





Permanent Aviation Fuel Facility (EP-262/2007/A)

Fourteenth Monthly Environmental Monitoring and Audit Report – December 2007

14th January 2008

Environmental Resources Management

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

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REPORT

Permanent Aviation Fuel Facility (EP-262/2007/A) Fourteenth Monthly Environmental Monitoring and Audit Report – December 2007

14th January 2008

Prepared by: Karen Lui/Craig A Reid

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For and on behalf of

Environmental Resources Management

Approved by: Craig A Reid

Signed:

Position: Environmental Team Leader

Date: 14th January 2008

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Permanent Aviation Fuel Facility for Hong Kong International Airport

Environmental Certification Sheet EP-262/2007/A

Reference Document/Plan

Document/Plan to be-Certified/ Verified:

14th Monthly EM&A Report - December 2007

Date of Report

14th January 2008

Date prepared by ET:

14th January 2008

Date received by IEC:

14th January 2008

Reference EP Condition

Environmental Permit Condition:

Condition No.: 5.3

Content:

Environmental Monitoring and Audit (EM&A) for the Project

Four hard copies and one electronic copy of the monthly EM&A Report for the Project shall be submitted to the 5.3 Director within 2 weeks after the end of the reporting month. The submissions shall be certified by the ET Leader and verified by the IEC before submission to the Director. Additional copies of the submission shall be provided upon request by the Director.

ET Certification

I hereby certify that the above referenced document/plan complies with the above referenced condition of

EP-262/2007/A

Craig A Reid, Environmental

Team Leader:

Date:

14th January 2008

TEC Verification

I hereby verify that the above referenced document/plan complies with the above referenced condition of

EP-262/2007/A

Dr Guiyi Li, Independent Environmental Checker:

Date: 16 Jan 2008

Notes: EP-262/2007/A has replaced the former EP-262/2007 and EP-139-2002/A for the PAFF project after the resubmission of revised EM&A Manual and revised EIA Report respectively.

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EXECUTIVE SUMMARY

The construction works for the Permanent Aviation Fuel Facility resumed on 9th July 2007. This **fourteenth** monthly Environmental Monitoring and Audit (EM&A) report presents the EM&A works carried out during the period from **1st December** to **31st December 2007** in accordance with the EM&A Manual.

Breaches of all Action and Limit Levels

Daily exceedance of Action Levels of Turbidity and occasional exceedance of Action Limit Levels of Suspended Solids were found on 21, 24, 25, 27, 29, 30 December 2007. Following review of data in accordance with the procedures specified in the EM&A Manual, these exceedances were considered due to natural fluctuation from the Pearl River discharge rather than the Project Works.

Complaint Log

No environmental complaints were received during the reporting period.

Notifications of any Summons and Successful Prosecutions

No environmental summon or prosecutions were received in this reporting period.

Reporting Changes

There were no reporting changes in the reporting period.

Future Key Issues

- Dust release and suppression;
- Dredging activities; and
- Water quality monitoring and dolphin monitoring during the dredging activities.

1 INTRODUCTION

Leighton Contractors (Asia) Limited (LCAL) has appointed ERM-Hong Kong, Limited (ERM) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Permanent Aviation Fuel Facility (the Project) during construction works.

The construction works for PAFF commenced in November 2005 based upon the previous EIA (*EIAO Register Number AEIAR-062-2002*) conducted and the Environmental Permit *EP-139/2002* granted on the 28th August 2002. Due to minor changes to the detailed layout of the site and the site boundary, application for Variation to the Environmental Permit (VEP) (*VEP-133/2004*) was submitted to the Director of Environmental Protection (DEP) for approval. The variation to the EP (*EP-139/2002/A*) was granted by the EPD in February 2004.

However, the decision by the EPD to grant the above Environmental Permit was subject to a Judicial Review. The Judicial Review sided in the favour of the DEP, as did the subsequent Judgement from the Court of Appeal from the High Court for Judicial Review in March 2005. However, the DEP's decision to grant the EP was quashed by the Judgement of the Court of Final Appeal of July 2006.

The construction works were stopped following the Judgement of the Court of Final Appeal of July 2006. As such, in order to continue with the construction of the project, the project went through the statutory procedures under the EIAO again with a new design in order to obtain an environmental permit. The revised EIA was submitted in 2007 and the environmental permit (*EP*-262/2007) was granted in May 2007. *EP*-262/2007 has been amended to *EP*262/2007/A and issued by the EPD on 30 November 2007.

The construction works and EM&A requirements were resumed on 9th July 2007 following the latest requirements of the *EP-262/2007* and *EM&A Manual*. Details regarding the EM&A requirements and changes should refer to the updated *EM&A Manual*. For the marine works, all piling activities were completed before the previous suspension of construction works in 2006.

1.1 Purpose of the Report

This is the **fourteenth** EM&A Report which summarizes the monitoring results and audit findings for the EM&A programme during the reporting period from 1st December to 31st December 2007.

2 ENVIRONMENTAL STATUS

2.1 PROJECT AREA

The project area is in Area 38 of Tuen Mun and the pipelines are located in Urmston Road between Tuen Mun Area 38 and Sha Chau. The site is illustrated in *Annex A*.

2.2 Environmental Sensitive Receivers

No air and noise sensitive receivers were identified close to the project area. However, water sensitive receivers and ecological sensitive receivers were identified in the EIA study, and are shown in *Annex B*.

2.3 MAJOR CONSTRUCTION ACTIVITIES

A summary of the major works undertaken in this reporting period is shown in *Table 2.1*.

Table 2.1 Summary of Works Undertaken During the Reporting Period

Area	Works undertaken
Tuen Mun Area 38	Tank Farm and Bund Wall Construction
	Permanent Drainage Construction
	Operational & Fire Services Buildings Construction
	Jetty Works (Non-piling)
Submarine Pipeline Route	Dredging Operations

2.4 MONITORING SCHEDULE OF THE REPORTING MONTH

Daily water quality monitoring during dredging activities commenced on 17 December 2007. The monitoring schedule for December 2007 and January 2008 is presented in *Annex C*.

2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project since July 2007 is presented in *Table* **2.2**.

Table 2.2 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licenses/	Reference	Validity Period	Remarks
Notification Environmental Permit	EP-262/2007/A	Throughout Project	Issued on 30 November 2007 (EP-262/2007 issued on 31 May 2007, EP-139/2002 originally granted on 28 August 2002 and EP-139/2002/A granted on 24 February 2004 were superseded)
Chemical Waste Producer Registration	WPN 5111-421-L2174- 25	Throughout Project	Issued on 10 November 2005
Notification of Construction Works under Air Pollution Control (Construction Dust) Regulation	H2104/U1D/5542/DG/ DH/PL	Throughout Project	Notification on 6 July 2007
Construction Noise Permit	GW-RW0676-07	21 December 2007 to 19 June 2008	For land-based works including air compressors, breakers, excavators, wheeled loaders, mobile cranes, concrete lorry mixers, hand-held pokers, bar benders/cutters, wood saws, grinders, submarine water pump, lorries with crane, dump trucks, rollers, ventilation fans
	GW-RW0677-07	21 December 2007 to 29 February 2008	and generators For marine dredging operation including grab dredger, tug boat, split hopper barge and motor sampan
	GW-RW0678-07	21 December 2007 to 18 June 2008	For marine jetty works including concrete pump derrick barges, hand-held grinders, generators, air compressors, boring machines, water pumps, tug boat, grout mixers and grout pumps
Marine Dumping Permit	EP/MD/08-064	13 December 2007 to 29 February 2008	For Type 1 marine disposal
	EP/MD/08-065	13 December 2007 to 12 January 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-071	13 January 2008 to 12 February 2008	For Type 1d & Type 2 marine disposal
Wastewater Discharge License	EP760/421/011399/l	15 March 2006 to 31 March 2011	Issued on 15 March 2006

2.6 COMMUNITY LIAISON GROUP MEETING

According to the EP requirements, a Community Liaison Group (CLG) shall be established within three months after commencement of construction of the Project. The major duty of CLG is to advise on and monitor the proper design, construction and operation of the Project. The CLG comprises representatives from Airport Authority, members of Tuen Mun community and academics. During the reporting month, the CLG held a meeting cum site visit on 7 December 2007.

The details of PAFF CLG (including Membership and its Terms of Reference) and the meeting minutes can be found on the Project website (http://www.paffhk.com).

2.7 SUMMARY OF NON-COMPLIANCE WITH THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

Water quality monitoring during dredging activities recorded daily exceedance of Action Levels of Depth-averaged Turbidity. There was exceedance of the Action Levels of Depth-averaged Suspended Solids (SS) on the 21, 24, 25, 27, 29 and 30 December, and exceedance of the SS Limit Levels on the 27, 29 and 30 December. A description of the actions taken following these non-compliances is discussed in *Section 3.2*.

2.8 SUMMARY OF ENVIRONMENTAL COMPLAINTS

No environmental complaints were received during the reporting period. A summary of environmental complaints since project commencement is presented in *Annex D*.

2.9 SUMMARY OF ENVIRONMENTAL SUMMONS

No summons were received in this reporting period. A summary of legal proceeding since project commencement is presented in *Annex D*.

3 ENVIRONMENTAL ISSUES AND ACTIONS

3.1 Previous Environmental Deficiencies and Follow-up Actions

As no environmental complaint was received over the last reporting period, no follow-up action was required.

Weekly site inspections were carried out by the ET on 5, 13, 17, and 28 December 2007. Overall, the site was in good orderly manner and no non-compliance was found. Environmental deficiencies and follow-up actions/mitigation measures were identified during the inspections, as follows:

Air Quality

- Water tankers were used regularly to wet the road surface to minimize dust emission.
- Site entrance was paved and wheel-washing facility was provided to avoid dust deposit on the public road.
- Main access road within the site (between site office and exit) was paved to avoid dust emission. Other sections of the major access road in the construction area were paved with stones.

Noise

- No noisy activities were conducted during the audit.
- All air compressors on site were operated with a valid noise label.

Water Quality

- Site toilets were provided on site. A soil soakaway system with holding tanks was installed to treat the sewage from the toilets. No effluent discharge out of the site was made.
- The site canteen is no longer in operation and hence no waste water is generated.

Waste Management

- During the site inspection on 28 December 2007, water ponding was found near site entrance. The Contractor was recommended to clear the ponding.
- During the site inspection on 17 and 28 December 2007, stockpiles of excavated materials were found near the site entrance. The Contractor was recommended to cover excavated materials with tarpaulin to avoid

fugitive dust generation.

Landscape and Visual

- The transplanted trees at the new site were in good and healthy condition; and,
- The berm was habilitated by vegetation.

Overall, the site was in a good orderly manner. The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

3.2 DESCRIPTION OF ACTIONS TAKEN IN EVENT OF NON-COMPLIANCE AND DEFICIENCY REPORTING

Water quality monitoring during dredging activities recorded daily exceedance of Action Levels of Depth-averaged Turbidity. There was exceedance of the Action Levels of Depth-averaged Suspended Solids (SS) on the 21, 24, 25, 27, 29 and 30 December, and exceedance of the SS Limit Levels on the 27, 29 and 30 December. There was both mid-ebb and mid-flood exceedance for SS on the 24, 25 and 30 of December. Details of exceedance were presented in the monitoring results *Annex G*. A description of the actions taken following identification of a non-compliance are discussed in *Section 3*.

Although dredging operations were undertaken during the reporting period, the exceedances were unlikely to be caused by the Project and were considered to be an isolated case due to the following reasons:

- Exceedance of Action Level of depth-averaged Turbidity was found on 17, 21, 22, 31 December (when no dredging was undertaken), whose values were comparable to those of days with dredging operations
- Depth-averaged DO, bottom DO and depth-averaged SS did not show the same trend of exceedance

As per the requirements of the EM&A Manual, incidents were notified to the Franchisee's Site Representative, the Contractor and the Independent Environmental Checker upon identification of an exceedance.

The temporal and spatial trend of the results collected during the impact monitoring have been plotted against those collected during the baseline monitoring and are discussed below. Results are illustrated in *Figure G3* in *Annex G*.

Ebb Tide

During impact monitoring on the ebb tide, turbidity and SS levels at all stations, with the exception of Impact Station MP, are generally comparable with those levels recorded during the baseline monitoring. It is noted that there appears to be an increasing trend in both turbidity and SS levels at

Station MP between 22 and 30 December (maximum of 40.2 NTU and 37.2 mg/L respectively), however, as this station was located over 1.5 km upstream from the dredging operation, it is considered unlikely that these levels are attributable to Project works. It is more likely that the waters upstream of the works site are influenced by other factors, such as natural fluctuations of turbidity and SS observed in the Pearl River Estuary.

Flood Tide

During impact monitoring on the flood tide, both turbidity and SS levels at all stations, are generally comparable with those recorded during the baseline monitoring. An exception was noted for 27 December where maximum levels were higher than those recorded during other monitoring events. As levels returned to levels comparable with other monitoring events the following day, such fluctuations are not considered to be of a concern.

It is also important to note that the construction works were not carried out continuously over the weeks during the impact monitoring period. On some occasions, there were no marine works undertaken on site during the monitoring period.

Whilst it is noted that there were no apparent spatial trends in the monitoring data, there does appear to be an overall temporal increase in concentrations of monitoring parameters. As this increase is noted to be generally consistent over all monitoring stations, it is considered that this change is likely to be reflective of natural conditions. Nevertheless, such patterns will be examined over the remaining monitoring period to verify whether the trend continues.

3.2.2 Follow-up Action following Non-Compliance

In accordance with the required procedures specified in the EM&A Manual to be taken following the trigger of an Action Level, discussions between the Environmental Team and the Independent Environmental Checker (IEC) have resulted in a recommendation of an amendment to be made to the Action Level for the monitoring of Turbidity for the Project.

3.2.3 Recommendation following Non-Compliance

It is noted that for Dissolved Oxygen (DO) and Suspended Solids (SS) a set Action and Limit Levels have been established taking into consideration both the baseline data as well as the Environmental Protection Departments (EPD) routine water quality monitoring data collected between 1998 and 2006. This value thus takes into account historical fluctuations in ambient conditions and thereby could be considered to be more representative of natural change. Presently, monitoring for Turbidity does not take into account natural spatial and temporal patterns, but is rather restricted to Action Levels that are determined by the water quality data collected at upstream control station on the day of monitoring. It is therefore recommended that the Action Level of

Turbidity be amended to follow the same principle as that currently applied to DO and SS.

Steps to potentially amend the Action Level of Turbidity are currently in discussion with the IEC and the EPD and will be presented in the revised *Baseline Water Quality Monitoring Report*. The progress of these recommendations will be document in the next *Monthly Monitoring Report*.

3.3 IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The implementation status of environmental mitigation measures and requirements as stated in the EIA Report, Environmental Permits and EM&A Manual during the reporting period is summarized in *Annex E*.

4 ENVIRONMENTAL MONITORING

4.1 AIR AND NOISE

Air and Noise monitoring is not required for the project.

4.2 WATER QUALITY

In accordance to the EM&A Manual, during dredging activities, water quality monitoring commenced on 17 December 2007. QA/QC reports for Suspended Solids testing are presented in *Annex F*. Monitoring data and graphical presentations of the results are included in *Annex G*.

Results of the monitoring demonstrated that all measured dissolved oxygen levels of all Impact Stations were compliant with the Action and Limit (AL) Levels specified in the EM&A Manual. Concentrations of Suspended Solids (SS) were generally below AL Levels, however, exceedances were noted for 21, 24, 25, 27, 29, 30 December 2007. Turbidity levels were, however, above Action Levels on a daily basis during the reporting month. A review of the above exceedances concluded that these were not attributable to Project works and were likely due to natural variation (see *Section 3.2* for further details).

At the time of this report, laboratory analysis of POPs was still in progress. Results of POPs monitoring will be presented in the next *Monthly Monitoring Report* once they become available.

4.2.1 Waste Management

The Contractor's revised Waste Management Plan (Revision 4) (WMP) was submitted to the EPD on 20th September 2007.

4.2.2 *Cultural Heritage*

Since dredging activity has not reached the sediment removal of 3km (for SS) and 2km (SS2) level during the reporting period, marine archaeological monitoring was not required.

4.2.3 Landscape and Visual

According to the EIA report and EM&A Manual, mitigation measures and site inspection are required during the landscaping/planting works. The berm/landscaping bund was habilitated by vegetation which was grown during the project suspension period. The transplanted trees were in good and healthy condition.

The weekly site inspections included audits on landscape and visual issues to ensure that the site was in orderly acceptable manner.

4.2.4 Land Contamination, Hazard to Life and Fuel Spill Risk

According to the EIA report and EM&A Manual, mitigation measures and design phase audit are required to minimise the risk of fuel spill and hazards. The Contractor will submit the updated design audit plan according to the EP requirements.

Pursuant to *Condition 3.5* of the EP, the Contractor submitted three design drawings which address the specific sub-clauses on *Condition 3.5a* of the EP concerning the containment systems of aviation fuel storage tank farm. The ET and the IEC have provided certification and verification to the drawings respectively and the drawings were submitted to the EPD on 7 November 2007.

Weekly site inspection covered the waste management aspects which included measures to prevent land contamination by chemical wastes.

4.2.5 Ecology

Dolphin Visual Monitoring

In accordance to EM&A Manual, dolphin monitoring has been undertaken during dredging activities since 17 December 2007.

During the reporting period, two dolphin sightings were recorded outside the exclusion zone on 25 December and 28 December, with only one dolphin sighting recorded within the exclusion zone on 21 December. Appropriate action was taken in accordance with the EM&A Manual. The sighting results were presented in *Table 4.1*.

Table 4.1 Dolphin Sighting Records during the Reporting Period

Date	Time	Sighting Distance from Dredger (m)	Group Size	Beaufort	Boat Association	Observer's Name
21/12/2007	14:55	90	3	1	None	Richard Huang
25/12/2007	14:00	600	3	1	None	Richard Huang
28/12/2007	09:28	620	1	1	Shrimp trawler	Anton Tsang

4.2.6 EM&A Manual

The *EM&A Manual* for the Project has been updated by the ET to include the detailed arrangements of setting up a Community Liaison Group, carrying out design audit, and monitoring of Persistent Organic Pollutants during construction of the Project. The updated EM&A Manual was revised accordingly to the comments received from the EPD on 6th December 2007 and was submitted to the EPD on 10th December 2007. The ET will keep track on comments received from the EPD, if any, and update the *EM&A Manual* accordingly.

4.2.7 Baseline Water Quality Monitoring

Baseline water quality monitoring was conducted between 24 October and 30 October 2007 at six designated monitoring stations (three impact stations and three control stations) established for the Project in accordance with the *EM&A Manual*. The *Final Baseline Monitoring Report* was submitted to the EPD on 21 November and comments were received from the EPD on 6th December. A revised *Final Baseline Monitoring Report* will be submitted to the EPD within the next reporting period.

5 FUTURE KEY ISSUES

5.1 KEY ISSUES FOR THE NEXT ONE MONTH

Key issues to be considered in the next one month will include:

- Dust release and suppression;
- Operation of dredging activities; and
- Water quality monitoring and dolphin monitoring during the dredging activities.

5.2 IMPACT PREDICTION FOR THE NEXT ONE MONTH

Provided that environmental mitigation measures including good on-site practises are properly implemented, it is not expected that unacceptable adverse impacts will arise.

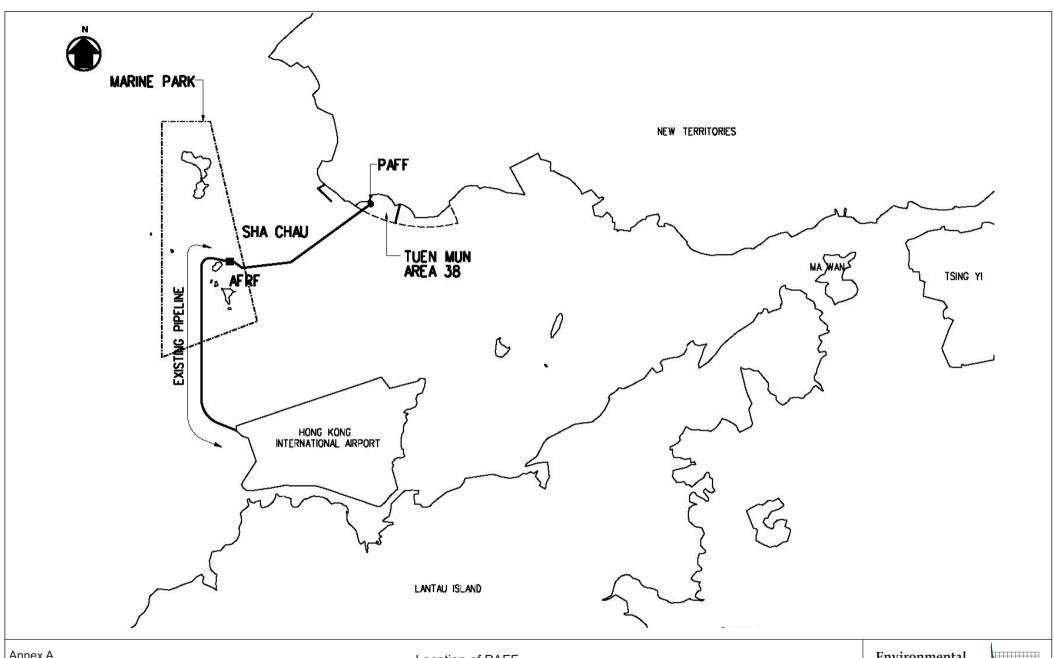
Based on the water quality monitoring results recorded to date, it may be expected that further exceedances in Turbidity and possibly Suspended Solids may be recorded. However, as with those recorded so far, it is not expected that such exceedances would be attributable to Project Works. It is noted that actions are underway to potentially revised the Action Limit Levels for Turbidity and progress on these revisions will be summarised in the next *Monthly Monitoring Report*.

5.3 WORKS AND MONITORING SCHEDULE FOR THE NEXT ONE MONTH

Work programme for the next one month includes jetty platform works (non-piling), site works (construction works for tank farm, operational and fire services buildings, drainages, bund wall, security wall etc) and dredging operation. Weekly site inspections will be undertaken. Water quality, dolphin monitoring and marine archaeological monitoring will be undertaken in accordance with the *EM&A Manual*.

Annex A

Project Location



Annex A

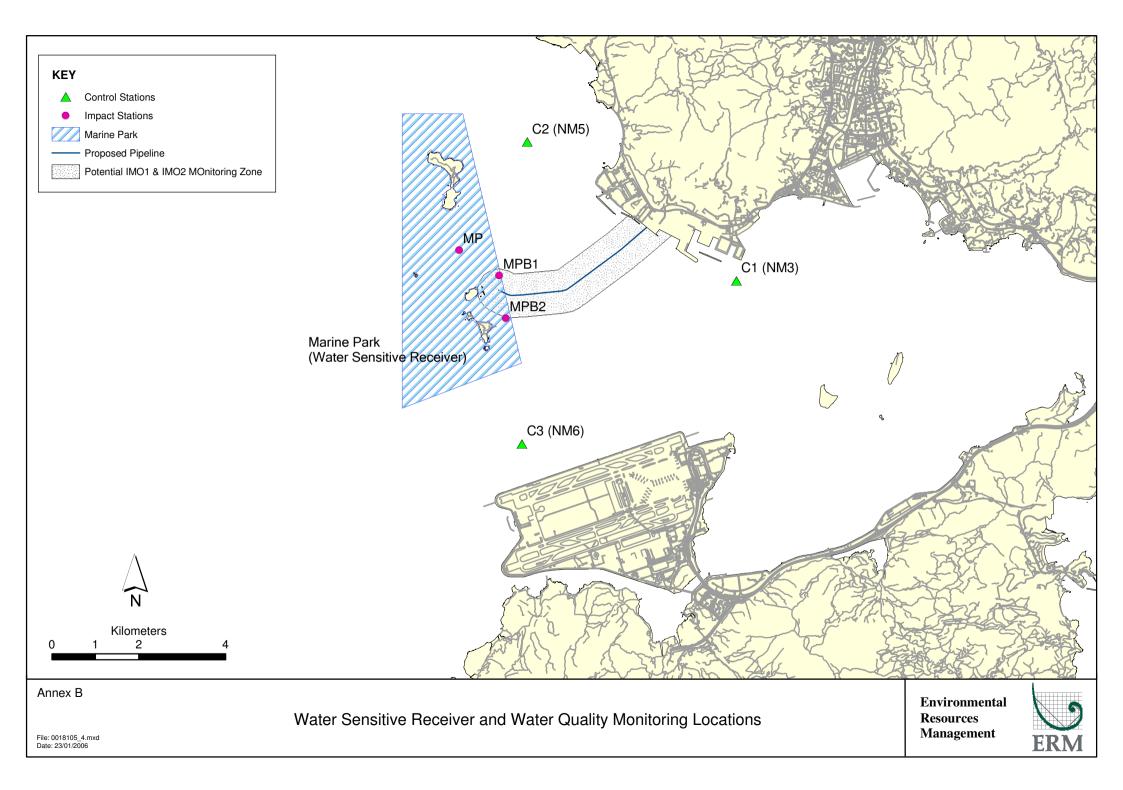
Location of PAFF

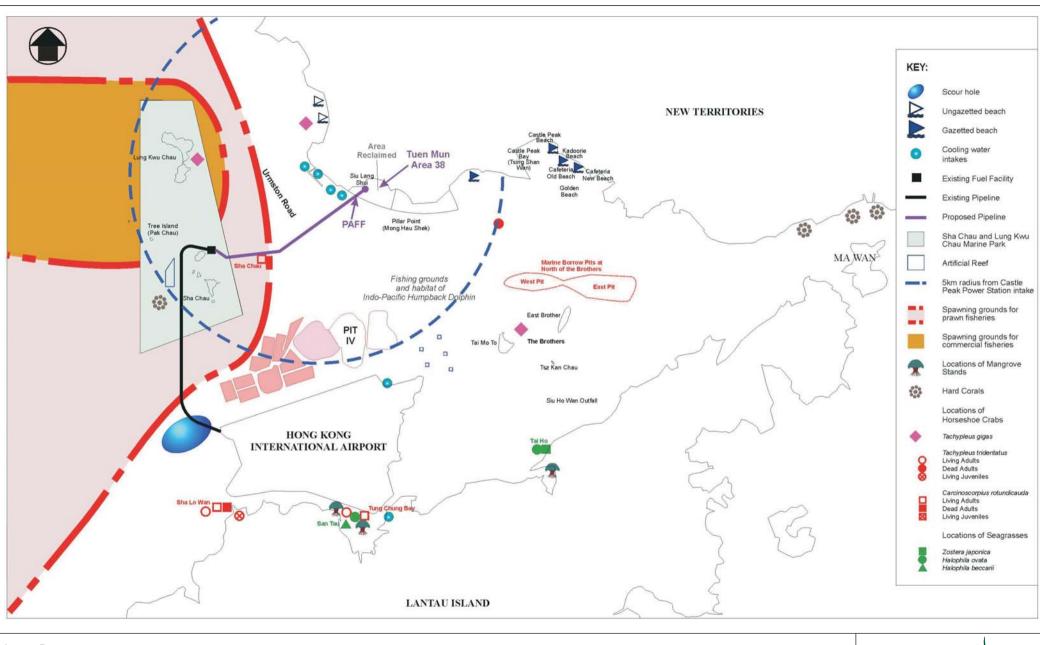
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Annex B

Water Quality Monitoring Stations, Water Quality and Ecological Sensitive Receivers





Annex B

FILE: C2475aa

DATE: 12/11/2007

Water Quality and Ecological Sensitive Receivers

(Soure: PAFF for Hong Kong International Airport EIA, Mouchel 2002)

Environmental Resources Management



Annex C

Monitoring Schedule for the Reporting Period and Next Month

Permanent Aviation Fuel Facility Tentative Water Quality Monitoring Schedule - December 2007

Reference Tidal Station: Lok On Pai (source: HK Observatory Department)

Sund	day	Mo	onday	Tu	esday	Wed	dnesday	Th	ursday	F	riday	Sa	turday
													01-Dec
	02-Dec		03-Dec		04-Dec		05-Dec		06-Dec		07-Dec		08-Dec
	09-Dec		10-Dec		11-Dec		12-Dec		13-Dec		14-Dec		15-Dec
	16-Dec		17-Dec		18-Dec		19-Dec		20-Dec		21-Dec		22-Dec
		Mid-flood	13:12	Mid-flood		Mid-ebb		Mid-ebb		Mid-ebb	10:11	Mid-ebb	11:19
		Mid-ebb	19:12	Mid-ebb		Mid-flood		Mid-flood		Mid-flood	15:47	Mid-flood	16:29
	23-Dec		24-Dec		25-Dec		26-Dec		27-Dec		28-Dec		29-Dec
Mid-ebb	12:14	Mid-ebb	13:03	Mid-ebb	13:50	Mid-ebb	14:34	Mid-ebb	15:19	Mid-ebb	16:04	Mid-flood	11:34
Mid-flood	17:15	Mid-flood	18:01	Mid-flood	18:48	Mid-flood	19:36	Mid-flood	20:22	Mid-flood	21:08	Mid-ebb	16:52
						+POP San	nples						
	30-Dec		31-Dec										
Mid-flood	12:14	Mid-ebb	05:29				_						
Mid-ebb	17:48	Mid-flood	12:51										

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

Permanent Aviation Fuel Facility Tentative Water Quality Monitoring Schedule - January 2008

91	ınday	Mo	nday	Tu	esday	Wod	nesday	The	ırsday	E	riday	Sat	urday
30	illuay	IVIC	niuay	Tu									
					01-Jan		02-Jan		03-Jan		04-Jan		05-Jar
				Mid-Ebb		Mid-Ebb	07:14	Mid-Ebb		Mid-Ebb	10:19	Mid-Ebb	11:06
				Mid-Flood	13:25	Mid-Flood	13:54	Mid-Flood	14:24	Mid-Flood	14:59	Mid-Flood	15:42
	06-Jan		07-Jan		08-Jan		09-Jan		10-Jan		11-Jan		12-Jar
Mid-Ebb	11:47	Mid-Ebb	12:26	Mid-Flood	08:13	Mid-Flood	08:44	Mid-Flood	09:14	Mid-Flood	09:44	Mid-Flood	10:13
Mid-Flood	16:27	Mid-Flood	17:12	Mid-Ebb	13:04	Mid-Ebb	13:43	Mid-Ebb	14:20	Mid-Ebb	14:59	Mid-Ebb	15:38
						+POP Sam	ples						
	13-Jan		14-Jan		15-Jan		16-Jan		17-Jan		18-Jan		19-Jar
Mid-Flood	10:43	Mid-Flood	11:14	Mid-Flood	11:49	Mid-Flood	12:25	Mid-Ebb	06:55	Mid-Ebb	08:24	Mid-Ebb	09:59
Mid-Ebb	16:21	Mid-Ebb	17:09	Mid-Ebb	18:13	Mid-Ebb	19:23	Mid-Flood	13:06	Mid-Flood	13:50	Mid-Flood	14:43
	20-Jan		21-Jan		22-Jan		23-Jan		24-Jan		25-Jan		26-Jar
Mid-Ebb	11:12	Mid-Ebb	12:11	Mid-Ebb	12:58	Mid-Flood	08:30	Mid-Flood	09:04	Mid-Flood	09:34	Mid-Flood	10:01
Mid-Flood	15:56	Mid-Flood	17:04	Mid-Flood	18:02	Mid-Ebb	13:40	Mid-Ebb	14:19	Mid-Ebb	14:55	Mid-Ebb	15:30
						+POP Sam	ples						
	27-Jan		28-Jan		29-Jan		30-Jan		31-Jan				
Mid-Flood	10:23	Mid-Flood	10:45	Mid-Flood	11:08	Mid-Flood	11:35	Mid-Ebb	05:35				
Mid-Ebb	16:04	Mid-Ebb	16:42	Mid-Ebb	17:31	Mid-Ebb	18:47	Mid-Flood	11:55				
		1				1				1			

