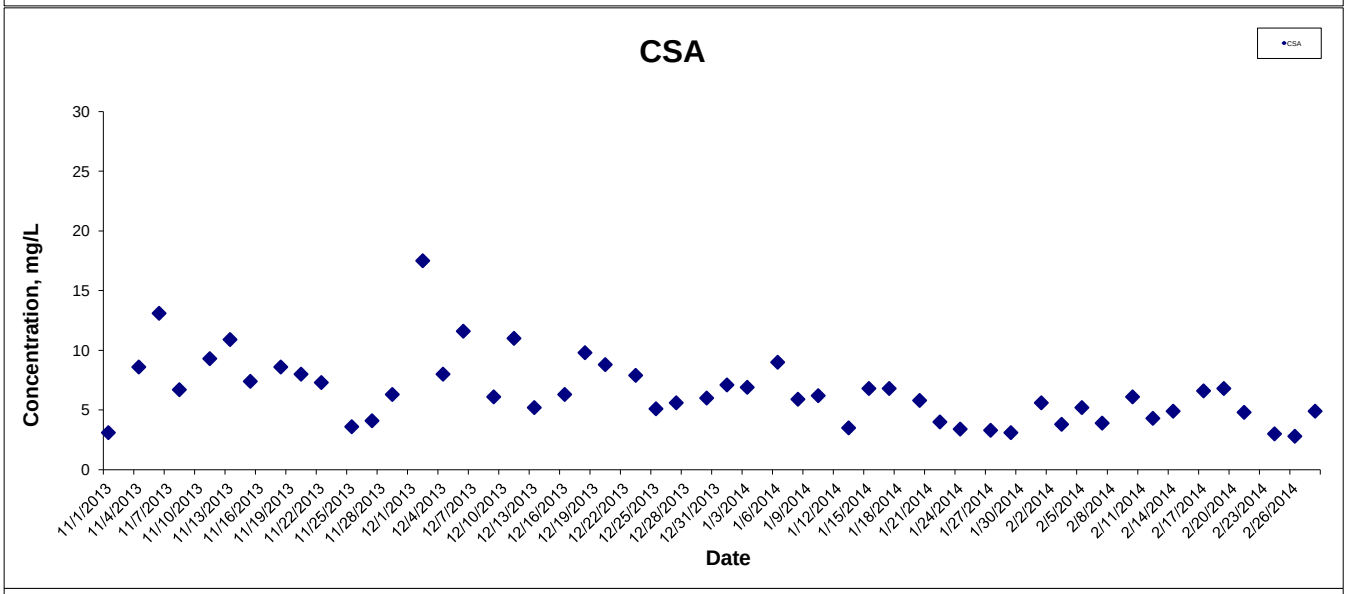

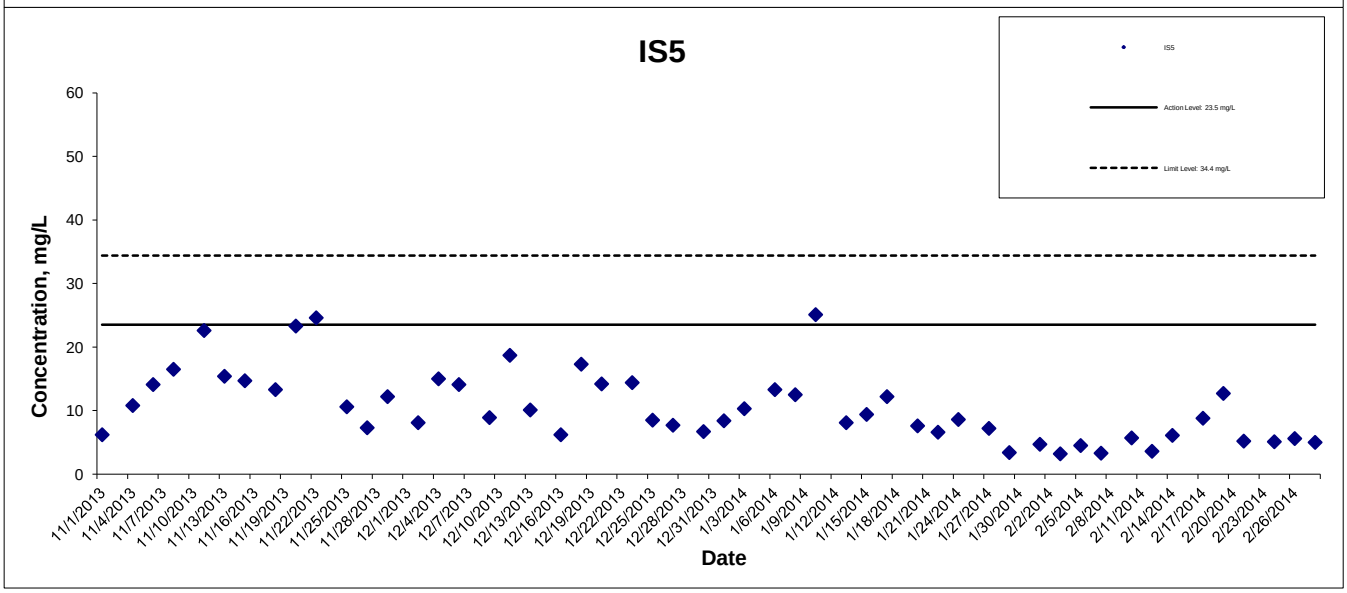

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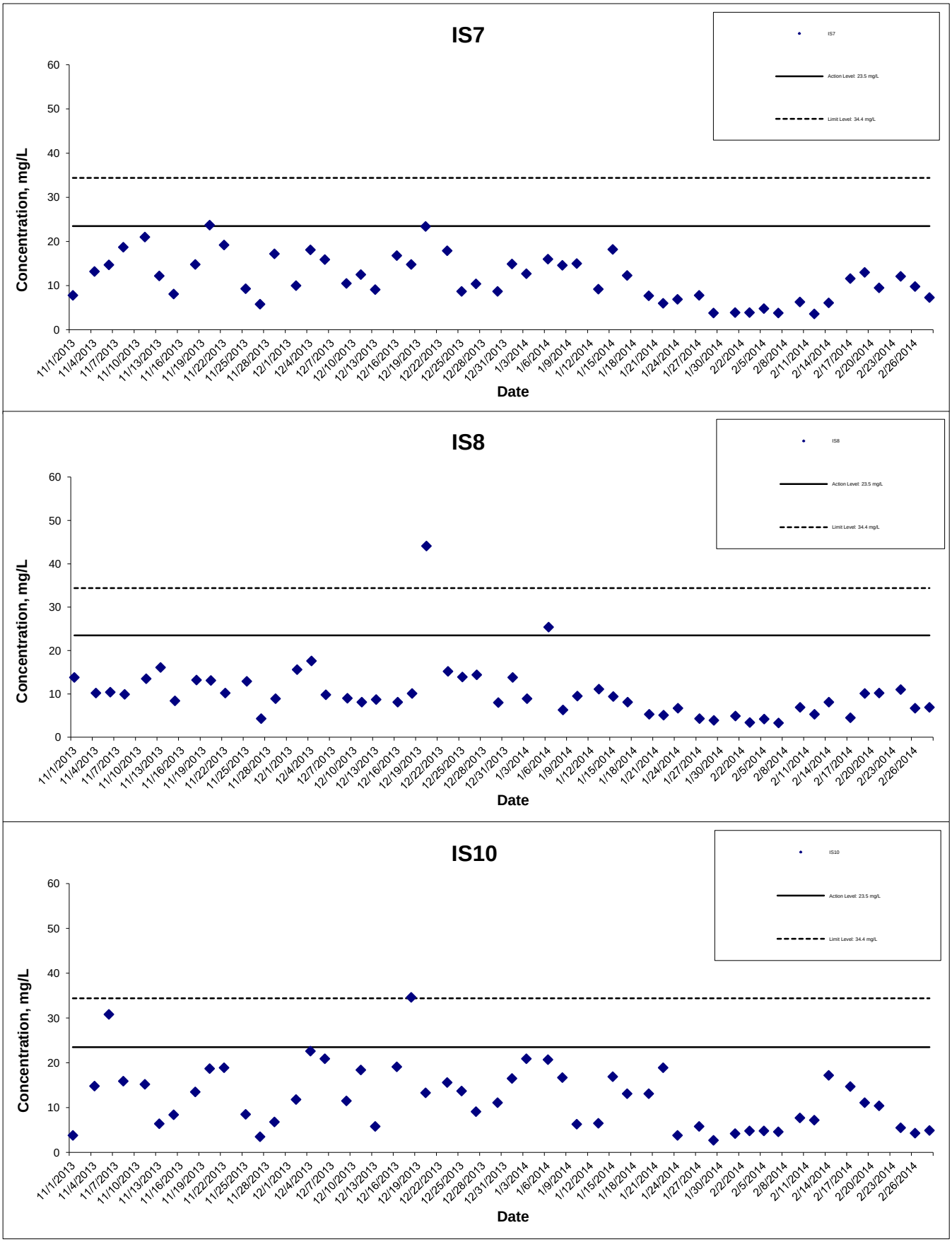

