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水質調査結果

【水質調査結果:2013.11.4~5】

WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City, VIETNAM
2. Date of survey: 04&05/11/2013
3. Climatic Conditions: Sunny, hot
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N ₃ -B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ -C
DO	SMEWW 4500-O C	BOD	SMEWW 5210-B	NO ₂ -N	SMEWW 4500-NO ₂ -E
EC	Schott handylab LF11	D-BOD	SMEWW 5210-B	T-P	SMEWW 4500-P-C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P-C
ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:

Date	Place	Depth	Water temperature	DO	EC	Turbidity	ORP	COD	D-COD	BOD	D-BOD	Chl.a	SS	T-N	NH ₃ -N	NO ₃ -N	T-P	PO ₄ -P		
d/m/y	-	cm	°C	mg/L	µS/cm	FAU	mV	mgO ₂ /L	mgO ₂ /L	mgO ₂ /L	mgO ₂ /L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
4-Nov-2013 2 weeks before run	St.1 (10m)	Time	30	30.5	0	1575	17	-26.4	56	29	33	4	37	9	11.0	10.0	ND	6.8	0.5	
		hh:mm	60	30	0	1592	58	-16.2	61		27		NA	43						
		(10:23)	130																	
	St.2 (50m)	Time	30	29.5	0	1599	32	-12.7	39	17	11	9	139	36	12.0	9.0	ND	1.6	0.5	
		hh:mm	70																	
		(10:15)	130																	
	St.3 (100m)	Time	30	30.2	0	1623	45	-22.2	39		12		91	45						
		hh:mm	70																	
		(10:07)	130																	
	St.4 (200m)	Time	30	29.6	0	702	16	-21.8	59		21		67	24						
		hh:mm	70																	
		(10:00)	130																	
Air temperature (31.3°C) Humidity: 60%	St.5 (other)	Time	30	31.5	0	1602	24	-9.8	24	21	11	4	72	59	12.0	7.0	ND	6.8	0.5	
	hh:mm	70																		
	(10:12)	130																		
5-Nov-2013 2 weeks before run	St.1 (10m)	Time	30	29.8	0	731	37	-8.9	62	53	37	17	61	75	28.0	11.0	ND	7.7	0.8	
		hh:mm	70	29.8	0	731	14	-4.6	85		83		59	50						
		(08:31)	130	29.7	0	727	3280	-10.3	874		843		NA	2892						
	St.2 (50m)	Time	30	29.9	0	728	19	-37.5	60	56	18	15	40	13	17.0	13.0	ND	8.8	1.2	
		hh:mm	70	29.7	0	731	43	-14.6	54		48		NA	48						
		(08:42)	130	29.4	0	736														
	St.3 (100m)	Time	30	30.3	0	721	16	-7.5	43		19		48	25						
		hh:mm	70	29.7	0	730	20	-16.7	49		44		NA	44						
		(08:51)	110	29.2	0	747	831	-4.6	203		63		NA	572						
	St.4 (200m)	Time	30	29.7	0	768	25	-14.8	53		44		48	33						
		hh:mm	70	29.6	0	760	23	-20.3	40		19		37	39						
		(09:00)	120	29.1	0	738	473	-11.3	122		49		18	931						
St.5 (other)	Time	30	30.3	0	727	40	-5.7	56		28	13	16	25	16.0	10.0	ND	7.6	1.0		
	hh:mm	70	29.7	0	726	29	-15.1	62		26		NA	45							
	(09:18)	130	29.4	0	740															

Yellow marks: No sample

6. Pictures of Pond and Sampling



7. Comments and Recommendations

- The Depth of sites is uneven. Except Site 1, the Depth of Sites 2, 3, 4 and 5 does not reach as deep as 130 cm as proposed. Sites 3 and 4 can reach at 110 cm and 120 cm respectively.
- On the dates of sampling, color of water in the pond and smelling were observed and recorded. Accordingly, water is black color, and very bad odour.
- Measurement unit of Turbidity is only in FAU. We do not have NTU testing method.
- We do suggest pH should be tested as this is also an important parameter.

【水質調査結果:2013.11.12】

WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City, VIETNAM
2. Date of survey: 12/11/2013
3. Climatic Conditions: sunny, hot
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N ₃ -B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ -C
DO	SMEWW 4500-O C	BOD	SMEWW 5210-B	NO ₂ -N	SMEWW 4500-NO ₂ -E
EC	Schott handylab LF11	D-BOD	SMEWW 5210-B	T-P	SMEWW 4500-P-C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P-C
ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:

Color of water: Black, no scum
Smell of water: stink

Date	Place	Depth	Water temperature	DO	EC	Turbidity	ORP	COD	D-COD	BOD	D-BOD	Chl.a	SS	T-N	NH ₃ -N	NO ₃ -N	T-P	PO ₄ -P	
d/m/y	-	cm	°C	mg/L	μ S/cm	FAU	mV	mgO ₂ /L	mgO ₂ /L	mgO ₂ /L	mgO ₂ /L	μ g/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
12-Nov-2013	St.1 (10m) Time (hh:mm) (08 : 15)	30	29	0.84	842	86	-5.2	17		10		61	30						
		100	28.8	0.17	840	93	20.9	22		13		46	46						
1week before run	St.2 (50mA) Time (hh:mm) (08 : 33)	30	29.5	0.2	770	83	-3.8	25		10		59	21						
		70	28.7	0	843	232	14.7	28		11		59	41						
Benchmark Depth (-0.3 m) at 08:00	St.3 (100m) Time (hh:mm) (08 : 45)	30	29	0	814	90	-6.3	42		12		70	35						
		100	28.6	0	873	95	8.3	46		15		42	47						
-0.2 m at 10:00 +0.1m at 10:30	St.4 (200m) Time (hh:mm) (09 : 00)	30	29.9	0.28	846	83	-4.8	17		9		64	17						
		100	28.6	0.3	872	860	2.8	48		12		43	91						
Air temperature (31.8°C)	St.5 (50mB) Time (hh:mm) (09 : 15)	30	29.6	0.08	795	62	3.3	39		16		34	23						
		100	29	0	855	441	1.2	93		33		32	114						

Yellow rows: No sampling

6. Pictures of Pond and Sampling



7. Comments and Recommendations

- (i) Water level is not kept at expected level that results in DEPTHS of water do not reach as desired.
- (ii) Tests and results of water quality at lower depths (lower than 70cm) are much affected due to sludge/bottom mud was mix up to water sample.
- (iii) pH of water quality must be surveyed in the next schedule surveys.

WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 18/11/2013
3. **Climatic Conditions:** sunny, no cloud, light wind
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{neg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl _a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**

Color of water: Black
Smell of water: odorless

Date	Place	Depth	Water temperature	Winkler		DO	EG	Turbidity	ORP	COD	Chl _a	SS	T-N	NH ₃ -N	NO ₃ -N	NO ₂ -N
				DO	DO											
d/m/y	-	cm	°C	mg/L	mg/L	mS/m	FAU	mV	mgO ₂ /L	μg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
18-Nov-2013	St.1 (10m) Time (hh:mm) (08:33)	30	29	0	0	72.5	78	-7.2	34	33	10	/	/	/	0	0.11
		100	28.8	0	0	73.7	78	-9.2	44	30	11	/	/	/	/	/
1 day before run	St.2 (50mA) Time (hh:mm) (08:48)	30	29.7	0	0	73.6	70	-5.4	20	50	8	/	/	/	0	0.06
		70	28.8	0	0	74.1	68	-7.5	29	42	6	/	/	/	/	/
Humidity: 61.4%	St.3 (100m) Time (hh:mm) (08:59)	30	29.3	1.88	0	75.2	71	-9.8	12	48	6	/	/	/	/	/
Benchmark Depth (+0.2 m)		100	28.8	0	0	74.7	67	-8.3	23	43	5	/	/	/	/	/
	St.4 (200m) Time (hh:mm) (09:12)	30	29.1	0	0	76.6	68	-9.7	26	52	8	/	/	/	/	/
100		28.8	0	0	76.3	74	-8.7	42	33	10	/	/	/	/	/	
Air temperature (31.5°C)	St.5 (50mB) Time (hh:mm) (09:23)	30	29.3	0.56	0	73.0	70	-6.3	36	43	4	/	/	/	0	0.07
		100	29	0	0	77.4	69	-5.1	50	34	3	/	/	/	/	/

6. **Pictures of Pond and Sampling**



【水質調査結果:2013.11.21~22】

WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 21&22/11/2013
3. Climatic Conditions:
 - 21.11.13 (Just before run): No sunny, more cloudy, windy
 - 21.11.13 (3hrs after startrunning): No sunny, more cloudy, windy
 - 22.11.13 (3hrs after startrunning): Sunny, no windy
 - 22.11.13 (6hrs after startrunning): Sunny, no windy
 - 21.11.13 (9hrs after startrunning): Downpour, more cloudy

4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N ₃ B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₃ -N	SMEWW 4500-NO ₃ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:

Color of water: Black
Smell of water: stink

Date	Place	Depth	Water temperature	pH	Winkler		EC	Turbidity	ORP	COD	D-COD	Chl a	SS	T-N	NH ₃ -N	NO ₃ -N	T-P	PO ₄ -P	
					DO	DO													
d/m/y	-	cm	°C	-	mg/l	mg/l	mS/m	FAU	mV	mgO ₂ /L	mgO ₂ /L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
21-Nov-2013 just before run	St.1 (10m) Time (hh:mm) (08: 20)	30	29	7.05	0	0	88.8	67	-6.8	63	61	43	12	16	10	0	71	1.03	
		100	28.8	7.07	0	0	89.4	67	-7.8	49	47	28	14	16	9	0	103	0.98	
	St.2 (50mA) Time (hh:mm) (08 : 36)	30	28.9	7.07	0	0	89.2	69	-7.6	54	47	45	20	16	9	0	103	0.98	
		100	28.5	7.12	0	0	87.8	55	-10.8	34	47	41	16	16	9	0	103	0.98	
	St.3 (100m) Time (hh:mm) (08 : 54)	30	28.8	7.09	0	0	89	69	-7.9	37	47	51	19	16	9	0	103	0.98	
		100	28.4	7.4	0	0	87.6	57	-11.8	36	47	45	13	16	9	0	103	0.98	
Benchmark Depth (-0.2m)	St.4 (200m) Time (hh:mm) (09 : 07)	30	28.7	7.11	0	0	88.4	61	-10	37	47	50	15	16	9	0	103	0.98	
	100	28.7	7.11	0	0	88.2	62	-10	35	47	43	16	16	9	0	103	0.98		
Air temperature (31°C)	St.5 (50mB) Time (hh:mm) (09 : 20)	30	28.6	7.08	0	0	89	60	-8.4	77	44	36	25	14	10	0	132	0.80	
	100	28.5	7.1	0	0	88.8	50	-9.5	72	44	28	24	16	10	0	132	0.80		
21-Nov-2013 3hrs after start running	St.1 (10m) Time (hh:mm) (12 : 20)	30	30	7.18	0.38	0	87.3	70	-13.5	77	44	36	25	14	10	0	132	0.80	
		100	29	7.14	0.32	0	86.8	68	-11.7	77	44	36	25	14	10	0	132	0.80	
	St.2 (50mA) Time (hh:mm) (12 : 33)	30	29	7.13	0	0	87.7	63	-11.2	77	44	36	25	14	10	0	132	0.80	
		100	28.9	7.11	0	0	86.5	65	-9.6	77	44	36	25	14	10	0	132	0.80	
	St.3 (100m) Time (hh:mm) (12 : 45)	30	28.8	7.13	0	0	86.4	71	-11.4	77	44	36	25	14	10	0	132	0.80	
		100	28.8	7.12	0	0	86.8	73	-10.5	77	44	36	25	14	10	0	132	0.80	
Benchmark Depth (-0.4 m)	St.4 (200m) Time (hh:mm) (12 : 00)	30	29.1	7.16	0	0	88.2	54	-13.0	77	44	36	25	14	10	0	132	0.80	
	100	29.2	7.14	0	0	88.5	55	-12.1	77	44	36	25	14	10	0	132	0.80		
Air temperature (32.5°C)	St.5 (50mB) Time (hh:mm) (12 : 08)	30	28.8	7.14	0	0	89.4	61	-12.3	77	44	36	25	14	10	0	132	0.80	
	100	28.8	7.14	0	0	89.4	61	-12.3	77	44	36	25	14	10	0	132	0.80		
22-Nov-2013 3 hours after restart running	St.1 (10m) Time (hh:mm) (10 : 20)	30	28.7	7.14	0	0	92.3	62	-11.8	83	62	40	41	16	8	0	24	1.05	
		100	28.6	7.14	0	0	91.9	61	-12.4	33	62	35	27	16	8	0	24	1.05	
	St.2 (50mA) Time (hh:mm) (10 : 30)	30	28.8	7.13	0	0	92.1	58	-11.3	97	37	44	26	15	8	0	150	1.04	
		100	28.4	7.15	0	0	90.3	55	-11.9	41	37	35	21	15	8	0	150	1.04	
	St.3 (100m) Time (hh:mm) (10 : 40)	30	28.9	7.13	0	0	90.7	59	-10.7	30	37	35	21	15	8	0	150	1.04	
		100	28.2	7.15	0	0	90.2	56	-12.3	71	37	25	20	15	8	0	150	1.04	
Benchmark Depth (+0.2 m)	St.4 (200m) Time (hh:mm) (10 : 55)	30	29.4	7.11	0	0	91.7	62	-10.2	78	37	38	16	15	8	0	150	1.04	
	100	29	7.12	0	0	91.1	59	-10.3	89	37	33	18	15	8	0	150	1.04		
Air temperature (31.8°C)	St.5 (50mB) Time (hh:mm) (11 : 10)	30	28.4	7.13	0	0	91.1	54	-11	75	47	35	18	15	8	0	107	1.08	
	100	28.1	7.09	0	0	91.1	57	-8.9	44	47	30	23	15	8	0	107	1.08		
22-Nov-2013 6 hours after restart running	St.1 (10m) Time (hh:mm) (13 : 22)	30	30.3	6.96	0	0	91.8	69	7.2	65	62	18	18	15	8	0	107	1.08	
		70	29.7	7.02	0	0	91.8	71	-10.2	50	62	31	18	15	8	0	107	1.08	
	St.2 (50mA) Time (hh:mm) (13 : 30)	30	29.2	7.03	0	0	90.7	74	-11.2	31	62	29	30	15	8	0	107	1.08	
		70	28.4	7.03	0	0	90.3	72	-10.2	21	62	26	14	15	8	0	107	1.08	
	St.3 (100m) Time (hh:mm) (13 : 40)	30	29.4	7.02	0	0	91	66	-11.5	80	62	28	20	15	8	0	107	1.08	
		60	29	7.01	0	0	90.6	73	-9.9	28	62	28	29	15	8	0	107	1.08	
Benchmark Depth (-0.2 m)	St.4 (200m) Time (hh:mm) (13 : 45)	30	29.7	7.07	0	0	91.5	66	-12.1	66	62	28	14	15	8	0	107	1.08	
	60	29.6	7.03	0	0	91.4	71	-11.3	40	62	27	24	15	8	0	107	1.08		
Air temperature (32.5°C)	St.5 (50mB) Time (hh:mm) (12 : 54)	30	28.6	7.03	0	0	91.5	68	-11.3	56	62	46	47	15	8	0	107	1.08	
	50	28.3	7.02	0	0	91.6	81	-10.1	38	62	28	22	15	8	0	107	1.08		
22-Nov-2013 9 hours after restart running	St.1 (10m) Time (hh:mm) (16 : 10)	30	29.1	6.96	0	0	100.5	88	-6.5	51	60	79	18	15	8	0	107	1.08	
		80	29.2	7.01	0	0	100.3	113	-9.8	27	60	51	60	18	15	8	0	107	1.08
	St.2 (50mA) Time (hh:mm) (16 : 12)	30	29.1	7.08	0	0	99.6	92	-10.5	55	60	58	65	18	15	8	0	107	1.08
		100	29.2	7	0	0	99.6	103	-9.3	31	60	46	65	18	15	8	0	107	1.08
	St.3 (100m) Time (hh:mm) (16 : 11)	30	29.1	7.02	0	0	99.9	80	-10.3	54	60	69	30	18	15	8	0	107	1.08
		60	29.1	7.01	0	0	99.7	95	-8.8	33	60	68	33	18	15	8	0	107	1.08
Benchmark Depth (0.0 m)	St.4 (200m) Time (hh:mm) (16 : 40)	30	29.2	7.14	0	0	98.5	48	-14.5	54	60	33	24	18	15	8	0	107	1.08
	70	28.9	7.04	0	0	98	47	-12.1	30	60	31	35	18	15	8	0	107	1.08	
Air temperature (32°C)	St.5 (50mB) Time (hh:mm) (16 : 50)	30	28.5	7.12	0	0	95.3	48	-12.9	44	60	34	6	18	15	8	0	107	1.08
	50	28.6	7.05	0	0	95.2	81	-12	48	60	23	10	18	15	8	0	107	1.08	