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

Annex D

Cumulative Complaints Statistics

Summary of Environmental Complaints

Reporting Period		Complaint Statistics	
	Frequency	Cumulative	Complaint Nature
Before construction works	1	1	Dust
18/11/05 - 15/12/05	1	2	Dust
15/12/05 - 14/01/06	0	2	Nil
15/01/06 - 14/02/06	0	2	Nil
15/02/06 - 14/03/06	0	2	Nil
15/03/06 - 14/04/06	0	2	Nil
15/04/06 - 14/05/06	0	2	Nil
15/05/06 - 14/06/06	0	2	Nil
15/06/06 - 14/07/06	0	2	Nil
Re-commencement of cor 09/07/07 - 31/07/07	struction works on 9th 0	² July 2007	Nil
01/08/07 - 31/08/07	0	2	Nil
01/09/07 - 30/09/07	0	2	Nil
01/10/07 - 31/10/07	0	2	Nil
01/11/07 - 30/11/07	0	2	Nil
01/12/07 - 31/12/07	0	2	Nil

Summary of Environmental Summons

Reporting Period]	Environmental Summo	ns
_	Frequency	Cumulative	Summon Nature
18/11/05 - 15/12/05	0	0	Nil
16/12/05 - 14/01/06	0	0	Nil
15/01/06 - 14/02/06	0	0	Nil
15/02/06 - 14/03/06	0	0	Nil
15/03/06 - 14/04/06	0	0	Nil
15/04/06 - 14/05/06	0	0	Nil
15/05/06 - 14/06/06	0	0	Nil
15/06/06 - 14/07/06	0	0	Nil
Re-commencement of con-	struction works on 9th	July 2007	
09/07/07 - 31/07/07	0	0	Nil
01/08/07 - 31/08/07	0	0	Nil
01/09/07 - 30/09/07	0	0	Nil
01/10/07 - 31/10/07	0	0	Nil
01/11/07 - 30/11/07	0	0	Nil
01/12/07 - 31/12/07	0	0	Nil

Annex E

Implementation Schedule

ANNEX E IMPLEMENTATION SCHEDULE

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or		plemer Sched	ale	Maintenance Agency	Implementation Status
Water Qua	Reference				Requirement	D	С	О		
water Qua	iity									
6.7	6.8.1	There should be no access to the shore or working from land within the Marine Park. No marine anchors shall be used within the Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
6.7	6.8.1	No hydraulic dredging within Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
6.7	6.8.1	Dredging for pipeline trench should be timed to coincide with maintenance dredging for Sha Chau AFRF marine access channel if relevant.	Sha Chau ARFR Marine access channel	Airport Authority	TMEIA		Y		N/A	Pending
6.4		The work rate for dredging should not exceed 4,000 m ³ /hr for the TSHD and 7,000 m ³ /day for the grab dredger.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
6.7	6.8.1	Standard good dredging practice measures shall be written in the dredging contract.	Marine Park / Pipeline Dredging	Franchisee	TMEIA		Y		N/A	Pending
6.7	6.8.1	Use of Lean Material Overboard (LMOB) systems shall be prohibited. No mud overflow is to be permitted for dredging using TSHD.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Pending
6.7	6.8.1	Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Pending

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	-		tion		Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D		i <mark>edul</mark> C	e O	Agency	Status
6.7	6.8.1	Barges and hopper dredgers shall have	Dredged areas/	Contractor	TMEIA Marine			<u>Y</u>		N/A	Pending
***	*****	tight fittings seals to their bottom	Pipeline		Fill Committee			_		- 1,	
		openings to prevent leakage of material.	Dredging		Guidelines.						
			0 0		DASO permit						
					conditions						
6.7	6.8.1	Any pipe leakages shall be repaired	Dredged areas/	Contractor	TMEIA Marine		•	Y		N/A	Pending
		quickly. Plant should not be operated	Pipeline		Fill Committee						
		with leaking pipes	Dredging		Guidelines.						
					DASO permit						
					conditions						
6.7	6.8.1	Loading of barges and hoppers shall be	Dredged areas/	Contractor	TMEIA Marine			Y		N/A	Pending
		controlled to prevent splashing of	Pipeline		Fill Committee						
		dredged material to the surrounding	Dredging		Guidelines.						
		water. Barges or hoppers shall not be			DASO permit						
		filled to a level which will cause			conditions						
		overflow of materials or pollution of									
		water during loading or transportation.		_							
6.7	6.8.1	Excess material shall be cleaned from the		Contractor	TMEIA Marine			Y		N/A	Pending
		decks and exposed fittings of barges and	-		Fill Committee						
		hopper dredgers before the vessel is	Dredging		Guidelines.						
		moved.			DASO permit conditions						
6.7	6.8.1	Adequate freeboard shall be maintained	Dredged areas/	Contractor	TMEIA Marine		,	Y		N/A	Pending
0.7	0.0.1	on barges to reduce the likelihood of	Pipeline	Contractor	Fill Committee			1		IN/ A	1 enumg
		decks being washed by wave action.	Dredging		Guidelines.						
		decks being washed by wave action.	Dreaging		DASO permit						
					conditions						
6.7	6.8.1	All vessels shall be sized such that	Dredged areas/	Contractor	TMEIA Marine		•	Y		N/A	Pending
		adequate clearance is maintained	Pipeline		Fill Committee					,	O
		between vessels and the sea bed at all	Dredging		Guidelines.						
		states of the tide to ensure that undue	0 0		DASO permit						
		turbidity is not generated by turbulence			conditions						
		from vessel movement or propeller									
		wash.									

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	Im	-	ment nedu		Maintenance Agency	Implementation Status
Reference	Reference		Tilling	Agent	Requirement	D		C	O	Agency	Status
6.7	6.8.1	The works shall not cause foam, oil, grease, letter or other objectionable matter to be present in the water within and adjacent to the works site.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Ongoing
6.7	6.8.1	Placement of pipeline trench backfill should be undertaken in a controlled manner to minimise impacts. Backfilling with rock should be undertaken either down pipe or by a reverse grab operation or other controlled technique to ensure that this material does not mound on the seabed	Pipeline trench/ Pipeline Dredging	Contractor	TMEIA Minimise disturbance			Y		N/A	Pending
6.7	6.8.1	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Sewage effluent and discharges from onsite 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.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Storm drainage should 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 sandbag 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.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or		-	che	edul		Maintenance Agency	Implementation Status
6.7	Reference 6.8.1	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.	Land site/ Throughout construction period	Contractor	Requirement TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards	D		Y		O	N/A	Ongoing
6.7	6.8.1	Temporary access roads should be surfaced with crushed stone or gravel.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	<u>′</u>		N/A	Ongoing
6.7	6.8.1	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	<u>{</u>		N/A	Ongoing
6.7	6.8.1	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing
6.7	6.8.1	Open stockpiles of construction materials (e.g. aggregates and sand) o nsite should be covered with tarpaulin or similar fabric during rainstorms.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	<u> </u>		N/A	Ongoing
6.7	6.8.1	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.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	<u>'</u>		N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Implementation Relevant Timing Agent Standard or				Implementation Schedule				Maintenance Agency	Implementation Status
	Reference		Timing	Agent	Requirement	D	5	C		О	Agency	Status
6.7	6.8.1	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing
6.7	6.8.1	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.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing
6.7	6.8.1	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing
6.7	6.8.1	The section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing
6.7	6.8.1	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing
6.7	6.8.1	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 off site disposal.	·	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y			N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	In	Implementation Schedule			Maintenance Agency	Implementation Status
			Timing	rigent	Requirement	D		C	O	Agency	Status
6.7	6.8.1	The contractors shall prepare oil/chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	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.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Wastewater from pipe commissioning dewatering exercises shall be stored on site and for chemical analysis and safe disposal in accordance with the WPCO.	Tank Farm/Tank farm commissioning	Franchisee	TMEIA WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	Section 6	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	Land site/ Throughout construction period	Contractor	EM&A Manual			Y		N/A	Ongoing
6.7	Section 6	Submarine section of aviation fuel pipeline shall be covered with rock armour protection which shall not protrude above the level of the adjacent natural seabed.	Submarine pipeline	Franchisee	TMEIA Rock armour to minimum thickness of 1m	Y		Y		Franchisee	Pending

EIA	EM&A Manual Reference	Environmental Protection Measures	Location/	Implementation	Relevant	In	plementa			Implementation
Reference			Timing	Agent	Standard or Requirement	D	Schedule D C O	Agency	Status	
6.7	Section 6	Detailed emergency response procedures shall be drawn up. These will include requirements to maintain floating oil booms, absorbent materials and skimmers on site at all times.	All facilities	Franchisee	TMEIA Industry Standards e.g. Oil Companies International Marine Forum			Y	Franchisee	Pending
6.7	Section 6	Coupling points on the jetty will be protected with slop collection utilities.	Jetty	Franchisee	TMEIA Rock armour to minimum thickness of 1m		Y		Franchisee	Pending
6.7	Section 6	Auxiliary tanks shall be permanently maintained at the tank farm for recovered fuel and slops.	Tank farm	Franchisee	TMEIA			Y	Franchisee	Pending
6.7	Section 6	Oily drainage systems and slop collection systems will connect to an oil/water separator.	Tank farm	Franchisee	TMEIA Industry Standards e.g. Oil Companies International Marine Forum		Y		Franchisee	Pending
6.7	Section 6	All tanks shall be bunded to a capacity of at least 150% of the largest individual tank in each compound by 2040. Tank pits shall be protected by an impermeable bed (e.g. geotextile sheeting) to prevent seepage of aviation fuel to ground. A leak detection system shall be installed beneath the containment membrane.	Tank farm	Franchisee	TMEIA Hong Kong Code of Practice for Oil Installations, 1992		Y		Franchisee	Pending
6.7	Section 6	There shall be no direct outlet from the bund. A collection pump shall be included in the base. Removal of accumulated rainwater shall be activated manually and discharged to storm drain via an oil/water separator.	Tank farm	Franchisee	TMEIA		Y		Franchisee	Pending

EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	-		Maintenance	Implementation
		Timing	Agent		_			Agency	Status
					D	C			
Section 6	0 11	Tank farm	Franchisee				Y	Franchisee	Pending
	=								
				for Oil					
				Installations,					
	to deal with spillages.			1992					
Section 6	Valves shall be installed within the storm	Tank farm	Franchisee	TMEIA		Y		Franchisee	Pending
	drainage system to facilitate the retention								
	of spillages.								
Section 6	Water quality monitoring shall be	Design	Contractor	EM&A Manual		Y		N/A	Pending
	undertaken for suspended solids,	monitoring							
	turbidity, and dissolved oxygen.	stations as							
		defined in							
		EM&A Manual,							
		section 6.							
		Construction							
		period when							
		dredging takes							
		place within							
		1000m of							
		Marine Park							
		and along entire							
		length of the							
		pipeline							
	Manual Reference Section 6	Manual Reference Section 6 Contingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages. Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Section 6 Water quality monitoring shall be undertaken for suspended solids,	Manual Reference Contingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages. Tank farm Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Tank farm Section 6 Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Design monitoring stations as defined in EM&A Manual, section 6. Construction period when dredging takes place within 1000m of Marine Park and along entire length of the	Manual Reference Timing Agent Section 6 Contingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages. Tank farm Franchisee Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Tank farm Franchisee Section 6 Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Design Contractor EM&A Manual, section 6. Construction period when dredging takes place within 1000m of 1000m of Marine Park and along entire length of the 1000m of the 1000m of the 1000m of the	Manual ReferenceTiming ReferenceAgent RequirementSection 6 ReferenceContingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages.Tank farm FranchiseeTMEIA Hong Kong Code of Practice for Oil Installations, 1992Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages.Tank farm FranchiseeTMEIA TMEIASection 6 Water quality monitoring shall be undertaken for suspended solids, 1 turbidity, and dissolved oxygen.Design Contractor EM&A Manual	Manual Reference Timing Agent Standard or Requirement Do Requirement De Requirement De Requirement De Requirement De Requirement De Requirement TIMEIA Section 6 Contingency procedures shall be drawn up to ensure containment and safe up to ensure contain and safe up to ensure cont	Manual Reference Contingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages. Tank farm Franchisee TMEIA Hong Kong Code of Practice for Oil Installations, Installa	Manual Reference Timing Agent Standard or Requirement % Chellers Conditingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages. Tank farm Franchisee TMEIA Y Y Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Tank farm Franchisee TMEIA Y Y Y Section 6 Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Design Contractor EM&A Manual, section 6. EM&A Manual, section 6. EM&A Manual, section 6. Construction period when dredging takes place within 1000m of Marine Park and along entire length of the Hong the drawn of the process	Manual Reference Timing Agent Standard or Requirement Schedutes Agency Section 6 Reference Contingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials to deal with spillages. Tank farm Franchisee Hong Kong Code of Practice From Coll From Coll Installations, To Coll Installations, To Coll Installations, To Coll Installations, To deal with spillages. Tank farm Franchisee TMEIA Y Franchisee Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Tank farm Franchisee TMEIA Y Franchisee Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Contractor EM&A Manual Y N/A Section 6 Valves shall be installed within the storm drainage system to facilitate the retention of spillages. Contractor EM&A Manual Y N/A Section 6. Construction EM&A Manual Y N/A Section 6. Construction EM&A Manual Y Y Y Section 6. Construction Franchisee Franchisee Franchisee Franchisee Franchisee Franchisee

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	plement	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedu	le	Agency	Status
	Reference				Requirement	D	C	O		
6.10	Section 6	Routine water quality monitoring in the	Operational	Franchisee	EM&A Manual			Y	N/A	Pending
		vicinity of the PAFF site to check the	phase.							
		effectiveness of the proposed	Location and							
		precautionary measures implemented	frequency to be							
		for on-site spill control. The details of	determined and							
		the monitoring to be undertaken will be	agreed with							
		prepared by the Franchisee as part of the	relevant							
		PAFF Operations Manual and the details	authorities							
		will be agreed with the relevant								
		authorities within 3 months of the								
		commencement of operation of the								
		PAFF. Monitoring should include but								
		not be limited to the parameters of TPH								
		and PAH and reference should be made								
		to the existing monitoring programme								
		undertaken for the fuel tank farm on the								
		HKIA platform.								
Ecology										
7.8	5.3	Undertake post construction dolphin	Construction	Contractor	TMEIA		Y		N/A	Pending
		abundance monitoring.								
7.8	5.3	A 250m dolphin exclusion zone shall be	250m around	Contractor	TMEIA		Y		N/A	Pending
		implemented and dredging shall not	dredger/throug							
		begin until the observer has confirmed	hout dredging							
		that the area has been clear for 30	in Marine Park							
		minutes.	and along the							
			length of							
			pipeline							

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	-	entation		Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D	Sche C	dule O	Agency	Status
7.8	5.3	Works will be restricted to a daily maximum of 12 hours within daylight hours.	Throughout dredging in Marine Park and along the length of the pipeline except for the section crossing Urmston Road Channel	Contractor	TMEIA		Y		N/A	Pending
7.8	5.3	Avoidance of dolphin main calving season between March and August.	Throughout dredging in Marine Park and along the length of the pipeline	Contractor	TMEIA		Y		N/A	Pending
Landscape										
8.10	7.2.1	The construction programme for the PAFF should be reduced to the shortest possible period.	PAFF site / throughout construction period	Contractor	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	The extent and periphery of the works areas should be managed so that they are as small as possible and do not appear cluttered, untidy and unattractive, particularly to road traffic along Lung Mun Road.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing
8.10	7.2.1	Temporary hoarding barriers should be of a recessive visual appearance in both colour and form.	PAFF site / throughout construction period	Contractor	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Materials should be stored in areas with the least obstruction to residents, pedestrians and traffic.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	-	olementa Schedul		Maintenance Agency	Implementation Status
Reference	Reference		16	rigent	Requirement	D	C	O	rigency	Status
8.10	7.2.1	All material stockpiles should be covered with an impermeable material and sandbagging diversions should be placed around exposed soil.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing
8.10	7.2.1	Conservation of existing and imported soil resources.	PAFF site / throughout construction period of fuel tank expansion	Contractor	TMEIA			Y	N/A	Ongoing
8.10	7.2.1	A landscape perimeter bund comprising containment bund-wall, access road and planting buffer shall be built and maintained around the tank farm.	PAFF site / throughout construction period	Project Proponent	TMEIA	Y	Y	Y	Franchisee	Ongoing
8.10	7.2.1	The design of the PAFF should incorporate materials, details and textures which are visually recessive.	PAFF site / design	Project Proponent	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Colours should be of low chromatic intensity to reduce the potential contrast between the structure and their background.	PAFF site tanks / design	Project Proponent	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Visually permeable security fencing should be used around the perimeter.	Site perimeter	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Minimum amount of lighting for the tanks shall be used, only applied for safety at the key access points and staircases.	Tanks / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Limited lighting intensity on the site.	PAFF site / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Directional down lighting is suggested to minimise light spill to the surrounding area.	PAFF site / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Im D	plemen Schedu C	Maintenance Agency	Implementation Status
Cultural He	eritage								
9.8.1	9.2.1	Undertake a watching brief during dredging of the pipeline within 25m either side of anomalies SS1 and SS2. This should comprise:	Within vicinity of SS1 and SS2	Franchisee	TMEIA		Y	N/A	Pending
		 Dredge operators to be made aware of the potential presence of cultural heritage material. The operators would be required to report to the AMO any unusual resistance and/or recovery of timbers, anchors or other wreck related material. Any obstacles encountered during the dredging that are of timber should be reported to the marine archaeologist. The obstacle should be avoided and not removed until it has been assessed by the marine archaeologist as to whether the obstacle is of cultural heritage importance; A marine archaeologist shall be on board the dredging barge during dredging within 25m either side of SS1 and SS2 in the event of any unusual resistance occurring or 							

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	Im		entation dule	Maintenance Agency	Implementation Status
Kererence	Reference		Tilling	Agent	Requirement	D	C		Agency	Status
		Dredging to cease in the nominated area SS1 after 3 meters of sediment removal and after 1 metre for SS2. A dive survey will then be undertaken to examine the trench for possible cultural remains.								
9.8.2	9.2.1	During the course of the watching brief, if the targets are identified as being potentially archaeologically important, then an immediate marine archaeological impact assessment in accordance with EIAO TM Annex 19 will be required to be undertaken by a qualified marine archaeologist.	With vicinity of SS1 and SS2	Franchisee	TMEIA		Y		N/A	Pending
9.8.4	9.2.1	Any changes, additions or alterations to the dredging method and alignment should be further assessed by marine archaeologist to determine if any further assessment is required.	Pipeline alignment	Franchisee	TMEIA		Y		N/A	Pending
Fuel Spill I	Risk	1								
11.4.1	10.2	Tank farms will be constructed in a bunded area surrounding the tanks which will have collection capacity of 150% of the maximum content of the largest tank.	Tank farm / Design Phase	Franchisee	TMEIA	Y			N/A	Pending
11.4.1	10.2	Emergency shut down valves shall be installed within the wider site storm drainage system.	Tank farm / Design Phase	Franchisee	TMEIA	Y			N/A	Pending
11.4.1	10.2	An impermeable membrane shall be installed in the tank foundation beneath the tank bottom.	Tank farm / Design Phase	Franchisee	TMEIA	Y			N/A	Pending
11.4.1	10.2	Pipeline to be covered with a protective rock armour layer.	Pipelines/ Design Phase	Franchisee	TMEIA	Y			Franchisee	Pending

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Imp	olement	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedul	le	Agency	Status
	Reference				Requirement	D	C	Ο		
11.4.1	10.2	An integrated leak detection system shall	Pipelines/	Franchisee	TMEIA	Y			N/A	Pending
		be installed to all pipelines to provide	Design Phase							
		early detection of any leak.								
11.4.1	10.2	An automatic shut-off system shall be	Pipelines/	Franchisee	TMEIA	Y			N/A	Pending
		implemented for pipelines.	Design Phase							
11.4.1	10.2	A workboat shall be on standby at the	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		jetty during tanker berthing.	Tanker Berth							
11.4.1	10.2	Skimmers shall be available for quick	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		deployment in case of a spill.	Tanker Berth							
11.4.1	10.2	An emergency response plan shall be	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		prepared prior to the operation of the	Tanker Berth							
		PAFF.								
11.4.1	10.2	Operator-training programme shall be	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		implemented.	Tanker Berth							
11.6	10.4	During the planning of the later phase of	During	Franchisee	TMEIA			Y	N/A	Pending
		the tank farm development, in order to	planning stage							
		ensure that the required mitigation	for future tank							
		measures are undertaken at that time,	construction							
		review the EIA report only if the latest								
		technology, industrial standards and								
		statutory requirements have changed by								
		that time.								

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	Im	plement Schedu		Maintenance Agency	Implementation Status
	Reference		J	S	Requirement	D	C	О	5 ,	
11.6	10.4	Regular inspections and audits will be undertaken by the Franchisee during the operational phase of the facility:	Operation	Franchisee	TMEIA			Y	N/A	Pending
		 Two inspections every year of the tank farm, jetty and pipelines including one undertaken pursuant to the Joint Inspection Group (JIG) explained above; 								
		• Inspection of the whole sub sea pipelines every 5 to 10 years;								
		 Health, Safety and Environmental audit of the facility once every 3 years; and, 								
		 Inspection of the structural integrity of the tanks once per year. 								
11.6	10.4	Prepare an Environmental Management Plan to ensure the on-going adequacy of the fuel spill contingency plan and that it is being implemented as required and that the above mitigation measures have been incorporated and are effective.		Franchisee	TMEIA			Y	N/A	Pending
Land Conta	nmination	-								
13.5.1	10.2	Bunding shall be provided by all fuel storage areas to at least 150% of largest individual tank in each compound.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Relevant design standards for storage tanks, pipework, containment and drainage shall be adhered to.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Plant inspections and maintenance shall be undertaken once per month.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant				Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedu		Agency	Status
	Reference				Requirement	D	С	О		
13.5.1	10.2	Impermeable lining shall be provided for all tank pits.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Leak detection systems shall be provided to all valves.	0	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Surface drainage shall be contained and treated prior to discharge.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.1	10.2	Emergency spill response plans shall be prepared.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Pending
13.5.1	10.2	Spill control materials and equipment shall be provided on site.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Pending
13.5.1	10.2	Runoff from the rood of site buildings and landscaped areas shall be conveyed in closed drains to the nearest storm water drain to prevent the generation of excessive quantities of surface water which may be polluted.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Pending
13.5.5	10.2	Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spills. Chemical dispersants shall not be employed.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.5	10.2	The facility shall be designed, constructed, operated and maintained in full accordance with the Code of Practice for Oil Installations, 1992.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.5	10.2	Tank pressure testing shall be carried out routinely to check for possible tank leaks. Product inventory monitoring shall be integrated into site management procedures to check for any abnormal or unexpected product loss.		Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.5	10.2	Tank overfill monitoring systems shall be installed and regularly tested. Inlet valves shall be designed to automatically shutdown on exceedance of "high-high level" to prevent over-filling.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Imp	lement	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or	9	Schedu	le	Agency	Status
	Reference				Requirement	D	C	O		
13.5.5	10.2	Pipe leakages shall be routinely checked	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
		for by means of a pressure sensitive leak detection system and routine inventory control.	Design							
13.5.5	10.2	Drainage from areas of hardstanding shall be treated by means of oil/water separators prior to discharge to storm drain. All surface drainage shall be fitted with closure valves to provided additional containment and facilitate clean up of any leaks.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.5	10.2	The delivery pipeline from the jetty and the supply line to the airport shall be fitted with pressure sensitive leak detectors.	Tank farm / Design	Franchisee	TMEIA	Y	Y		N/A	Pending
Waste Man	agement									
14.7.2	8.3.1	The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The waste coordinator shall prepare and implement a Waste Management Plan which specifies procedures such as ticketing system, to facilitate tracking of loads and to ensure that illegal disposal of waste does not occur, and protocols for the maintenance of records of the quantities of wastes generated, recycled and disposal.	Contract mobilisation	Contractor	TMEIA, Works Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or		-	emen chedu C		Maintenance Agency	Implementation Status
14.7.2	8.3.1	The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	Requirement TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.	D		Y	0	N/A	Ongoing
14.7.2	8.3.1	No waste shall be burnt on site.	PAFF Site throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Excavated material shall be used on site for purposes of landscaping or formation of bund walls as far as possible.	All site / throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	All material shall be reused on site as far as practicable, including formwork plywood, topsoil and excavated material.	All site / throughout	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Suitable provisions shall be included in the construction contract to ensure that the Contractor sorts and recycles waste.	Contract preparation stage	HyD	TMEIA	Y	•			N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation	Relevant Standard or	Im	plement Schedul		Maintenance	Implementation Status
Reference	Reference		Timing	Agent	Requirement	D	C	O	Agency	Status
14.7.2	8.3.1	Re-use and recycling of waste must always be considered first. Waste disposal shall only be undertaken in the last resort. Any surplus material generated shall be sorted on site into construction and demolition (C&D) waste and the public fill fraction. A sorting facility shall be set up on the site.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The site and surroundings shall be kept tidy and litter free.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The C&D waste shall be disposed of at a licensed landfill or deposited at an authorised waste transfer facility and the material suitable for public fill delivered to a public filling area, public filling barging point or public fill stockpile area after obtaining the appropriate licence.	CEDD pubic fill stockpile in Mui	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Stockpile material shall avoid vegetated areas.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	ıple	ment	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Sc	hedul	le	Agency	Status
	Reference				Requirement	D		C	O		
14.7.2	8.3.1	Stockpiles shall be covered by tarpaulin	All areas /	Contractor	TMEIA, Public			Y		N/A	Ongoing
		and/or watered as required.	throughout		Health and						
			construction		Municipal						
			period,		Services						
			particularly		Ordinance (Cap						
			during dry		132) and the						
			season		Public						
					Cleansing and						
					Prevention of						
					Nuisances						
					(Regional						
					Council) By-						
					laws						
14.7.2	8.3.1	Storage of material on site should be kept	All areas /	Contractor	TMEIA, Public			Y		N/A	Ongoing
		to a minimum.	throughout		Cleansing and						
			construction		Prevention of						
			period		Nuisances						
			-		(Regional						
					Council) By-						
					laws						

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or		Sche		Maintenance Agency	Implementation Status
14.7.2	Reference 8.3.1	Excavated material in trucks shall be covered by tarpaulins.	All areas, particularly at site exits / throughout construction period	Contractor	Requirement TMEIA, Reduce the potential for spillage and dust. Public Health and Municipal Services Ordinance (Cap 132) and the Public Cleansing and Prevention of Nuisances	D	C	O	N/A	Ongoing
14.7.2	8.3.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent the transfer of mud onto public roads.	Site entrances and exits/ throughout construction period	Contractor	(Regional Council) By- laws TMEIA, Public Cleansing and Prevention of Nuisances (Regional Council) By- laws		Y		N/A	Ongoing
14.7.2	8.3.1	Suitable chemical waste storage areas should be formed at the works site for temporary storage pending collection.	Works site/ throughout construction period	Contractor	TMEIA, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. A Guide to the Chemical Waste Control Scheme		Y		N/A	Ongoing

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	In	-		ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or	_		edul		Agency	Status
	Reference				Requirement	D		C	О		
14.7.2	8.3.1	A licensed contractor shall be employed	Chemical waste	Contractor	TMEIA, Code of			Y		N/A	Ongoing
		to collect chemical waste for delivery to a			Practice on the						
		licensed treatment facility.	facility at Tsing		Packaging,						
			Yi / throughout		Labelling and						
			construction		Storage of						
			period		Chemical						
					Wastes. A						
					Guide to the						
					Chemical Waste						
					Control Scheme					/.	
14.7.2	8.3.1	Temporary storage areas for general	All areas/	Contractor	TMEIA, Public			Y		N/A	Ongoing
		refuse should be enclosed to avoid	throughout		Health and						
		environmental impacts.	construction		Municipal						
			period		Services						
1470	0.0.1		A 11 /	C	Ordinance			.,		NT / A	
14.7.2	8.3.1	Sufficient dustbins should be provided	All areas/	Contractor	TMEIA, Public			Y		N/A	Ongoing
		for storage of waste.	throughout construction		Cleansing and Prevention of						
					Nuisances						
			period		Ordinance						
					(Regional Council) By-						
					laws, Public						
					Health and						
					Municipal						
					Services						
					Ordinance						
14.7.2	8.3.1	General refuse should be cleared daily	All areas,	Contractor	TMEIA,			Y		N/A	Ongoing
11.7.2	0.5.1	and should be disposed of to the nearest	WENT landfill	Contractor	Sanitation and			-		14/11	Chigonia
		licensed facility.	or NWNT		Conservancy						
		neersea raemey.	refuse transfer		(Regional						
			stations/		Council) By-						
			throughout		laws						
			construction		-20						
			period								
			r								

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	In D	-	lementati Schedule C	on O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	Waste oils, chemicals or solvents shall not be disposed of to drain.	PAFF site/ throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Good site practice shall be implemented to avoid waste generation and promote waste minimisation.	PAFF site/ throughout construction period	Contractor	TMEIA			Y			Ongoing
14.7.2	8.3.1	Waste materials such as paper, metal, timber and waste oil shall be recycled as far as practicable.	PAFF site/ throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Temporary structures used during construction shall be provided in the form of proprietary Protakabin type units sited on areas of permanent hard paving units as far as practicable.	PAFF site/ throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Dredged marine mud shall be disposed of in a gazetted marine disposal ground under the requirements of the Dumping at Sea Ordinance.	PAFF site/ throughout construction period					Y		N/A	Ongoing
14.7.2	8.3.1	All waste containers shall be in good condition and fitted with lids or covers to prevent waste from escaping or the ingress of water.	PAFF site/ throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	All waste containers shall be in a secure area on hardstanding.	PAFF site/ throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Emergency equipment to deal with any spillage or fire shall be kept on site.	PAFF site/ throughout construction period		TMEIA			Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	In D	Scł	mentation hedule C O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	All containers used for storage of chemical waste shall be maintained in good condition and clearly labelled in both English and Chinese.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing
14.7.2	8.3.1	All storage areas for chemical waste shall be:	PAFF site/ throughout construction	Contractor	TMEIA			Y	N/A	Ongoing
		• Clearly labelled;	period							
		• Enclosed on at least 3 sides;								
		 Have impermeable floor and bunding sufficient to fully retain any spillage or leakages; 								
		• Ventilated; and,								
		 Covered to prevent rainfall from entering. 								
14.7.2	8.3.1	All types of asbestos including sources (such as clutch linings) shall be treated as chemical waste. Asbestos containing wastes shall be kept separate from other wastes.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing
14.7.2	8.3.1	All leaking containers shall be contained and removed from site an soon as is reasonably practicable.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing
14.7.2	8.3.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	Implementation		plementation		Maintenance	Implementation		
Reference	Manual		Timing	Agent	Standard or		Schedule		Schedule		Schedule		Agency	Status
	Reference				Requirement	D	C	O						
14.7.2	8.3.1	EM&A of waste handling, storage,	All areas/	Contractor	TMEIA		Y		N/A	Ongoing				
Section 5		transportation, disposal procedures and	throughout											
		documentation through the site audit	construction											
		programme shall be undertaken.	period											

Annex F

QA/QC Results for Laboratory Testing of Suspended Solids

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

2723 5660



: 1 of 5

CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page

Facsimile

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718174

Address : 21/F, LINCOLN HOUSE. Address : 11/F, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Karen.Lui@erm.com

E-mail

Kwai Chung, N.T., Hong Kong

Alice.Wong@alsenviro.com

Telephone : 2271 3000 Telephone : +852 2610 1044

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 17 Dec 2007

FACILITY

Order number : ---- Date of issue : 21 Dec 2007

C-O-C number : ---- No. of samples - Received : 78

+852 2610 2021

Site : --- - Analysed : 78

Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718174 supersedes any previous reports with this reference. The completion date of analysis is 20 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718174: Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance'

of Hong Kong. Chapter 553. Section 6.

Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718174



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 560693)						
HK0718174-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0
HK0718174-011	MPB1 B ME	EA025: Suspended Solids (SS)		1	mg/L	11	12	13.4
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 560694)						
HK0718174-021	IMO1 M ME	EA025: Suspended Solids (SS)		1	mg/L	7	8	13.8
HK0718174-043	C2 (NM5) S ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 560695)						
HK0718174-053	MP B MF	EA025: Suspended Solids (SS)		1	mg/L	10	9	0.0
HK0718174-063	MPB2 M MF	EA025: Suspended Solids (SS)		1	mg/L	11	13	14.7
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 560696)						·
HK0718174-073	IMO2 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0
HK0718174-095	C1 (NM3) B MF	EA025: Suspended Solids (SS)		1	mg/L	18	17	0.0

Matrix Type: WATER		Method Blank (MB) Results				Single Co.	ntrol Spike (SCS) and D	uplicate Con	trol Spike (DC	S) Results	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Ds (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 560693)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 560694)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 560695)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	96.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 560696)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.0		85	115		

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718175

Address : 21/F, LINCOLN HOUSE. Address : 11/F, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Karen.Lui@erm.com

E-mail

Kwai Chung, N.T., Hong Kong

Alice.Wong@alsenviro.com

E-mail : Karen.Lui@erm.com E-mail : Alice.Wong@alsenviro.c
Telephone : 2271 3000 Telephone : +852 2610 1044

Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 18 Dec 2007

FACILITY

Order number : ---- Date of issue : 21 Dec 2007

C-O-C number : ---- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718175 supersedes any previous reports with this reference. The completion date of analysis is 21 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718175: Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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approval from ALS Technichem (HK) Pty Ltd.