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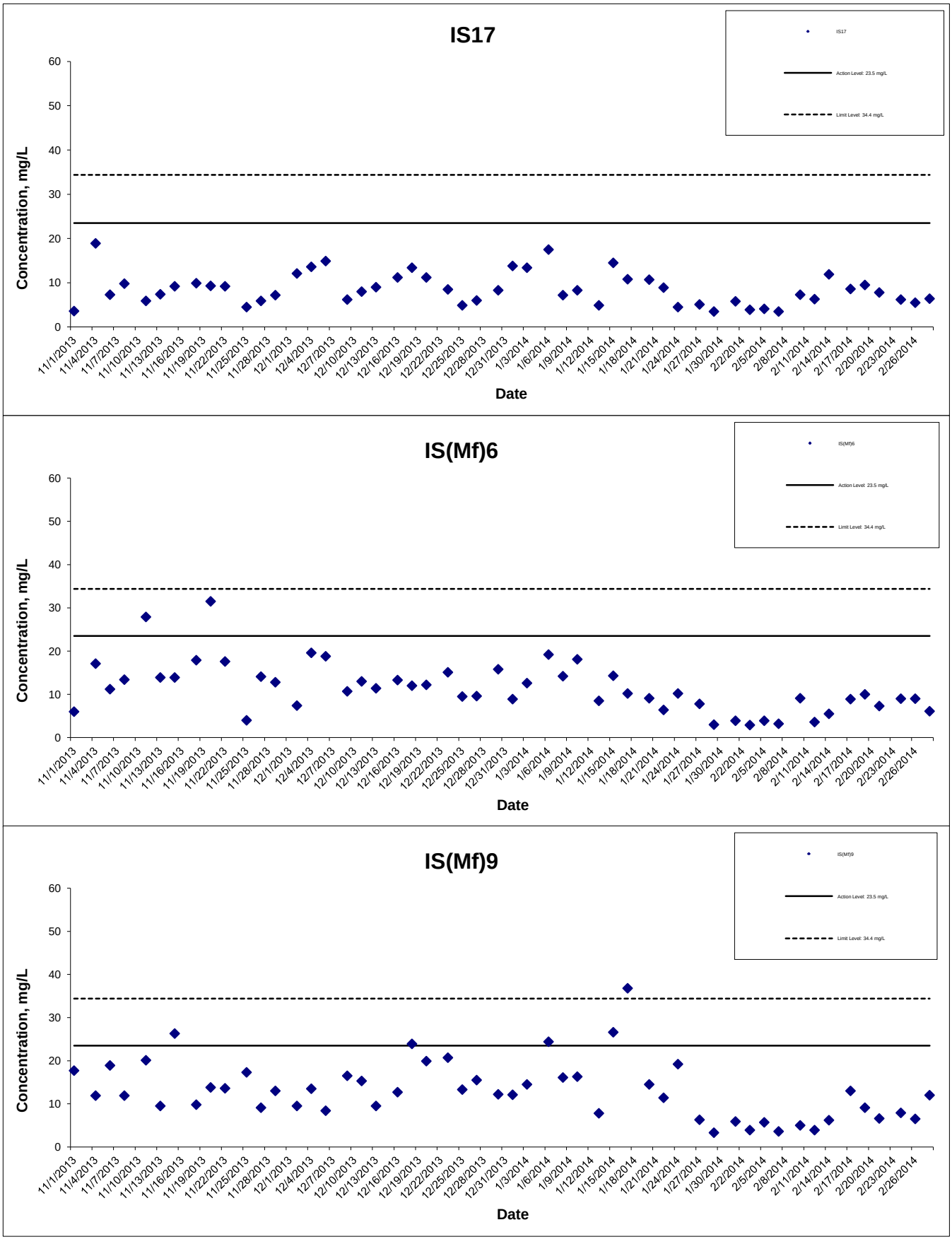