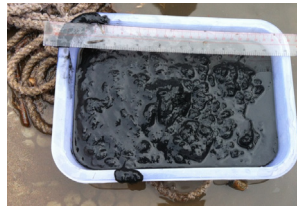
Yellow rows: No sample

6. Result of Mud:

	Mud Temperature		Mud color		ORP	
	°C		-		mV	
	st2	st5	st2	st5	st2	st5
21-Nov-13						
Just before run	28.5	28.8	black	black	12.6	7.6



ST2



ST5

7. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 23/11/2013
3. Climatic Conditions: sunny, hot
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{td} -B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ -C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ -E
EC	Schott handylab LF11			T-P	SMEWW 4500-P-C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P-C
ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:
Scum on the surface of pond at Site 3 was observed
Color of water: Black
Smell of water: stink

Date	Place	Depth	Water temperature	pH	DO		EC	Turbidity	ORP	COD	D-COD	Chl.a	SS	T-N	NH ₃ -N	NO ₂ -N	T-P	PO ₄ -P	
					Winkler	Schott													
daily	-	cm	°C	-	mg/l	mg/l	mS/m	FAU	mV	mgO ₂ /L	mgO ₂ /L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
23-Nov-2013	St.1 (10m) Time (hh:mm) (08: 10)	30	28.8	6.98	0	0	36.4	72	-8.1	52	47	47	13	20.0	8.0	0.0	24.0	1.09	
		100	28.8	7	0	0	36.4	75	-9	35		44	15						
	2days after start running	St.2 (50m) Time (hh:mm) (08: 20)	30	28.8	7.01	0	0	36.4	68	-9.2	55	43	43	9	19.0	8.0	0.0	84.0	1.08
			100	28.6	7.02	0	0	36.4	75	-10.2	27		29	3					
Benchmark Depth (±0.3m)	St.3 (100m) Time (hh:mm) (08: 32)	30	28.6	7.03	0	0	39.3	70	-10.6	61		28	17						
		100	28.3	7.06	0	0	39	70	-12.7	38		22	8						
	St.4 (200m) Time (hh:mm) (08: 40)	30	29.3	7.03	0	0	39.9	79	-11	42		66	11						
		100	28.4	7.06	0	0	38.9	70	-12.6	31		48	11						
Air temperature (32.5°C)	St.5 (50m) Time (hh:mm) (08: 50)	30	28.4	7.01	0	0	37.3	69	-10.6	66	33	34	13	17.0	8.0	0.0	43.0	1.17	
		100	28.2	7.05	0	0	37.8	69	-12.5	49		36	13						

6. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 24/11/2013
3. **Climatic Conditions:** sunny, hot
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{td} -B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ -C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ -E
EC	Schott handylab LF11			T-P	SMEWW 4500-P-C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P-C
ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**
Scum on surface at Site 3 was observed
Color of water: Black
Smell of water: stink

Date	Place	Depth	Water temperature	pH	DO		EC	Turbidity	ORP	COD	D-COD	Chl.a	SS	T-N	NH ₃ -N	NO ₃ -N	T-P	PO ₄ -P
					Winkler	Schott												
daily	-	cm	°C	-	mg/l	mg/l	mS/m	FAU	mV	mgO ₂ /L	mgO ₂ /L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
24-Nov-2013	St.1 (10m) Time (h:mm) (09:02)	30	28.8	6.99	0	0	951	63	-8.5	64		45	25					
		100	28.8	7	0	0	951	66	-8.6	49		44	22					
	St.2 (50m) Time (h:mm) (09:15)	30	29.1	7.01	0	0	953	67	-10.3	79		58	15					
		100	28.8	7.01	0	0	952	64	-10	58		51	17					
	St.3 (100m) Time (h:mm) (09:25)	30	29	7.01	0	0	954	64	-9.9	42		54	23					
		100	28.2	7.06	0	0	953	62	-12.9	31		37	21					
Benchmark Depth (_____m)	St.4 (200m) Time (h:mm) (09:40)	30	29	7.05	0	0	923	80	-12	49		38	20					
		100	28.2	7.07	0	0	931	77	-13	35		32	19					
Air temperature (32°C)	St.5 (50mB) Time (h:mm) (09:51)	30	28.4	7.01	0	0	906	60	-10.1	43		50	29					
		100	28	7.05	0	0	922	61	-12.7	38		42	11					

6. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 25/11/2013
3. Climatic Conditions: sunny, hot
4. Methods of Analysis and Testing:

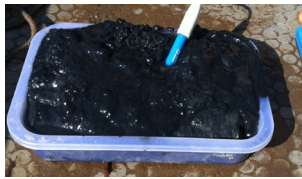
Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{org} -B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ -C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ -E
EC	Schott handylab LF11			T-P	SMEWW 4500-P-C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P-C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:
Scum on surface was observed
Color of water: Black
Smell of water: stink

Date	Place	Depth	Water temperature	pH	DO		EC	Turbidity	ORP	COD	D-COD	Chl.a	SS	TN	NH3-N	NO3-N	T-P	PO4-P	
					Winkler	Schott													
d/aily	-	cm	°C	-	mg/l	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
25-Nov-2013	St.1 (10m) Time (h:mm) (08:47)	30	29.1	6.95	0	0	94.6	79	-5.9	54	54	62	15	20.0	8.0	0.0	90.0	1.08	
		100	29	6.97	0	0	94.7	81	-7.2	68	/	56	11	/	/	/	/	/	
	3days after start running	St.2 (50m) Time (h:mm) (09:00)	30	29	6.98	0	0	94.8	79	-7.5	51	45	66	13	17.0	8.0	0.0	57.0	1.10
		100	28.9	7	0	0	94.9	77	-8.6	36	/	65	12	/	/	/	/	/	
Benchmark Depth (+/-28m) At 08:40	St.3 (100m) Time (h:mm) (09:15)	30	29.7	6.99	0	0	94.2	79	-8.5	49	/	64	11	/	/	/	/	/	
		100	28.5	7.04	0	0	94.8	65	-11.5	23	/	51	9	/	/	/	/	/	
	St.4 (200m) Time (h:mm) (09:28)	30	29.2	6.98	0	0	92.2	93	-8.3	58	/	45	11	/	/	/	/	/	
	100	28.6	7.04	0	0	94.4	60	-11.7	50	/	46	5	/	/	/	/	/	/	
Air temperature (31.2°C)	St.5 (50mB) Time (h:mm) (09:39)	30	29.1	6.99	0.15	0	91.8	97	-7.8	56	36	47	10	16.0	8.0	0.0	76.0	1.18	
		100	28.4	7.03	0	0	93	72	-11.2	43	/	28	4	/	/	/	/	/	

6. Result of Mud:

	Mud Temperature		Mud color		ORP	
	°C		-		mV	
	st2	st5	st2	st5	st2	st5
Nov 25, 2013	29.1	29	black	black	14.2	12.5



ST2



ST5

7. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 2013/3/12
3. **Climatic Conditions:** sunny, hot, no windy
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**
Scum on the surface of water
Color of water: ST1, ST2, ST3, St4: Black; ST5: Brown
Smell of water: ST1, ST5: Stink; ST2, ST3, St4: None

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim'y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
3-Dec-2013 2 weeks after start running	St.1 (10m) Time (hh:mm) (08:27)	30	28.5	7.4	0	144.2	69	-11.8	59		84	32					
		100	28.5	7.03	0	154.9	75	-10.7	77		79	31					
	St.2 (50mA) Time (hh:mm) (08:35)	30	28.3	7.02	0	134	68	-11.1	42		71	25					
		100	28.5	7.02	0	166.3	69	-10.3	50		59	23					
Benchmark Depth (+0.3 m) At 08:16	St.3 (100m) Time (hh:mm) (08:45)	30	28.3	7.02	0	112.4	65	-10.9	48		63	25					
		100	28.4	7.01	0	161.4	67	-9.9	64		52	24					
	St.4 (200m) Time (hh:mm) (08:51)	30	28.4	7	0	111.4	56	-9.5	29		69	20					
		100	28.2	7.03	0	122	54	-10.3	51		63	28					
Air temperature (28°C) Humidity: 70%	St.5 (50mB) Time (hh:mm) (09:00)	30	28.3	7.04	0	131.7	67	-12.1	50		66	34					
		100	28.6	7.01	0	205	69	-9.9	101		61	33					

6. **Pictures of Pond and Sampling**



WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 2013/10/12
3. **Climatic Conditions:** sunny, slight wind
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{am} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**

No scum on water surface
Color of water: ST3, ST4, ST5: Black; ST1, ST2: Brown
Smell of water: Stink



Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	Chl.a	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
d/m/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
10-Dec-2013	St.1 (10m) Time (hh:mm) (08:57)	30	29	7	1.84	286	69	-8.8	78	30	167	19	16	8	0	14	0.3
		100	28.9	7.01	0.91	289	68	-10.1	19		148	35					
Swaka after start running	St.2 (50mA) Time (hh:mm) (09:10)	30	28.9	7.05	1.32	285	68	-12.3	39	10	146	17	14	9	0	13	0.4
		100	28.9	7.03	0.21	286	69	-10.9	25		120	49					
Benchmark Depth (0 m) At 08:27 Humidity: 62%	St.3 (100m) Time (hh:mm) (09:20)	30	28.8	7.07	1.69	299	63	-13.1	28		142	15					
		100	28.5	7.06	0.62	311	63	-12.1	19		124	13					
Air temperature (31.5°C)	St.4 (200m) Time (hh:mm) (09:30)	30	28.9	7.07	1.23	296	64	-13.1	12		151	17					
		100	28.3	7.05	0	285	58	-11.9	21		81	20					
Air temperature (31.5°C)	St.5 (50mB) Time (hh:mm) (09:40)	30	28.3	7.1	0	255	62	-14.8	37	33	79	15	20	10	0	10	0.6
		90	28	7.12	0	192	55	-16.2	43		53	23					

6. **Pictures of Pond and Sampling**



7. **Comments and Recommendations**

WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 2013/12/19
3. **Climatic Conditions:** sunny, not windy
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**
No scum on water surface
Color of water: Black
Smell of water: Stink

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P	
d/m/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
19-Dec-2013	St.1 (10m) Time (hh:mm) (09 : 10)	30	28.5	7.04	0	347	53	-11.4	55		91	9						
		100	28.4	7.08	0	349	53	-13.3	40		90	9						
	4weeks after start running	St.2 (50mA) Time (hh:mm) (09 : 25)	30	28.6	7.1	0	343	49	-14.2	55		95	16					
			100	28.4	7.08	0	348	55	-14.0	46		80	20					
Benchmark Depth (+0.28m) At 08:51 Humidity: 65%	St.3 (100m) Time (hh:mm) (09 : 40)	30	28.5	7.12	0	254	45	-16.1	58		92	9						
		100	28.1	7.1	0	256	55	-15.0	42		61	10						
	St.4 (200m) Time (hh:mm) (09 : 54)	30	28	7.11	0	316	49	-15.6	43		77	6						
		100	27.8	7.13	0	325	55	-16.8	27		51	6						
Air temperature (29.2°C)	St.5 (50mB) Time (hh:mm) (10 : 10)	30	28.2	7.12	0	301	59	-16.4	30		67	4						
		80	27.7	7.15	0	302	54	-18.2	10		53	2						

6. Result of Mud:

	Mud Temperature		Mud color		ORP	
	st2	st5	st2	st5	st2	st5
19-Dec-13	28.6	28.4	black	black	8.8	3.2

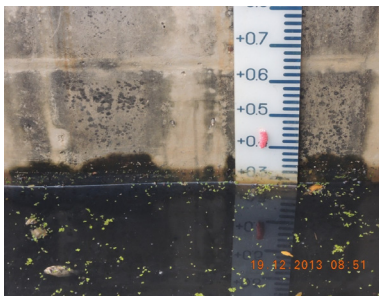


ST2



ST5

7. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 25/12/2013
3. **Climatic Conditions:** Cloudy and slight windy
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**

Color of water: ST3, ST4, ST5: Black; ST1, ST2: Brown
Smell of water: Stink

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	St.1 (10m) Time (hh:mm) (10:24)	30	27.8	6.87	2.12	375	54	-6.0	63	21	193	6	14	10	0.40	3	0.29
		100	27.8	6.95	2.4	375	54	-11.5	53	/	168	6	/	/	/	/	/
25-Dec-2013 Swicks after start running	St.2 (50mA) Time (hh:mm) (10:55)	30	28.0	6.97	3.17	373	52	-12.8	67	29	183	8	13	10	0.23	3	0.34
		100	27.8	6.88	0.62	374	52	-13.5	47	/	167	10	/	/	/	/	/
Benchmark Depth (+0.28m) At 10:02 Humidity: 64%	St.3 (100m) Time (hh:mm) (11:07)	30	28.2	6.96	1.86	373	54	-11.8	61	/	194	10	/	/	/	/	/
		100	27.5	6.88	1.59	385	49	-13.2	46	/	171	8	/	/	/	/	/
	St.4 (200m) Time (hh:mm) (11:18)	30	27.9	7.00	0	351	53	-14.0	60	/	128	7	/	/	/	/	/
		100	27.0	7.03	0	350	49	-15.8	63	/	73	7	/	/	/	/	/
Air temperature (29.3°C)	St.5 (50mB) Time (hh:mm) (11:30)	30	27.6	7.01	0	324	60	-14.5	61	46	72	9	16	12	0.30	4	0.37
		70	27.0	7.02	0	330	62	-15.4	63	/	44	6	/	/	/	/	/