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718175



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 561449)						
HK0718175-001	MPSME	EA025: Suspended Solids (SS)		1	mg/L	6	7	18.4
HK0718175-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 561450)						
HK0718175-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0
HK0718175-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 561451)						
HK0718175-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0
HK0718175-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	4	0.0
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 561452)						·
HK0718175-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	18	18	0.0
HK0718175-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0

Matrix Type: WATER		Method Blank (MB) Results				Single Co	ntrol Spike (SCS) and D	Suplicate Cont	rol Spike (DC	S) Results	
•					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 561449)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.0		85	115		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 561450)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 561451)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 561452)		,	•							
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.0		85	115		

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718376
Address : 21/F, LINCOLN HOUSE. Address : 11/F,, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Kwai Chung, N.T., Hong Kong

E-mail : Karen.Lui@erm.com E-mail : Alice.Wong@alsenviro.com

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 19 Dec 2007

FACILITY

Order number : ---- Date of issue : 24 Dec 2007

C-O-C number : ---- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718376 supersedes any previous reports with this reference. The completion date of analysis is 21 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718376 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

ALS Laboratory Group
Trading Name: ALS Technichem (HK) Pty Ltd

Client : ERM HONG KONG

Work Order HK0718376



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 561464)						
HK0718376-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	11	12	15.4
HK0718376-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	7	8	16.4
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 561465)						
HK0718376-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0
HK0718376-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 561466)						
HK0718376-058	MPB1 M DUP MF	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0
HK0718376-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 561467)						
HK0718376-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0
HK0718376-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0

Matrix Type: WATER		Method Blank (MB) Results				Single Co.	ntrol Spike (SCS) and D	uplicate Cont	trol Spike (DC	S) Results	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 561464)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 561465)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	104		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 561466)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	95.0		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 561467)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.0		85	115		

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718409

Address : 21/F, LINCOLN HOUSE. Address : 11/F,. Chung Shun Knitting Centre.

: 21/F, LINCOLN HOUSE, Address : 11/F., Chung Shun Knitting Centre, 979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG Kwai Chung, N.T., Hong Kong

E-mail : Karen.Lui@erm.com E-mail : Alice.Wong@alsenviro.com

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 20 Dec 2007

FACILITY

Order number : ---- Date of issue : 24 Dec 2007

C-O-C number : ---- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718409 supersedes any previous reports with this reference. The completion date of analysis is 24 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718409: Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718409



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56210	7)						
HK0718409-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0
HK0718409-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	4	5	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56210	8)						
HK0718409-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0
HK0718409-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	4	3	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56210	9)						
HK0718409-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0
HK0718409-068	IMO1 S DUP MF	EA025: Suspended Solids (SS)		1	mg/L	4	6	19.8
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56211	0)						·
HK0718409-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0
HK0718409-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	4	5	0.0

Matrix Type: WATER			Method Blank (MB) Results		Single Co.	ntrol Spike (SCS) and E	Suplicate Cont	licate Control Spike (DCS) Results				
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)		
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 562107)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 562108)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	104		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 562109)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 562110)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115				

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

2723 5660



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718428
Address : 21/F, LINCOLN HOUSE. Address : 11/F,. Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Karen.Lui@erm.com

E-mail

Kwai Chung, N.T., Hong Kong

Alice.Wong@alsenviro.com

Facsimile

Telephone : 2271 3000 Telephone : +852 2610 1044

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 21 Dec 2007

FACILITY

Order number : ---- Date of issue : 28 Dec 2007

C-O-C number : ---- No. of samples - Received : 74

Site : --- - Analysed : 74

+852 2610 2021

Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718428 supersedes any previous reports with this reference. The completion date of analysis is 24 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718428 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718428



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Posulte	
Matrix Type: WATER					1	Duplicate (DOF)	Nesuns	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lot:	562194)						
HK0718428-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	14	15	10.4
HK0718428-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	24	22	6.2
EA/ED: Physical and A	ggregate Properties (QC Lot:	562195)						
HK0718428-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	14	13	0.0
HK0718428-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0
EA/ED: Physical and A	ggregate Properties (QC Lot:	562196)						
HK0718428-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0
HK0718428-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	4	5	0.0
EA/ED: Physical and A	ggregate Properties (QC Lot:	562197)						·
HK0718428-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0
HK0718428-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0

Matrix Type: WATER			Method Blank (MB) Results		Single Co	ntrol Spike (SCS) and D	uplicate Cont	ontrol Spike (DCS) Results				
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPL	Ds (%)		
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 562194)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 562195)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 562196)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 562197)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115				

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

2723 5660



CERTIFICATE OF ANALYSIS

Client **ERM HONG KONG** : ALS Technichem (HK) Pty Ltd Laboratory Page : 1 of 4

MS KAREN LUI Work Order Contact Contact : Alice Wong HK0718519 Address : 21/F. LINCOLN HOUSE. Address : 11/F., Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG Kwai Chung, N.T., Hong Kong Karen.Lui@erm.com Alice.Wong@alsenviro.com E-mail

2271 3000 +852 2610 1044 Telephone Telephone

Facsimile Facsimile : EM&A FOR THE PERMANENT AVIATION FUEL · 22 Dec 2007 Project Quote number Date received

FACILITY

· 28 Dec 2007 Date of issue Order number

74 C-O-C number No. of samples Received

74 Site Analysed

+852 2610 2021

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718519 supersedes any previous reports with this reference. The completion date of analysis is 27 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718519: Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718519



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56299	5)						
HK0718519-002	MP S DUP ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0
HK0718519-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	3	4	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56299	6)						
HK0718519-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0
HK0718519-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	3	4	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56299	7)						
HK0718519-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	4	3	0.0
HK0718519-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56299	8)						
HK0718519-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0
HK0718519-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	3	4	0.0

Matrix Type: WATER			Method Blank (MB)) Results		Single Co	ntrol Spike (SCS) and D	uplicate Con	trol Spike (DCS		
					Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPD	9s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Propert	ies (QCLot: 562995)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	95.5		85	115		
EA/ED: Physical and Aggregate Propert	ies (QCLot: 562996)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Propert	ies (QCLot: 562997)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Propert	ies (QCLot: 562998)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.0		85	115		

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718587

Address : 21/F, LINCOLN HOUSE. Address : 11/F,. Chung Shun Knitting Centre.

: 21/F, LINCOLN HOUSE, Address : 11/F., Chung Shun Knitting Centre, 979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG Kwai Chung, N.T., Hong Kong

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 23 Dec 2007

FACILITY

Order number · --- Date of issue · 28 Dec 2007

C-O-C number : --- No. of samples - Received : 74

Site : ---- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718587 supersedes any previous reports with this reference. The completion date of analysis is 27 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718587: Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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of Hong Kong. Chapter 553. Section 6.

Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

ALS Laboratory Group Trading Name: ALS Technichem (HK) Pty Ltd

Client : ERM HONG KONG

Work Order HK0718587



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56300	04)						
HK0718587-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	12	12	0.0
HK0718587-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	16.5
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56300	05)						
HK0718587-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	12	13	0.0
HK0718587-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56300	06)						
HK0718587-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	9	10	0.0
HK0718587-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56300	08)						
HK0718587-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	10	9	0.0
HK0718587-100	C3 (NM6) M DUP MF	EA025: Suspended Solids (SS)		1	mg/L	12	13	0.0

Matrix Type: WATER			Method Blank (MB) Results		Single Co	ntrol Spike (SCS) and D	uplicate Cont	ate Control Spike (DCS) Results				
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPL	Ds (%)		
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 563004)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115				
EA/ED: Physical and Aggregate Proper	rties (QCLot: 563005)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115				
EA/ED: Physical and Aggregate Proper	rties (QCLot: 563006)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	96.0		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 563008)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.5		85	115				

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718588
Address : 21/F, LINCOLN HOUSE. Address : 11/F,, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG Kwai Chung, N.T., Hong Kong

E-mail : Karen.Lui@erm.com E-mail : Alice.Wong@alsenviro.com

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 24 Dec 2007

FACILITY

Order number : ---- Date of issue : 31 Dec 2007

C-O-C number : --- No. of samples - Received : 74

Site : --- - Analysed : **74**

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718588 supersedes any previous reports with this reference. The completion date of analysis is 28 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718588: Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718588



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 563410)									
HK0718588-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	32	31	3.8			
HK0718588-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	16	16	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 563411)									
HK0718588-022	IMO1 M DUP ME	EA025: Suspended Solids (SS)		1	mg/L	17	18	0.0			
HK0718588-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	14	13	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 563412)									
HK0718588-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	18	17	0.0			
HK0718588-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	16	15	8.1			
EA/ED: Physical and A	ggregate Properties (QC Lot:	: 563413)									
HK0718588-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	16	16	0.0			
HK0718588-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	11	12	0.0			

Matrix Type: WATER			Method Blank (MB) Results		Single Co	ntrol Spike (SCS) and D	uplicate Con	olicate Control Spike (DCS) Results				
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)		
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Propert	ies (QCLot: 563410)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115				
EA/ED: Physical and Aggregate Propert	ies (QCLot: 563411)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	96.0		85	115				
EA/ED: Physical and Aggregate Propert	ies (QCLot: 563412)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115				
EA/ED: Physical and Aggregate Propert	ies (QCLot: 563413)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115				

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718589

Address : 21/F, LINCOLN HOUSE. Address : 11/F,, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Kwai Chung, N.T., Hong Kong

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 25 Dec 2007

FACILITY

Order number : ---- Date of issue : 2 Jan 2008

C-O-C number : ---- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718589 supersedes any previous reports with this reference. The completion date of analysis is 31 Dec 2007. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718589 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0718589



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and A	ggregate Properties (QC Lot:	563416)									
HK0718589-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	21	19	7.7			
HK0718589-012	MPB1 B DUP ME	EA025: Suspended Solids (SS)		1	mg/L	24	27	12.6			
EA/ED: Physical and A	ggregate Properties (QC Lot:	563417)									
HK0718589-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	17	15	11.1			
HK0718589-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	10	12	12.6			
EA/ED: Physical and A	ggregate Properties (QC Lot:	563418)									
HK0718589-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	19	18	0.0			
HK0718589-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	18	19	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lot:	563419)									
HK0718589-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	17	16	0.0			
HK0718589-100	C3 (NM6) M DUP MF	EA025: Suspended Solids (SS)		1	mg/L	11	11	0.0			

Matrix Type: WATER			Method Blank (MB) Results		Single Co	ntrol Spike (SCS) and D	uplicate Cont	e Control Spike (DCS) Results				
••					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPL	Os (%)		
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 563416)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	89.0		85	115				
EA/ED: Physical and Aggregate Proper	rties (QCLot: 563417)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115				
EA/ED: Physical and Aggregate Proper	ties (QCLot: 563418)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115				
EA/ED: Physical and Aggregate Proper	rties (QCLot: 563419)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115				

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718590
Address : 21/F, LINCOLN HOUSE. Address : 11/F,, Chung Shun Knitting Centre.

: 21/F, LINCOLN HOUSE, Address : 11/F., Chung Shun Knitting Centre, 979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Kwai Chung, N.T., Hong Kong

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date received : 26 Dec 2007

FACILITY

Order number : ---- Date of issue : 2 Jan 2008

C-O-C number : ---- No. of samples - Received : 74

Site : --- - Analysed : **74**

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718590 supersedes any previous reports with this reference. The completion date of analysis is 2 Jan 2008. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718590 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Page Number : 4 of 4

Client : ERM HONG KONG

Work Order HK0718590



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56342	1)						
HK0718590-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	24	25	0.0
HK0718590-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	17	16	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56342	2)						
HK0718590-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	9	8	14.0
HK0718590-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	12	12	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56342	3)						
HK0718590-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	22	23	4.8
HK0718590-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0
EA/ED: Physical and Ag	gregate Properties (QC Lot: 56342	4)						
HK0718590-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	15	15	0.0
HK0718590-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	11	11	0.0

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Propert	ties (QCLot: 563421)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115		
EA/ED: Physical and Aggregate Propert	ties (QCLot: 563422)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	96.5		85	115		
EA/ED: Physical and Aggregate Propert	ties (QCLot: 563423)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Propert	ties (QCLot: 563424)								·		·
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.0		85	115		

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

2723 5660



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem (HK) Pty Ltd Page: 1 of 5

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718679

Address : 21/F, LINCOLN HOUSE. Address : 11/F,, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Karen.Lui@erm.com

E-mail

Kwai Chung, N.T., Hong Kong

Alice.Wong@alsenviro.com

Facsimile

Telephone : 2271 3000 Telephone : +852 2610 1044

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 27 Dec 2007

FACILITY

Order number : ---- Date of issue : 2 Jan 2008

C-O-C number : ---- No. of samples - Received : 76

Site : --- - Analysed : 76

+852 2610 2021

Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718679 supersedes any previous reports with this reference. The completion date of analysis is 2 Jan 2008. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718679 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

ALS Laboratory Group
Trading Name: ALS Technichem (HK) Pty Ltd

Page Number

: 5 of 5

: ERM HONG KONG

HK0718679

Work Order

Client



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)		
EA/ED: Physical and Agg	regate Properties (QC Lot: 56458	5)								
HK0718679-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	12	14	19.7		
HK0718679-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0		
EA/ED: Physical and Agg	regate Properties (QC Lot: 56458	5)								
HK0718679-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	22	21	0.0		
HK0718679-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	15	15	0.0		
EA/ED: Physical and Agg	regate Properties (QC Lot: 56458	7)								
HK0718679-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	19	18	0.0		
HK0718679-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	12	12	0.0		
EA/ED: Physical and Agg	regate Properties (QC Lot: 56458	3)								
HK0718679-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	56	52	6.6		
HK0718679-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	22	24	6.4		

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564585)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564586)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.0		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564587)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564588)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115		

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem (HK) Pty Ltd Page: 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718680
Address : 21/F, LINCOLN HOUSE. Address : 11/F,. Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Kwai Chung, N.T., Hong Kong

Telephone : 2271 3000 Telephone : +852 2610 1044
Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 28 Dec 2007

FACILITY

Order number : ---- Date of issue : 3 Jan 2008

C-O-C number : ---- No. of samples - Received : 74

Site ---- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718680 supersedes any previous reports with this reference. The completion date of analysis is 1 Jan 2008. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718680 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Page Number : 4 of 4

Client : ERM HONG KONG

Work Order HK0718680



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 564594)									
HK0718680-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	11	10	0.0			
HK0718680-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	10	12	11.6			
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 564595)									
HK0718680-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	14	15	8.2			
HK0718680-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	11	10	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 564596)									
HK0718680-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	16	15	0.0			
HK0718680-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	16	16	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lo	t: 564597)									
HK0718680-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	30	32	6.8			
HK0718680-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	22	21	0.0			

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Ds (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564594)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	95.0		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564595)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.0		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564596)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.0		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564597)			-							
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 5

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718681

Address : 21/F, LINCOLN HOUSE. Address : 11/F, Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Karen.Lui@erm.com

E-mail

Kwai Chung, N.T., Hong Kong

Alice.Wong@alsenviro.com

Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 29 Dec 2007

FACILITY

Order number : ---- Date of issue : 3 Jan 2008

C-O-C number : ---- No. of samples - Received : 76

Site : ---- - Analysed : 76

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718681 supersedes any previous reports with this reference. The completion date of analysis is 3 Jan 2008. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718681 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Page Number : 5 of 5

Client : ERM HONG KONG

Work Order HK0718681



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)		
EA/ED: Physical and A	ggregate Properties (QC Lot	: 564598)								
HK0718681-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	15	16	0.0		
HK0718681-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	14	15	9.3		
EA/ED: Physical and A	ggregate Properties (QC Lot	: 564599)								
HK0718681-024	IMO1 B DUP ME	EA025: Suspended Solids (SS)		1	mg/L	44	40	8.7		
HK0718681-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	9	8	11.5		
EA/ED: Physical and A	ggregate Properties (QC Lot	: 564600)								
HK0718681-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	10	11	0.0		
HK0718681-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	9	9	0.0		
EA/ED: Physical and A	ggregate Properties (QC Lot	: 564601)								
HK0718681-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0		
HK0718681-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	14	15	10.4		

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results							
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD)s (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564598)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115			
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564599)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115			
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564600)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	96.5		85	115			
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564601)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115			

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

: EM&A FOR THE PERMANENT AVIATION FUEL

ANALYICAL CHEMISTRY & TESTING SERVICES



· 30 Dec 2007

Date received

CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 5

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718776
Address : 21/F, LINCOLN HOUSE. Address : 11/F,. Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG

Karen.Lui@erm.com

E-mail

Kwai Chung, N.T., Hong Kong

Alice.Wong@alsenviro.com

E-mail : Karen.Lui@erm.com E-mail : Alice.Wong@alsenviro.
Telephone : 2271 3000 Telephone : +852 2610 1044

Facsimile : 2723 5660 Facsimile : +852 2610 2021

Quote number

FACILITY

Order number : ---- Date of issue : 7 Jan 2008

C-O-C number : ---- No. of samples - Received : 76

Site : ---- - Analysed : 76

Report Comments

Project

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718776 supersedes any previous reports with this reference. The completion date of analysis is 3 Jan 2008. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718776 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance'

of Hong Kong. Chapter 553. Section 6.

Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

ALS Laboratory Group
Trading Name: ALS Technichem (HK) Pty Ltd

Page Number : 5 of 5

Client : ERM HONG KONG

Work Order HK0718776



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER								
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and A	ggregate Properties (QC Lot	t: 564602)						
HK0718776-001	MPSME	EA025: Suspended Solids (SS)		1	mg/L	34	34	0.0
HK0718776-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	10	18.5
EA/ED: Physical and A	ggregate Properties (QC Lot	t: 564603)						
HK0718776-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	23	23	0.0
HK0718776-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	9	10	11.2
EA/ED: Physical and A	ggregate Properties (QC Lot	t: 564604)						
HK0718776-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	13	13	0.0
HK0718776-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	19	19	0.0
EA/ED: Physical and A	ggregate Properties (QC Lot	t: 564605)						
HK0718776-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	25	26	4.0
HK0718776-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	16	14	6.8

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	rties (QCLot: 564602)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.0		85	115		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 564603)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Proper	rties (QCLot: 564604)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 564605)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.0		85	115		

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 4

Contact : MS KAREN LUI Contact : Alice Wong Work Order : HK0718949
Address : 21/F, LINCOLN HOUSE. Address : 11/F,. Chung Shun Knitting Centre.

979 KING'S ROAD, TAIKOO PLACE, 1 - 3 Wing Yip Street,

ISLAND EAST, HONG KONG Kwai Chung, N.T., Hong Kong

Facsimile : 2723 5660 Facsimile : +852 2610 2021

Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 31 Dec 2007

FACILITY

Order number ---- Date of issue --- 4 Jan 2008

C-O-C number : --- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0718949 supersedes any previous reports with this reference. The completion date of analysis is 4 Jan 2008. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0718949 : Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

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of Hong Kong. Chapter 553. Section 6.

Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Page Number : 4 of 4

Client : ERM HONG KONG

Work Order HK0718949



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results							
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and A	ggregate Properties (QC Lot:	565639)									
HK0718949-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0			
HK0718949-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lot:	565640)									
HK0718949-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0718949-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	10	8	20.0			
EA/ED: Physical and A	ggregate Properties (QC Lot:	565641)									
HK0718949-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	5	6	20.0			
HK0718949-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0			
EA/ED: Physical and A	ggregate Properties (QC Lot:	565642)									
HK0718949-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	12	11	0.0			
HK0718949-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0			

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Ds (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	ties (QCLot: 565639)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	90.5		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 565640)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 565641)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	107		85	115		
EA/ED: Physical and Aggregate Proper	ties (QCLot: 565642)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		

Annex G

Impact Water Quality Monitoring Results

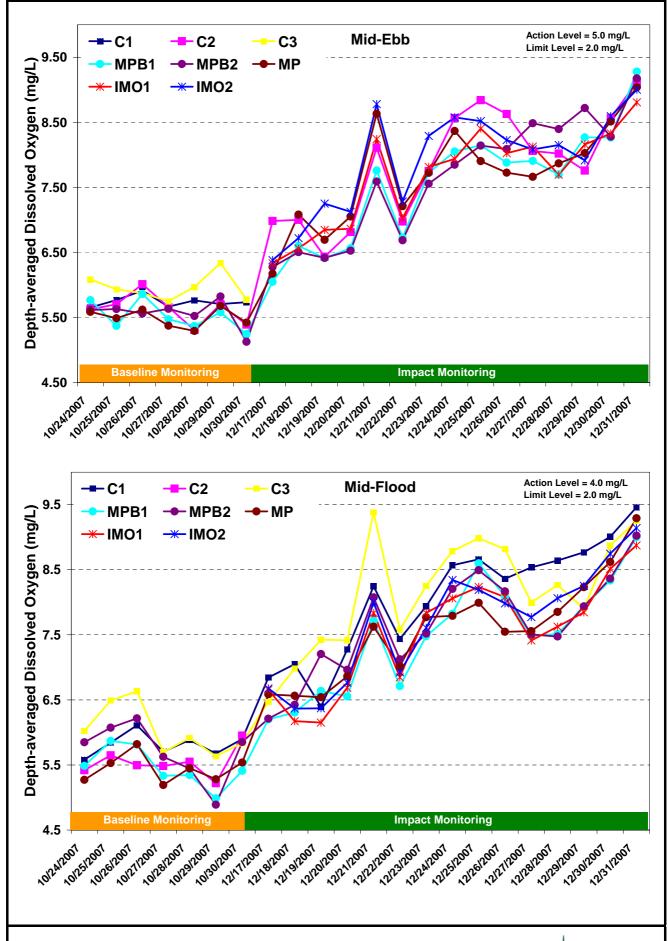


Figure G1 Dissolved oxygen concentration (depth-averaged) (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 17 December and 31 December 2007, and previous monitoring period between 24 October and 30 October 2007



 $Ref: 0018105_Annex\ G_water\ graphs.doc$

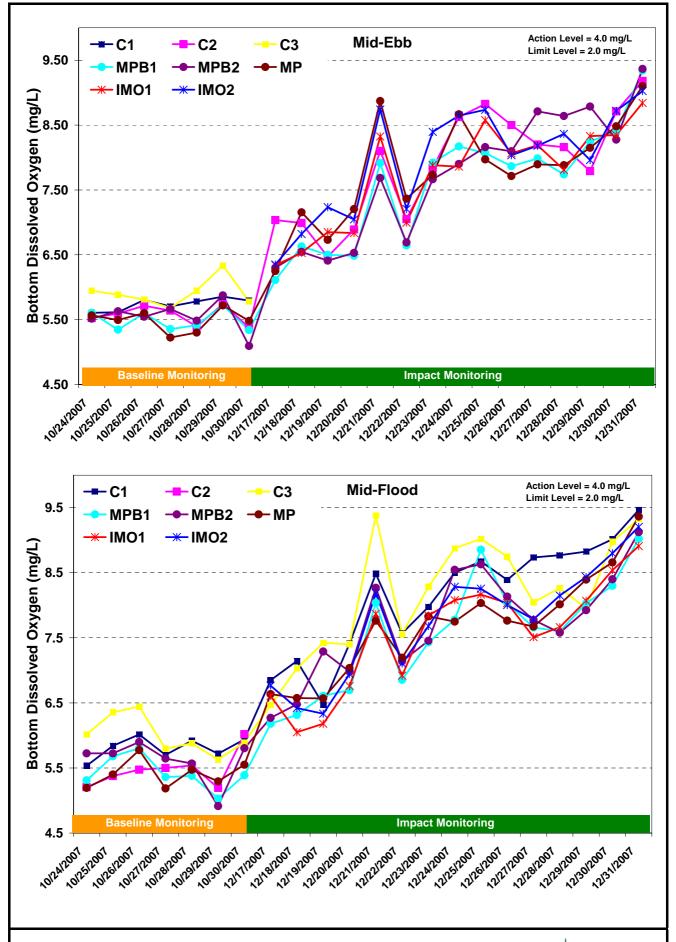


Figure G2 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 17 December and 31 December 2007, and previous monitoring period between 24 October and 30 October 2007



Ref: 0018105_Annex G_water graphs.doc

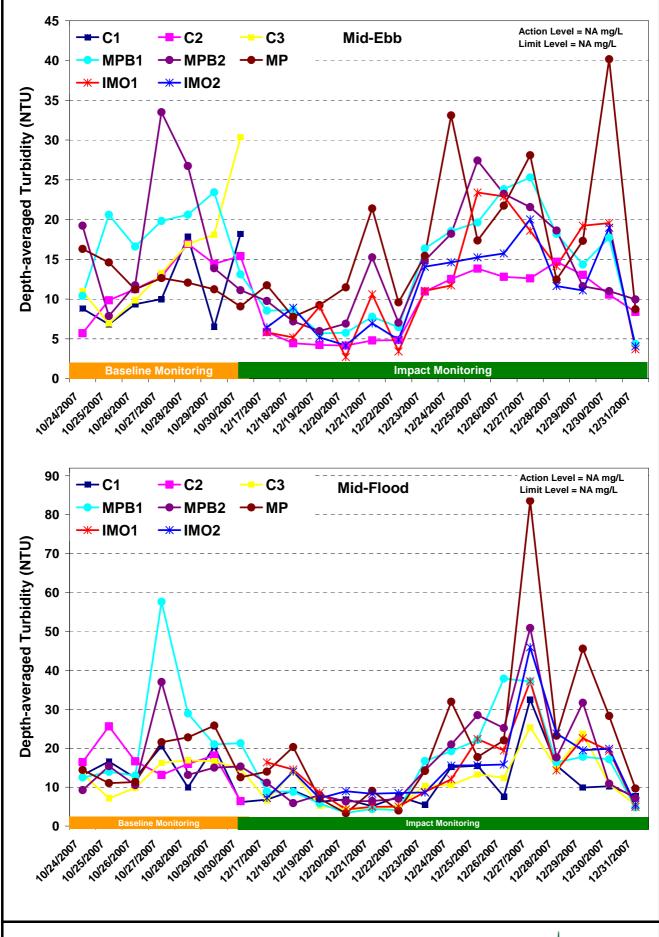


Figure G3 Depth-averaged turbidity (NTU) of water samples from the eight sampling locations at mid-ebb and mid-flood between 17 December and 31 December 2007, and previous monitoring period between 24 October and 30 October 2007



 $Ref: 0018105_Annex\ G_water\ graphs.doc$

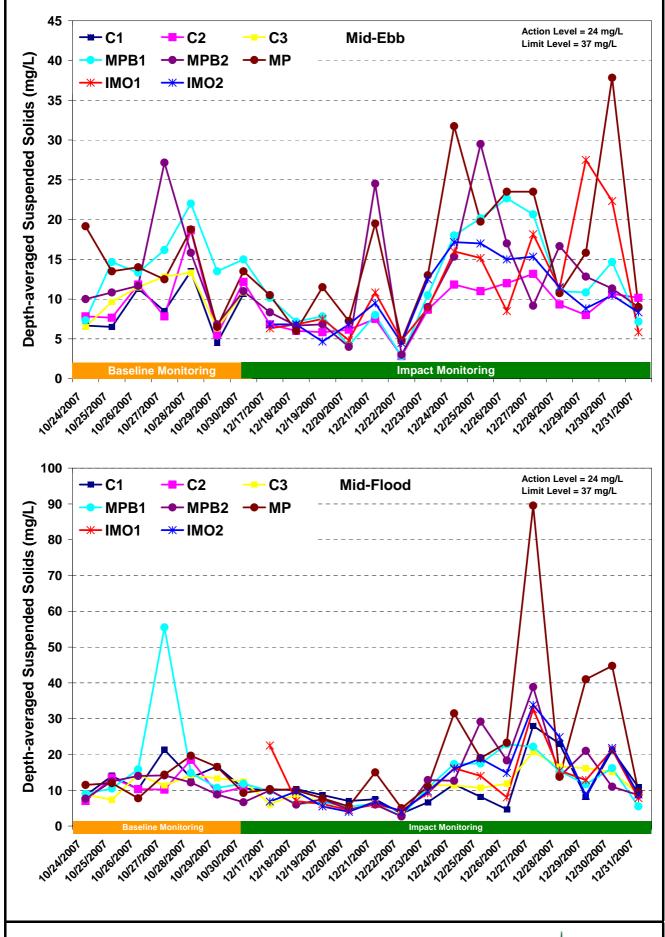


Figure G4 Depth-averaged suspended solids concentration (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 17 December and 31 December 2007, and previous monitoring period between 24 October and 30 October 2007



 $Ref: 0018105_Annex\ G_water\ graphs.doc$

Sampling Date	12/17/07
Weather & Ambient Temperature	Cloudy, 24C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)			20	.27				
Monitoring Depth (m)	1.	00	10	.13	19	.27		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.2	21.7	21.7	21.8	21.1	20.8	21.37	ı
Salinity (ppt)	39.6	38.1	41.1	44.7	42.7	49.7	42.63	-
pH	7.8	7.9	8.0	8.0	8.0	8.0	7.94	
D.O. Saturation (%)	98.7	98.2	100.8	102.9	101.0	105.6	101.20	-
D.O. (mg/L)	7.0	6.9	7.0	7.0	7.0	7.1	6.98	7.04
Turbidity (NTU)	4.3	4.6	4.6	4.6	8.5	8.6	5.87	-
SS (mg/L)	7.0	7.0	6.0	7.0	6.0	8.0	6.83	1
Remarks		-			•	-	-	

Station			IM	01			Co-ord	dinates
Time (hh:mm)			Northing	Easting				
Water Depth (m)			15	.55			22.21.527	113.54.636
Monitoring Depth (m)	1.	00	7.	78	14	.55		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.5	21.4	21.3	21.3	21.2	20.6	21.20	-
Salinity (ppt)	39.6	39.8	42.7	42.7	43.3	44.1	42.06	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	90.1	91.2	92.2	90.7	90.5	92.8	91.25	-
D.O. (mg/L)	6.3	6.4	6.4	6.3	6.2	6.44	6.34	6.34
Turbidity (NTU)	4.0	4.8	5.3	5.9	7.2	7.7	5.82	-
SS (mg/L)	6.0	4.0	6.33	-				
Remarks								

Station			IM	02			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			10	.79			22.21.166	113.54.622
Monitoring Depth (m)	1.	00	5.	40	9.	79		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.5	21.5	21.4	21.4	21.2	21.2	21.36	-
Salinity (ppt)	39.7	39.5	42.1	42.0	43.4	43.0	41.61	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	91.2	90.9	92.7	92.6	93.4	90.7	91.92	-
D.O. (mg/L)	6.4	6.4	6.4	6.4	6.4	6.27	6.38	6.35
Turbidity (NTU)	4.3	4.2	5.3	5.8	9.4	9.7	6.45	-
SS (mg/L)	4.0	4.0	6.83	-				
Remarks					•	•		

Station			MF	PB1			1	
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.00		4.22		7.44			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.5	21.4	21.3	21.3	21.4	21.4	21.38	-
Salinity (ppt)	39.0	39.3	40.2	40.1	40.6	40.7	39.99	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.91	
D.O. Saturation (%)	85.2	85.7	86.5	85.8	86.0	89.0	86.37	-
D.O. (mg/L)	6.0	6.0	6.1	6.0	6.0	6.2	6.05	6.11
Turbidity (NTU)	6.8	7.0	9.2	8.6	9.8	9.9	8.55	-
SS (mg/L)	6.0	8.0	13.0	13.0	11.0	10.0	10.17	-
Remarks		•		•				