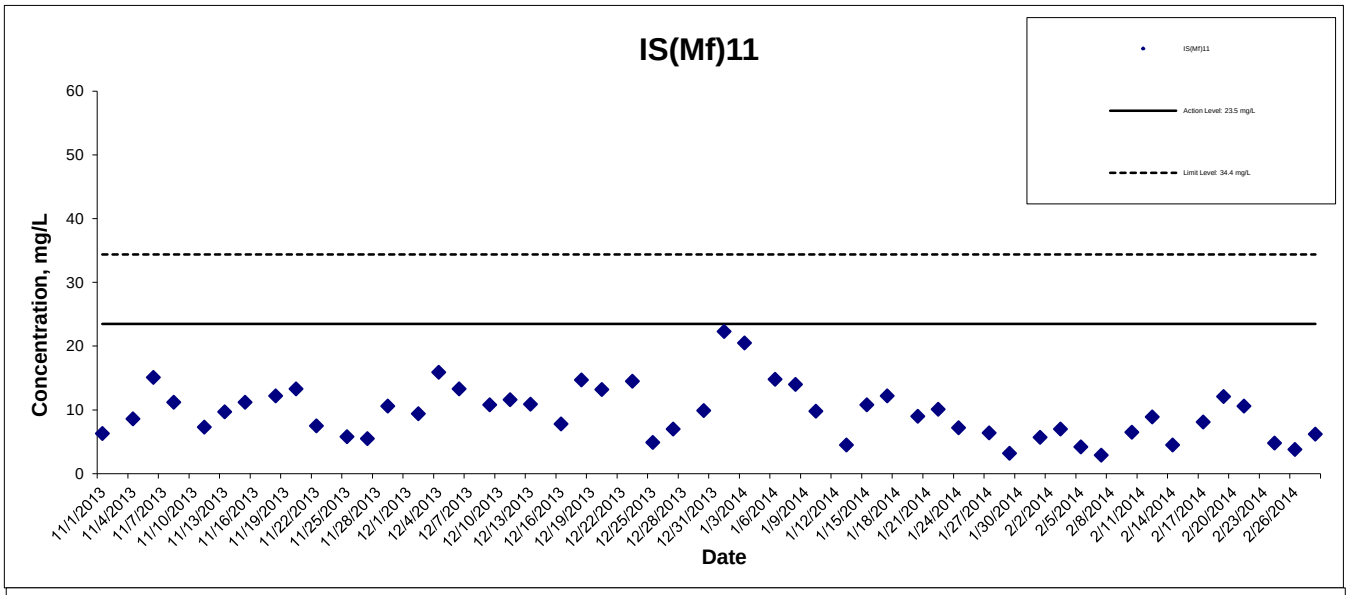
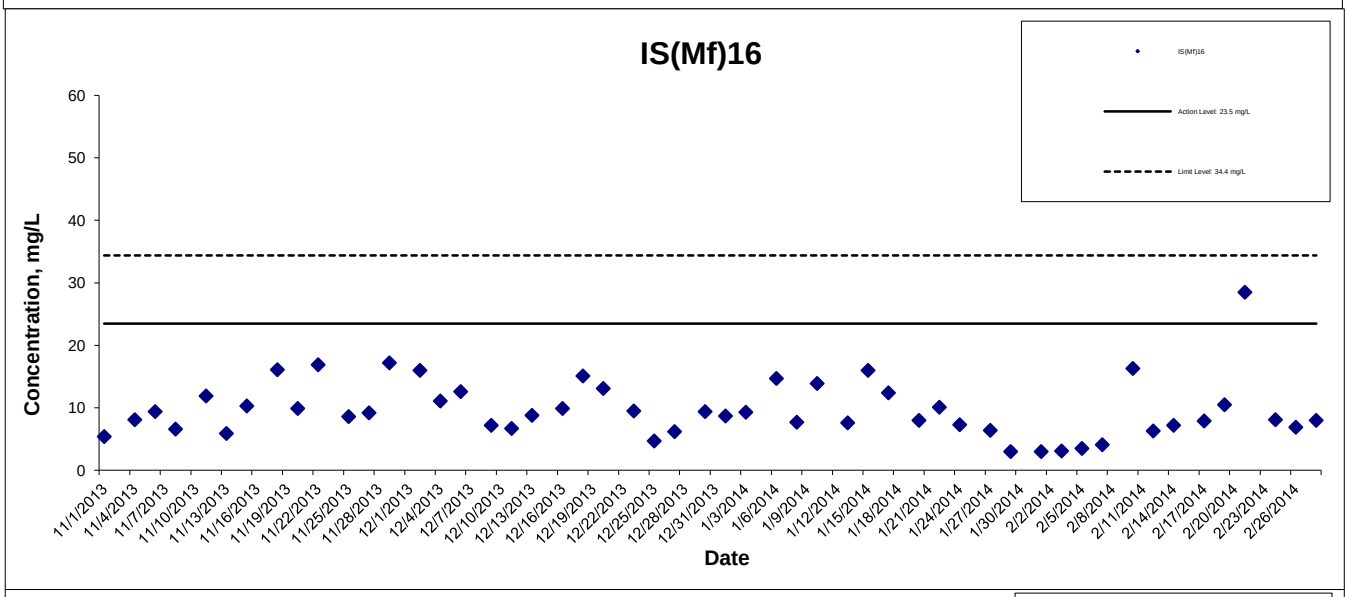
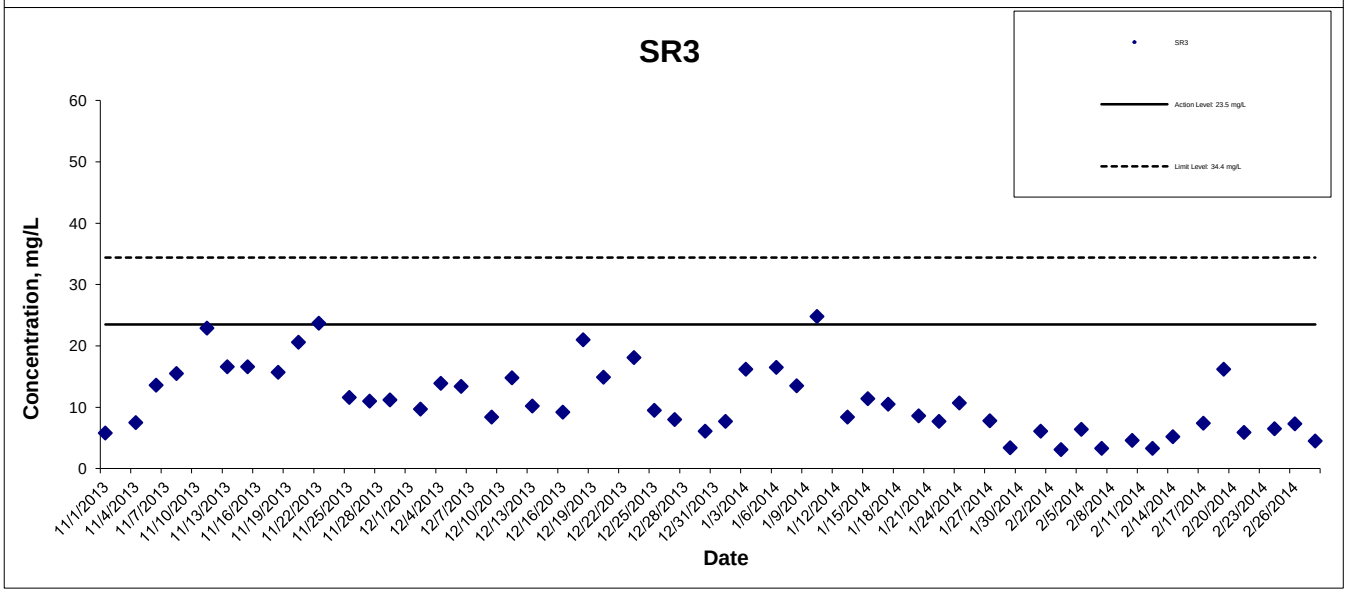