6. **Pictures of Pond and Sampling**



7. **Comments and Recommendations**

WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 31/12/2013
3. **Climatic Conditions:** cloudy
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₃ -N	SMEWW 4500-NO ₃ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl.a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**
Scum on water surface
Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P		
d/m/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
31-Dec-2013 6 weeks after start running	St.1 (10m) Time (hh:mm) (08 : 21)	30	26.8	6.97	0	377	30	-13.8	62	18	92	13							
		80	26.9	7.00	0	378	71	-14.2	59			88	42						
	St.2 (50mA) Time (hh:mm) (08:54)	30	26.6	7.01	0	361	33	-15.6	60	24	52	15							
		100	26.8	7.00	0	373	34	-16	50			31	24						
Benchmark Depth (±0.1 m) At 07:57 Humidity: 61.2%	St.3 (100m) Time (hh:mm) (08 : 45)	30	26.8	7.05	0	353	33	-17.4	62		41	15							
		80	26.6	7.05	0	357	111	-16.8	48		48	49							
	St.4 (200m) Time (hh:mm) (09 : 00)	30	26.6	7.05	0	351	30	-16.5	63		11	9							
		80	26.6	7.04	0	359	38	-16.6	46		66	13							
Air temperature (27.5°C)	St.5 (50mB) Time (hh:mm) (09 : 15)	30	26.5	6.99	0	321	39	-17	52	42	22	8							
		80	26.2	7.04	0	319	39	-18.2	60		29	17							

6. **Pictures of Pond and Sampling**



【水質調査結果:2014.1.3】

WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 2014/3/1
3. Climatic Conditions: sunny, slight windy
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:
Scum on water surface Salinity (ST1-30): 0.28%
Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
d/m/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
3-Jan-2013	St.1 (10m) Time (hh:mm) (08 : 38)	30	27.6	6.93	0	534	44	-11.7	65	22	95	14					
		100	27.5	6.96	0	537	44	-12.3	81								
7weeks after start running Humidity: 64%	St.2 (50mA) Time (hh:mm) (08 : 51)	30	27.3	7.01	0	434	57	-17	72	25	63	15					
		100	27.5	7.03	0	503	54	-15.8	59								
Benchmark Depth (+0.28 m) At 08:21	St.3 (100m) Time (hh:mm) (09 : 04)	30	27.2	7.04	0	400	63	-17	66		57	16					
		100	27.5	7.02	0	497	53	-15.8	81		66	47					
	St.4 (200m) Time (hh:mm) (09 : 22)	30	27.6	7.01	0	417	55	-14.5	65		32	11					
		70	27.3	7.03	0	448	54	-15.6	57		65	16					
Air temperature (29.7°C)	St.5 (50mB) Time (hh:mm) (09 : 34)	30	27.1	7.10	0	397	71	-14.6	69	38	53	10					
		70	27.1	7.00	0	422	69	-14.9	59		56	18					

6. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 2014/1/7
3. Climatic Conditions: sunny, slight windy
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{org} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:

Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
7-Jan-2014	St.1 (10m) Time (hh:mm) (08:35)	30	27.5	6.89	0.58	687	48	-8.3	59	35	132	35	15	6	0	4	0.37
		100	27.5	6.93	0	692	44	-10.1	54	/	125	22	/	/	/	/	/
		St.2 (50mA) Time (hh:mm) (08:45)	30	27.4	7.08	0	669	46	-18.8	61	32	140	28	15	8	0	4
10 days before stop running Humidity: 56.4%	St.3 (100m) Time (hh:mm) (08:45)	100	27.5	7.06	0.51	691	45	-17.6	57	/	136	31	/	/	/	/	/
		30	27.3	7.08	0	562	56	-18.8	58	/	50	12	/	/	/	/	/
		100	27.6	7.05	0	676	48	-17.4	53	/	99	26	/	/	/	/	/
Benchmark Depth (<0.2m) At 08:30	St.4 (200m) Time (hh:mm) (09:15)	30	27.6	7.11	0	577	53	-21.1	59	/	56	6	/	/	/	/	/
		100	27.1	7.09	0	609	51	-19.4	55	/	82	12	/	/	/	/	/
		100	27.1	7.09	0	609	51	-19.4	55	/	82	12	/	/	/	/	/
Air temperature (30.9°C)	St.5 (50mB) Time (hh:mm) (09:30)	30	27.1	7.12	0	545	65	-21.4	54	34	36	5	15	9	0	4	0.36
		100	26.5	7.08	0	539	60	-19.6	58	/	40	8	/	/	/	/	/

6. Result of Mud:

	Mud Temperature		Mud color		ORP	
	°C		-		mV	
	st2	st5	st2	st5	st2	st5
7-Jan-14	27.5	27.1	black	black	17.2	0.9

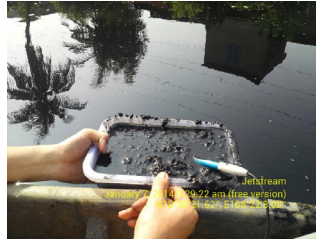


ST2



ST5

7. Pictures of Pond and Sampling



WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 13/1/2014
3. **Climatic Conditions:** sunny, not windy
4. **Methods of Analysis and Testing:**

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₃ -N	SMEWW 4500-NO ₃ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**

Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim'y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
13-Jan-2014 Humidity: 61.5%	St.1 (10m) Time (hh:mm) (08:50)	30	27.4	6.99	0	507	64	-15.7	64	48	131	18					
		100	27.4	7.01	0	507	85	-17.0	49		130	23					
	St.2 (50m) Time (hh:mm) (09:00)	30	27.5	7.05	0	496	30	-19.0	62	44	98	27					
		80	27.7	7.05	0	540	70	-18.2	57		87	31					
Benchmark Depth (-0.4 m)	St.3 (100m) Time (hh:mm) (09:15)	30	27.3	7.1	0	496	67	-22.4	64		77	25					
		80	27.3	7.09	0	453	77	-21.8	54		68	19					
	St.4 (200m) Time (hh:mm) (09:30)	30	27.4	7.1	0	453	79	-22.4	61		61	16					
80		28.9	7.06	0	357	81	-19.6	50		57	20						
Air temperature (28.3°C)	St.5 (50mB) Time (hh:mm) (09:45)	30	27.4	7.08	0	355	84	-20.5	58	48	61	18					
		70	27.6	7.02	0	357	119	-18.2	65		41	28					