Station			MF	PB2				
Time (hh:mm)								
Water Depth (m)			9.	19				
Monitoring Depth (m)	1.00		4.60		8.19			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.5	21.5	21.3	20.8	21.2	21.2	21.24	-
Salinity (ppt)	38.7	38.8	40.2	41.0	42.1	41.8	40.43	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	87.3	87.6	90.4	90.8	92.4	89.1	89.60	-
D.O. (mg/L)	6.2	6.2	6.3	6.4	6.4	6.2	6.28	6.30
Turbidity (NTU)	6.3	7.4	10.2	11.1	12.3	11.3	9.77	-
SS (mg/L)	6.0	5.0	8.33	-				
Remarks								

Station			IV	IP			1	
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.	00	3.	17	5.	33		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.4	21.4	21.4	21.4	21.6	21.4	21.45	-
Salinity (ppt)	38.3	38.9	39.9	39.6	40.2	39.7	39.42	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.91	
D.O. Saturation (%)	86.7	87.5	87.6	87.0	91.0	87.8	87.93	-
D.O. (mg/L)	6.1	6.2	6.1	6.1	6.3	6.2	6.17	6.25
Turbidity (NTU)	8.8	8.0	10.6	12.6	15.8	14.7	11.75	-
SS (mg/L)	7.0	6.0	10.50	-				
Remarks		•	•	•	•	•		

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	IM	IMO1		02		MPB1	MPB2		IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.0	7.0	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.0	7.0	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	7.6	NA	N	NA	N	NA	Y	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	8.9	8.9	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/17/07
Weather & Ambient Temperature	Sunny, 25C

Station			C1 (NM3)				
Time (hh:mm)			13:05					
Water Depth (m)			15	5.90				
Monitoring Depth (m)	1	.00	7.	.95	14	.90		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	21.6	20.7	21.6	21.2	21.5	21.40	-
Salinity (ppt)	37.7	40.0	38.5	40.8	37.3	41.4	39.28	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	97.2	96.8	98.2	96.8	97.6	97.2	97.30	-
D.O. (mg/L)	6.8	6.8	7.0	6.7	7.0	6.7	6.84	6.85
Turbidity (NTU)	4.4	4.1	6.2	6.3	10.1	9.6	6.78	-
SS (mg/L)	4.0	7.0	8.0	8.0	18.0	15.0	10.00	-
Remarks								

Station			C3 (
Time (hh:mm)			14:34					
Water Depth (m)			6.	.58				
Monitoring Depth (m)	1.	.00	3.	.29	5.	58		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	21.6	21.8	20.8	21.3	21.7	21.52	-
Salinity (ppt)	41.2	40.6	43.0	42.7	43.5	45.3	42.72	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	93.3	92.7	94.5	94.0	93.5	96.4	94.07	-
D.O. (mg/L)	6.4	6.5	6.5	6.6	6.4	6.5	6.47	6.47
Turbidity (NTU)	5.0	4.6	6.4	6.0	8.8	8.6	6.57	-
SS (mg/L)	5.0	5.0	7.0	5.0	8.0	7.0	6.17	-
Remarks		•						

Station			IM	101			Co-ordinate	s
Time (hh:mm)			13:28	-13:31			Northing	Easting
Water Depth (m)			16		22.21.628	113.54.589		
Monitoring Depth (m)	1.	.00	8.	5.22		•		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	21.8	21.4	21.4	21.5	21.5	21.55	-
Salinity (ppt)	40.2	39.9	40.7	41.1	41.8	41.4	40.84	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	96.7	96.5	95.8	94.9	95.0	95.6	95.75	-
D.O. (mg/L)	6.7	6.7	6.7	6.6	6.6	6.6	6.66	6.61
Turbidity (NTU)	5.3	5.5	12.5	13.9	31.2	29.9	16.38	-
SS (mg/L)	4.0	4.0	18.0	18.0	57.0	34.0	22.50	-
Remarks								

Station			IM	102			Co-ordinate	s
Time (hh:mm)			13:38	-13:40			Northing	Easting
Water Depth (m)			11	.24			22.21.269	113.54.681
Monitoring Depth (m)	1.	.00	5.	.62	10	1.24		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	21.9	21.6	21.7	21.5	21.1	21.58	-
Salinity (ppt)	40.3	40.1	40.3	40.4	40.5	41.3	40.48	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	95.5	95.4	95.0	95.5	95.0	98.7	95.85	-
D.O. (mg/L)	6.6	6.6	6.6	6.6	6.6	6.9	6.68	6.77
Turbidity (NTU)	5.6	5.4	7.0	6.2	10.1	9.0	7.22	-
SS (mg/L)	5.0	6.0	7.0	7.0	8.0	8.0	6.83	-
Remarks		•	•			•	•	

Station			MF	PB1				
Time (hh:mm)			14:06	-14:08				
Water Depth (m)			8.	27				
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.4	21.5	20.9	21.4	21.4	21.3	21.31	-
Salinity (ppt)	37.7	37.8	39.6	39.1	40.0	40.0	39.06	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88	
D.O. Saturation (%)	89.1	87.2	88.2	86.8	88.9	87.2	87.90	-
D.O. (mg/L)	6.3	6.2	6.2	6.1	6.2	6.1	6.20	6.18
Turbidity (NTU)	6.6	7.3	8.5	9.2	11.0	10.8	8.90	-
SS (mg/L)	6.0	8.0	10.0	12.0	11.0	12.0	9.83	-
Remarks			-					

Station			MF	PB2				
Time (hh:mm)			14:15	-14:17				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.6	21.6	21.3	21.3	21.3	21.2	21.38	-
Salinity (ppt)	38.4	38.3	39.9	40.0	40.3	40.2	39.52	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	88.9	87.3	88.1	87.1	91.1	87.7	88.37	-
D.O. (mg/L)	6.3	6.2	6.2	6.1	6.4	6.2	6.21	6.27
Turbidity (NTU)	7.1	8.2	11.1	10.7	15.1	14.5	11.12	-
SS (mg/L)	6.0	8.0	11.0	11.0	12.0	12.0	10.00	-
Remarks								

Station			N	IP.				
Time (hh:mm)			13:57	-13:59				
Water Depth (m)			6.					
Monitoring Depth (m)	1.	00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.6	21.8	21.6	21.5	20.8	21.6	21.47	-
Salinity (ppt)	37.6	37.4	38.2	38.2	40.2	39.7	38.57	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88	
D.O. Saturation (%)	93.2	92.2	93.6	92.6	94.0	94.6	93.37	-
D.O. (mg/L)	6.6	6.5	6.6	6.6	6.7	6.6	6.59	6.64
Turbidity (NTU)	6.7	6.6	10.2	10.9	24.6	24.8	13.97	-
SS (mg/L)	8.0	9.0	7.0	8.0	10.0	20.0	10.33	-
Remarks								

Parameter	As in	EM&A	Mean(C1+	C3)*130%	IM	01	IMO2	IMO2		MPB1	MF	MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedan ce of	Exceedan ce of Limit	Exceedance of Action Level		Exceedanc e of Action	Exceedance of Limit Level		Exceedan ce of Limit		Exceedan ce of Limit	
					Action	Level		Level	Level		Action	Level	Action	Level	
DO (Bottom)	4.2	4.0	6.7	6.7	N	N	N	N	N	N	N	N	N	N	
DO (Depth-averaged)	3.3	2.5	6.7	6.7	N	N	N	N	N	N	N	N	N	N	
Turbidity (Depth-averaged)	NA	NA	8.7	NA	Y	NA	Ň	NA	Y	NA	Y	NA	Y	NA	
SS (Depth-averaged)	24.0	37.0	10.5	10.5	N	N	N	N	N	N	N	N	N	N	

Sampling Date	12/18/07
Weather & Ambient Temperature	Cloudy, 21C

Station			C2 (NM5)				
Time (hh:mm)								
Water Depth (m)			20	.33				
Monitoring Depth (m)	1.	00	10	.17	19	.33		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.8	21.7	21.8	21.9	21.7	21.7	21.78	-
Salinity (ppt)	38.3	38.3	40.7	40.6	42.1	41.3	40.20	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	101.6	99.2	100.2	100.7	102.1	100.6	100.73	-
D.O. (mg/L)	7.2	7.0	6.9	7.0	7.0	7.0	7.00	6.99
Turbidity (NTU)	4.1	3.7	3.8	4.0	5.6	5.5	4.45	-
SS (mg/L)	4.0	6.0	5.0	6.0	9.0	6.0	6.00	-
Remarks				•		•	•	

Station			IM	01			Co-ord	dinates
Time (hh:mm)			19:23	-19:25			Northing	Easting
Water Depth (m)			17	.05			22.21.627	113.54.582
Monitoring Depth (m)	1.	00	8.	53	16	.05		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.6	21.6	21.5	21.6	21.3	21.5	21.51	-
Salinity (ppt)	38.6	38.9	41.0	40.7	41.6	41.1	40.30	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	95.1	94.5	93.3	93.6	93.6	94.2	94.05	-
D.O. (mg/L)	6.7	6.6	6.5	6.5	6.5	6.55	6.56	6.53
Turbidity (NTU)	4.1	4.3	4.4	4.8	6.9	6.6	5.18	-
SS (mg/L)	6.0	6.0	6.0	7.0	7.0	9.0	6.83	-
Remarks								

Station			IM	02			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			11	.14			22.21.165	113.54.662
Monitoring Depth (m)	1.	1.00 5.57 10.14						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.7	21.7	21.5	21.7	21.7	21.5	21.62	-
Salinity (ppt)	38.4	38.7	39.2	38.7	39.4	40.1	39.07	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	95.1	94.5	94.2	96.2	100.2	95.0	95.87	-
D.O. (mg/L)	6.7	6.6	6.6	6.8	7.0	6.63	6.72	6.82
Turbidity (NTU)	6.8	6.2	9.7	10.2	10.1	10.5	8.92	-
SS (mg/L)	5.0	7.0	5.0	6.0	8.0	10.0	6.83	-
Remarks								

Station			MF	PB1			1	
Time (hh:mm)			18:51	-18:52				
Water Depth (m)			6.	63				
Monitoring Depth (m)	1.	00	3.	32	5.	63		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.6	21.6	21.6	21.6	21.5	21.6	21.57	-
Salinity (ppt)	38.4	38.3	38.6	38.9	39.0	38.4	38.58	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.93	
D.O. Saturation (%)	93.3	93.5	93.9	93.6	94.2	94.2	93.78	-
D.O. (mg/L)	6.6	6.6	6.6	6.6	6.6	6.6	6.60	6.63
Turbidity (NTU)	7.1	7.0	8.9	8.8	9.6	10.4	8.63	-
SS (mg/L)	6.0	6.0	6.0	7.0	8.0	10.0	7.17	-
Remarks		-		-	•	-		

Station			MF	PB2				
Time (hh:mm)								
Water Depth (m)			9.	09				
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.7	21.7	21.4	21.5	21.4	21.5	21.53	
Salinity (ppt)	38.5	38.6	40.2	40.1	40.5	40.7	39.76	-
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.94	
D.O. Saturation (%)	92.1	94.0	91.2	92.6	91.4	96.3	92.93	-
D.O. (mg/L)	6.5	6.6	6.4	6.5	6.4	6.7	6.51	6.55
Turbidity (NTU)	4.2	3.8	8.6	8.3	9.3	9.0	7.20	-
SS (mg/L)	5.0	6.0	7.0	6.0	8.0	8.0	6.67	-
Remarks								

Station			IV	IP				
Time (hh:mm)			18:41	-18:42				
Water Depth (m)			5.	82				
Monitoring Depth (m)	1.	00	2.	91	4.	82		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.8	21.8	-	-	21.8	21.7	21.75	-
Salinity (ppt)	37.6	37.2	-	-	37.5	37.9	37.55	-
pH	7.9	7.9	-	-	7.9	7.9	7.90	
D.O. Saturation (%)	97.2	101.2	-	-	105.0	97.9	100.33	-
D.O. (mg/L)	6.9	7.2	-	-	7.4	6.9	7.08	7.16
Turbidity (NTU)	6.2	5.9	-	-	9.7	9.3	7.78	-
SS (mg/L)	6.0	6.0	-	-	6.0	6.0	6.00	-
Remarks								

Compliance with Action ar	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
					Level						Level		Level	
DO (Bottom)	4.2	4.0	7.0	7.0	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.0	7.0	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	5.8	NA	N	NA	Y	NA	Υ	NA	Υ	NA	Y	NA
SS (Depth-averaged)	24.0	37.0	7.8	7.8	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/18/07
Weather & Ambient Temperature	Sunny, 23C

Station			C1 (NM3)				
Time (hh:mm)			13:06	-13:09				
Water Depth (m)			15	.99				
Monitoring Depth (m)	1.	.00	7.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.0	22.1	21.9	21.8	21.7	20.8	21.68	-
Salinity (ppt)	39.5	39.0	40.6	39.9	40.1	40.5	39.93	-
pH	8.0	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	98.4	103.5	102.1	98.9	99.8	103.8	101.08	-
D.O. (mg/L)	6.9	7.2	7.1	6.9	7.0	7.3	7.05	7.15
Turbidity (NTU)	3.2	2.7	9.1	9.5	15.0	15.5	9.17	-
SS (mg/L)	4.0	5.0	10.0	10.33	-			
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			14:30	-14:32				
Water Depth (m)			7.					
Monitoring Depth (m)	1	.00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9 21.9		21.8	21.7	21.9	21.9	21.85	-
Salinity (ppt)	38.7	38.3	39.8	40.3	40.0	40.1	39.55	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	98.9	100.0	100.2	99.4	103.5	99.2	100.20	-
D.O. (mg/L)	6.9	7.0	7.0	6.9	7.2	6.9	6.98	7.03
Turbidity (NTU)	9.6 9.8 15.5 15.6 16.5 16.7						13.95	-
SS (mg/L)	5.0	6.0	8.0	13.0	8.83	-		
Remarks			-			•	•	

Station			IM	101			Co-ordinate	s
Time (hh:mm)			13:26	-13:29			Northing	Easting
Water Depth (m)			16	5.31			22.21.632	11354.565
Monitoring Depth (m)	1.	1.00 8.16 15.31				i.31		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	22.0	21.4	20.9	21.8	21.8	21.60	-
Salinity (ppt)	38.3 38.0		40.6	41.3	41.1	41.3	40.10	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	88.8	89.7	88.8	88.5	87.4	87.5	88.45	-
D.O. (mg/L)	6.2	6.3	6.2	6.2	6.1	6.1	6.17	6.05
Turbidity (NTU)	4.2	4.1	9.1	10.8	28.9	30.1	14.53	-
SS (mg/L)	5.0 5.0 7.0 6.0 9.0 10.0		10.0	7.00	-			
Remarks								

Station			IM	102			Co-ordinates	;
Time (hh:mm)			13:37	'-13:39			Northing	Easting
Water Depth (m)			10).44			22.21.164	113.54.649
Monitoring Depth (m)	1.	1.00 5.22 9.44						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	22.1	21.6	21.5			21.63	-
Salinity (ppt)	38.9 38.5		39.0	39.4	39.5	39.3	39.09	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	90.9	91.5	90.1	89.7	92.0	90.5	90.78	-
D.O. (mg/L)	6.4	6.4	6.3	6.3	6.5	6.3	6.37	6.42
Turbidity (NTU)	6.4	6.4 6.5 14.8 13.3 20.9 22.0		22.0	13.98	-		
SS (mg/L)	4.0 6.0 5.0 7.0 18.0 18.0				18.0	9.67	-	
Remarks			•		•	•		•

Station			M	PB1				
Time (hh:mm)			14:03	-14:05				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	21.9	21.4	21.6	21.4	21.5	21.61	-
Salinity (ppt)	37.3	37.4	38.8	39.0	40.5	40.4	38.88	-
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.91	
D.O. Saturation (%)	90.4	89.3	88.8	89.2	90.7	90.2	89.77	-
D.O. (mg/L)	6.4	6.3	6.3	6.3	6.3	6.3	6.31	6.32
Turbidity (NTU)	4.5	4.5	9.3	9.1	12.9	12.6	8.82	-
SS (mg/L)	7.0	5.0	6.17	-				
Remarks			-					

Station			MF	PB2				
Time (hh:mm)			14:13	-14:14				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.0	22.0	21.7	21.6	21.6	21.7	21.76	-
Salinity (ppt)	37.0	36.7	38.5	39.0	39.5	39.0	38.25	-
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.93	
D.O. Saturation (%)	90.9	91.3	90.6	90.5	91.8	93.1	91.37	-
D.O. (mg/L)	6.4	6.5	6.4	6.4	6.4	6.5	6.43	6.48
Turbidity (NTU)	4.1	3.9	5.2	5.8	8.1	8.2	5.88	-
SS (mg/L)	6.0	5.0	8.0	6.00	-			
Remarks								

Station			N	IP				
Time (hh:mm)			13:53	-13:54				
Water Depth (m)			5.					
Monitoring Depth (m)	1.	00	2.	89	4.	79		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.1	22.1 21.9		-	21.8	21.9	21.94	-
Salinity (ppt)	35.9	36.5	-	-	38.3	38.3	37.24	-
pH	7.8	7.8	-	-	7.9	8.0	7.89	
D.O. Saturation (%)	93.0	92.1	-	-	95.5	91.9	93.13	-
D.O. (mg/L)	6.6	6.5	-	-	6.7	6.4	6.57	6.58
Turbidity (NTU)	10.8	10.4	-	-	29.1	30.9	20.30	-
SS (mg/L)	8.0	6.0	-	10.00	-			
Remarks								

Parameter	As in	EM&A	Mean(C1+C3)*130%		IM	01	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan Exceedance of Action		Exceedance	Exceedanc	Exceedanc Exceedance of Limit Level		Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.1	7.1	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.0	7.0	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	15.0	NA	N	NA	N	NA	N	NA	N	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	12.5	12.5	N	N	N	N	N	N	Ν	N	N	N

Sampling Date	12/19/07
Weather & Ambient Temperature	Cloudy, 19C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.	00	10	.33	19	.65		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.5	21.6	20.3	21.6	20.3	21.6	21.15	-
Salinity (ppt)	40.4	40.9	45.8	44.4	46.0	45.0	43.75	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	94.0	93.3	92.1	92.6	93.0	96.2	93.53	-
D.O. (mg/L)	6.6	6.5	6.4	6.3	6.4	6.5	6.44	6.47
Turbidity (NTU)	4.8	3.9	4.23	-				
SS (mg/L)	6.0	5.0	5.83	-				
Remarks		-		-		-	•	

Station			IM	01			Co-ore	dinates
Time (hh:mm)			Northing	Easting				
Water Depth (m)			13	.59			22.21.528	113.54.492
Monitoring Depth (m)	1.	00		•				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	22.4	22.4	21.9	22.4	21.7	21.9	22.11	-
Salinity (ppt)	36.5	36.3	40.6	39.8	41.4	41.6	39.37	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	98.7	98.7	97.2	98.3	98.7	100.0	98.60	-
D.O. (mg/L)	6.9	6.9	6.7	6.8	6.8	6.88	6.85	6.85
Turbidity (NTU)	6.5	6.1	8.6	8.7	12.4	12.0	9.05	-
SS (mg/L)	4.0	5.0	6.0	4.0	7.0	19.0	7.50	-
Remarks								

Station			IM	02			Co-ord	dinates
Time (hh:mm)			7:31	-7:32			Northing	Easting
Water Depth (m)				22.21.142	113.54.914			
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.9	21.9	20.4	22.4	21.8	21.9	21.72	-
Salinity (ppt)	39.6	39.6	41.8	39.6	41.9	41.0	40.61	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	102.7	104.8	107.3	101.8	107.9	102.2	104.45	-
D.O. (mg/L)	7.2	7.3	7.6	7.0	7.4	7.05	7.25	7.24
Turbidity (NTU)	3.7	3.8	5.18	-				
SS (mg/L)	5.0	3.0	4.67	-				
Remarks								

Station			MF	PB1			1	
Time (hh:mm)			8:26	-8:27				
Water Depth (m)								
Monitoring Depth (m)	1.	00	3.	94	6.	87		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	22.1	21.4	21.6	21.6	21.6	21.6	21.63	-
Salinity (ppt)	40.5	41.4	44.2	43.6	44.4	45.0	43.17	-
pH	7.9	7.9	8.0	8.0	8.0	7.9	7.95	
D.O. Saturation (%)	91.4	93.0	94.1	92.1	93.2	98.1	93.65	-
D.O. (mg/L)	6.3	6.5	6.4	6.3	6.3	6.7	6.41	6.50
Turbidity (NTU)	5.5	5.4	6.5	5.72	-			
SS (mg/L)	7.0	10.0	7.0	7.83	-			
Remarks				-		-	-	

Station			MF	PB2				
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.	00	4.	43	7.	86		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	22.1	21.4	20.2	21.5	21.5	22.2	21.48	-
Salinity (ppt)	41.1	41.6	43.9	42.6	43.4	42.4	42.52	-
pH	8.0	7.9	7.9	8.0	7.9	8.0	7.94	
D.O. Saturation (%)	91.7	92.8	94.2	92.2	95.5	92.2	93.10	-
D.O. (mg/L)	6.3	6.4	6.6	6.4	6.5	6.3	6.42	6.41
Turbidity (NTU)	6.1	6.0	6.1	5.98	-			
SS (mg/L)	7.0	6.0	8.0	6.83	-			
Remarks		•	•	•	•	•		

Station			IV	IP				
Time (hh:mm)			8:18	-8:19				
Water Depth (m)								
Monitoring Depth (m)	1.	00	2.	71	4.	42		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.4	21.4		-	21.5	21.4	21.41	-
Salinity (ppt)	41.7	41.3		-	42.4	43.3	42.18	-
pH	7.9	8.0	-	-	7.9	7.9	7.93	
D.O. Saturation (%)	97.5	94.1	-	-	95.1	100.5	96.80	-
D.O. (mg/L)	6.8	6.6	-	-	6.6	6.9	6.70	6.73
Turbidity (NTU)	9.4	9.6	9.0	9.25	-			
SS (mg/L)	11.0	9.0	13.0	11.50	-			
Remarks		•		•	•	•		

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	% IMO1		IM	02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	6.5	6.5	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	6.4	6.4	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	5.5	NA	Υ	NA	N	NA	Υ	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	7.6	7.6	N	N	N	N	N	N	N	N	Ν	N

Sampling Date	12/19/07
Weather & Ambient Temperature	Sunny, 19C

Station			C1 (NM3)				
Time (hh:mm)			14:01					
Water Depth (m)			16					
Monitoring Depth (m)	1	.00	8.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.6	21.6	21.6	21.6	21.5	21.6	21.57	-
Salinity (ppt)	47.3	47.8	47.6	48.3	49.2	48.1	48.03	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	95.0	95.5	94.7	95.8	99.4	95.6	96.00	-
D.O. (mg/L)	6.4	6.4	6.3	6.4	6.6	6.4	6.40	6.48
Turbidity (NTU)	5.8	5.2	5.5	6.0	7.2	7.7	6.23	-
SS (mg/L)	11.0	8.0	10.0	8.0	9.0	6.0	8.67	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			12:35					
Water Depth (m)			6.					
Monitoring Depth (m)	1.	.00	3.	.33	5.	65		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	21.9	21.8	20.4	21.9	21.8	21.59	-
Salinity (ppt)	39.3	39.2	39.3	41.1	40.4	39.8	39.85	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	106.7	103.1	104.9	109.2	108.0	105.9	106.30	-
D.O. (mg/L)	7.5	7.2	7.3	7.7	7.5	7.4	7.43	7.43
Turbidity (NTU)	4.8	4.5	5.0	5.4	5.7	5.4	5.13	-
SS (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.00	-
Remarks			•					

Station			IM	01			Co-ordinate	s
Time (hh:mm)			13:28	-13:30			Northing	Easting
Water Depth (m)			16		22.21.627	113.54.592		
Monitoring Depth (m)	1.	.00	8.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.3	21.8	21.8	22.4	22.2	21.6	21.86	-
Salinity (ppt)	44.9	44.5	45.7	46.0	47.3	47.3	45.94	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02	
D.O. Saturation (%)	91.9	92.1	90.3	89.9	91.1	94.7	91.67	-
D.O. (mg/L)	6.3	6.2	6.1	6.0	6.0	6.3	6.15	6.18
Turbidity (NTU)	4.2	4.5	7.7	8.1	13.7	13.3	8.58	-
SS (mg/L)	5.0	4.0	6.0	6.0	9.0	7.0	6.17	-
Remarks								

Station			IM	02			Co-ordinate	s
Time (hh:mm)			13:37	-13:39			Northing	Easting
Water Depth (m)			10		22.21.163	113.54.646		
Monitoring Depth (m)	1.	00	5.		•			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	21.8	21.8	20.6	21.7	21.7	21.58	-
Salinity (ppt)	45.0	45.1	45.5	46.7	47.2	47.5	46.16	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	94.9	94.0	93.0	95.9	91.9	97.8	94.58	-
D.O. (mg/L)	6.4	6.3	6.3	6.5	6.1	6.5	6.37	6.34
Turbidity (NTU)	4.3	4.4	6.7	6.8	10.1	10.5	7.13	-
SS (mg/L)	5.0	4.0	8.0	6.0	6.0	4.0	5.50	-
Remarks								

Station			M	PB1				
Time (hh:mm)			13:03					
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	17				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.3	21.6	21.7	21.7	22.3	21.6	21.53	-
Salinity (ppt)	40.7	39.6	40.8	40.8	40.3	41.0	40.53	-
pH	7.9	7.9	7.9	8.0	8.0	7.9	7.95	
D.O. Saturation (%)	94.7	95.1	97.0	93.6	93.3	98.0	95.28	-
D.O. (mg/L)	6.7	6.7	6.7	6.5	6.4	6.8	6.64	6.61
Turbidity (NTU)	5.6	5.8	5.9	5.6	6.0	6.1	5.83	-
SS (mg/L)	8.0	6.0	7.0	6.0	7.0	6.0	6.67	-
Remarks			•					

Station			MF	B2				
Time (hh:mm)			12:53	-12:55				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	21.7	21.8	21.9	20.3	20.3	21.28	-
Salinity (ppt)	37.1	37.4	38.0	37.8	42.6	42.7	39.26	-
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.95	
D.O. Saturation (%)	101.7	100.2	100.5	103.6	105.5	101.9	102.23	-
D.O. (mg/L)	7.2	7.1	7.1	7.3	7.4	7.2	7.21	7.29
Turbidity (NTU)	6.9	7.3	8.1	8.3	8.5	8.7	7.97	-
SS (mg/L)	8.0	6.0	8.0	6.0	9.0	8.0	7.50	-
Remarks								

Station			IV	1P				
Time (hh:mm)			13:12	-13:13				
Water Depth (m)			5.					
Monitoring Depth (m)	1.	00	2.	.62				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.3	20.3	-	-	21.7	21.7	21.47	-
Salinity (ppt)	40.3	42.3	-	-	42.5	42.5	41.88	-
pH	7.9	7.9	-	-	7.9	7.9	7.94	
D.O. Saturation (%)	93.7	93.2	-	-	93.0	98.2	94.53	-
D.O. (mg/L)	6.5	6.6	-	-	6.4	6.8	6.54	6.57
Turbidity (NTU)	6.8	6.7	-	-	7.3	7.4	7.05	-
SS (mg/L)	10.0	7.0	-	-	8.0	6.0	7.75	-
Remarks								

Compinance with Addon and Elinic Ecros														
Parameter	As in	EM&A	Mean(C1-	-C3)*130%	IM	01	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	xceedanc Exceedance of Limit Level		Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.0	7.0	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	6.9	6.9	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	7.4	NA	Y	NA	N	NA	N	NA	Υ	NA	N	NA
SS (Depth-averaged)	24.0	37.0	5.6	5.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/20/07
Weather & Ambient Temperature	Sunny, 23C

Station			C1 (NM3)				
Time (hh:mm)			14:41	-14:42				
Water Depth (m)			16					
Monitoring Depth (m)	1.	.00	8.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	20.5	21.8	22.2	22.3	20.2	21.48	-
Salinity (ppt)	42.1	43.2	42.2	42.3	42.0	44.4	42.68	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	103.9	106.8	104.6	103.9	107.7	107.4	105.72	-
D.O. (mg/L)	7.1	7.5	7.2	7.1	7.3	7.5	7.28	7.41
Turbidity (NTU)	4.2	4.4	8.1	7.8	8.5	8.3	6.88	-
SS (mg/L)	7.0	6.0	6.0	8.0	7.0	8.0	7.00	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			13:20	-13:21				
Water Depth (m)			6.					
Monitoring Depth (m)	1.	.00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	20.3	21.6	21.6	21.6	21.5	21.41	-
Salinity (ppt)	41.7	41.8	41.4	42.3	42.4	43.3	42.15	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	106.6	109.1	106.3	106.2	106.8	108.5	107.25	-
D.O. (mg/L)	7.3	7.7	7.4	7.3	7.4	7.4	7.42	7.40
Turbidity (NTU)	3.9	3.8	4.3	4.6	4.6	5.0	4.37	-
SS (mg/L)	5.0	6.0	4.0	5.0	7.0	5.0	5.33	-
Remarks			•		•			

Station			IIV	101			Co-ordinate	s
Time (hh:mm)			14:08	3-14:10			Northing	Easting
Water Depth (m)			16	6.59			22.21.627	113.54.582
Monitoring Depth (m)	1.	.00	8.	5.59		•		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.0	22.0	21.7	21.7	21.6	20.2	21.55	-
Salinity (ppt)	43.5	43.0	45.3	44.1	44.7	48.3	44.80	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	98.9	98.4	97.7	96.9	98.0	100.8	98.45	-
D.O. (mg/L)	6.7	6.7	6.6	6.6	6.7	6.9	6.69	6.76
Turbidity (NTU)	2.6	2.8	3.5	4.1	6.3	6.4	4.28	-
SS (mg/L)	5.0	4.0	4.0	4.0	6.0	4.0	4.50	-
Remarks								

Station			IM	02			Co-ordinate	s
Time (hh:mm)			14:16	-14:18			Northing	Easting
Water Depth (m)			10	.70			22.21.162	113.54.652
Monitoring Depth (m)	1.	.00	5.	70				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.0	22.0	21.7	22.2	21.7	21.7	21.88	-
Salinity (ppt)	41.6	41.8	42.6	42.3	43.2	43.0	42.40	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	97.9	96.1	99.4	96.3	104.5	98.6	98.80	-
D.O. (mg/L)	6.7	6.6	6.8	6.6	7.1	6.8	6.77	6.95
Turbidity (NTU)	5.9	5.8	10.3	10.1	10.9	10.7	8.95	-
SS (mg/L)	4.0	4.0	3.0	4.0	5.0	4.0	4.00	-
Remarks		•	•	•		•	•	

Station			M	PB1				
Time (hh:mm)			13:44	-13:46				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	20.4	21.7	21.6	21.7	21.6	21.47	-
Salinity (ppt)	42.3	44.9	45.0	43.4	46.3	44.0	44.30	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.93	
D.O. Saturation (%)	93.6	96.0	95.1	93.8	103.6	94.4	96.08	-
D.O. (mg/L)	6.4	6.7	6.5	6.4	7.0	6.4	6.55	6.70
Turbidity (NTU)	3.3	3.2	3.1	3.3	3.5	3.8	3.37	-
SS (mg/L)	5.0	6.0	6.0	7.0	4.0	5.0	5.50	-
Remarks					•			

Station			MF	PB2				
Time (hh:mm)			13:36	-13:37				
Water Depth (m)			9.					
Monitoring Depth (m)	1.	00	4.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	21.9	21.8	21.7	21.9	22.3	21.93	-
Salinity (ppt)	40.0	40.1	40.2	40.5	41.8	41.5	40.66	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	99.3	100.6	102.5	98.3	100.0	103.6	100.72	-
D.O. (mg/L)	6.9	7.0	7.1	6.8	6.9	7.1	6.96	6.98
Turbidity (NTU)	4.6	4.7	6.9	6.6	7.6	7.6	6.33	-
SS (mg/L)	4.0	5.0	4.0	5.0	4.0	6.0	4.67	-
Remarks								

Station			N	IP				
Time (hh:mm)			13:52	-13:52				
Water Depth (m)			5.					
Monitoring Depth (m)	1.	00	2.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.7	21.8	-	-	20.4	21.7	21.42	-
Salinity (ppt)	42.6	42.6	-	-	45.1	43.9	43.56	-
pH	7.9	7.9	-	-	7.9	7.9	7.91	
D.O. Saturation (%)	96.2	99.0	-	-	107.0	97.8	100.00	-
D.O. (mg/L)	6.6	6.8	-	-	7.4	6.7	6.86	7.04
Turbidity (NTU)	3.6	3.3	-	-	3.1	3.2	3.30	-
SS (mg/L)	5.0	7.0	-	-	4.0	6.0	5.50	-
Remarks								