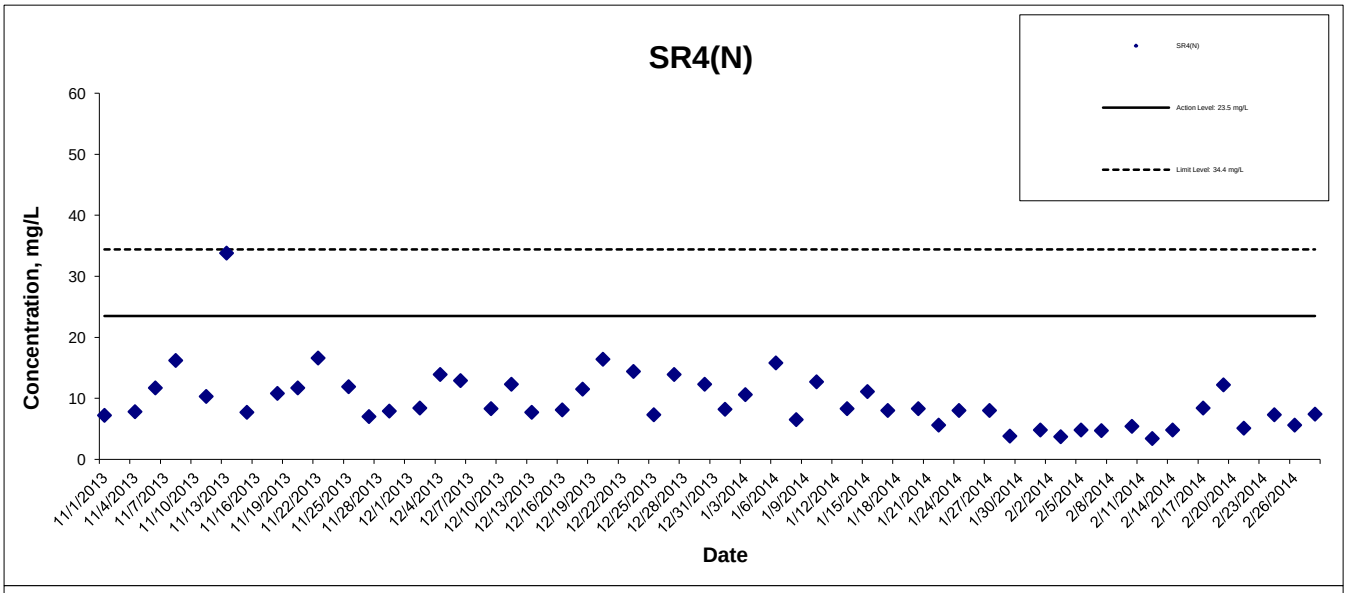
Suspended Solids at Mid-Flood Tide

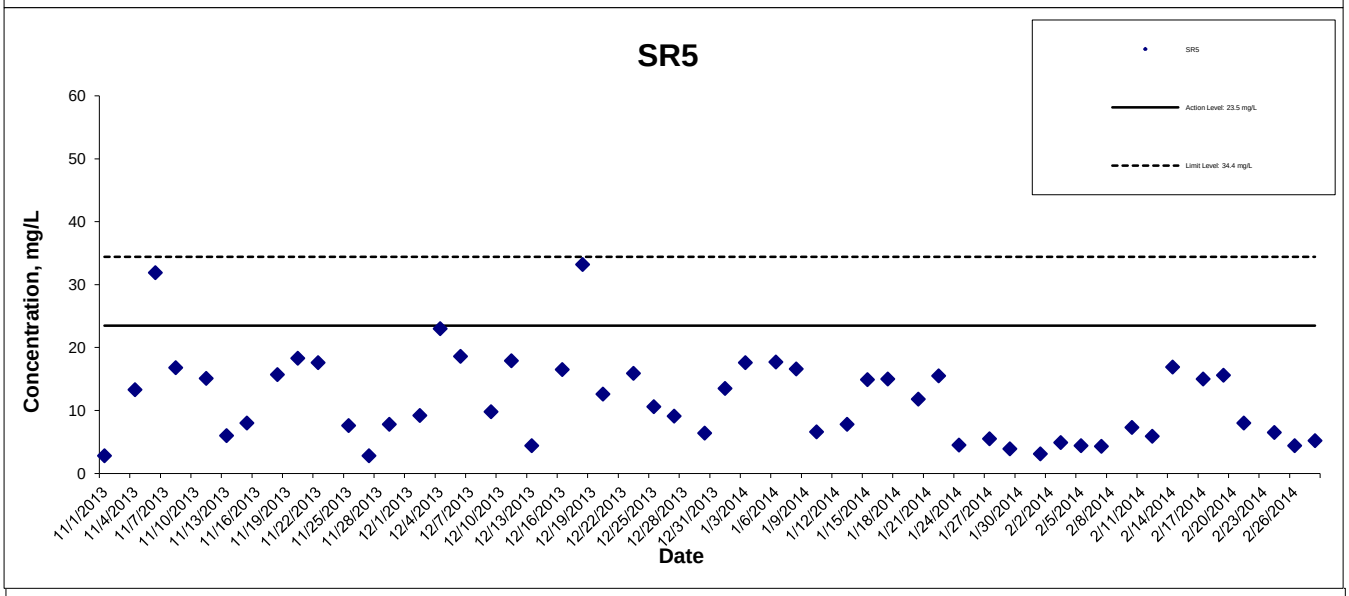


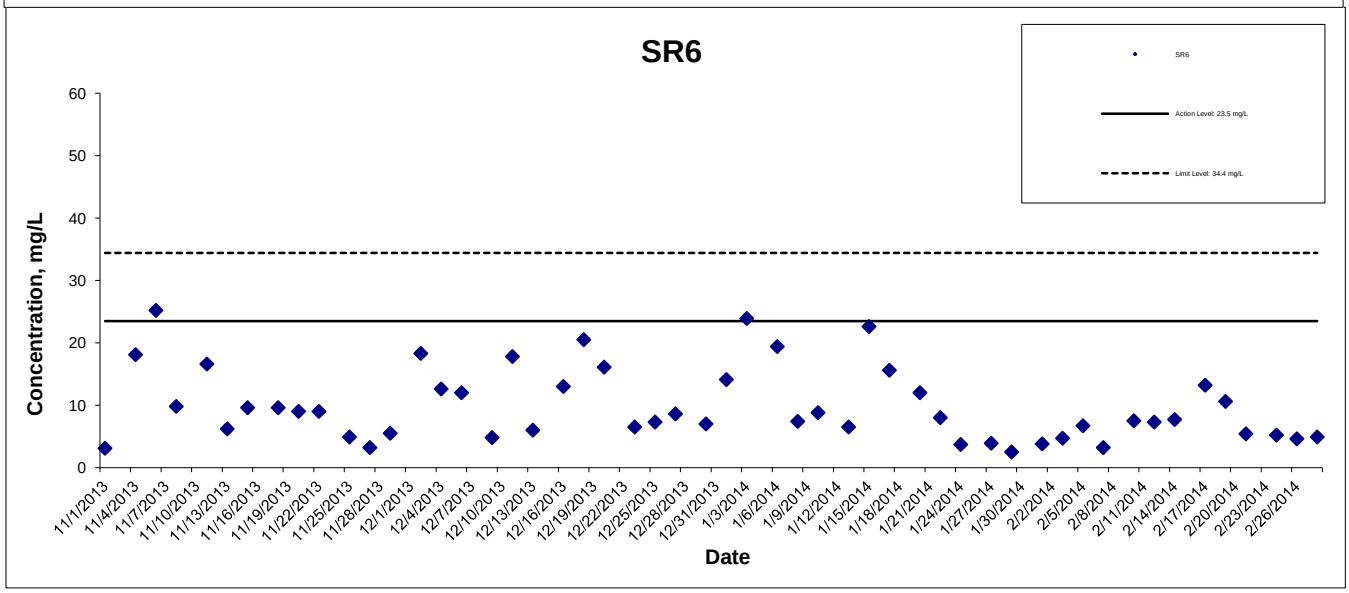




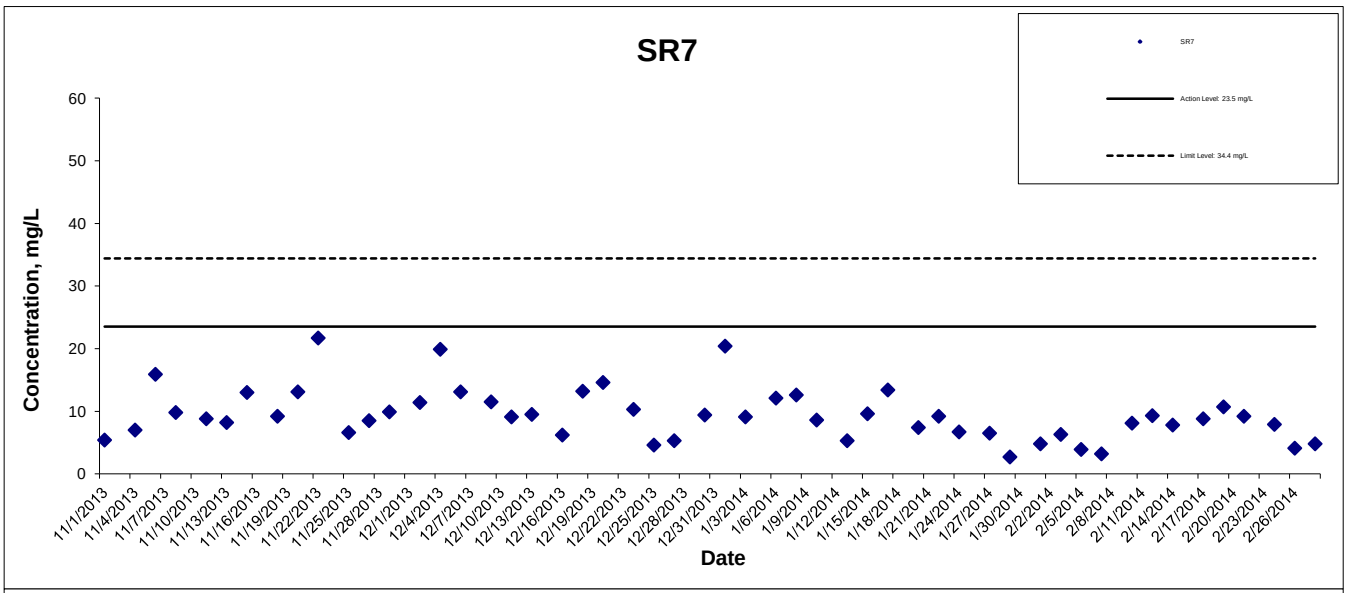
Suspended Solids at Mid-Flood Tide

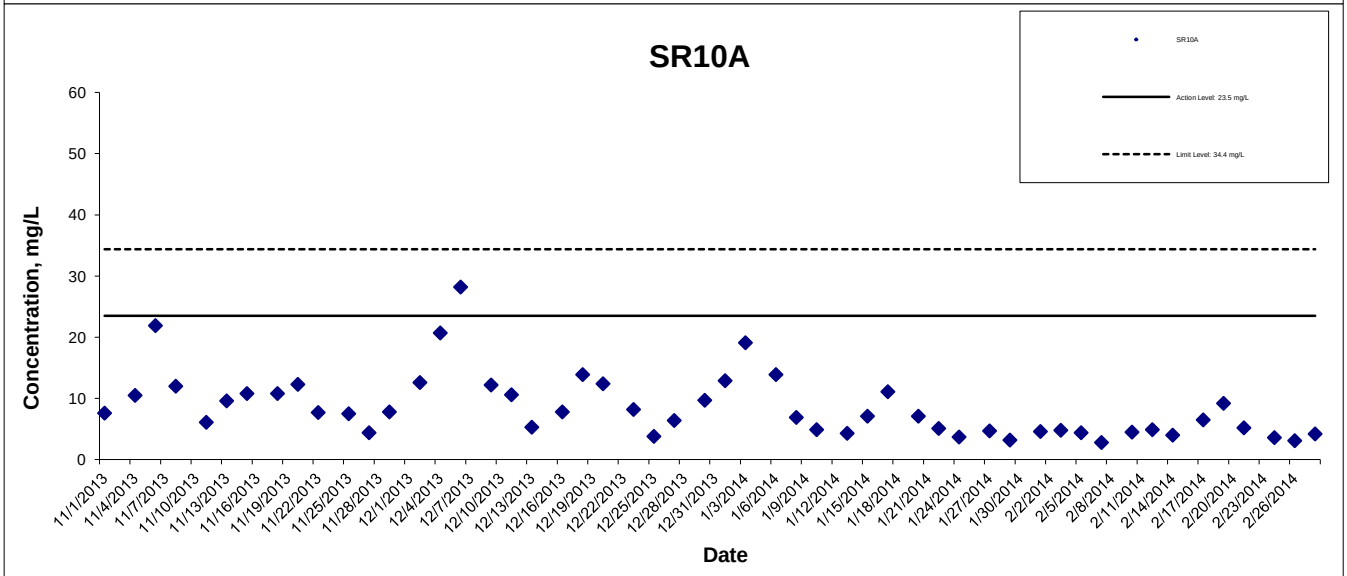


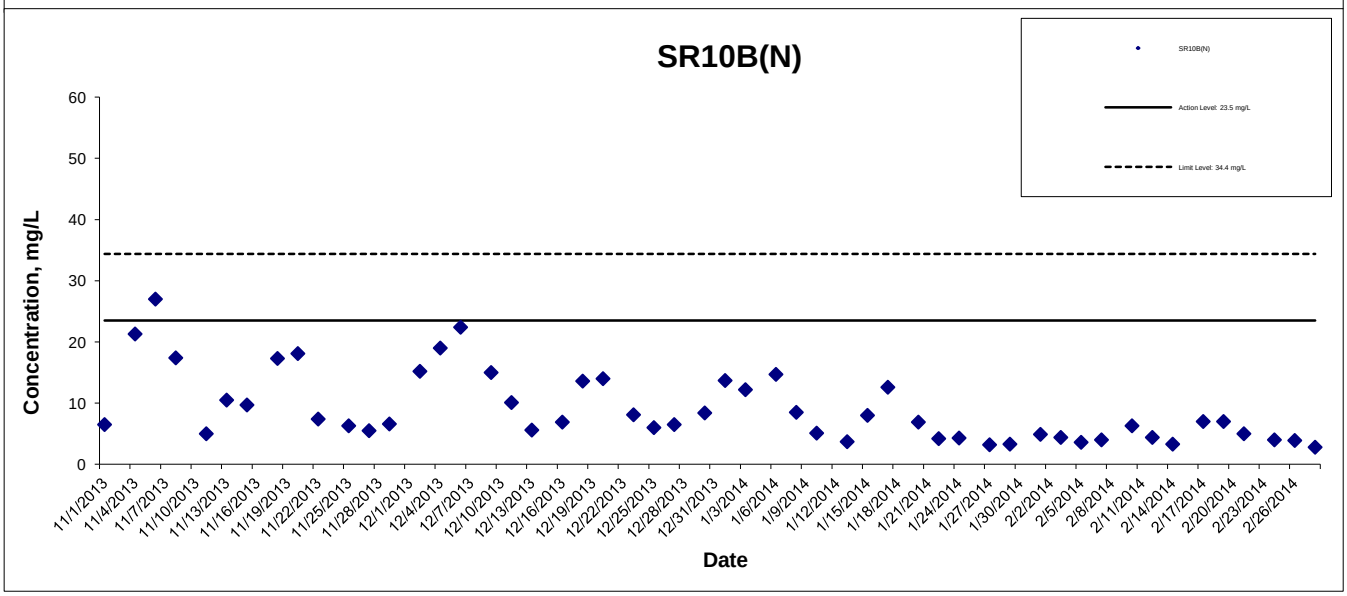




Suspended Solids at Mid-Flood Tide







Appendix K Impact Dolphin Monitoring Survey Sighting Summary

Table 1 Impact Dolphin Monitoring Survey Sighting Table

Project	Contract	Date	Sighting No.	Time	Group Size	Area	Beaufort	PSD	Effort	Type	Northing	Easting	Season	Boat Association
HKBCF	HY/2010/02	17/02/14	910	9:42	8	NWL	2	50	On	Impact	822780	805789	Winter	No
HKBCF	HY/2010/02	17/02/14	911	13:04	2	NWL	2	210	On	Impact	824132	806554	Winter	No

KEY:

Sighting	Opp Opportunistic On On effort		
PSD	Perpendicular Sighting Distance	NEL	North East Lantau
Group Size	Represents best estimate for group encountered	NWL	North West Lantau

Annex I

JANUARY 2014

Photo Identification Information

Table 1. Sightings of Individually Identified Chinese White Dolphin (*Sousa chinensis*) between March 2012 – January 2014

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
HZMB 118		2014-01-06	890	NWL
HZMB 117		2014-01-06	888	NWL
HZMB 116		2013-12-26	879	NWL
HZMB 115		2013-12-26	879	NWL
HZMB 114		2013-10-24	827	NWL
HZMB 113		2013-10-24	827	NWL
HZMB 112		2013-10-15	815	NWL
HZMB111		2013-10-15	815	NWL
HZMB 110		2013-10-15	812	NWL
HZMB 108		2013-08-30	780	NEL
HZMB 107		2013-08-21	770	NWL
HZMB 106		2013-08-21	769	NWL
HZMB 105		2013-07-08	711	NWL
HZMB 104		2013-07-08	711	NWL
HZMB 103		2013-07-08	711	NWL
HZMB 102		2013-07-08	706	NWL
HZMB 101		2013-07-08	706	NWL
HZMB 100		2013-07-08	706	NWL
HZMB 099		2013-06-13	681	NWL
		2013-06-13	680	NWL
HZMB 098	NL104	2014-01-06	888	NWL
		2013-11-02	849	NWL
		2013-11-02	845	NWL
		2013-10-24	831	NWL
		2013-07-08	711	NWL
		2013-05-24	659	NWL
HZMB 097		2013-05-09	647	NWL
HZMB 096		2013-04-01	621	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
HZMB 095		2013-08-30	780	NEL
		2013-06-25	697	NWL
		2013-06-13	682	NWL
		2013-04-01	621	NWL
HZMB 094		2013-06-26	703	NWL
		2013-06-25	698	NWL
		2013-03-18	601	NWL
HZMB 093		2013-05-24	657	NWL
		2013-02-21	587	NWL
HZMB 092		2013-02-21	589	NWL
		2013-02-15	581	NWL
HZMB 091		2013-02-15	579	NWL
HZMB 090		2013-06-25	697	NWL
		2013-06-13	682	NWL
		2013-02-15	579	NWL
HZMB 089		2013-02-15	579	NWL
HZMB 088		2013-02-15	579	NWL
HZMB 087		2013-02-15	579	NWL
HZMB 086	NL242	2013-05-09	642	NWL
		2013-02-15	579	NWL
		2011-10-10	Baseline	NWL
HZMB 085		2013-06-26	703	NWL
		2013-02-15	579	NWL
HZMB 084		2013-02-14	575	NWL
HZMB 083	NL136	2013-12-19	863	NWL
		2013-03-28	607	NWL
		2013-02-15	579	NWL
		2013-01-28	568	NWL
		2012-01-28	564	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
HZMB 082		2013-02-21	587	NWL
		2013-02-15	579	NWL
		2013-01-28	563	NWL
HZMB 081		2013-01-28	559	NWL
		2013-01-28	557	NWL
HZMB 080		2013-01-28	556	NWL
HZMB 079		2013-01-28	556	NWL
HZMB 078		2013-02-15	579	NWL
		2013-01-08	552	NWL
HZMB 077		2013-12-26	878	NWL
		2013-07-08	706	NWL
		2012-12-11	541	NWL
HZMB 076		2013-07-08	706	NWL
		2012-12-11	541	NWL
HZMB 075		2012-12-06	525	NEL
HZMB 074		2013-05-09	647	NWL
		2013-04-01	623	NWL
		2013-04-01	621	NWL
		2013-02-21	594	NEL
		2012-12-10	529	NEL
		2012-12-06	525	NEL
HZMB 073		2013-05-09	647	NWL
		2013-04-01	623	NWL
		2013-04-01	621	NWL
		2013-02-21	594	NEL
		2012-12-10	529	NEL
		2012-12-06	525	NEL
HZMB 072		2012-10-24	476	NWL
HZMB 071		2012-10-24	475	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
		2012-10-12	466	NWL
HZMB 070		2012-10-24	476	NWL
HZMB 069		2013-08-21	774	NWL
		2013-07-08	711	NWL
		2012-10-24	476	NWL
HZMB 068		2013-11-01	839	NWL
		2012-10-24	476	NWL
HZMB 067		2012-10-24	475	NWL
HZMB 066	NL93	2013-01-28	559	NWL
		2012-12-11	537	NWL
		2012-10-24	475	NWL
		2012-10-12	466	NWL
HZMB 064		2013-05-09	647	NWL
		2013-01-28	561	NWL
		2012-10-24	475	NWL
		2012-10-12	466	NWL
HZMB 063		2013-05-09	647	NWL
		2012-10-12	466	NWL
HZMB 062		2012-12-06	525	NEL
		2012-10-11	457	NWL
HZMB 060		2012-09-18	447	NWL
HZMB 059		2013-02-21	591	NWL
		2012-09-18	445	NWL
HZMB 057		2012-09-18	440	NWL
HZMB 056		2012-09-18	442	NWL
		2012-09-05	433	NEL
HZMB 055		2012-09-04	425	NWL
HZMB 054	CH34	2014-01-06	888	NWL
		2013-11-07	854	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
		2013-11-02	845	NWL
		2013-10-24	831	NWL
		2013-08-30	780	NEL
		2013-07-08	711	NWL
		2013-09-18	448	NWL
		2012-09-05	432	NEL
		2011-11-07	Baseline	NWL
		2011-11-05	Baseline	NWL
		2011-11-02	Baseline	NWL
		2011-11-01	Baseline	NEL
		2011-11-01	Baseline	NEL
		2011-10-28	Baseline	NWL
		2011-10-06	Baseline	NWL
HZMB 053		2012-09-04	425	NWL
HZMB 052		2012-09-04	423	NWL
HZMB 051	NL213	2013-05-09	644	NWL
		2013-04-01	622	NWL
		2013-02-15	582	NWL
		2013-02-15	581	NWL
		2013-01-28	559	NWL
		2013-01-28	556	NWL
		2012-09-04	422	NWL
HZMB 050		2014-01-10	900	NWL
		2014-01-06	888	NWL
		2013-02-15	579	NWL
		2012-09-04	421	NWL
HZMB 049		2012-09-03	419	NWL
HZMB 048		2012-09-03	419	NWL
HZMB 047		2012-09-03	412	NWL
HZMB 046		2012-09-03	412	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