Somplians with Action and Emili Ector														
Parameter	As in	EM&A	Mean(C1+	-C3)*130%	IM	101	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.4	7.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.3	7.3	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	7.3	NA	N	NA	Y	NA	N	NA	N	NA	N	NA
SS (Depth-averaged)	24.0	37.0	8.0	8.0	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/20/07
Weather & Ambient Temperature	Cloudy, 19C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.	00	9.	87	18	.75		
Trial	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	21.8	21.8	21.9	21.8	20.3	21.7	21.54	-
Salinity (ppt)	40.8	41.2	42.1	41.9	44.4	42.5	42.14	-
pН	8.0	8.0	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	98.4	99.2	98.3	97.3	100.9	98.5	98.77	-
D.O. (mg/L)	6.8	6.9	6.8	6.7	7.0	6.8	6.82	6.89
Turbidity (NTU)	3.2	3.6	4.4	4.0	4.8	4.9	4.15	-
SS (mg/L)	6.0	4.0	10.0	6.17	-			
Remarks			•					

Station			IM	01			Co-ord	dinates
Time (hh:mm)			9:03	-9:04			Northing	Easting
Water Depth (m)				22.21.634	113.54.598			
Monitoring Depth (m)	1.	00		3				
Trial	Trial 1						Depth-	Bottom
							averaged	
Water Temperature (°C)	21.8	21.7	22.3	21.7	22.3	21.7	21.90	-
Salinity (ppt)	40.0	39.9	41.1	41.5	42.0	42.3	41.15	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	100.1	98.4	101.4	97.8	101.5	98.1	99.55	-
D.O. (mg/L)	7.0	6.9	7.0	6.8	6.9	6.74	6.87	6.84
Turbidity (NTU)	2.4	2.4	2.9	2.7	2.9	3.0	2.72	-
SS (mg/L)	6.0	3.0	4.83	-				
Remarks								

Station			IM	02			Co-ord	dinates
Time (hh:mm)			8:54	-8:56			Northing	Easting
Water Depth (m)				22.21.170	113.54.673			
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.1	21.7	21.7	21.8	22.2	21.7	21.87	-
Salinity (ppt)	37.8	38.3	39.6	39.8	41.2	41.1	39.63	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	100.9	102.1	100.4	106.0	104.6	100.0	102.33	-
D.O. (mg/L)	7.1	7.2	7.0	7.4	7.2	6.92	7.13	7.05
Turbidity (NTU)	3.4	3.2	4.6	4.8	4.8	4.3	4.18	-
SS (mg/L)	9.0	6.0	6.83	-				
Remarks		•	•	•	•	•	•	

Station			MF	PB1				
Time (hh:mm)			9:47	-9:48				
Water Depth (m)								
Monitoring Depth (m)	1.	00	4.	.03	7.	.05		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	19.9	19.9	21.5	21.5	21.6	21.6	20.98	-
Salinity (ppt)	42.6	43.2	42.5	41.9	45.2	44.2	43.27	-
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.94	
D.O. Saturation (%)	94.5	95.3	95.3	93.0	97.1	93.8	94.83	-
D.O. (mg/L)	6.7	6.7	6.6	6.4	6.6	6.4	6.57	6.49
Turbidity (NTU)	4.6	4.6	6.2	5.9	6.7	6.6	5.77	-
SS (mg/L)	4.0	4.0	5.0	4.17	-			
Remarks		-			•		-	

Station			MF	PB2				
Time (hh:mm)			9:55	-9:56				
Water Depth (m)								
Monitoring Depth (m)	1.	00	4.	32	7.	64		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.5	21.5	21.5	20.1	21.6	21.5	21.26	-
Salinity (ppt)	41.7	42.3	43.0	43.7	43.0	44.5	43.02	-
pH	8.0	7.9	7.9	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	93.3	94.4	95.7	93.4	92.2	98.9	94.65	-
D.O. (mg/L)	6.5	6.5	6.6	6.6	6.3	6.7	6.53	6.53
Turbidity (NTU)	4.4	4.2	7.2	7.2	9.2	9.3	6.92	-
SS (mg/L)	4.0	3.0	4.0	4.00	-			
Remarks								

Station			N	/IP				
Time (hh:mm)								
Water Depth (m)			5	.58				
Monitoring Depth (m)	1.	00	2	.79	4.	58		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.4	21.4	-	-	21.4	19.9	21.05	-
Salinity (ppt)	41.9	42.5	-	-	43.2	45.4	43.25	-
pH	7.9	7.9	-	-	7.9	7.9	7.91	
D.O. Saturation (%)	97.1	102.7	-	-	97.9	110.2	101.98	-
D.O. (mg/L)	6.7	7.1	-	-	6.7	7.7	7.05	7.21
Turbidity (NTU)	10.5	11.3	-	-	12.1	12.0	11.48	-
SS (mg/L)	8.0	6.0	-	-	7.0	8.0	7.25	-
Remarks				•			•	

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	6.9	6.9	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	6.8	6.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	5.4	NA	N	NA	N	NA	Y	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	8.0	8.0	N	N	N	N	N	N	N	N	Ν	N

Sampling Date	12/21/07
Weather & Ambient Temperature	Sunny, 23C

Station			C2 (NM5)			1	
Time (hh:mm)				1				
Water Depth (m)			20	.02				
Monitoring Depth (m)	1.	00	10	.01	19	.02		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	20.6	22.0	21.7	21.8	21.8	21.7	21.60	-
Salinity (ppt)	41.8	40.1	41.5	41.1	41.1	41.6	41.20	-
pH	8.0	7.9	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	116.7	116.5	116.3	117.8	118.8	115.9	117.00	-
D.O. (mg/L)	8.2	8.1	8.0	8.2	8.2	8.0	8.11	8.10
Turbidity (NTU)	3.9	4.0	5.0	5.0	5.5	5.4	4.80	-
SS (mg/L)	5.0	6.0	9.0	7.50	-			
Remarks		-		-		-	•	

Station		•	IM	01	•	•	Co-ore	dinates
Time (hh:mm)			10:11	-10:14			Northing	Easting
Water Depth (m)			16	.74			22.21.641	113.54.584
Monitoring Depth (m)	1.	00	8.	37	15	.74		-
Trial	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	21.8	22.0	21.6	21.6	21.7	21.5	21.70	-
Salinity (ppt)	39.9	39.5	41.1	40.6	40.5	41.4	40.49	-
pH	8.0	8.0	8.1	8.1	8.0	8.1	8.03	
D.O. Saturation (%)	116.3	119.0	116.4	120.2	123.0	116.9	118.63	-
D.O. (mg/L)	8.1	8.3	8.1	8.4	8.6	8.10	8.24	8.33
Turbidity (NTU)	7.7	7.9	13.8	13.9	10.1	10.3	10.62	-
SS (mg/L)	8.0	8.0	10.83	-				
Remarks								

Station			IM	02			Co-ord	dinates
Time (hh:mm)			10:01	-10:02			Northing	Easting
Water Depth (m)				22.21.162	113.54.671			
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.9	21.9	21.8	21.9	21.9	21.9	21.86	-
Salinity (ppt)	40.7	40.1	40.8	42.1	44.4	41.1	41.53	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	127.4	126.6	127.0	128.2	129.7	126.2	127.52	-
D.O. (mg/L)	8.8	8.8	8.8	8.8	8.8	8.71	8.78	8.74
Turbidity (NTU)	6.6	6.7	7.0	7.5	6.8	7.1	6.95	-
SS (mg/L)	8.0	9.0	9.50	-				
Remarks								

Station			MF	PB1			1	
Time (hh:mm)			10:57	-10:59				
Water Depth (m)			8.	35				
Monitoring Depth (m)	1.	00	4.	18	7.	35		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	22.0	22.1	21.9	22.5	21.9	20.4	21.78	-
Salinity (ppt)	41.8	41.0	41.8	40.6	42.4	44.7	42.05	-
pH	7.9	7.9	7.9	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	111.1	112.3	111.3	112.8	115.7	114.0	112.87	-
D.O. (mg/L)	7.6	7.7	7.7	7.7	7.9	7.9	7.76	7.92
Turbidity (NTU)	6.3	6.1	7.7	7.5	9.8	9.2	7.77	-
SS (mg/L)	7.0	6.0	8.0	6.0	12.0	9.0	8.00	-
Remarks						•		

Station			MF	PB2				
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.	00	4.	45	7.	89		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.0	22.5	21.9	21.8	21.9	22.5	22.09	-
Salinity (ppt)	41.1	40.8	41.6	41.3	42.3	41.8	41.51	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.94	
D.O. Saturation (%)	110.5	108.0	109.4	110.9	115.3	109.9	110.67	-
D.O. (mg/L)	7.6	7.4	7.5	7.7	7.9	7.5	7.59	7.69
Turbidity (NTU)	16.0	15.7	14.5	14.1	15.9	15.3	15.25	-
SS (mg/L)	24.0	29.0	19.0	27.0	22.0	26.0	24.50	-
Remarks								

Station			N	/IP				
Time (hh:mm)			1					
Water Depth (m)			5	.61				
Monitoring Depth (m)	1.	00	2	.81	4.	61		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.6	22.7	-	-	22.6	20.5	21.59	-
Salinity (ppt)	41.2	38.6	-	-	38.0	41.1	39.75	-
pH	7.9	7.9	-	-	7.9	7.9	7.93	
D.O. Saturation (%)	118.7	121.9	-	-	133.4	119.9	123.48	-
D.O. (mg/L)	8.4	8.4	-	-	9.3	8.5	8.63	8.87
Turbidity (NTU)	19.0	18.9	-	-	23.9	23.8	21.40	-
SS (mg/L)	14.0	13.0	-	-	26.0	25.0	19.50	-
Remarks		•	•	•	•	•		

Compliance with Action ar	id Limit Lev	<u>/el</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.1	8.1	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.1	8.1	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	6.2	NA	Υ	NA	Υ	NA	Υ	NA	Υ	NA	Y	NA
SS (Depth-averaged)	24.0	37.0	9.8	9.8	N	N	N	N	N	N	Υ	N	N	N

Sampling Date	12/21/07
Weather & Ambient Temperature	Sunny, 26C

Station			C1 (NM3)				
Time (hh:mm)			15:41	-15:43				
Water Depth (m)			15	i.98				
Monitoring Depth (m)	1.	00	7.	.99	14	.98		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.3	22.3	22.0	22.1	22.0	21.8	22.06	-
Salinity (ppt)	41.7	42.6	42.7	41.7	41.6	42.4	42.14	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	120.4	119.0	117.7	119.4	127.1	120.1	120.62	-
D.O. (mg/L)	8.2	8.1	8.0	8.2	8.7	8.2	8.25	8.49
Turbidity (NTU)	2.9	2.7	5.0	4.9	7.3	7.9	5.12	-
SS (mg/L)	5.0	6.0	6.0	7.0	11.0	10.0	7.50	-
Remarks						•		

Station			C3 (NM6)				
Time (hh:mm)			14:01					
Water Depth (m)			6.	.48				
Monitoring Depth (m)	1.	.00	3.	.24	5.	48		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.0	22.4	22.2	22.7	21.8	21.9	22.01	-
Salinity (ppt)	40.6	38.4	38.6	39.6	40.2	38.6	39.32	-
pH	8.0	8.0	8.1	8.1	8.1	8.1	8.05	
D.O. Saturation (%)	134.4	135.4	136.8	133.4	131.9	137.1	134.83	-
D.O. (mg/L)	9.5	9.4	9.5	9.2	9.2	9.6	9.38	9.38
Turbidity (NTU)	3.9	4.0	4.1	4.5	4.2	4.5	4.20	-
SS (mg/L)	6.0	6.0	7.0	8.0	6.0	6.0	6.50	-
Remarks							•	·

Station			IM	101			Co-ordinate	s
Time (hh:mm)			15:09	-15:11			Northing	Easting
Water Depth (m)			16		22.21.611	113.54.537		
Monitoring Depth (m)	1.	00	8.	.01	15	.02		•
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.2	22.2	21.8	21.8	21.7	21.8	21.93	-
Salinity (ppt)	41.3	41.6	42.4	41.9	42.8	42.3	42.05	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	115.2	113.6	112.9	114.4	112.9	116.6	114.27	-
D.O. (mg/L)	7.9	7.8	7.7	7.9	7.7	8.0	7.84	7.87
Turbidity (NTU)	3.4	3.5	5.1	4.6	6.9	6.2	4.95	-
SS (mg/L)	4.0	6.0	6.0	6.0	8.0	7.0	6.17	-
Remarks								

Station			IM	02			Co-ordinate	s
Time (hh:mm)			15:19	-15:20			Northing	Easting
Water Depth (m)			11		22.21.198	113.54.663		
Monitoring Depth (m)	1.	00	5.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.6	23.2	22.3	22.2	21.7	21.9	22.30	-
Salinity (ppt)	40.4	40.2	40.5	41.0	42.0	41.7	40.96	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	115.8	114.7	116.3	115.2	116.8	121.1	116.65	-
D.O. (mg/L)	7.9	7.8	8.0	7.9	8.0	8.3	8.00	8.19
Turbidity (NTU)	4.3	4.8	6.4	6.9	13.7	13.8	8.32	-
SS (mg/L)	8.0	6.0	6.0	7.0	8.0	6.0	6.83	-
Remarks			•	•	•	•		

Station			MF	PB1				
Time (hh:mm)			14:28					
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	11	7.	23		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.3	22.1	22.0	21.9	20.8	22.0	21.84	-
Salinity (ppt)	40.0	40.7	40.3	40.9	41.2	41.2	40.71	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	109.6	108.2	111.2	108.9	121.2	109.6	111.45	-
D.O. (mg/L)	7.6	7.5	7.7	7.5	8.5	7.6	7.72	8.04
Turbidity (NTU)	3.9	4.3	4.7	4.2	4.8	4.5	4.40	-
SS (mg/L)	8.0	6.0	6.0	5.0	6.0	6.0	6.17	-
Remarks					•			

Station			MF	PB2				
Time (hh:mm)			14:19					
Water Depth (m)			8.	89				
Monitoring Depth (m)	1.	00	4.	44	7.	89		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.5	22.5	22.3	22.2	22.0	21.9	22.22	-
Salinity (ppt)	39.3	39.8	39.2	40.0	40.7	40.9	39.96	-
pH	7.9	7.9	7.9	7.9	8.0	7.9	7.92	
D.O. Saturation (%)	116.7	114.8	116.5	114.0	123.2	116.4	116.93	-
D.O. (mg/L)	8.1	7.9	8.1	7.9	8.5	8.0	8.08	8.27
Turbidity (NTU)	4.3	4.0	5.3	4.8	10.1	10.2	6.45	-
SS (mg/L)	5.0	5.0	6.0	5.0	7.0	8.0	6.00	-
Remarks								

Station			N	IP				
Time (hh:mm)			14:54					
Water Depth (m)			5.	71				
Monitoring Depth (m)	1.	00	2.	85	4.	71		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.0	22.4	-	-	22.1	21.9	21.86	-
Salinity (ppt)	43.4	42.2	-	-	45.1	43.9	43.65	-
pH	7.9	7.9	-	-	7.8	7.9	7.85	
D.O. Saturation (%)	107.7	110.6	-	-	121.1	109.1	112.13	-
D.O. (mg/L)	7.5	7.5	-	-	8.1	7.4	7.63	7.77
Turbidity (NTU)	8.8	8.7	-	-	9.4	9.3	9.05	-
SS (mg/L)	6.0	7.0	-	-	24.0	23.0	15.00	-
Remarks								

Somphanoc With Action and Elimit Ecror														
Parameter	As in	EM&A	Mean(C1+	·C2)*130%	IMO1		IMO2		MPB1		MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.9	8.9	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.8	8.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	6.1	NA	N	NA	Υ	NA	N	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	9.1	9.1	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/22/07
Weather & Ambient Temperature	Cloudy, 23C

Station			C2 (NM5)			1	
Time (hh:mm)			11:23	-11:25			1	
Water Depth (m)								
Monitoring Depth (m)	1.	00	10	.15	19	.30		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.4	21.4	21.4	21.4	19.9	21.3	21.13	-
Salinity (ppt)	40.5	40.8	41.7	41.5	44.0	42.1	41.78	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	101.7	102.5	101.6	100.6	104.2	101.8	102.07	-
D.O. (mg/L)	7.0	7.0	6.9	6.9	7.2	6.9	6.98	7.05
Turbidity (NTU)	3.9	4.3	5.1	4.7	5.5	5.6	4.85	-
SS (mg/L)	3.0	3.0	2.83	-				
Remarks			•					· · · · · · · · · · · · · · · · · · ·

Station		-	IM	101		-	Co-ore	dinates
Time (hh:mm)			11:04	-11:06			Northing	Easting
Water Depth (m)			22.21.638	113.54.598				
Monitoring Depth (m)	1.	00		-				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.4	21.3	21.2	21.9	21.8	21.3	21.49	-
Salinity (ppt)	39.7	39.6	41.2	40.7	41.7	42.0	40.79	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	103.4	101.7	101.1	104.7	104.8	101.4	102.85	-
D.O. (mg/L)	7.1	7.0	6.9	7.1	7.1	6.90	7.03	7.00
Turbidity (NTU)	3.1	3.1	3.4	3.6	3.6	3.7	3.42	-
SS (mg/L)	4.0	6.0	4.0	5.0	5.0	5.0	4.83	-
Remarks								

Station			IM	02			Co-ord	dinates
Time (hh:mm)			10:56	-10:58			Northing	Easting
Water Depth (m)				22.21.160	113.54.682			
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.3	21.7	21.4	21.3	21.3	21.8	21.46	-
Salinity (ppt)	37.9	37.4	39.5	39.2	40.7	40.9	39.27	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	105.4	104.2	109.3	103.7	103.3	107.9	105.63	-
D.O. (mg/L)	7.4	7.2	7.5	7.2	7.1	7.33	7.29	7.21
Turbidity (NTU)	3.9	4.1	5.5	5.3	5.0	5.5	4.88	-
SS (mg/L)	5.0	5.0	4.0	4.0	5.0	4.0	4.50	-
Remarks								

Station			MF	PB1			1	
Time (hh:mm)			11:49	-11:50				
Water Depth (m)								
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	19.5	19.5	21.1	21.0	21.2	21.2	20.57	-
Salinity (ppt)	42.8	42.3	42.1	41.5	43.9	44.9	42.91	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	98.6	97.8	98.6	96.3	97.1	100.4	98.13	-
D.O. (mg/L)	6.9	6.9	6.7	6.6	6.6	6.7	6.73	6.65
Turbidity (NTU)	5.3	5.3	6.9	6.6	7.3	7.4	6.47	-
SS (mg/L)	3.0	3.0	3.0	2.0	3.0	3.0	2.83	ı
Remarks			•		•		•	

Station			MF	B2				
Time (hh:mm)			11:57	-11:58				
Water Depth (m)								
Monitoring Depth (m)	1.	00	4.	40	7.	79		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.1	21.0	21.1	19.7	21.2	21.1	20.85	-
Salinity (ppt)	41.3	42.0	42.6	43.4	42.6	44.1	42.66	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	96.6	97.7	99.0	96.7	95.5	102.2	97.95	-
D.O. (mg/L)	6.6	6.7	6.7	6.7	6.5	6.9	6.69	6.69
Turbidity (NTU)	5.1	4.9	7.9	7.9	8.3	8.1	7.03	-
SS (mg/L)	3.0	3.0	3.0	3.0	3.0	3.0	3.00	-
Remarks								

Station			N	IP			1	
Time (hh:mm)			11:39	-11:40				
Water Depth (m)								
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.0	21.0	-	-	19.5	21.0	20.64	-
Salinity (ppt)	41.6	42.1	-	-	45.0	42.8	42.89	-
pH	7.9	7.9	-	-	7.9	7.9	7.92	
D.O. Saturation (%)	100.4	106.0	-	-	113.5	101.2	105.28	-
D.O. (mg/L)	6.9	7.2	-	-	7.8	6.9	7.21	7.37
Turbidity (NTU)	8.2	8.7	-	-	10.7	10.8	9.60	-
SS (mg/L)	5.0	5.0	4.75	-				
Remarks								

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	IM	IMO1		IMO2		MPB1	MF	PB2	MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	an Exceedanc Exceedanc Exceedance of Limit Level Ex		Exceedan	Exceedan	Exceedan	Exceedan		
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.1	7.1	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.0	7.0	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	6.3	NA	N	NA	N	NA	Y	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	3.7	3.7	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/22/07
Weather & Ambient Temperature	Sunny, 25C

Station			C1 (NM3)				
Time (hh:mm)			16:12	-16:13				
Water Depth (m)			16					
Monitoring Depth (m)	1.	.00	8.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.1	21.5	21.4	21.8	19.8	21.9	21.07	-
Salinity (ppt)	42.9	41.7	41.8	41.9	44.0	41.6	42.32	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	110.1	107.2	107.9	107.2	110.7	111.0	109.02	-
D.O. (mg/L)	7.6	7.3	7.3	7.2	7.6	7.5	7.44	7.57
Turbidity (NTU)	5.1	4.9	8.8	8.5	9.0	9.2	7.58	-
SS (mg/L)	3.0	3.0	4.0	3.0	3.0	5.0	3.50	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			14:51	-14:52				
Water Depth (m)			6.					
Monitoring Depth (m)	1.	.00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.4	19.8	21.2	21.2	21.1	21.1	21.00	-
Salinity (ppt)	41.4	41.4	42.0	41.0	42.9	42.0	41.79	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	109.9	112.4	109.5	109.6	111.8	110.1	110.55	-
D.O. (mg/L)	7.5	7.9	7.5	7.5	7.6	7.5	7.58	7.56
Turbidity (NTU)	4.6	4.5	5.3	5.0	5.7	5.3	5.07	-
SS (mg/L)	4.0	6.0	3.0	3.0	4.0	4.0	4.00	-
Remarks			•					

Station			IM	101			Co-ordinate	s
Time (hh:mm)			15:39	-15:40			Northing	Easting
Water Depth (m)			16		22.21.641	113.54.586		
Monitoring Depth (m)	1.	.00	8.	.03	15	5.06		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.6	21.6	21.3	21.3	19.8	21.2	21.14	-
Salinity (ppt)	43.1	42.6	43.7	44.9	48.0	44.4	44.44	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	102.2	101.7	100.2	101.0	104.1	101.3	101.75	-
D.O. (mg/L)	6.9	6.9	6.8	6.8	7.0	6.8	6.85	6.92
Turbidity (NTU)	3.3	3.5	4.8	4.2	7.1	7.0	4.98	-
SS (mg/L)	4.0	4.0	4.0	6.0	4.0	4.0	4.33	-
Remarks								

Station			IM	102			Co-ordinate	s
Time (hh:mm)			15:47	'-15:48			Northing	Easting
Water Depth (m)			10	.85			22.21.172	113.54.689
Monitoring Depth (m)	1.	.00	5.	.42	9.	85		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.6	21.6	21.8	21.3	21.3	21.3	21.47	-
Salinity (ppt)	41.4	41.2	41.9	42.2	42.9	42.6	42.04	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	99.4	101.2	99.6	102.7	107.8	101.9	102.10	-
D.O. (mg/L)	6.8	6.9	6.7	7.0	7.3	6.9	6.93	7.11
Turbidity (NTU)	6.5	6.6	9.8	9.1	9.6	9.4	8.50	-
SS (mg/L)	4.0	4.0	4.0	4.0	4.0	4.0	4.00	-
Remarks		•	•					

Station			M	PB1				
Time (hh:mm)			15:15					
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.0	21.4	21.2	21.2	21.2	21.2	21.06	-
Salinity (ppt)	44.5	42.0	43.1	44.6	45.9	43.6	43.94	-
pH	7.9	7.9	8.0	7.9	7.9	8.0	7.94	
D.O. Saturation (%)	99.3	96.9	97.1	98.4	106.9	97.7	99.38	-
D.O. (mg/L)	6.8	6.6	6.6	6.6	7.1	6.6	6.71	6.86
Turbidity (NTU)	3.9	4.0	4.0	3.8	4.2	4.5	4.07	-
SS (mg/L)	3.0	3.0	4.0	3.0	2.0	2.0	2.83	-
Remarks			-					

Station			MF	PB2				
Time (hh:mm)			15:07					
Water Depth (m)			8.	75				
Monitoring Depth (m)	1.	00	4.	38	7.	75		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.5	21.5	21.3	21.4	21.4	21.9	21.52	-
Salinity (ppt)	39.6	39.7	40.2	39.8	41.4	41.1	40.30	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.93	
D.O. Saturation (%)	102.6	103.9	101.6	105.8	103.3	106.9	104.02	-
D.O. (mg/L)	7.1	7.1	7.0	7.3	7.0	7.2	7.12	7.14
Turbidity (NTU)	5.3	5.4	7.3	7.6	8.3	8.3	7.03	-
SS (mg/L)	3.0	3.0	3.0	3.0	2.0	2.0	2.67	-
Remarks								

Station			N	IP				
Time (hh:mm)			15:23					
Water Depth (m)			5.	78				
Monitoring Depth (m)	1.	00	2.	89	4.	78		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.3	21.4	-	-	20.0	21.3	21.01	-
Salinity (ppt)	42.2	42.3	-	-	44.8	43.6	43.20	-
pH	7.9	7.9	-	-	7.9	7.9	7.92	
D.O. Saturation (%)	99.5	102.3	-	-	110.3	101.1	103.30	-
D.O. (mg/L)	6.8	6.9	-	-	7.6	6.8	7.02	7.20
Turbidity (NTU)	4.3	4.0	-	-	3.8	3.9	4.00	-
SS (mg/L)	5.0	5.0	-	-	5.0	5.0	5.00	-
Remarks								

Compliance with Action an	u =	<u> </u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	01	IMO2			MPB1	MF	MPB2 MP		IP .
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.6	7.6	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.5	7.5	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	8.2	NA	N	NA	Υ	NA	N	NA	N	NA	N	NA
SS (Depth-averaged)	24.0	37.0	4.9	4.9	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/23/07
Weather & Ambient Temperature	Cloudy, 20C

Station			C2 (NM5)			1	
Time (hh:mm)			12:32	-12:35				
Water Depth (m)			19	.90				
Monitoring Depth (m)	1.	00	9.	95	18	.90		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.9	21.9	22.0	21.9	22.0	21.9	21.93	-
Salinity (ppt)	37.4	37.7	38.6	39.4	39.2	40.1	38.73	-
pН	7.9	7.9	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	107.7	109.2	112.8	110.4	115.1	110.3	110.92	-
D.O. (mg/L)	7.6	7.7	7.9	7.7	8.0	7.7	7.75	7.84
Turbidity (NTU)	9.3	10.3	11.0	11.4	11.8	11.9	10.95	-
SS (mg/L)	10.0	10.0	10.0	9.0	7.0	6.0	8.67	-
Remarks		•		-		-	•	

a:							_	
Station			IIV	01			Co-ore	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			16	.58			22.21.630	113.54.593
Monitoring Depth (m)	1.	00	8.	29	15	.58		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.5	22.0	21.9	22.0	21.8	22.4	22.09	-
Salinity (ppt)	37.2	37.2	38.5	37.9	40.0	39.2	38.33	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	106.2	110.1	111.8	115.7	111.9	115.3	111.83	-
D.O. (mg/L)	7.4	7.8	7.8	8.1	7.8	7.97	7.82	7.88
Turbidity (NTU)	7.4	7.2	13.6	13.1	12.1	12.8	11.03	-
SS (mg/L)	7.0	7.0	8.0	7.0	12.0	12.0	8.83	-
Remarks			Dredging	and Dumpi	ng works we	re observed		

Station			IM	02			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			10	.70			22.21.161	113.54.665
Monitoring Depth (m)	1.	00	5.	35	9.	70		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.0	22.5	22.5	22.4	21.9	20.5	21.97	-
Salinity (ppt)	38.0	37.5	38.1	38.1	40.0	41.2	38.81	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	118.4	116.4	120.1	117.7	116.6	123.1	118.72	-
D.O. (mg/L)	8.3	8.1	8.4	8.2	8.1	8.70	8.29	8.40
Turbidity (NTU)	12.3	12.9	15.2	15.7	14.2	14.2	14.08	-
SS (mg/L)	9.0	10.0	12.0	11.0	17.0	16.0	12.50	-
Remarks			Dredging	and Dumpii	ng works we	re observed.		

Station			MF	PB1			1	
Time (hh:mm)								
Water Depth (m)			8.	08				
Monitoring Depth (m)	1.	00	4.	04	7.	08		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.8	21.8	21.9	21.9	21.9	22.0	21.88	-
Salinity (ppt)	37.7	37.5	37.9	38.4	38.6	38.4	38.08	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	107.3	108.6	110.1	107.5	107.9	118.2	109.93	-
D.O. (mg/L)	7.6	7.7	7.7	7.5	7.6	8.3	7.72	7.92
Turbidity (NTU)	13.9	13.3	17.9	17.1	17.7	18.2	16.35	-
SS (mg/L)	8.0	8.0	8.0	8.0	15.0	16.0	10.50	-
Remarks							•	•

Station			MF	PB2				
Time (hh:mm)								
Water Depth (m)			8.	65				
Monitoring Depth (m)	1.	00	4.	32	7.	65		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.8	21.8	21.8	22.3	21.8	21.8	21.89	-
Salinity (ppt)	38.0	38.2	38.7	38.0	38.7	39.2	38.47	-
pH	7.9	7.9	8.0	7.9	8.0	8.0	7.95	
D.O. Saturation (%)	107.2	106.6	107.3	107.1	111.9	107.2	107.88	=
D.O. (mg/L)	7.5	7.5	7.5	7.5	7.8	7.5	7.56	7.67
Turbidity (NTU)	10.1	10.2	14.6	14.6	20.2	19.4	14.85	=
SS (mg/L)	8.0	9.0	9.0	10.0	9.0	9.0	9.00	-
Remarks								

Station			N	IP			1	
Time (hh:mm)			12:49	-12:50				
Water Depth (m)			5.	69				
Monitoring Depth (m)	1.	00	2.	85	4.	69		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.8	21.8	-	-	21.9	22.4	21.96	-
Salinity (ppt)	37.2	37.4	-	-	37.3	37.3	37.28	-
pH	7.9	7.9	-	-	7.9	7.9	7.91	
D.O. Saturation (%)	109.3	109.1	-	-	110.5	109.6	109.63	-
D.O. (mg/L)	7.7	7.7	-	-	7.8	7.7	7.73	7.74
Turbidity (NTU)	14.7	14.6	-	-	16.5	16.0	15.45	-
SS (mg/L)	12.0	11.0	-	-	14.0	15.0	13.00	-
Remarks								

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	IM	101	IM	02		MPB1		PB2	MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.8	7.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.8	7.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	14.2	NA	N	NA	N	NA	Υ	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	11.3	11.3	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/23/07
Weather & Ambient Temperature	Cloudy, 19C

Station			C1 (NM3)				
Time (hh:mm)			17:23					
Water Depth (m)			15	.99				
Monitoring Depth (m)	1.	00	8.	00	14	.99		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	21.9	21.7	21.8	21.6	21.7	21.79	-
Salinity (ppt)	40.4	40.2	41.2	40.8	41.8	41.1	40.88	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	113.9	114.7	114.1	115.0	114.2	116.5	114.73	-
D.O. (mg/L)	7.9	8.0	7.9	8.0	7.9	8.1	7.94	7.98
Turbidity (NTU)	4.3	4.2	4.7	4.2	7.6	7.7	5.45	-
SS (mg/L)	6.0	7.0	6.0	8.0	6.0	7.0	6.67	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			15:29	-15:30				
Water Depth (m)			6.					
Monitoring Depth (m)	1.	00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.7	21.8	21.8	20.5	21.8	21.7	21.56	-
Salinity (ppt)	39.5	39.3	39.3	40.8	39.4	39.7	39.67	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	116.3	117.3	118.5	118.1	120.9	116.4	117.92	-
D.O. (mg/L)	8.1	8.2	8.3	8.4	8.4	8.1	8.25	8.29
Turbidity (NTU)	9.6	10.1	10.8	10.7	10.5	10.5	10.37	-
SS (mg/L)	10.0	8.0	11.0	12.0	14.0	14.0	11.50	-
Remarks					<u> </u>	•	•	

Station			IM	101			Co-ordinate	s
Time (hh:mm)			16:42	:-16:44			Northing	Easting
Water Depth (m)			16		22.21.624	113.54.594		
Monitoring Depth (m)	1.	.00	8.	.50		•		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	21.8	21.9	21.9	22.4	21.8	21.96	-
Salinity (ppt)	38.2	38.8	39.0	39.7	39.1	40.5	39.21	-
pH	7.9	7.9	7.9	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	111.4	110.6	113.6	112.8	115.5	111.0	112.48	-
D.O. (mg/L)	7.8	7.7	7.9	7.9	8.0	7.7	7.84	7.85
Turbidity (NTU)	7.2	7.4	9.1	9.3	9.9	9.8	8.78	-
SS (mg/L)	8.0	9.0	9.0	10.0	9.0	10.0	9.17	-
Remarks								

Station			IM	02			Co-ordinate	s
Time (hh:mm)							Northing	Easting
Water Depth (m)			10	.48			22.21.177	113.54.669
Monitoring Depth (m)	1.	00	5.	48				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.4	22.3	22.4	21.9	21.9	21.8	22.13	-
Salinity (ppt)	37.5	37.7	37.9	38.1	39.5	39.9	38.44	-
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.93	
D.O. Saturation (%)	108.0	105.8	107.7	112.3	113.9	106.9	109.10	-
D.O. (mg/L)	7.5	7.4	7.5	7.9	7.9	7.4	7.61	7.68
Turbidity (NTU)	7.6	7.7	8.6	8.9	9.5	9.6	8.65	-
SS (mg/L)	9.0	10.0	8.0	8.0	10.0	13.0	9.67	-
Remarks				•	•			

Station			MF	PB1						
Time (hh:mm)			16:03	-16:04						
Water Depth (m)			8.							
Monitoring Depth (m)	1.	00	4.	40						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.8	21.8	21.8	21.8	21.8	21.8	21.80	-		
Salinity (ppt)	38.0	38.0	38.7	38.5	39.8	40.3	38.89	-		
pH	7.9	7.9	8.0	7.9	8.0	8.0	7.94			
D.O. Saturation (%)	106.6	106.8	106.9	107.0	107.0	106.9	106.87	-		
D.O. (mg/L)	7.5	7.5	7.5	7.5	7.4	7.4	7.48	7.43		
Turbidity (NTU)	14.1	14.6	17.7	18.2	17.9	17.8	16.72	-		
SS (mg/L)	10.0	9.0	9.0	10.0	13.0	13.0	10.67	-		
Remarks		Dredging and Dumping works were observed.								