HZMB 045		2013-06-13	682	NWL
		2013-02-15	579	NWL
		2012-11-01	495	NWL
HZMB 044	NL98	2013-12-19	864	NWL
		2013-11-02	845	NWL
		2013-11-01	842	NWL
		2013-10-15	819	NWL
		2013-05-09	648	NWL
		2013-05-09	647	NWL
		2013-04-01	623	NWL
		2013-04-01	621	NWL
		2013-02-15	579	NWL
		2012-11-01	495	NWL
HZMB 043		2012-09-03	407	NWL
HZMB 042	NL260	2013-12-19	863	NWL
		2012-11-01	495	NWL
		2011-11-07	Baseline	NWL
HZMB 041	NL24	2013-11-02	845	NWL
		2013-05-09	648	NWL
		2013-05-09	647	NWL
		2013-04-01	623	NWL
		2013-04-01	621	NWL
		2013-02-15	579	NWL
		2012-11-01	495	NWL
		2011-11-06	Baseline	NEL
		2011-11-05	Baseline	NWL
		2011-11-05	Baseline	NWL
		2011-10-10	Baseline	NWL
HZMB 040		2014-01-06	893	NWL
		2013-10-15	821	NWL
		2013-07-08	714	NWL
		2013-07-08	711	NWL
		2013-02-21	589	NWL
		2012-11-01	493	NWL
HZMB 038		2012-11-01	490	NWL
HZMB 037		2012-11-01	490	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
HZMB 036		2012-09-03	407	NWL
		2012-11-01	490	NWL
HZMB 035		2013-02-15	579	NWL
		2012-11-01	490	NWL
HZMB 034		2012-11-01	493	NWL
HZMB 028		2013-04-01	625	NWL
		2012-08-06	373	NWL
HZMB 027		2013-12-19	863	NWL
		2013-02-15	579	NWL
		2013-01-28	568	NWL
		2013-01-28	564	NWL
		2012-06-14	299	NWL
HZMB 026		2013-06-25	697	NWL
		2013-05-09	642	NWL
		2013-01-28	561	NWL
		2012-06-13	295	NEL
HZMB 025		2013-02-22	596	NEL
		2013-02-21	591	NWL
		2012-12-06	525	NEL
		2012-10-11	457	NWL
		2012-06-13	295	NEL
HZMB 024		2013-03-18	601	NWL
		2012-06-13	295	NEL
HZMB 023		2014-01-06	888	NWL
		2013-07-08	715	NWL
		2013-07-08	711	NWL
		2013-04-01	619	NWL
		2013-02-21	589	NWL
		2013-02-15	579	NWL
		2012-07-10	330	NWL
HZMB 022		2014-01-06	888	NWL
		2013-10-24	827	NWL
		2013-07-08	715	NWL
		2013-07-08	711	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
		2013-04-01	619	NWL
		2013-02-21	589	NWL
		2013-02-15	579	NWL
		2012-07-10	330	NWL
HZMB 021	NL37	2012-07-10	330	NWL
		2011-09-16	Baseline	NWL
HZMB 020		2012-07-10	330	NWL
HZMB 019		2012-07-10	330	NWL
HZMB 018		2013-05-09	647	NWL
		2013-02-21	594	NEL
		2012-12-10	529	NEL
		2012-07-10	330	NWL
HZMB 017		2012-07-10	330	NWL
HZMB 016		2013-07-08	706	NWL
		2012-12-11	539	NWL
		2012-09-18	446	NWL
		2012-09-04	421	NWL
		2012-07-10	330	NWL
HZMB 015		2012-07-10	330	NEL
HZMB 014	NL176	2013-12-26	880	NWL
		2012-08-06	373	NWL
		2012-06-13	295	NEL
		2011-11-06	Baseline	NEL
		2011-11-01	Baseline	NEL
		2011-11-01	Baseline	NEL
HZMB 013		2012-05-28	281	NWL
HZMB 012		2012-05-28	281	NWL
HZMB 011	EL01	2013-02-22	597	NEL
		2013-02-21	592	NEL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
		2013-02-14	572	NEL
		2012-11-06	517	NEL
		2012-09-19	452	NWL
		2012-03-31	261	NEL
		2011-11-02	Baseline	NWL
		2011-11-01	Baseline	NEL
HZMB 009		2012-05-28	281	NWL
HZMB 008		2012-05-28	281	NWL
HZMB 007	NL246	2012-12-10	529	NEL
HZMB 006		2013-02-21	594	NEL
		2012-12-11	539	NWL
		2012-11-01	495	NWL
		2012-03-29	250	NWL
HZMB 005		2013-11-09	860	NWL
		2013-11-07	858	NWL
		2013-10-15	813	NWL
		2012-12-10	532	NWL
		2012-08-06	374	NWL
		2012-05-28	287	NWL
HZMB 004		2012-09-04	421	NWL
		2012-03-31	262	NWL
HZMB 003	NL179	2013-10-15	812	NWL
		2013-06-25	697	NWL
		2012-12-10	529	NEL
		2012-03-31	261	NWL
		2011-11-06	Baseline	NEL
		2011-09-16	Baseline	NWL
HZMB 002	WL111	2013-12-26	878	NWL
		2013-12-19	863	NWL

Identification Number	Baseline Identification Number	Date (YYYY-MM-DD)	Sighting Number	Area Sighted
		2013-11-01	839	NWL
		2013-10-15	819	NWL
		2013-09-24	798	NWL
		2013-02-14	573	NWL
		2012-12-11	536	NWL
		2012-12-11	535	NWL
		2012-10-12	466	NWL
		2012-10-24	475	NWL
		2012-05-28	281	NWL
		2012-03-29	250	NWL
HZMB 001	WL46	2013-08-21	771	NWL
		2013-06-13	681	NWL
		2013-04-01	617	NWL
		2013-02-14	573	NWL
		2012-03-29	250	NWL
	CH98	2011-11-02	Baseline	NWL
	NL11	2011-11-02	Baseline	NWL
		2011-11-07	Baseline	NWL
	NL12	2011-11-02	Baseline	NWL
	NL33	2011-09-23	Baseline	NWL
		2011-11-01	Baseline	NEL
		2011-11-05	Baseline	NWL
		2011-11-07	Baseline	NWL
	NL37	2011-09-16	Baseline	NWL
	NL46	2011-10-28	Baseline	NWL

Calf of HZMB 050 2014-01-06_11-45-04 _02

Calf of HZMB 050 2014-01-10_11-30-53 _02

HZMB 022 2014-01-06_11-24-55 _01

HZMB 023 2014-01-06 11-23-09

HZMB 023 2014-01-06 11-25-14 01

HZMB 040 2014-01-06 15-29-31 01

HZMB 050 2014-01-06_11-48-31 _01

HZMB 050 2014-01-10_11-31-05

HZMB 054 2014-01-06_11-30-56

HZMB 098 2014-01-06_11-35-04 _02

HZMB 117 2014-01-06_11-39-43 _03

HZMB 118 2014-01-06_13-40-50 _01

Ringo 2014-01-06 15-28-37 01

Ringo 2014-01-10 11-33-55

Appendix L – Event Action Plan

Event / Action Plan for Air Quality

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level				
Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	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.
Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 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 on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Limit Level				
Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 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 determined by the ER until the exceedance is abated.

Event / Action Plan for Construction Noise

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action Level	1. Notify IEC and Contractor; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 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 determined by the ER until the exceedance is abated.

Event / Action Plan for Water Quality

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action level being exceeded by one sampling day	1. Repeat *in situ* measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor and ER; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Repeat measurement on next day of exceedance to confirm findings.	1. Check monitoring data submitted by ET and Contractor's working methods; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of non-compliance in writing; 2. Discuss with IEC on the proposed mitigation measures; 3. Make agreement on mitigation measures to be implemented; 4. Ensure mitigation measures are properly implemented.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Discuss with ET and IEC on possible remedial actions and propose mitigation measures to IEC and ER; 5. Implement the agreed mitigation measures. 6. Amend working methods if appropriate.

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action level being exceeded by two or more consecutive sampling days	1. Repeat *in situ* measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and ER; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Action level; 8. Repeat measurement on next day of exceedance to confirm findings.	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of non-compliance in writing; 2. Discuss with IEC on the proposed mitigation measures; 3. Make agreement on mitigation measures to be implemented; 4. Ensure mitigation measures are properly implemented; 5. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Discuss with ET and IEC on possible remedial actions and propose mitigation measures to IEC and ER within 3 working days of notification; 5. Implement the agreed mitigation measures; 6. Amend working methods if appropriate.

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Limit level being exceeded by one sampling day	1. Repeat *in-situ* measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor, ER and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit level.	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of failure in writing; 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to critically review the working methods; 4. Ensure mitigation measures are properly implemented; 5. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of mitigation measures to ER within 3 working days of notification and discuss with ET, IEC and ER; 5. Implement the agreed mitigation measures; 6. Amend working methods if appropriate.

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Limit level being exceeded by two or more consecutive sampling days	1. Repeat *in-situ* measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor, ER and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days.	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the ER accordingly.	1. Confirm receipt of notification of failure in writing; 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to critically review the working methods; 4. Make agreement on the mitigation measures to be implemented; 5. Ensure mitigation measures are properly implemented; 6. Assess the effectiveness of the implemented mitigation measures; 7. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Take immediate action to avoid further exceedance; 3. Rectify unacceptable practice; 4. Check all plant and equipment and consider changes of working methods; 5. Submit proposal of mitigation measures to ER within 3 working days of notification and discuss with ET, IEC and ER; 6. Implement the agreed mitigation measures; 7. Resubmit proposals of mitigation measures if problem still not under control; 8. As directed by the Engineer, to slow down or to stop all or part of the construction activities until no exceedance of Limit level.

Event / Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	ER / SOR	Contractor
Action Level	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, ER/SOR and Contractor; 5. Check monitoring data. 6. Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary.	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and finding with the ET and the Contractor.	1. Discuss monitoring with the IEC and any other measures proposed by the ET; 2. If ER/SOR is satisfied with the proposal of any other measures, ER/SOR to signify the agreement in writing on the measures to be implemented.	1. Inform the ER/SOR and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the ER/SOR; 3. Implement the agreed measures.
Limit Level	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, ER/SOR and Contractor of findings; 5. Check monitoring data;	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor; 3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures. 4. Review proposals for additional monitoring and any other mitigation measures submitted	1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures. 2. If ER/SOR is satisfied with the proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, ER/SOR to signify the agreement in writing on such proposals and any other mitigation measures.	1. Inform the ER/SOR and confirm notification of the non-compliance in writing; 2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures. 3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary. 4. Implement the agreed additional dolphin monitoring

	6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary. 7. If ET proves that the source of impact is caused by any of the construction activity by the works contract, ET to arrange a meeting to discuss with IEC, ER/SOR and Contractor the necessity of additional dolphin monitoring and/or any other potential mitigation measures (e.g., consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activity etc.) and submit to IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary.	by ET and Contractor and advise ER/SOR of the results and findings accordingly. 5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly.	3. Supervise the implementation of additional monitoring and/or any other mitigation measures.	and/or any other mitigation measures.

China Harbour Engineering Company Limited

Monthly Summary Waste Flow Table for February / 2014 (year)

Project : Hong Kong – Zhuhai – Macao Bridge, Hong Kong Boundary Crossing Facilities – Reclamation Works Contract No.: HY/2010/02

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste (see Note 4)	Others, e.g. general refuse (see Note 3)
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 m^3)
Jan-14	0.0000	0.0000	0.0000	0.0000	0.0000	1158.9828	0.0000	0.1680	0.0000	2.0000	0.0325
Feb-14	0.0000	0.0000	0.0000	0.0000	0.0000	1064.5957	0.0000	0.2520	0.0000	0.0000	0.0520
Mar-14											
Apr-14											
May-14											
Jun-14											
Sub-total	0.0000	0.0000	0.0000	0.0000	0.0000	2223.5785	0.0000	0.4200	0.0000	2.0000	0.0845
Jul-14											
Aug-14											
Sep-14											
Oct-14											
Nov-14											
Dec-14											
Total	0.0000	0.0000	0.0000	0.0000	0.0000	2223.5785	0.0000	0.4200	0.0000	2.0000	0.0845

Notes: (1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to 6.5m^3 by volume.

(4) Chemical waste refer to spent “battery” and “oil with water”.

Appendix N
Cumulative Statistics on Exceedances, Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics on Exceedances

		Total no. recorded in this month	Total no. recorded since project commencement
1-Hour TSP	Action	-	-
	Limit	-	-
24-Hour TSP	Action	-	-
	Limit	-	-
Noise	Action	-	-
	Limit	-	-
Water Quality	Action	-	1
	Limit	-	1
Dolphin Monitoring	Action	-	-
	Limit	-	-

Remarks: Exceedances which are not project-related are not presented in this table.

Cumulative statistics on Exceedances, Complaints, Notifications of Summons and Successful Prosecutions

	Date Received	Subject	Status	Total no. received in this month	Total no. received since project commencement
Environmental complaints	-	-	-	0	15
Notification of summons	-	-	-	-	1
Successful Prosecutions					1