Station			MF	PB2				
Time (hh:mm)			15:54	-15:55				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	39	7.	79		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	20.7	20.6	22.4	22.0	22.3	21.63	-
Salinity (ppt)	38.2	39.2	40.0	38.0	39.0	38.8	38.84	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	106.0	107.7	107.7	106.7	109.2	105.2	107.08	-
D.O. (mg/L)	7.5	7.7	7.7	7.4	7.6	7.3	7.52	7.46
Turbidity (NTU)	11.1	11.3	13.2	13.3	18.5	18.5	14.32	-
SS (mg/L)	8.0	8.0	11.0	12.0	19.0	19.0	12.83	-
Remarks			Dre	daina and D	umpina work	s were obse	rved.	

Station			IV	IP.					
Time (hh:mm)			16:12	-16:12					
Water Depth (m)			5.						
Monitoring Depth (m)	1.	00	2.						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	21.7	21.8	-	-	20.6	21.8	21.47	-	
Salinity (ppt)	37.7	37.7	-	-	38.9	37.9	38.04	-	
pH	7.9	7.9	-	-	7.9	7.9	7.92		
D.O. Saturation (%)	109.2	109.6	-	-	111.4	109.2	109.85	-	
D.O. (mg/L)	7.7	7.7	-	-	8.0	7.7	7.77	7.83	
Turbidity (NTU)	13.8	14.3	-	-	14.5	14.0	14.15	-	
SS (mg/L)	10.0	12.0	-	-	11.0	11.0	11.00	-	
Remarks		Floating Rubbish was observed.							

Compliance v	vith A	ction and	l I imi	t I evel

Parameter	As in	EM&A	Mean(C1+	·C3)*130%	IMO1 IMO2			MPB1	MPB2		MP			
	Action	Limit	Action	Limit		Exceedan	Exceedance of Action			Exceedance of Limit Level	Exceedan	Exceedan		
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.1	8.1	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.1	8.1	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	10.3	NA	N	NA	N	NA	Y	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	11.8	11.8	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/24/07
Weather & Ambient Temperature	Cloudy, 19C

Station			C2 (NM5)				
Time (hh:mm)								
Water Depth (m)			20	.28				
Monitoring Depth (m)	1.	00	10	.14	19	.28		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.9	21.3	20.2	21.3	21.3	20.2	21.04	-
Salinity (ppt)	38.9	39.6	40.8	39.5	39.7	40.5	39.83	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07	
D.O. Saturation (%)	120.4	120.8	122.5	121.1	121.1	122.5	121.40	-
D.O. (mg/L)	8.4	8.5	8.7	8.5	8.5	8.7	8.57	8.63
Turbidity (NTU)	11.5	11.1	12.4	12.7	13.8	13.6	12.52	-
SS (mg/L)	12.0	10.0	14.0	11.0	12.0	12.0	11.83	-
Remarks		-		-		-	-	

Station			IM	01			Co-ord	dinates
Time (hh:mm)			12:56	-12:58			Northing	Easting
Water Depth (m)				22.21.535	113.54.460			
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.7	22.2	20.4	21.5	21.6	21.6	21.47	-
Salinity (ppt)	38.3	38.2	40.2	39.4	39.8	40.1	39.32	-
pH	8.0	8.0	8.1	8.1	8.1	8.1	8.03	
D.O. Saturation (%)	113.3	112.7	114.9	112.4	113.4	111.5	113.03	-
D.O. (mg/L)	8.0	7.9	8.2	7.9	7.9	7.79	7.94	7.86
Turbidity (NTU)	13.0	13.1	11.1	11.7	10.8	10.6	11.72	-
SS (mg/L)	15.0	16.0	16.0	16.00	-			
Remarks			F	loating rubbi	sh was obse	rved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)			12:45	-12:46			Northing	Easting
Water Depth (m)			10	.78			22.21.197	113.54.644
Monitoring Depth (m)	1.	00	5.	39	9.	78		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.6	21.6	21.6	21.7	21.7	21.6	21.63	-
Salinity (ppt)	38.4	38.0	38.5	38.9	39.8	38.9	38.73	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	121.1	120.7	121.4	122.0	126.7	120.1	122.00	-
D.O. (mg/L)	8.5	8.5	8.6	8.6	8.9	8.44	8.58	8.65
Turbidity (NTU)	14.8	14.9	14.9	14.4	14.3	14.5	14.63	-
SS (mg/L)	15.0	17.0	17.17	-				
Remarks			FI	oating rubbi	sh was obse	rved.		

Station			MF	PB1				
Time (hh:mm)			13:42	-13:43				
Water Depth (m)			8.	42				
Monitoring Depth (m)	1.	00	4.	21	7.	42		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.7	21.7	21.7	21.8	22.2	21.8	21.83	-
Salinity (ppt)	37.8	37.6	37.9	37.5	37.3	37.9	37.67	-
pH	7.9	7.9	8.0	7.9	7.9	7.9	7.94	
D.O. Saturation (%)	111.5	113.9	111.3	116.5	120.8	111.7	114.28	-
D.O. (mg/L)	7.9	8.0	7.9	8.2	8.5	7.9	8.05	8.17
Turbidity (NTU)	18.7	18.2	18.6	18.3	18.6	18.9	18.55	-
SS (mg/L)	20.0	16.0	20.0	17.0	18.0	17.0	18.00	-
Remarks		-		-		•	-	

Station			MF	PB2				
Time (hh:mm)			13:50	-13:51				
Water Depth (m)								
Monitoring Depth (m)	1.	00	4.	39	7.	77		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.1	22.1	21.5	21.5	21.4	21.4	21.67	-
Salinity (ppt)	38.6	38.8	39.5	39.2	39.3	39.6	39.16	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	111.7	111.2	112.0	112.7	112.7	112.3	112.10	-
D.O. (mg/L)	7.8	7.7	7.9	7.9	7.9	7.9	7.85	7.90
Turbidity (NTU)	15.9	15.7	20.1	20.2	18.7	18.7	18.22	-
SS (mg/L)	16.0	16.0	15.0	16.0	14.0	15.0	15.33	-
Remarks		•	•	•	•	•		

Station			I	/IP				
Time (hh:mm)								
Water Depth (m)			5	.37				
Monitoring Depth (m)	1.	00	2	.69	4.	37		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.8	21.8	-	-	22.3	22.0	21.97	-
Salinity (ppt)	37.2	37.5	-	-	36.9	37.1	37.15	-
pH	7.9	7.9	-	-	7.9	7.9	7.90	
D.O. Saturation (%)	117.9	110.5	-	-	112.6	133.7	118.68	-
D.O. (mg/L)	8.3	7.8	-	-	7.9	9.4	8.37	8.67
Turbidity (NTU)	33.0	32.2	-	-	34.1	33.1	33.10	-
SS (mg/L)	32.0	36.0	-	-	31.0	28.0	31.75	-
Remarks		•	•	•	•	•	•	

Compliance with Action ar	id Limit Lev	<u>'el</u>												
Parameter	As in	EM&A	C2*130%		IMO1		IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.6	8.6	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.6	8.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	16.3	NA	N	NA	N	NA	Υ	NA	Υ	NA	Y	NA
SS (Depth-averaged)	24.0	37.0	15.4	15.4	N	N	N	N	N	N	N	N	Υ	N

Sampling Date	12/24/07
Weather & Ambient Temperature	Cloudy, 18C

Station			C1 (NM3)				
Time (hh:mm)			17:41					
Water Depth (m)			16	6.35				
Monitoring Depth (m)	1.	.00	8.	.18	15	.35		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.3	21.4	21.6	21.3	21.4	22.1	21.34	-
Salinity (ppt)	40.4	39.5	39.3	39.7	39.7	38.9	39.58	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07	
D.O. Saturation (%)	123.0	120.0	125.2	120.2	120.5	122.6	121.92	-
D.O. (mg/L)	8.8	8.4	8.8	8.5	8.5	8.5	8.57	8.50
Turbidity (NTU)	9.7	11.5	17.4	17.3	17.5	17.5	15.15	-
SS (mg/L)	10.0	12.0	11.0	13.0	11.0	13.0	11.67	-
Remarks		•		•				•

Station			C3 (
Time (hh:mm)			16:01					
Water Depth (m)			6.	.59				
Monitoring Depth (m)	1.	.00	3.	.29	5.	59		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.4	21.4	21.4	22.0	21.8	21.9	21.49	-
Salinity (ppt)	39.7	39.0	39.1	38.3	38.3	38.7	38.86	-
pH	8.0	8.0	8.1	8.0	8.0	8.1	8.04	
D.O. Saturation (%)	126.3	122.0	122.1	125.2	131.1	122.1	124.80	-
D.O. (mg/L)	9.0	8.6	8.6	8.8	9.2	8.5	8.79	8.88
Turbidity (NTU)	10.3	9.8	11.0	10.6	10.6	10.8	10.52	-
SS (mg/L)	11.0	12.0	11.0	11.0	12.0	11.0	11.33	-
Remarks					<u> </u>	·	•	<u> </u>

Station			IM	01			Co-ordinate:	S
Time (hh:mm)			17:10	-17:12		Northing	Easting	
Water Depth (m)			16	.72		22.21.542	113.54.467	
Monitoring Depth (m)	1.	00	8.	36	15	.72		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.2	21.7	21.5	21.5	21.6	21.6	21.69	-
Salinity (ppt)	37.4	38.0	38.5	38.8	39.4	39.5	38.60	-
pH	8.0	8.0	8.0	8.1	8.0	8.0	8.01	
D.O. Saturation (%)	114.0	113.8	115.8	113.9	117.0	113.8	114.72	-
D.O. (mg/L)	8.0	8.0	8.2	8.0	8.2	8.0	8.06	8.08
Turbidity (NTU)	13.5	13.2	12.1	11.9	10.9	10.5	12.02	-
SS (mg/L)	16.0	15.0	15.0	19.0	17.0	16.17	-	
Remarks				Floati	ng rubbish w	as observed		

Station			IM	02			Co-ordinate	s
Time (hh:mm)			17:19	-17:20			Northing	Easting
Water Depth (m)			10	.55			22.21.197	113.54.660
Monitoring Depth (m)	1.	.00	5.	28	9.	.55		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.1	21.6	22.1	21.6	22.0	22.0	21.88	-
Salinity (ppt)	37.6	38.1	38.1	38.4	38.4	38.5	38.17	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	119.4	118.0	118.5	120.3	119.2	117.9	118.88	-
D.O. (mg/L)	8.4	8.3	8.3	8.5	8.3	8.2	8.34	8.29
Turbidity (NTU)	16.2	15.8	15.9	15.5	15.2	14.6	15.53	-
SS (mg/L)	14.0	16.0	16.0	18.0	16.0	16.0	16.00	-
Remarks		•	•	Floati	ng rubbish w	as observed.	•	

Station			MF	PB1				
Time (hh:mm)			16:28	-16:30				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	13	7.	26		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.2	21.7	20.6	20.6	21.7	21.7	21.40	-
Salinity (ppt)	37.8	38.0	39.1	39.4	38.1	38.3	38.45	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	109.4	110.6	111.7	111.5	110.7	110.2	110.68	-
D.O. (mg/L)	7.7	7.8	8.0	8.0	7.8	7.8	7.83	7.78
Turbidity (NTU)	19.1	19.0	19.0	19.9	19.1	19.3	19.23	-
SS (mg/L)	22.0	16.0	18.0	15.0	18.0	15.0	17.33	-
Remarks								

Station			MF	PB2				
Time (hh:mm)			16:19	-16:21				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	42	7.	.85		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.6	21.6	21.6	21.5	20.5	20.3	21.18	-
Salinity (ppt)	38.4	38.8	38.4	39.0	39.5	40.1	39.02	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	113.9	112.8	117.0	112.9	125.1	114.4	116.02	-
D.O. (mg/L)	8.0	7.9	8.3	8.0	8.9	8.2	8.21	8.55
Turbidity (NTU)	18.2	18.2	24.5	20.1	22.1	22.7	20.97	-
SS (mg/L)	14.0	14.0	11.0	12.0	13.0	12.0	12.67	-
Remarks								

Station			N	IP				
Time (hh:mm)			16:54					
Water Depth (m)			5.	64				
Monitoring Depth (m)	1.	00	2.	82	4.	.64		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.6	21.7	-	-	21.8	21.7	21.46	-
Salinity (ppt)	38.7	37.8	-	-	37.6	37.7	37.94	-
pH	7.9	7.9	-	-	7.9	7.9	7.93	
D.O. Saturation (%)	111.0	109.4	-	-	110.1	109.5	110.00	-
D.O. (mg/L)	8.0	7.7	-	-	7.8	7.7	7.79	7.75
Turbidity (NTU)	31.6	31.3	-	-	32.9	32.0	31.95	-
SS (mg/L)	31.0	32.0	-	-	32.0	31.0	31.50	-
Remarks								

Compilation with Atomorran	SIMPLIANCE WITH ACTION WHILE ELECTION													
Parameter	As in	EM&A	Mean(C1+	+C3)*130%	IM	IMO1		MPB1		MPB2		MP		
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.7	8.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.7	8.7	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	16.7	NA	N	NA	N	NA	Y	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	15.0	15.0	N	N	N	N	N	N	N	N	Y	N

Sampling Date	12/25/07
Weather & Ambient Temperature	Cloudy, 17C

Station			C2 (NM5)				
Time (hh:mm)			12:53	-12:55				
Water Depth (m)			20	.26				
Monitoring Depth (m)	1.	.00	10	.13	19	.26		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.8	21.1	21.0	21.0	21.0	21.1	20.85	-
Salinity (ppt)	39.6	38.4	38.8	38.6	39.0	39.0	38.89	-
pH	8.0	8.0	8.1	8.1	8.1	8.1	8.06	
D.O. Saturation (%)	125.9	122.5	124.9	122.6	122.3	126.7	124.15	-
D.O. (mg/L)	9.1	8.7	8.9	8.7	8.7	9.0	8.84	8.83
Turbidity (NTU)	11.7	12.0	14.1	14.7	15.2	15.3	13.83	-
SS (mg/L)	11.0	10.0	10.0	13.0	10.0	12.0	11.00	-
Remarks		•		•		•		

Station			IM	01			Co-ord	dinates
Time (hh:mm)			13:54	-13:55			Northing	Easting
Water Depth (m)			16	.45			22.21.530	113.54.472
Monitoring Depth (m)	1.	00	8.	23	15	.45		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.7	21.1	21.6	21.1	21.1	21.2	21.30	-
Salinity (ppt)	38.1	38.8	38.9	39.2	39.5	39.1	38.94	-
pH	8.0	8.1	8.1	8.1	8.1	8.1	8.08	
D.O. Saturation (%)	117.8	117.7	116.8	119.2	116.8	126.0	119.05	-
D.O. (mg/L)	8.3	8.3	8.2	8.4	8.3	8.90	8.40	8.58
Turbidity (NTU)	21.5	20.8	23.8	27.3	22.2	24.8	23.40	-
SS (mg/L)	22.0	15.0	13.0	12.0	17.0	12.0	15.17	-
Remarks			Brov	wnish water	color was ob	served.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)			13:43	-13:44			Northing	Easting
Water Depth (m)			10	.36			22.21.183	113.54.637
Monitoring Depth (m)	1.	00	5.	18	9.	36		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.7	20.1	21.1	21.7	20.1	21.3	20.98	-
Salinity (ppt)	38.1	39.4	38.8	38.0	39.8	38.4	38.72	-
pH	8.0	8.0	8.1	8.0	8.0	8.0	8.03	
D.O. Saturation (%)	115.3	120.9	116.4	121.5	118.6	126.2	119.82	-
D.O. (mg/L)	8.1	8.7	8.3	8.6	8.5	8.95	8.52	8.74
Turbidity (NTU)	14.0	14.1	16.1	16.2	15.2	15.9	15.25	-
SS (mg/L)	20.0	18.0	20.0	16.0	15.0	13.0	17.00	-
Remarks			Brov	vnish water	color was ob	served.		

Station			MF	PB1			1	
Time (hh:mm)								
Water Depth (m)			8.	14				
Monitoring Depth (m)	1.	00	4.	07	7.	14		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.2	21.2	21.0	21.0	21.6	21.0	21.17	-
Salinity (ppt)	39.0	39.0	39.4	39.4	39.1	39.5	39.24	-
pH	8.0	8.0	8.1	8.1	8.1	8.1	8.05	
D.O. Saturation (%)	116.3	115.9	115.1	115.6	114.1	115.0	115.33	-
D.O. (mg/L)	8.2	8.2	8.1	8.2	8.0	8.1	8.15	8.07
Turbidity (NTU)	18.7	18.1	20.1	21.1	19.2	20.6	19.63	-
SS (mg/L)	18.0	19.0	19.0	22.0	19.0	24.0	20.17	-
Remarks			Brov	wnish water	color was ob	served.		

Station			MF	PB2					
Time (hh:mm)									
Water Depth (m)			8.	65					
Monitoring Depth (m)	1.	00	4.	32	7.	65			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	21.7	21.2	21.1	21.1	21.2	21.1	21.23	-	
Salinity (ppt)	38.4	38.7	39.2	38.9	39.2	39.1	38.93	-	
pH	8.0	8.0	8.0	8.0	8.0	8.1	8.04		
D.O. Saturation (%)	114.8	114.9	115.5	115.1	116.1	114.7	115.18	-	
D.O. (mg/L)	8.1	8.1	8.2	8.2	8.2	8.1	8.14	8.16	
Turbidity (NTU)	27.4	26.7	27.4	28.3	27.3	27.5	27.43	-	
SS (mg/L)	19.0	28.0	32.0	31.0	38.0	29.0	29.50	-	
Remarks	Brownish water color was observed.								

Station			N	IP			1	
Time (hh:mm)								
Water Depth (m)			5.	60				
Monitoring Depth (m)	1.	00	2.	80	4.	60		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.7	21.7	-	-	21.2	21.2	21.45	-
Salinity (ppt)	38.6	38.5	-	-	39.2	39.1	38.85	-
pH	8.0	8.0	-	-	8.0	8.0	8.01	
D.O. Saturation (%)	111.8	111.2	-	-	111.9	112.9	111.95	-
D.O. (mg/L)	7.9	7.8	-	-	8.0	8.0	7.91	7.97
Turbidity (NTU)	17.7	17.2	-	-	17.3	17.3	17.38	-
SS (mg/L)	21.0	19.0	-	-	19.0	20.0	19.75	-
Remarks		•	Brov	wnish water	color was ob	served.		

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	IM	IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.8	8.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.8	8.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	18.0	NA	Υ	NA	N	NA	Y	NA	Υ	NA	N	NA
SS (Depth-averaged)	24.0	37.0	14.3	14.3	N	N	N	N	N	N	Υ	N	Ν	N

Sampling Date	12/25/07
Weather & Ambient Temperature	Cloudy, 16C

Station			C1 (NM3)				
Time (hh:mm)			8:36	-8:39				
Water Depth (m)			16					
Monitoring Depth (m)	1.	00	8.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.0	21.1	21.0	21.0	21.0	21.0	20.99	-
Salinity (ppt)	38.5	38.4	38.7	38.8	39.0	39.0	38.72	-
pH	8.0	8.0	8.1	8.1	8.1	8.1	8.06	
D.O. Saturation (%)	121.2	122.1	121.4	122.1	122.4	121.8	121.83	-
D.O. (mg/L)	8.6	8.7	8.6	8.7	8.7	8.7	8.66	8.68
Turbidity (NTU)	13.6	13.7	17.2	17.5	15.1	15.9	15.50	-
SS (mg/L)	6.0	8.0	8.0	9.0	8.17	-		
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			10:00	-10:02				
Water Depth (m)			6.					
Monitoring Depth (m)	1.	00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.8 21.1 2		21.0	21.0	21.0	20.9	20.81	-
Salinity (ppt)	40.1	39.7	40.4	39.4	39.8	43.2	40.45	-
pH	8.0	8.0	8.0	8.1	8.0	8.0	8.03	
D.O. Saturation (%)	125.7	127.1	129.3	124.0	124.3	133.5	127.32	-
D.O. (mg/L)	9.1	9.0	9.1	8.8	8.8	9.3	8.99	9.02
Turbidity (NTU)	12.3	12.0	14.2	14.6	13.5	13.2	13.30	-
SS (mg/L)	11.0	11.0	9.0	10.67	-			
Remarks						•		

Station			IIV	101			Co-ordinate:	s
Time (hh:mm)			8:55	-8:58			Northing	Easting
Water Depth (m)			16	6.67			22.21.524	113.54.477
Monitoring Depth (m)	1.	.00	8.	.67				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.1	21.1	21.1	21.1	21.1	21.6	21.17	-
Salinity (ppt)	39.0	39.1	39.6	39.7	39.6	39.3	39.39	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09	
D.O. Saturation (%)	117.4	116.7	117.2	116.8	116.6	115.7	116.73	-
D.O. (mg/L)	8.3	8.3	8.3	8.2	8.2	8.1	8.24	8.17
Turbidity (NTU)	21.5	20.4	24.3	24.4	21.6	21.9	22.35	-
SS (mg/L)	18.0	15.0	12.0	14.0	12.0	13.0	14.00	-
Remarks				Brownis	h water color	was observe	ed.	

Station			IM	02			Co-ordinate	s			
Time (hh:mm)			9:07	-9:09			Northing	Easting			
Water Depth (m)			10	.30			22.21.187	113.54.659			
Monitoring Depth (m)	1.	00	5.	30							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.1	21.1 21.1 21.0 21.1		21.1	20.0	20.89	-				
Salinity (ppt)	39.0	39.0 38.8		39.0	39.0	40.3	39.23	-			
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06				
D.O. Saturation (%)	115.1	115.3	115.1	115.2	115.3	116.3	115.38	-			
D.O. (mg/L)	8.2	8.2	8.2	8.2	8.2	8.3	8.19	8.26			
Turbidity (NTU)	15.0	14.9	16.1	16.4	15.6	15.8	15.63	-			
SS (mg/L)	15.0	24.0	17.0	21.0	18.83	-					
Remarks		Brownish water color was observed.									

Station			MF	PB1				
Time (hh:mm)			9:33	-9:34				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	32				
Trial	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	20.1	21.7	21.7	21.2	20.0	19.9	20.76	-
Salinity (ppt)	40.1	38.3	38.7	39.3	40.7	40.8	39.64	-
pH	8.0	8.0	8.0	8.0	8.0	8.1	8.03	
D.O. Saturation (%)	122.6	116.2	116.7	123.6	128.8	118.7	121.10	-
D.O. (mg/L)	8.8	8.2	8.2	8.7	9.2	8.5	8.60	8.86
Turbidity (NTU)	20.6	20.6	23.2	22.1	22.9	23.3	22.12	-
SS (mg/L)	17.0	17.0	19.0	16.0	18.0	18.0	17.50	-
Remarks				Brownish w	ater color w	as observed.		

Station			MF	PB2				
Time (hh:mm)			9:42	-9:44				
Water Depth (m)			8.					
Monitoring Depth (m)	1.	00	4.	78				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.2	21.2	21.2	21.1	21.2	21.1	21.17	-
Salinity (ppt)	39.4	39.1	40.0	39.5	40.5	39.6	39.68	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02	
D.O. Saturation (%)	120.9	117.0	123.0	117.1	127.3	118.1	120.57	-
D.O. (mg/L)	8.5	8.3	8.7	8.3	8.9	8.3	8.49	8.63
Turbidity (NTU)	28.3	28.1	29.1	28.5	28.3	28.8	28.52	-
SS (mg/L)	29.0	29.0	28.0	28.0	29.17	-		
Remarks				Brownish w	ater color w	as observed.		•

Station			N	IP								
Time (hh:mm)			9:23	-9:24								
Water Depth (m)			5.									
Monitoring Depth (m)	1.	00	2.	48								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	21.2	21.7	-	-	21.2	21.2	21.32	-				
Salinity (ppt)	39.0	38.6	-	-	39.0	39.1	38.91	-				
pH	8.0	8.0	-	-	8.0	8.0	8.01					
D.O. Saturation (%)	113.5	112.1	-	-	114.2	113.0	113.20	-				
D.O. (mg/L)	8.0	7.9	-	-	8.1	8.0	7.99	8.04				
Turbidity (NTU)	17.7	17.9	-	-	17.5	17.9	17.75	-				
SS (mg/L)	18.0	20.0	-	20.0	19.00	-						
Remarks		Brownish water color was observed.										

Compilation with Atomorran	Minimules with Adden and Ellink Ester													
Parameter	As in	EM&A	Mean(C1+	-C2)*130%	IM	01	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action Exceedance Ex		Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.8	8.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.8	8.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	18.7	NA	Y	NA	N	NA	Y	NA	Υ	NA	N	NA
SS (Depth-averaged)	24.0	37.0	12.2	12.2	N	N	N	N	N	N	Υ	N	N	N

Sampling Date	12/26/07
Weather & Ambient Temperature	Sunny, 22C

Station			C2 (NM5)				
Time (hh:mm)								
Water Depth (m)			20).18				
Monitoring Depth (m)	1.	.00	10	0.09	19	.18	1	
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.0	21.0	20.8	20.7	20.7	20.7	20.82	
Salinity (ppt)	38.9	38.5	38.3	39.1	38.7	39.4	38.80	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.01	
D.O. Saturation (%)	119.0	121.4	122.3	120.1	123.3	120.4	121.08	-
D.O. (mg/L)	8.4	8.6	8.7	8.6	8.8	8.6	8.63	8.70
Turbidity (NTU)	11.0	10.6	13.2	13.5	14.4	14.1	12.80	-
SS (mg/L)	12.0	12.0	12.0	12.00	-			
Remarks		•		•		•	•	

Station			IM	01	•		Co-ore	dinates				
Time (hh:mm)			14:43	-14:45			Northing	Easting				
Water Depth (m)			22.21.427	113.54.235								
Monitoring Depth (m)	1.	00	8.	42	15	.84		•				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	21.4	21.4	21.1	21.7	21.3	21.0	21.30	-				
Salinity (ppt)	38.9	39.0	39.2	38.4	38.7	39.1	38.89	-				
pH	8.0	8.0	8.1	8.0	8.1	8.1	8.04					
D.O. Saturation (%)	114.3	114.1	114.1	112.5	111.9	114.7	113.60	-				
D.O. (mg/L)	8.1	8.1	8.1	7.9	7.9	8.13	8.03	8.02				
Turbidity (NTU)	20.3	20.6	23.7	23.5	24.8	24.6	22.92	-				
SS (mg/L)	8.0	8.0	9.0	9.0	9.0	8.0	8.50	-				
Remarks		Brownish water color was observed.										

Station				Co-ordinates				
Time (hh:mm)				Northing	Easting			
Water Depth (m)			22.21.047	113.54.484				
Monitoring Depth (m)	1.	00	5.	63	10	.27		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1 Trial 2		Depth-	Bottom
							averaged	
Water Temperature (°C)	21.1	21.0	21.0	21.1	20.9	21.4	21.10	-
Salinity (ppt)	39.5	39.8	39.9 39.6		39.9	39.2	39.65	-
pH	8.1	8.1	8.1	8.1	8.1 8.1		8.07	
D.O. Saturation (%)	118.0	113.6	114.0	121.7	115.0	117.4	116.62	-
D.O. (mg/L)	8.3 8.0		8.1	8.6	8.1	8.26	8.23	8.19
Turbidity (NTU)	15.0	15.1	15.7	16.6	15.6	16.5	15.75	-
SS (mg/L)	15.0	15.0	14.0	15.0	16.0 15.0		15.00	-
Remarks			Brov	vnish water	color was ob	served.		

Station				1				
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1.	00						
Trial	Trial 1	Trial 2	Trial 1	Trial 1 Trial 2		Trial 1 Trial 2		Bottom
Water Temperature (°C)	21.6	21.2	20.9	21.1	21.0	21.1	21.13	-
Salinity (ppt)	38.2	38.5	38.9	38.5	39.0	38.7	38.62	-
pH	8.0	8.0	8.0	8.0	8.0	8.0 8.0		
D.O. Saturation (%)	111.0	111.5	111.2	112.0	112.0 111.1		111.23	-
D.O. (mg/L)	7.8	7.9	7.9	8.0	7.9	7.9	7.89	7.87
Turbidity (NTU)	24.7	25.2	25.6	21.0	24.9	21.6	23.83	-
SS (mg/L)	26.0	24.0	22.67	-				
Remarks			Brov	wnish water	color was ob	served.		

Station												
Time (hh:mm)												
Water Depth (m)			8.	72								
Monitoring Depth (m)	1.	00	4.	36	7.	72						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom				
							averaged					
Water Temperature (°C)	21.2	20.1	20.0	20.9	20.9	21.3	20.72	-				
Salinity (ppt)	38.7	40.0	40.3	39.6	39.8	39.3	39.61					
pH	8.0	8.0	8.0	8.0	8.0	8.1	8.01					
D.O. Saturation (%)	113.4	114.9	116.9	112.3	111.9	113.6	113.83	-				
D.O. (mg/L)	8.0	8.2	8.4	8.0	7.9	8.0	8.09	7.96				
Turbidity (NTU)	18.4	19.2	25.7	24.9	25.5	25.7	23.23	-				
SS (mg/L)	17.0	17.0	19.0	17.0	16.0	16.0	17.00	-				
Remarks		Brownish water color was observed.										

Station									
Time (hh:mm)									
Water Depth (m)									
Monitoring Depth (m)	1.	00	2	.75	4.	4.50			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	21.2	21.1	-	-	21.6	21.1	21.25	-	
Salinity (ppt)	39.0	39.1	-	-	38.6	39.1	38.96	-	
pH	8.0	8.0	-	-	8.0	8.0	7.99		
D.O. Saturation (%)	108.9	109.3	-	-	109.8	109.4	109.35	-	
D.O. (mg/L)	7.7	7.7	-	-	7.7	7.8	7.73	7.74	
Turbidity (NTU)	22.1	21.8	-	-	20.2	22.9	21.75	-	
SS (mg/L)	24.0	24.0		-	22.0	24.0	23.50	-	
Remarks			Bro	wnish water	color was ob	served.	•		

Compliance with Action and Limit Level														
Parameter	As in	EM&A	C2*130%		IMO1		IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.7	8.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.6	8.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	16.6	NA	Υ	NA	N	NA	Υ	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	15.6	15.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/26/07
Weather & Ambient Temperature	Sunny, 18C

Station			C1 (
Time (hh:mm)			9:30	-9:33				
Water Depth (m)			16	6.42				
Monitoring Depth (m)	1.	00	8.	.21	15	.42		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.2	20.1	21.0	19.9	21.0	21.1	20.70	-
Salinity (ppt)	41.9	43.0	41.9	42.8	42.3	41.5	42.23	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.15	
D.O. Saturation (%)	119.0	120.3	119.1	120.4	119.4	118.4	119.43	-
D.O. (mg/L)	8.3	8.5	8.3	8.5	8.3	8.3	8.36	8.30
Turbidity (NTU)	6.4	6.5	7.6	8.1	8.8	8.1	7.58	-
SS (mg/L)	5.0	5.0	5.0	4.0	4.0	5.0	4.67	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			10:54					
Water Depth (m)			6.	.69				
Monitoring Depth (m)	1.	00	3.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.0	21.0	20.9	20.9	20.9	21.1	20.97	-
Salinity (ppt)	40.3	38.7	41.3	39.1	39.6	42.3	40.22	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	125.4	123.0	126.9	123.1	123.0	129.0	125.07	-
D.O. (mg/L)	8.8	8.8	8.9	8.8	8.7	9.0	8.82	8.84
Turbidity (NTU)	12.1	11.5	13.5	12.2	12.1	13.2	12.43	-
SS (mg/L)	12.0	13.0	11.0	11.0	11.0	13.0	11.83	-
Remarks			•					

Station			IIV	101			Co-ordinate	s
Time (hh:mm)			9:50		Northing	Easting		
Water Depth (m)			16	22.21.437	113.54.271			
Monitoring Depth (m)	1.	.00	8.					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.8	21.5	21.0	21.3	21.1	21.2	21.30	-
Salinity (ppt)	38.7	39.0	39.4	39.1	39.3	39.2	39.11	-
pH	8.0	8.0	8.1	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	113.4	114.6	114.8	114.4	115.5	114.7	114.57	-
D.O. (mg/L)	7.9	8.1	8.1	8.1	8.2	8.1	8.08	8.14
Turbidity (NTU)	18.1	18.5	18.1	18.4	21.5	21.8	19.40	-
SS (mg/L)	8.0	8.0	8.0	8.0	8.0	8.0	8.00	-
Remarks		•	d.					

Station			IM	02			Co-ordinate	s
Time (hh:mm)			10:01	-10:03			Northing	Easting
Water Depth (m)			11	22.21.081	113.54.439			
Monitoring Depth (m)	1.	00	5.					
Trial	Trial 1	Trial 2	Trial 1	Depth-averaged	Bottom			
Water Temperature (°C)	21.1	21.0	21.1	21.0	20.9	21.0	21.03	-
Salinity (ppt)	39.4	39.7	39.5	39.7	39.8	39.6	39.61	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06	
D.O. Saturation (%)	112.9	113.4	112.6	113.3	113.4	112.1	112.95	-
D.O. (mg/L)	8.0	8.0	8.0	8.0	8.0	7.9	7.98	7.98
Turbidity (NTU)	14.3	14.5	15.8	15.6	17.7	17.1	15.83	-
SS (mg/L)	14.0	14.0	14.0	17.0	15.0	14.83	-	
Remarks				Brownis	n water color	was observe	ed.	

Station			MF	PB1							
Time (hh:mm)			10:27								
Water Depth (m)			8.	26							
Monitoring Depth (m)	1.	00	4.	13	7.	26					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.0	21.1	19.8	19.8	19.7	21.0	20.39	-			
Salinity (ppt)	39.0	38.8	40.2	40.1	40.7	39.2	39.68	-			
pH	8.0	8.0	8.0	8.0	8.1	8.0	8.02				
D.O. Saturation (%)	111.3	112.9	114.8	113.5	114.4	112.4	113.22	-			
D.O. (mg/L)	7.9	8.0	8.3	8.2	8.2	8.0	8.09	8.10			
Turbidity (NTU)	28.8	29.5	39.4	38.2	46.1	45.3	37.88	-			
SS (mg/L)	24.0	24.0	22.0	23.0	22.0	22.0	22.83	-			
Remarks		Brownish water color was observed.									

Station			MF	PB2				
Time (hh:mm)			10:37					
Water Depth (m)			8.	89				
Monitoring Depth (m)	1.	00	4.	45	7.	89		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.7	21.2	21.6	21.5	20.8	20.9	21.28	-
Salinity (ppt)	38.0	38.6	38.6	38.4	39.2	39.3	38.69	-
pH	8.0	8.0	8.0	8.0	8.1	8.0	8.01	
D.O. Saturation (%)	115.4	115.2	115.0	115.6	116.4	115.0	115.43	-
D.O. (mg/L)	8.1	8.2	8.1	8.2	8.3	8.2	8.17	8.22
Turbidity (NTU)	23.5	23.7	25.6	25.1	26.5	26.8	25.20	-
SS (mg/L)	19.0	18.0	18.0	18.0	19.0	18.0	18.33	-
Remarks								

Station			N	IP.]					
Time (hh:mm)			10:17									
Water Depth (m)			5.	.76								
Monitoring Depth (m)	1.	00	2.	.88	4.	.76						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	21.0	21.2	-	-	21.8	21.1	21.26	-				
Salinity (ppt)	39.1	38.9	-	-	38.4	39.1	38.84	-				
pH	8.0	8.0	-	-	8.0	8.0	7.99					
D.O. Saturation (%)	109.5	110.0	-	-	97.8	109.7	106.75	-				
D.O. (mg/L)	7.8	7.8	-	-	6.9	7.8	7.55	7.32				
Turbidity (NTU)	19.3	19.7	-	-	24.6	24.6	22.05	-				
SS (mg/L)	24.0	24.0		23.0	23.25	-						
Remarks		Brownish water color was observed.										

Compliance with Action and Elimit Ecres														
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	01	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.6	8.6	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.6	8.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	13.0	NA	Y	NA	Υ	NA	Y	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	10.7	10.7	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/27/07
Weather & Ambient Temperature	Sunny, 23C

Station	I		C2 (I	NM5)			1					
Time (hh:mm)				•								
rime (nn:mm)			13.30	-14:01								
Water Depth (m)			20).4								
Monitoring Depth (m)	1	.0	10).2	19	9.4						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom				
							averaged					
Water Temperature (°C)	21.6	21.6	21.6	21.1	21.2	20.9	21.33	-				
Salinity (ppt)	38.0	37.6	38.5	39.6	39.1	39.9	38.79	-				
pH	7.9	7.9	8.0	8.0	8.0	8.1	7.99					
D.O. Saturation (%)	108.9	111.4	116.9	115.3	117.8	114.2	114.08	-				
D.O. (mg/L)	7.7	7.9	8.2	8.2	8.3	8.1	8.06	8.20				
Turbidity (NTU)	7.2	8.2	9.1	9.7	20.6	20.8	12.60	-				
SS (mg/L)	8.0	8.0 8.0 15.0 16.0 16.0 16.0 13.17 -										
Remarks		Dr	edging work	s and brown	ish water col	or were obs	erved.					

Station			IM	101			Co-ord	dinates			
Time (hh:mm)				Northing	Easting						
Water Depth (m)			11	1.8			22.21.491	113.54.309			
Monitoring Depth (m)	1	.0	5	.9	10).8		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	21.3	20.3	21.1	21.1	20.9	21.5	21.04	-			
Salinity (ppt)	38.8	39.4	39.0	38.6	39.2	38.2	38.86	-			
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00				
D.O. Saturation (%)	112.3	114.7	113.6	115.2	113.4	118.0	114.53	-			
D.O. (mg/L)	7.9	8.2	8.1	8.2	8.1	8.33	8.13	8.19			
Turbidity (NTU)	14.5	15.2	19.5	19.9	21.3	21.2	18.60	-			
SS (mg/L)	14.0	14.0 14.0 18.0 19.0 22.0 22.0 18.17 -									
Remarks			D	redging wor	ks was obse	rved.					

Station			IM	O2			Co-ord	dinates
Time (hh:mm)			14:26	-14:28			Northing	Easting
Water Depth (m)				22.20.989	113.54.408			
Monitoring Depth (m)	1	.0	4	.7	8	.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.3	21.1	21.4	20.9	21.5	20.9	21.02	-
Salinity (ppt)	39.9	39.5	38.7	39.6	38.4	39.6	39.25	-
pH	8.0	8.0	8.0	8.0	8.0	8.1	8.03	
D.O. Saturation (%)	114.8	112.5	113.3	113.0	118.2	113.3	114.18	-
D.O. (mg/L)	8.2	8.0	8.0	8.0	8.3	8.02	8.09	8.18
Turbidity (NTU)	14.3	15.1	18.8	19.9	26.6	25.5	20.03	-
SS (mg/L)	11.0	12.0	15.33	-				
Remarks			D	redging wor	ks was obse	rved.		

Station			MF	PB1			1	
Time (hh:mm)			13:30	-13:32				
Water Depth (m)								
Monitoring Depth (m)	1	.0	4	.3	7	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.6	20.5	20.1	21.1	21.6	21.1	21.00	-
Salinity (ppt)	38.1	38.6	38.8	38.3	37.4	38.3	38.25	-
pH	7.9	7.8	7.9	7.8	7.9	7.8	7.85	
D.O. Saturation (%)	110.0	111.1	112.1	107.5	116.8	108.2	110.95	-
D.O. (mg/L)	7.8	8.0	8.1	7.7	8.3	7.7	7.91	7.99
Turbidity (NTU)	18.5	18.1	25.30	-				
SS (mg/L)	8.0	8.0	28.0	20.67	-			
Remarks		Dr	edging work	s and brown	ish water co	lor were obs	erved.	

Station			MI	PB2				
Time (hh:mm)								
Water Depth (m)			g	.3				
Monitoring Depth (m)	1	.0	4	.7	8	.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.7	21.8	21.2	21.3	20.9	20.8	21.28	-
Salinity (ppt)	38.6	38.3	38.8	39.1	40.3	40.0	39.20	-
pH	7.8	7.8	7.8	7.8	7.9	7.9	7.81	
D.O. Saturation (%)	115.8	120.7	116.4	122.6	125.4	121.1	120.33	-
D.O. (mg/L)	8.1	8.5	8.2	8.7	8.9	8.6	8.49	8.71
Turbidity (NTU)	7.7	8.2	19.2	19.9	39.2	35.2	21.57	-
SS (mg/L)	8.0	8.0	11.0	9.17	-			
Remarks		Dr	edging work	s and brown	ish water co	lor were obs	erved.	

Station			N	/IP				
Time (hh:mm)			13:39	-13:43			1	
Water Depth (m)			6	5.2				
Monitoring Depth (m)	1	.0	3	3.1	5	.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.9	21.5	21.1	20.0	21.5	20.1	21.00	-
Salinity (ppt)	37.9	37.9	38.0	39.4	37.9	38.6	38.28	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88	
D.O. Saturation (%)	105.5	106.8	106.2	105.8	105.8	114.9	107.50	-
D.O. (mg/L)	7.4	7.6	7.6	7.6	7.5	8.3	7.66	7.90
Turbidity (NTU)	12.0	13.4	28.7	31.3	43.1	40.1	28.10	-
SS (mg/L)	12.0	11.0	18.0	19.0	41.0	40.0	23.50	-
Remarks		Dr	edging work	s and brown	ish water co	lor were obs	served.	

Compliance with Action ar	ia Limit Lev	<u>'eı</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1 IMO2		02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.2	8.2	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.1	8.1	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	16.4	NA	Υ	NA	Υ	NA	Υ	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	17.1	17.1	N	N	N	N	N	N	Ν	N	N	N

Sampling Date	12/27/07
Weather & Ambient Temperature	Sunny, 19C

Station			C1 (NM3)				
Time (hh:mm)			8:52	-8:55				
Water Depth (m)			15					
Monitoring Depth (m)	1	.0	7	'.9	14	4.8		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.0	21.0	21.4	21.0	20.9	19.8	20.85	-
Salinity (ppt)	38.3	38.1	38.0	38.2	38.8	39.7	38.50	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.11	
D.O. Saturation (%)	115.4	119.6	116.7	122.3	119.3	124.3	119.60	-
D.O. (mg/L)	8.2	8.5	8.3	8.7	8.5	9.0	8.54	8.74
Turbidity (NTU)	13.9	12.7	37.3	32.4	47.4	51.4	32.52	-
SS (mg/L)	14.0	14.0	15.0	15.0	54.0	56.0	28.00	-
Remarks				as observed.				

Station			C3 (NM6)							
Time (hh:mm)			10:15								
Water Depth (m)			6								
Monitoring Depth (m)	1	.0	3	.4	5	i.7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.1	21.1	20.9	20.0	21.4	21.0	20.89	-			
Salinity (ppt)	38.6	38.2	38.7	39.1	38.3	38.1	38.50	-			
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02				
D.O. Saturation (%)	110.7	111.7	110.7	113.5	111.5	114.9	112.17	-			
D.O. (mg/L)	7.9	8.0	7.9	8.2	7.9	8.2	8.00	8.05			
Turbidity (NTU)	16.2	15.9	24.8	26.8	34.2	34.3	25.37	-			
SS (mg/L)	15.0	16.0	22.0	23.0	24.0	24.0	20.67	-			
Remarks		Dredging works was observed.									

Station			IM	101			Co-ordinate	s
Time (hh:mm)			9:21	-9:24			Northing	Easting
Water Depth (m)			11		22.21.391	113.54.327		
Monitoring Depth (m)	1	.0	5	i.8	10	0.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.9	20.9	20.9	21.0	20.9	21.5	21.01	-
Salinity (ppt)	37.8	38.2	38.3	37.7	38.1	37.1	37.85	-
pH	8.0	8.0	8.0	8.0	8.0	7.9	7.96	
D.O. Saturation (%)	104.1	103.3	102.0	102.8	102.7	108.0	103.82	-
D.O. (mg/L)	7.5	7.4	7.3	7.4	7.3	7.7	7.41	7.51
Turbidity (NTU)	11.5	11.7	28.8	25.5	75.5	70.2	37.20	-
SS (mg/L)	12.0	13.0	17.0	18.0	66.0	70.0	32.67	-
Remarks				Dredo	ina works w	as observed.		

Station			IIV	102			Co-ordinate	s		
Time (hh:mm)			9:13	-9:16			Northing	Easting		
Water Depth (m)			g		22.21.085	113.54.512				
Monitoring Depth (m)	1	1.0 4.6 8.2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.0	20.9	20.0	20.9	21.5	21.0	20.87	-		
Salinity (ppt)	37.2	37.6	38.1	37.5	37.1	37.2	37.43	-		
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97			
D.O. Saturation (%)	107.9	106.5	110.6	106.8	106.6	111.4	108.30	-		
D.O. (mg/L)	7.7	7.6	8.0	7.7	7.6	8.0	7.77	7.79		
Turbidity (NTU)	25.0	24.3	47.9	43.0	67.1	68.5	45.97	-		
SS (mg/L)	16.0	16.0	29.0	30.0	56.0	56.0	33.83	-		
Remarks		Dredging works was observed.								

Station			MF	PB1					
Time (hh:mm)			9:45	-9:49					
Water Depth (m)			7						
Monitoring Depth (m)	1.	.0	4	.9					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	20.9	21.0	20.9	20.9	21.0	20.9	20.94	-	
Salinity (ppt)	38.5	37.4	37.3	38.3	37.0	37.8	37.73	-	
pH	7.9	7.9	7.9	7.9	7.9	8.0	7.94		
D.O. Saturation (%)	103.3	104.4	103.7	102.6	110.9	102.9	104.63	-	
D.O. (mg/L)	7.4	7.5	7.4	7.3	8.0	7.4	7.49	7.66	
Turbidity (NTU)	12.7	13.1	23.1	22.3	73.8	78.1	37.18	-	
SS (mg/L)	12.0	13.0	19.0	19.0	35.0	35.0	22.17	-	
Remarks	Dredging works and brownish water color were observed.								

Station			MF	PB2						
Time (hh:mm)			9:55	-9:59						
Water Depth (m)										
Monitoring Depth (m)	1	.0	4	.3	7	.5				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.0	20.9	20.9	21.0	20.9	20.1	20.78	-		
Salinity (ppt)	38.0	38.3	38.3	37.9	38.3	38.6	38.22	-		
pH	8.0	8.0	8.0	8.0	8.0	7.9	7.96			
D.O. Saturation (%)	103.4	102.2	102.8	104.3	103.2	113.1	104.83	-		
D.O. (mg/L)	7.4	7.3	7.3	7.5	7.4	8.2	7.51	7.78		
Turbidity (NTU)	17.7	17.2	44.1	45.5	88.0	92.8	50.88	-		
SS (mg/L)	14.0	14.0	36.0	35.0	64.0	70.0	38.83	-		
Remarks		Dredging works and brownish water color were observed.								

Station			IV	IP.						
Time (hh:mm)			9:36	-9:38						
Water Depth (m)			5	.4						
Monitoring Depth (m)	1	.0	2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	20.8	20.9	-	-	19.9	20.9	20.63	-		
Salinity (ppt)	37.3	37.1	-	-	37.9	37.3	37.39	-		
pH	7.9	7.9	-	-	7.9	7.9	7.93			
D.O. Saturation (%)	103.1	104.0	-	-	108.6	103.6	104.83	-		
D.O. (mg/L)	7.4	7.5	-	-	7.9	7.4	7.56	7.68		
Turbidity (NTU)	80.2	80.8	-	-	86.1	87.2	83.58	-		
SS (mg/L)	50.0	50.0	-	-	134.0	124.0	89.50	-		
Remarks		Dredging works and brownish water color were observed.								

Compilation with Action and Limit Ecros														
Parameter	As in	EM&A	Mean(C1	·C3)*130%	IM	IMO1 IMO2		_		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.4	8.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.3	8.3	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	37.6	NA	N	NA	Y	NA	N	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	31.6	31.6	Y	N	Y	N	N	N	Y	Y	Y	Y

Sampling Date	12/28/07
Weather & Ambient Temperature	Fine, 24C

Station			C2 (NM5)			1	
Time (hh:mm)			<u> </u>	-15:07				
Water Depth (m)								
Monitoring Depth (m)	1	.0	10).2	19	9.3	1	
Trial	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	21.2	21.3	21.5	21.6	20.0	21.4	21.17	-
Salinity (ppt)	40.0	38.7	41.5	40.0	42.7	39.9	40.47	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.98	
D.O. Saturation (%)	109.9	113.8	114.6	116.0	114.7	117.1	114.35	-
D.O. (mg/L)	7.7	8.1	7.9	8.1	8.1	8.2	8.02	8.16
Turbidity (NTU)	13.4	13.1	14.1	15.1	16.2	16.3	14.70	-
SS (mg/L)	8.0	8.0	9.33	-				
Remarks			D	redging wor	ks was obse	rved.	•	

Station			IM	01			Co-or	dinates					
Time (hh:mm)			14:28	-14:30			Northing	Easting					
Water Depth (m)			22.21.367	113.54.236									
Monitoring Depth (m)	1	.0		•									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom					
Water Temperature (°C)	21.2	21.2	21.7	21.7	21.1	21.0	21.33	-					
Salinity (ppt)	36.4	38.0	38.8	38.3	37.8	39.5	38.13	-					
pH	7.9	7.9	7.9	7.9	7.9	8.0	7.91						
D.O. Saturation (%)	106.1	107.0	108.3	109.9	111.6	108.5	108.57	-					
D.O. (mg/L)	7.6	7.6	7.6	7.7	8.0	7.67	7.70	7.81					
Turbidity (NTU)	8.3	8.7	13.7	13.2	20.8	20.2	14.15	-					
SS (mg/L)	9.0	8.0	12.0	12.0	14.0	13.0	11.33	-					
Remarks			D	Dredging works was observed.									

Station			IM	02			Co-ore	dinates
Time (hh:mm)			14:19	-14:22			Northing	Easting
Water Depth (m)				22.20.994	113.54.319			
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.4	21.5	20.0	19.9	20.0	19.8	20.43	-
Salinity (ppt)	36.4	37.1	38.2	39.6	38.2	40.3	38.28	-
pH	7.9	7.9	7.9	7.9	7.9	8.0	7.90	
D.O. Saturation (%)	109.1	110.5	115.2	112.9	117.5	113.9	113.18	-
D.O. (mg/L)	7.8	7.9	8.4	8.2	8.5	8.20	8.15	8.37
Turbidity (NTU)	7.9	7.0	11.4	12.9	15.1	15.6	11.65	-
SS (mg/L)	8.0 7.0 12.0 12.0 17.0 13.0							-
Remarks			D	redging wor	ks was obse	rved.		

Station			MF	PB1			1				
Time (hh:mm)			14:38	-14:40							
Water Depth (m)											
Monitoring Depth (m)	1	.0	4	.3	7	.5					
Trial	Trial 1	Trial 2	Depth- averaged	Bottom							
Water Temperature (°C)	21.3	21.4	21.1	21.1	21.1	21.0	21.16	-			
Salinity (ppt)	36.3	36.1	37.1	36.7	37.6	38.0	36.97	-			
pH	7.9	7.9	7.9	7.9	8.0	8.0	7.91				
D.O. Saturation (%)	106.0	106.7	106.9	108.9	110.2	106.6	107.55	-			
D.O. (mg/L)	7.6	7.7	7.7	7.8	7.9	7.6	7.70	7.74			
Turbidity (NTU)	8.5	8.5	18.8	18.3	27.7	27.4	18.20	-			
SS (mg/L)	8.0	9.0	11.00	-							
Remarks		Dredging works was observed.									

Station			MI	PB2						
Time (hh:mm)			14:10	-14:12						
Water Depth (m)										
Monitoring Depth (m)	1	.0	4	.6	8	.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	22.0	21.5	21.1	21.2	19.7	21.6	21.17	-		
Salinity (ppt)	35.9	36.4	37.6	37.6	40.3	39.1	37.80	-		
pH	7.8	7.8	7.8	7.8	7.9	7.9	7.82			
D.O. Saturation (%)	113.1	115.5	116.9	118.7	120.6	122.3	117.85	-		
D.O. (mg/L)	8.0	8.3	8.4	8.5	8.7	8.6	8.40	8.64		
Turbidity (NTU)	11.4	12.0	18.8	18.1	25.5	26.0	18.63	-		
SS (mg/L)	10.0	10.0	19.0	17.0	24.0	20.0	16.67	-		
Remarks		Dredging works was observed.								

Station			IV	IP						
Time (hh:mm)			14:48	-14:49						
Water Depth (m)										
Monitoring Depth (m)	1	.0	2	.9	4	.8				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	21.4	20.2	-	-	21.1	21.1	20.94	-		
Salinity (ppt)	37.7	38.7	-	-	38.4	38.5	38.30	-		
pH	7.9	7.9	-	-	7.9	7.9	7.91			
D.O. Saturation (%)	108.3	111.1	-	-	112.9	109.0	110.33	-		
D.O. (mg/L)	7.7	8.0	-	-	8.0	7.7	7.87	7.88		
Turbidity (NTU)	10.5	10.5	-	-	14.6	14.2	12.45	-		
SS (mg/L)	11.0	9.0	10.75	-						
Remarks		Dredging works was observed.								

Compliance with Action ar	id Limit Lev	<u>/el</u>												
Parameter	As in	EM&A	C2*1	130%	IMO1		IM	02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.2	8.2	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.0	8.0	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	19.1	NA	N	NA	N	NA	N	NA	N	NA	N	NA
SS (Depth-averaged)	24.0	37.0	12.1	12.1	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/28/07
Weather & Ambient Temperature	Sunny, 21C

Station			C1 (NM3)							
Time (hh:mm)			10:53	-10:56							
Water Depth (m)			16	5.2							
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.2	21.2	21.1	21.1	21.1	21.0	21.13	-			
Salinity (ppt)	37.0	37.7	37.8	37.1	37.3	38.0	37.47	-			
pH	8.0	8.0	8.0	8.0	8.1	8.1	8.04				
D.O. Saturation (%)	121.1	116.9	118.6	123.7	125.9	119.8	121.00	-			
D.O. (mg/L)	8.7	8.3	8.5	8.9	9.0	8.5	8.64	8.77			
Turbidity (NTU)	14.2	14.8	15.6	15.9	16.5	16.4	15.57	-			
SS (mg/L)	21.0	19.0	31.0	24.0	24.0	19.0	23.00	-			
Remarks		Dredging works was observed.									

Station			C3 (NM6)						
Time (hh:mm)			12:10	-12:13						
Water Depth (m)			6							
Monitoring Depth (m)	1	.0	3							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.3	21.3	19.8	21.1	21.1	21.0	20.93	-		
Salinity (ppt)	39.6	39.1	41.1	39.5	39.5	39.8	39.76	-		
pH	8.0	8.0	8.1	8.0	8.0	8.1	8.04			
D.O. Saturation (%)	115.6	116.8	117.5	117.0	118.3	115.9	116.85	-		
D.O. (mg/L)	8.1	8.3	8.4	8.3	8.4	8.2	8.27	8.27		
Turbidity (NTU)	11.8	12.0	14.2	14.7	18.4	18.5	14.93	-		
SS (mg/L)	15.0	13.0	22.0	21.0	14.0	15.0	16.67	-		
Remarks		Dredging works was observed.								

Station			IM	01			Co-ordinates	3
Time (hh:mm)			11:20	-11:23			Northing	Easting
Water Depth (m)			10	0.6		22.21.361	113.54.270	
Monitoring Depth (m)	1	.0	5					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.2	21.1	21.6	21.0	21.0	21.0	21.15	-
Salinity (ppt)	37.8	38.3	38.0	38.0	38.0	38.6	38.12	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	107.9	106.7	105.9	107.5	108.7	106.5	107.20	-
D.O. (mg/L)	7.7	7.6	7.5	7.7	7.8	7.6	7.63	7.67
Turbidity (NTU)	8.3	8.9	11.4	11.6	22.9	22.8	14.32	-
SS (mg/L)	16.0	16.0	16.0	15.0	15.0	15.0	15.50	-
Remarks				Dredg	ing works w	as observed.		

Station			IM	02			Co-ordinate	s		
Time (hh:mm)			11:14	-11:15			Northing	Easting		
Water Depth (m)			9	.6			22.21.055	113.54.462		
Monitoring Depth (m)	1	.0	4	.6						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.2	21.2	19.8	21.1	21.1	19.8	20.71	-		
Salinity (ppt)	38.2	37.0	39.3	36.9	36.8	39.4	37.92	-		
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.91			
D.O. Saturation (%)	110.9	111.9	112.3	112.6	113.4	113.0	112.35	-		
D.O. (mg/L)	7.9	8.0	8.1	8.1	8.1	8.2	8.06	8.15		
Turbidity (NTU)	19.6	19.8	25.3	25.4	26.6	26.1	23.80	-		
SS (mg/L)	18.0	18.0	30.0	23.0	30.0	30.0	24.83	-		
Remarks		Dredging works was observed.								

Station			MF	PB1				
Time (hh:mm)			11:43	-11:45				
Water Depth (m)			8					
Monitoring Depth (m)	1	.0	4	.1	7	.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.3	21.3	21.1	19.7	21.0	21.1	20.92	-
Salinity (ppt)	37.3	36.7	36.9	38.5	37.3	37.1	37.29	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.86	
D.O. Saturation (%)	103.4	104.1	103.5	104.7	103.9	108.3	104.65	-
D.O. (mg/L)	7.4	7.5	7.4	7.6	7.5	7.8	7.51	7.60
Turbidity (NTU)	9.5	9.2	15.1	15.6	24.5	24.4	16.38	-
SS (mg/L)	9.0	10.0	16.0	14.0	22.0	21.0	15.33	-
Remarks				Dredging	works was	observed.		

Station			MF	B2						
Time (hh:mm)			11:52	-11;54						
Water Depth (m)			9							
Monitoring Depth (m)	1.	.0	4	.5	8	.0				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.2	21.1	21.6	21.6	21.5	21.0	21.33	-		
Salinity (ppt)	37.4	37.2	36.4	37.5	37.7	38.3	37.42	-		
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90			
D.O. Saturation (%)	104.3	104.4	104.1	103.8	108.6	104.8	105.00	-		
D.O. (mg/L)	7.5	7.5	7.4	7.4	7.7	7.5	7.48	7.58		
Turbidity (NTU)	10.7	11.0	14.5	14.0	28.5	27.2	17.65	-		
SS (mg/L)	10.0	12.0	12.0	12.0	18.0	19.0	13.83	-		
Remarks		Dredging works was observed.								

Station			N	IP						
Time (hh:mm)			11:34	-11:36						
Water Depth (m)			5							
Monitoring Depth (m)	1	.0	2	.9	4	.8				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.2	21.8	-	-	20.9	21.0	21.21	-		
Salinity (ppt)	36.4	35.7	-	-	38.1	38.2	37.09	-		
pH	7.8	7.8	-	-	7.9	7.9	7.88			
D.O. Saturation (%)	107.2	107.7	-	-	109.7	115.0	109.90	-		
D.O. (mg/L)	7.7	7.7	-	-	7.8	8.2	7.85	8.02		
Turbidity (NTU)	11.1	11.6	-	-	34.9	35.3	23.23	-		
SS (mg/L)	11.0	17.0	-	-	16.0	11.0	13.75	-		
Remarks		Dredging works was observed.								

Parameter	As in	EM&A	Mean(C1+	C3)*130%	IM	01	IMO2			MPB1	MF	B2	N	IP.
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.5	8.5	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.5	8.5	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	19.8	NA	N	NA	Y	NA	N	NA	Ν	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	25.8	25.8	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/29/07
Weather & Ambient Temperature	Cloudy, 19C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)			20	0.1				
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.1	21.1	21.0	21.0	21.0	21.1	21.04	-
Salinity (ppt)	41.3	41.2	41.8	41.9	41.8	41.5	41.59	-
pH	8.0	8.0	8.1	8.1	8.1	8.1	8.04	
D.O. Saturation (%)	110.9	111.0	110.9	110.5	111.0	112.2	111.08	-
D.O. (mg/L)	7.8	7.8	7.7	7.7	7.8	7.8	7.76	7.79
Turbidity (NTU)	8.7	9.0	14.9	14.9	15.1	15.7	13.05	-
SS (mg/L)	9.0	8.0	9.0	8.0	7.0	7.0	8.00	-
Remarks			D	redging wor	ks was obse	rved.		

Station			INA	101			Coor	dinates
Station			IIV	IU I			C0-010	
Time (hh:mm)			15:34	-15:35			Northing	Easting
Water Depth (m)			10	0.5			22.21.367	113.54.121
Monitoring Depth (m)	1	.0	5	.3	9	.5		-
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.1	21.2	21.2	21.1	19.9	21.2	20.94	-
Salinity (ppt)	40.3	40.1	40.4	40.5	42.1	40.5	40.64	-
pH	8.0	8.0	8.0	8.0	8.1	8.0	8.02	
D.O. Saturation (%)	113.7	114.9	116.5	114.6	116.3	119.7	115.95	-
D.O. (mg/L)	8.0	8.1	8.2	8.1	8.3	8.39	8.16	8.33
Turbidity (NTU)	21.9	21.8	16.6	16.3	19.7	19.1	19.23	-
SS (mg/L)	18.0	18.0	21.0	20.0	44.0	44.0	27.50	-
Remarks		Dr	edging work	s and brown	ish water co	lor were obs	erved.	

Station			IM	02			Co-ord	dinates
Time (hh:mm)			15:41	-15:44			Northing	Easting
Water Depth (m)			8	.9			22.21.000	113.54.275
Monitoring Depth (m)	1	.0	4	.5	7	.9		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.0	21.1	21.0	21.0	21.0	21.0	21.01	-
Salinity (ppt)	40.8	40.8	41.3	41.4	41.4	41.3	41.15	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.03	
D.O. Saturation (%)	113.1	112.1	113.3	112.1	112.3	115.1	113.00	-
D.O. (mg/L)	7.9	7.9	7.9	7.8	7.9	8.06	7.92	7.96
Turbidity (NTU)	7.4	7.9	11.8	10.9	14.1	14.5	11.10	-
SS (mg/L)	9.0	7.0	12.0	9.0	8.0	8.0	8.83	-
Remarks		•	D	redging wor	ks was obse	rved.	•	-

Station			MF	PB1			1	
Time (hh:mm)								
Water Depth (m)			8	3.6				
Monitoring Depth (m)	1	.0	4	.3	7	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	19.9	21.0	21.0	19.9	21.7	21.1	20.77	-
Salinity (ppt)	39.6	38.7	38.8	39.6	39.2	40.2	39.38	-
pH	8.0	8.0	8.0	8.0	8.0	8.1	7.98	
D.O. Saturation (%)	116.5	113.8	114.8	118.0	119.5	115.5	116.35	-
D.O. (mg/L)	8.4	8.1	8.2	8.5	8.4	8.1	8.27	8.25
Turbidity (NTU)	9.3	9.3	11.5	11.8	22.0	22.2	14.35	-
SS (mg/L)	9.0	11.0	11.0	13.0	10.0	11.0	10.83	-
Remarks			D	redging worl	ks was obse	rved.		•

Station			MF	PB2			1	
Time (hh:mm)			15:01	-15:03				
Water Depth (m)								
Monitoring Depth (m)	1	.0	.2					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.0	21.1	21.1	21.2	21.2	21.6	21.19	
Salinity (ppt)	37.5	37.0	37.7	37.4	37.9	38.5	37.65	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	119.7	121.3	121.9	123.1	127.4	120.6	122.33	-
D.O. (mg/L)	8.6	8.7	8.7	8.8	9.1	8.5	8.72	8.79
Turbidity (NTU)	12.0	12.2	9.4	9.3	13.7	13.1	11.62	-
SS (mg/L)	14.0	14.0	16.0	13.0	11.0	9.0	12.83	-
Remarks			D	redging wor	ks was obse	rved.		

Station			N	IP			1	
Time (hh:mm)			15:21	-15:23				
Water Depth (m)								
Monitoring Depth (m)	1	.0	.2					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.0	21.0	19.9	21.0	21.2	21.0	20.86	-
Salinity (ppt)	38.8	38.7	39.7	38.8	38.2	38.9	38.86	-
pH	8.0	7.9	7.9	8.0	7.9	8.0	7.94	
D.O. Saturation (%)	111.1	111.3	113.4	111.2	118.2	111.3	112.75	-
D.O. (mg/L)	7.9	7.9	8.2	7.9	8.4	7.9	8.03	8.15
Turbidity (NTU)	16.4	16.0	17.9	17.2	18.4	18.1	17.33	-
SS (mg/L)	15.0	17.0	16.0	14.0	15.0	18.0	15.83	-
Remarks		•		redging wor	ks was obse	rved.		

Compliance with Action an	ia Limit Lev	<u>'ei</u>												
Parameter	As in	EM&A	C2*1	30%	IM	IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	7.8	7.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	7.8	7.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	17.0	NA	Υ	NA	N	NA	N	NA	N	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	10.4	10.4	Υ	N	N	N	N	N	N	N	N	N

Sampling Date	12/29/07
Weather & Ambient Temperature	Sunny, 19C

Station			C1 (NM3)				
Time (hh:mm)			11:28	-11:30				
Water Depth (m)			16					
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.2	21.2	21.2	21.2	21.1	21.2	21.19	-
Salinity (ppt)	38.8	39.4	40.1	39.2	39.5	41.3	39.71	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	122.3	124.4	125.1	123.6	124.5	127.0	124.48	-
D.O. (mg/L)	8.7	8.8	8.8	8.7	8.8	8.9	8.77	8.83
Turbidity (NTU)	6.0	5.7	9.5	9.4	14.7	14.2	9.92	-
SS (mg/L)	6.0	8.0	8.0	9.0	9.0	9.0	8.17	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			12:47	-12:48				
Water Depth (m)			6					
Monitoring Depth (m)	1	.0	3					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.0	21.0	20.9	21.0	21.1	21.0	21.00	-
Salinity (ppt)	38.7	38.6	38.8	38.7	38.9	39.0	38.78	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	110.3	110.9	110.3	111.8	113.3	110.9	111.25	-
D.O. (mg/L)	7.8	7.9	7.8	7.9	8.0	7.9	7.90	7.96
Turbidity (NTU)	19.2	19.0	23.5	23.6	28.2	28.9	23.73	-
SS (mg/L)	13.0	15.0	14.0	14.0	21.0	20.0	16.17	-
Remarks			•					

Station			IIV	101			Co-ordinate:	S			
Time (hh:mm)			11:56	-11:59			Northing	Easting			
Water Depth (m)			10		22.21.374	113.54.221					
Monitoring Depth (m)	1	.0	5	1.6							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.0	21.6	21.6	21.6	21.1	21.2	21.33	-			
Salinity (ppt)	38.4	37.5	38.1	37.6	38.8	38.1	38.05	-			
pH	7.9	7.9	7.9	7.9	8.0	7.9	7.94				
D.O. Saturation (%)	109.6	109.4	108.0	109.4	109.4	117.6	110.57	-			
D.O. (mg/L)	7.8	7.8	7.6	7.8	7.8	8.4	7.85	8.07			
Turbidity (NTU)	10.3	10.2	19.1	20.7	37.4	37.9	22.60	-			
SS (mg/L)	9.0	9.0	11.0	11.0	18.0	19.0	12.83	-			
Remarks		Dredging works was observed.									

Station			IM	02			Co-ordinate	s			
Time (hh:mm)			11:49	-11:52			Northing	Easting			
Water Depth (m)			8		22.21.041	113.54.337					
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.1	21.1	21.1	21.1	20.0	21.1	20.92	-			
Salinity (ppt)	37.4	37.7	37.8	37.5	38.1	37.8	37.71	-			
pH	7.9	8.0	8.0	7.9	7.9	7.9	7.94				
D.O. Saturation (%)	115.8	113.6	113.0	114.6	120.1	114.2	115.22	-			
D.O. (mg/L)	8.3	8.1	8.1	8.2	8.7	8.1	8.25	8.44			
Turbidity (NTU)	6.5	6.9	15.6	15.7	36.7	35.5	19.48	-			
SS (mg/L)	7.0	9.0	8.0	9.0	8.0	10.0	8.50	-			
Remarks		Dredging works was observed.									

Station			MF	PB1							
Time (hh:mm)			12:19	-12:21							
Water Depth (m)			8								
Monitoring Depth (m)	1.	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.0	21.0	21.0	21.0	21.1	21.0	20.99	-			
Salinity (ppt)	38.3	38.5	38.4	38.6	38.3	38.8	38.47	-			
pH	7.9	8.0	7.9	8.0	7.9	8.0	7.94				
D.O. Saturation (%)	111.2	110.5	111.4	109.8	115.6	110.2	111.45	-			
D.O. (mg/L)	7.9	7.9	7.9	7.8	8.2	7.8	7.94	8.03			
Turbidity (NTU)	11.1	11.9	15.6	15.8	26.1	26.2	17.78	-			
SS (mg/L)	13.0	12.0	10.0	10.0	12.0	13.0	11.67	-			
Remarks		Dredging works and brownish water color were observed.									

Station			MF	PB2							
Time (hh:mm)			12:30	-12:32							
Water Depth (m)			8								
Monitoring Depth (m)	1.	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.8	21.0	21.0	20.9	21.0	21.1	20.78	-			
Salinity (ppt)	39.7	38.5	38.7	38.8	39.1	39.0	38.97	-			
pH	7.9	7.9	7.9	8.0	8.0	8.0	7.95				
D.O. Saturation (%)	112.1	110.9	111.4	110.8	111.2	112.3	111.45	-			
D.O. (mg/L)	8.1	7.9	7.9	7.9	7.9	8.0	7.94	7.93			
Turbidity (NTU)	22.3	22.1	31.6	31.2	41.3	41.7	31.70	-			
SS (mg/L)	17.0	15.0	18.0	16.0	31.0	29.0	21.00	-			
Remarks		Dredging works and brownish water color were observed.									

Station			N	IP							
Time (hh:mm)			12:11	-12:12							
Water Depth (m)			5								
Monitoring Depth (m)	1	.0	2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.0	21.5	-	-	20.9	21.0	21.09	-			
Salinity (ppt)	37.6	37.3	-	-	38.2	37.8	37.75	-			
pH	7.9	7.9	-	-	8.0	7.9	7.94				
D.O. Saturation (%)	114.5	112.0	-	-	113.2	121.7	115.35	-			
D.O. (mg/L)	8.2	8.0	-	-	8.1	8.7	8.23	8.40			
Turbidity (NTU)	36.7	36.7	-	-	54.6	54.3	45.58	-			
SS (mg/L)	37.0	37.0	-	-	47.0	43.0	41.00	-			
Remarks		Dredging works and brownish water color were observed.									

Parameter	As in	EM&A	Mean(C1+	·C3)*130%	IMO1		IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.4	8.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.3	8.3	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	21.9	NA	Υ	NA	N	NA	N	NA	Υ	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	15.8	15.8	N	N	N	N	N	N	Ν	N	Υ	Υ

Sampling Date	12/30/07
Weather & Ambient Temperature	Fine, 18C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)			20).2				
Monitoring Depth (m)	1	.0	10).1	19	9.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	20.8	20.8	20.77	-				
Salinity (ppt)	39.0	39.1	39.2	39.1	39.1	39.3	39.13	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10	
D.O. Saturation (%)	118.2	119.7	120.1	119.7	123.2	121.4	120.38	-
D.O. (mg/L)	8.4	8.5	8.6	8.5	8.8	8.7	8.57	8.71
Turbidity (NTU)	7.2	7.6	10.57	-				
SS (mg/L)	9.0	11.0	10.67	-				
Remarks		-	D	redging wor	ks was obse	rved.	•	

Station			IM	01			Co-ord	dinates
Time (hh:mm)			16:22	-16:23			Northing	Easting
Water Depth (m)				22.21.367	113.54.236			
Monitoring Depth (m)	1	.0	5	.2	9	.4		-
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.8	20.8	20.7	20.8	20.7	20.8	20.77	-
Salinity (ppt)	38.9	39.0	38.9	39.0	38.9	38.9	38.91	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.06	
D.O. Saturation (%)	117.0	116.6	116.9	116.5	117.0	117.1	116.85	-
D.O. (mg/L)	8.3	8.3	8.3	8.3	8.4	8.34	8.33	8.35
Turbidity (NTU)	15.5	15.5	19.57	-				
SS (mg/L)	19.0	19.0	23.0	22.33	-			
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	O2			Co-ord	dinates
Time (hh:mm)			16:29	-16:32			Northing	Easting
Water Depth (m)			22.20.994	113.54.319				
Monitoring Depth (m)	1	.0	4	.5	7	.9		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.3	20.7	20.7	20.7	20.7	19.6	20.61	-
Salinity (ppt)	38.0	38.3	38.2	38.5	38.5	39.2	38.44	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	118.2	120.1	120.3	119.0	119.5	122.2	119.88	-
D.O. (mg/L)	8.4	8.6	8.6	8.5	8.6	8.89	8.60	8.72
Turbidity (NTU)	15.2	15.7	19.6	19.9	21.3	22.2	18.98	-
SS (mg/L)	6.0	8.0	10.50	-				
Remarks			D	redging wor	ks was obse	rved.		

Station			MF	PB1			1	
Time (hh:mm)			15:59	-16:01				
Water Depth (m)								
Monitoring Depth (m)	1	.0	4	.2	7	.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.8	20.8	20.65	-				
Salinity (ppt)	38.6	39.0	38.8	39.1	39.1	39.6	39.02	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.05	
D.O. Saturation (%)	115.4	114.5	115.9	114.2	114.3	120.4	115.78	-
D.O. (mg/L)	8.2	8.2	8.3	8.1	8.1	8.7	8.27	8.41
Turbidity (NTU)	10.4	10.7	17.73	-				
SS (mg/L)	10.0	14.0	14.67	-				
Remarks			D	redging worl	ks was obse	rved.		·

Station			MF	PB2								
Time (hh:mm)												
Water Depth (m)												
Monitoring Depth (m)	1	.0	4	.3	7	.6						
Trial	Trial 1	Trial 2	Depth-	Bottom								
	00.0	00.0	40.0	00.0	04.4	24.0	averaged					
Water Temperature (°C)	20.8	20.8	19.6	20.8	21.1	21.3	20.74	-				
Salinity (ppt)	40.0	40.5	41.9	40.1	39.7	40.1	40.38	-				
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08					
D.O. Saturation (%)	116.9	115.7	117.2	117.4	120.0	115.4	117.10	-				
D.O. (mg/L)	8.3	8.2	8.4	8.3	8.5	8.1	8.28	8.28				
Turbidity (NTU)	7.6	7.5	11.9	11.7	13.6	13.8	11.02	-				
SS (mg/L)	8.0	8.0 10.0 12.0 11.0 14.0 13.0 11.3										
Remarks			D	redging wor	ks was obse	rved.						

Station			N	/IP								
Time (hh:mm)												
Water Depth (m)			6	5.2								
Monitoring Depth (m)	1	.0	3	3.1	5	.2						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom				
							averaged					
Water Temperature (°C)	19.3	20.5	20.4	20.3	20.3	20.5	20.21	-				
Salinity (ppt)	39.1	37.9	38.0	38.1	38.2	38.0	38.19	-				
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.03					
D.O. Saturation (%)	118.9	117.2	117.3	117.8	117.5	117.6	117.72	-				
D.O. (mg/L)	8.7	8.5	8.5	8.5	8.5	8.5	8.51	8.48				
Turbidity (NTU)	35.5	35.2	41.8	41.5	43.1	43.9	40.17	-				
SS (mg/L)	34.0	41.0	37.83	-								
Remarks		Dredging works was observed.										

Compliance with Action ar	id Limit Lev	<u>rel</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	8.7	8.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.6	8.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	13.7	NA	Υ	NA	Υ	NA	Y	NA	N	NA	Y	NA
SS (Depth-averaged)	24.0	37.0	13.9	13.9	N	N	N	N	N	N	N	N	Υ	Υ

Sampling Date	12/30/07
Weather & Ambient Temperature	Sunny, 17C

Station			C1 (
Time (hh:mm)			11:48					
Water Depth (m)			16	6.3				
Monitoring Depth (m)	1	.0	8	.2	15	5.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.7	20.8	20.8	20.8	20.8	20.7	20.59	-
Salinity (ppt)	40.0	39.1	38.9	39.4	40.0	39.0	39.40	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08	
D.O. Saturation (%)	125.7	126.8	124.8	127.0	128.1	125.7	126.35	-
D.O. (mg/L)	9.1	9.0	8.9	9.0	9.1	9.0	9.01	9.02
Turbidity (NTU)	7.6	7.1	10.1	10.5	13.0	13.1	10.23	-
SS (mg/L)	26.0	25.0	22.0	16.0	21.17	-		
Remarks				Dredo	jing works w	as observed.		

Station			C3 (
Time (hh:mm)			13:07					
Water Depth (m)			6	.5				
Monitoring Depth (m)	1	.0	3	.3	5	i.5		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.6	21.0	20.6	20.4	20.6	20.5	20.61	-
Salinity (ppt)	39.9	39.7	40.0	40.3	40.2	40.2	40.02	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10	
D.O. Saturation (%)	125.1	122.6	126.0	123.1	129.2	123.6	124.93	-
D.O. (mg/L)	8.9	8.7	9.0	8.8	9.2	8.8	8.87	8.98
Turbidity (NTU)	9.7	9.5	10.4	10.5	12.1	12.2	10.73	-
SS (mg/L)	12.0	11.0	16.0	15.0	19.0	18.0	15.17	-
Remarks				Dredg	ing works w	as observed.		

Station			IM	101			Co-ordinate	s
Time (hh:mm)			12:17	'-12:19		Northing	Easting	
Water Depth (m)			10		22.20.590	113.53.787		
Monitoring Depth (m)	1	.0	5					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.7	20.8	19.7	20.8	20.9	20.8	20.44	-
Salinity (ppt)	39.8	38.5	39.5	38.7	38.4	38.7	38.94	-
pH	8.1	8.0	8.0	8.1	8.0	8.0	8.04	
D.O. Saturation (%)	118.4	117.9	119.9	116.8	122.5	116.9	118.73	-
D.O. (mg/L)	8.6	8.4	8.7	8.3	8.7	8.3	8.52	8.54
Turbidity (NTU)	18.8	18.4	19.7	18.2	20.0	21.1	19.37	-
SS (mg/L)	19.0	19.0	21.0	18.0	26.0	25.0	21.33	-
Remarks				Dredo	ing works w	as observed.		

Station			IM	02			Co-ordinate	s			
Time (hh:mm)			12:09	-12:12			Northing	Easting			
Water Depth (m)			8		22.21.032	113.54.227					
Monitoring Depth (m)	1	.0	4	.5							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.3	20.7	20.8	20.8	20.7	20.8	20.84	-			
Salinity (ppt)	37.3	38.0	37.9	37.7	37.8	37.7	37.70	-			
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.03				
D.O. Saturation (%)	121.4	121.5	121.5	122.5	122.1	123.1	122.02	-			
D.O. (mg/L)	8.7	8.7	8.7	8.8	8.8	8.8	8.75	8.80			
Turbidity (NTU)	15.7	15.7	20.5	20.7	23.5	23.2	19.88	-			
SS (mg/L)	21.0	17.0	22.0	20.0	25.0	26.0	21.83	-			
Remarks		Dredging works was observed.									

Station			MF	PB1						
Time (hh:mm)			12:40	-12:42						
Water Depth (m)			8							
Monitoring Depth (m)	1.	.0	4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	19.6	20.7	21.3	19.6	20.7	20.7	20.42	-		
Salinity (ppt)	39.4	38.2	37.9	39.6	38.6	38.5	38.68	-		
pH	8.0	8.0	8.0	8.1	8.0	8.0	8.04			
D.O. Saturation (%)	116.7	116.1	115.1	116.4	115.6	116.6	116.08	-		
D.O. (mg/L)	8.5	8.3	8.2	8.4	8.3	8.3	8.34	8.30		
Turbidity (NTU)	9.7	9.6	14.3	14.9	27.2	27.2	17.15	-		
SS (mg/L)	12.0	10.0	13.0	14.0	22.0	26.0	16.17	-		
Remarks		Dredging works was observed.								

Station			MF	B2						
Time (hh:mm)			12:51	-12:52						
Water Depth (m)			8							
Monitoring Depth (m)	1	.0	4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	20.8	20.9	20.8	20.7	20.8	20.9	20.80	-		
Salinity (ppt)	39.6	39.2	39.4	39.9	39.7	39.3	39.50	-		
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07			
D.O. Saturation (%)	117.1	117.8	118.4	116.9	117.1	119.6	117.82	-		
D.O. (mg/L)	8.3	8.4	8.4	8.3	8.3	8.5	8.36	8.40		
Turbidity (NTU)	7.5	7.8	11.1	11.8	13.7	13.4	10.88	-		
SS (mg/L)	8.0	9.0	10.0	11.0	14.0	14.0	11.00	-		
Remarks		Dredging works was observed.								

Station			IV	IP						
Time (hh:mm)			12:31	-12:32						
Water Depth (m)			5							
Monitoring Depth (m)	1	.0	2	.8						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	20.5	20.5	-	-	20.5	20.6	20.54	-		
Salinity (ppt)	37.6	37.7	-	-	37.7	37.7	37.66	-		
pH	8.0	8.0	-	-	8.0	8.0	8.00			
D.O. Saturation (%)	119.5	118.3	-	-	118.7	121.7	119.55	-		
D.O. (mg/L)	8.6	8.5	-	-	8.6	8.8	8.62	8.66		
Turbidity (NTU)	28.3	28.5	-	-	28.3	28.1	28.30	-		
SS (mg/L)	39.0	38.0	-	-	52.0	50.0	44.75	-		
Remarks		Dredging works was observed.								

Parameter	As in	EM&A	Mean(C1+	C3)*130%	IM	01	IMO2			MPB1	MF	MPB2		1P
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	9.0	9.0	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	8.9	8.9	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	13.6	NA	Υ	NA	Y	NA	Υ	NA	Ν	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	23.6	23.6	N	N	N	N	N	N	N	N	Υ	Υ

Sampling Date	12/31/07
Weather & Ambient Temperature	Fine, 15C

Station			C2 (NM5)			1	
Time (hh:mm)			18:13	-18;16				
Water Depth (m)			20	0.1				
Monitoring Depth (m)	1	.0	10	0.1	19	9.1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	20.0	19.0	20.0	20.0	19.0	20.5	19.75	-
Salinity (ppt)	39.0	40.2	39.0	39.2	40.0	38.6	39.31	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.18	
D.O. Saturation (%)	126.6	124.1	128.3	123.3	130.1	123.2	125.93	-
D.O. (mg/L)	9.1	9.1	9.3	8.9	9.5	8.8	9.12	9.18
Turbidity (NTU)	5.3	5.2	9.8	9.4	10.4	10.2	8.38	-
SS (mg/L)	8.0	7.0	10.0	10.0	12.0	14.0	10.17	-
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	101			Co-ore	dinates
Time (hh:mm)			17:37	-17:39			Northing	Easting
Water Depth (m)			1	1.3			22.21.354	113.54.091
Monitoring Depth (m)	1	.0		-				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	20.0	20.0	20.5	20.0	20.0	20.0	20.12	-
Salinity (ppt)	38.5	38.6	38.2	38.5	38.5	38.5	38.45	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16	
D.O. Saturation (%)	121.9	121.7	121.0	122.0	122.2	122.0	121.80	-
D.O. (mg/L)	8.8	8.8	8.7	8.8	8.9	8.83	8.81	8.84
Turbidity (NTU)	3.6	3.6	3.5	3.8	3.9	3.7	3.68	-
SS (mg/L)	6.0	4.0	7.0	5.0	6.0	7.0	5.83	-
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)			17:44	-17:47			Northing	Easting
Water Depth (m)			9	.1			22.21.030	113.54.212
Monitoring Depth (m)	1	.0	4	.6	8	.1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.1	20.1	20.1	20.1	20.1	20.1	20.10	-
Salinity (ppt)	38.2	38.3	38.2	38.2	38.3	38.2	38.21	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.15	
D.O. Saturation (%)	123.7	124.0	124.9	123.8	124.0	125.1	124.25	-
D.O. (mg/L)	9.0	9.0	9.1	9.0	9.0	9.07	9.00	9.03
Turbidity (NTU)	3.8	3.9	4.1	4.2	4.2	4.2	4.07	-
SS (mg/L)	8.0	6.0	9.0	7.0	12.0	8.0	8.33	-
Remarks			D	redging wor	ks was obse	rved.		

Station			MF	PB1			1	
Time (hh:mm)			17:14	-17:16				
Water Depth (m)			8	.1				
Monitoring Depth (m)	1	.0	4	.1	7	.1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.0	18.9	20.1	20.0	20.2	20.0	19.71	-
Salinity (ppt)	39.7	39.8	38.6	38.8	38.6	38.8	39.05	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.13	
D.O. Saturation (%)	127.8	126.7	128.6	125.2	132.6	126.1	127.83	-
D.O. (mg/L)	9.4	9.3	9.3	9.1	9.6	9.1	9.28	9.34
Turbidity (NTU)	3.0	3.3	4.4	4.5	5.5	5.4	4.35	-
SS (mg/L)	5.0	6.0	4.0	16.0	6.0	6.0	7.17	-
Remarks			D	redging worl	ks was obse	rved.		

Station			MI	PB2						
Time (hh:mm)										
Water Depth (m)			g	.2						
Monitoring Depth (m)	1	.0	4	.6	8	.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	19.8	19.9	19.9	20.0	19.0	19.9	19.76	-		
Salinity (ppt)	39.0	38.9	39.0	38.8	39.9	39.0	39.10	-		
pH	8.2	8.1	8.2	8.1	8.1	8.1	8.14			
D.O. Saturation (%)	124.3	126.2	124.1	127.2	132.1	125.4	126.55	-		
D.O. (mg/L)	9.0	9.1	9.0	9.2	9.7	9.1	9.18	9.37		
Turbidity (NTU)	7.9	8.0	9.7	9.6	12.2	12.4	9.97	-		
SS (mg/L)	8.0	8.0	10.0	9.0	11.0	8.0	9.00	-		
Remarks		Dredging works was observed.								

Station			IV	IP				
Time (hh:mm)								
Water Depth (m)			5	.6				
Monitoring Depth (m)	1	.0	2	.8	4	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.0	20.4	-	-	19.9	20.5	20.18	-
Salinity (ppt)	37.8	37.4	-	-	38.0	37.5	37.69	-
pH	8.1	8.1	-	-	8.1	8.1	8.11	
D.O. Saturation (%)	124.3	123.0	-	-	123.8	127.1	124.55	-
D.O. (mg/L)	9.0	8.9	-	-	9.0	9.2	9.04	9.10
Turbidity (NTU)	8.1	8.4	-	-	9.2	9.2	8.73	-
SS (mg/L)	8.0	9.0	-	-	9.0	10.0	9.00	-
Remarks		•	D	redging wor	ks was obse	rved.		

Compliance with Action an	ia Limit Lev	<u>'ei</u>						compliance with Action and Limit Level													
Parameter	As in	EM&A	C2*1	30%	IM	IMO1		IMO2		MPB1	MPB2		IV	/IP							
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan							
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit							
					Action	Level	Level	Level	Level		Action	Level	Action	Level							
DO (Bottom)	4.2	4.0	9.2	9.2	N	N	N	N	N	N	N	N	N	N							
DO (Depth-averaged)	3.3	2.5	9.1	9.1	N	N	N	N	N	N	N	N	N	N							
Turbidity (Depth-averaged)	NA	NA	10.9	NA	N	NA	N	NA	N	NA	N	NA	N	NA							
SS (Depth-averaged)	24.0	37.0	13.2	13.2	N	N	N	N	N	N	N	N	N	N							

Sampling Date	12/31/07
Weather & Ambient Temperature	Sunny, 15C

Station			C1 (NM3)				
Time (hh:mm)			12:07	-12:09				
Water Depth (m)			16					
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	20.0	20.1	20.0	20.0	20.0	19.87	-
Salinity (ppt)	40.9	39.0	40.4	39.1	41.5	39.4	40.04	-
pH	8.2	8.2	8.1	8.2	8.1	8.2	8.15	
D.O. Saturation (%)	132.3	130.2	131.2	130.6	133.3	131.2	131.47	-
D.O. (mg/L)	9.6	9.4	9.4	9.4	9.5	9.5	9.46	9.47
Turbidity (NTU)	5.5	5.3	7.5	7.3	10.1	10.7	7.73	-
SS (mg/L)	7.0	9.0	10.0	11.0	15.0	13.0	10.83	-
Remarks				Dredo	jing works w	as observed.		

Station			C3 (NM6)				
Time (hh:mm)			13:33	-13:34				
Water Depth (m)			6					
Monitoring Depth (m)	1	.0	3					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.4	20.4	20.4	20.0	20.0	20.4	20.26	-
Salinity (ppt)	38.7	38.6	38.7	39.0	39.0	38.8	38.81	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.13	
D.O. Saturation (%)	127.3	128.1	127.4	129.6	131.6	127.1	128.52	-
D.O. (mg/L)	9.1	9.2	9.2	9.4	9.5	9.1	9.25	9.33
Turbidity (NTU)	5.2	5.3	5.2	5.5	5.7	5.6	5.42	-
SS (mg/L)	9.0	7.0	8.0	8.0	9.0	13.0	9.00	-
Remarks			•	Dredo	ing works w	as observed.		

Station			IM	01			Co-ordinates						
Time (hh:mm)			12:41	-12:42			Northing	Easting					
Water Depth (m)			10	0.3			22.21.335	113.54.090					
Monitoring Depth (m)	1	.0	5	.2	9	.3							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom					
Water Temperature (°C)	20.1	20.1	20.6	20.0	20.1	20.1	20.15	-					
Salinity (ppt)	38.3	38.4	37.8	38.4	38.2	38.4	38.25	-					
pH	8.2	8.2	8.1	8.2	8.1	8.2	8.15						
D.O. Saturation (%)	122.7	122.3	122.3	122.4	123.5	122.5	122.62	-					
D.O. (mg/L)	8.9	8.9	8.8	8.9	8.9	8.9	8.88	8.91					
Turbidity (NTU)	4.4	4.8	5.2	5.1	5.2	5.0	4.95	-					
SS (mg/L)	7.0	8.0	5.0	9.0	7.0	11.0	7.83	-					
Remarks		Dredging works was observed.											

Station			IM	02			Co-ordinates						
Time (hh:mm)			12:32	-12:33			Northing	Easting					
Water Depth (m)			8	.7			22.21.023	113.54.212					
Monitoring Depth (m)	1	.0	4	.4	7	.7							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom					
Water Temperature (°C)	20.2	20.1	20.6	20.2	20.1	20.2	20.22	-					
Salinity (ppt)	37.9	38.1	37.6	37.9	38.0	37.9	37.89	-					
pH	8.1	8.2	8.2	8.1	8.1	8.1	8.14						
D.O. Saturation (%)	126.5	125.3	124.8	126.9	126.0	127.9	126.23	-					
D.O. (mg/L)	9.2	9.1	9.0	9.2	9.1	9.3	9.14	9.21					
Turbidity (NTU)	4.6	4.8	5.3	5.1	6.7	6.5	5.50	-					
SS (mg/L)	6.0	10.0	6.0	8.0	12.0	11.0	8.83	-					
Remarks	,	Dredging works was observed.											

Station			MF									
Time (hh:mm)			13:05	-13:07								
Water Depth (m)			8									
Monitoring Depth (m)	1	.0	4									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	20.0	20.0	20.0	20.1	20.0	20.6	20.12	-				
Salinity (ppt)	39.0	38.9	39.0	39.0	39.0	38.5	38.88	-				
pH	8.2	8.2	8.1	8.2	8.1	8.2	8.15					
D.O. Saturation (%)	123.8	124.8	125.3	124.1	125.5	125.3	124.80	-				
D.O. (mg/L)	8.9	9.0	9.1	9.0	9.1	9.0	9.00	9.02				
Turbidity (NTU)	3.4	3.4	5.1	5.0	6.0	5.8	4.78	-				
SS (mg/L)	5.0	6.0	5.0	5.0	7.0	5.0	5.50	-				
Remarks		Dredging works was observed.										

Station			MF	B2				
Time (hh:mm)			13:15	-13:16				
Water Depth (m)			8					
Monitoring Depth (m)	1.	.0	4					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.8	20.3	19.8	19.8	19.9	18.7	19.73	-
Salinity (ppt)	39.2	38.7	39.2	39.3	39.1	40.4	39.30	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16	
D.O. Saturation (%)	124.1	123.7	124.5	124.1	125.0	125.6	124.50	-
D.O. (mg/L)	9.0	8.9	9.0	9.0	9.0	9.2	9.02	9.13
Turbidity (NTU)	7.0	7.1	7.4	7.3	7.2	7.1	7.18	-
SS (mg/L)	9.0	8.0	9.0	9.0	10.0	7.0	8.67	-
Remarks				Dredging	g works was	observed.	•	•

Station			N	1P								
Time (hh:mm)			12:54	-12:55								
Water Depth (m)			5									
Monitoring Depth (m)	1	.0	2									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	20.0	19.9	-	-	20.4	19.9	20.06	-				
Salinity (ppt)	37.8	37.8	-	-	37.6	37.9	37.77	-				
pH	8.1	8.1	-	-	8.1	8.1	8.09					
D.O. Saturation (%)	128.9	124.3	-	-	131.4	126.8	127.85	-				
D.O. (mg/L)	9.4	9.1	-	-	9.5	9.2	9.29	9.37				
Turbidity (NTU)	9.1	9.2	-	-	10.2	10.1	9.65	-				
SS (mg/L)	8.0	10.0	-	-	9.0	11.0	9.50	-				
Remarks		Dredging works was observed.										

omphanoe wan Action and Elimit Ecver														
Parameter	As in	EM&A	Mean(C1+	-C3)*130%	IM	01	IMO2			MPB1		MPB2		IP .
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	4.2	4.0	9.4	9.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	3.3	2.5	9.4	9.4	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	NA	NA	8.5	NA	N	NA	N	NA	N	NA	N	NA	Υ	NA
SS (Depth-averaged)	24.0	37.0	12.9	12.9	N	N	N	N	N	N	N	N	N	N

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ERM's Hong Kong Office

21/F Lincoln House Taikoo Place, 979 King's Road Island East, Hong Kong

T: 2271 3000 F: 2723 5660

Korea

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