6. **Pictures of Pond and Sampling**



WEEKLY REPORT
Water Quality Monitoring

1. **Location:** Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. **Date of survey:** 2014/1/18
3. **Climatic Conditions:** sunny, not windy
4. **Methods of Analysis and Testing:**

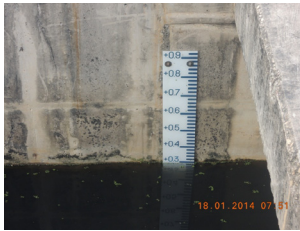
Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. **Monitoring Results:**

Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
18-Jan-2014 Humidity: 65%	St.1 (10m) Time (hh:mm) (08:22)	30	27.2	6.86	1.14	698	45	-8.7	57	37	222	17	11	8	0	4	0.33
		100	26.9	6.89	0.5	736	45	-9.9	45	/	199	16	/	/	/	/	/
	St.2 (50m) Time (hh:mm) (08:35)	30	27.1	6.94	0.82	715	47	-13.1	58	40	223	17	12	8	0	4	0.38
		100	26.8	6.95	0.25	731	45	-13.3	52	/	156	9	/	/	/	/	/
	St.3 (100m) Time (hh:mm) (08:40)	30	26.9	6.97	0.42	719	43	-14.4	62	/	208	12	/	/	/	/	/
		100	26.7	6.96	0	723	44	-14.0	55	/	174	13	/	/	/	/	/
Benchmark Depth (±0.3m)	St.4 (200m) Time (hh:mm) (08:56)	30	26.8	7.03	0.57	705	55	-17.7	63	/	187	7	/	/	/	/	
		100	27.6	6.99	0.6	711	46	-15.5	54	/	170	8	/	/	/	/	
Air temperature (26°C)	St.5 (50mB) Time (hh:mm) (09:05)	30	26.6	6.99	0	672	56	-15.6	49	45	128	9	18	8	0	4	0.48
		100	26.9	6.97	0	749	40	-14.6	58	/	124	7	/	/	/	/	

6. **Pictures of Pond and Sampling**



【水質調査結果:2014.1.20】

WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 20/1/2014
3. Climatic Conditions: sunny, slight windy
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:

Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
20-Jan-2014 Humidity: 89%	St.1 (10m) Time (hh:mm) (08:48)	30	26.6	6.92	0.85	698	43	-12.7	58	40	166	35	12	6	0	4	0.48
		100	28.8	8.9	0.4	699	45	-11.0	51	/	164	21	/	/	/	/	/
	St.2 (50m) Time (hh:mm) (09:00)	30	26.6	6.95	0	701	43	-13.3	63	38	170	34	13	6	0	4	0.48
		100	28.3	6.96	0	704	48	-13.8	45	/	155	29	/	/	/	/	/
Benchmark Depth (±0.2m)	St.3 (100m) Time (hh:mm) (09:10)	30	26.6	7.02	0.25	698	46	-17.2	68	/	136	18	/	/	/	/	/
		100	25.8	7.02	0.27	694	48	-17.5	48	/	123	28	/	/	/	/	/
	St.4 (200m) Time (hh:mm) (09:20)	30	26.8	7	0.62	698	46	-16.0	65	/	150	30	/	/	/	/	/
100		25.9	7	0.25	691	44	-16.4	46	/	97	28	/	/	/	/	/	
Air temperature (26°C)	St.5 (50mB) Time (hh:mm) (09:30)	30	26.1	7.02	0	673	54	-17.8	49	42	117	28	17	9	0	4	0.55
		100	26	7.02	0	679	49	-17.4	63	/	83	36	/	/	/	/	/

6. Result of Mud:

	Mud Temperature		Mud color		ORP	
	°C		-		mV	
	st2	st5	st2	st5	st2	st5
20-Jan-14	26.4	26.8	black	black	-4	1.7



ST2



ST5

7. Pictures of Pond and Sampling



【水質調査結果:2014.1.22】

WEEKLY REPORT
Water Quality Monitoring

1. Location: Ben Me Coc, Ward 15, District 8, Ho Chi Minh City
2. Date of survey: 22/1/2014
3. Climatic Conditions: sunny, no windy
4. Methods of Analysis and Testing:

Parameter	Method	Parameter	Method	Parameter	Method
Depth		COD	SMEWW 5220-C	T-N	SMEWW 4500-N _{alg} B
Temp	Schott handylab LF11	D-COD	SMEWW 5220-C	NH ₃ -N	SMEWW 4500-NH ₃ C
DO	SMEWW 4500-O C			NO ₂ -N	SMEWW 4500-NO ₂ E
EC	Schott handylab LF11			T-P	SMEWW 4500-P C
Turbidity	DR 890, HACH	Chl a	SMEWW 10200-H	PO ₄ -P	SMEWW 4500-P C
pH, ORP	Schott handylab pH11	SS	SMEWW 2540-D		

5. Monitoring Results:
Scum on surface of water at ST1, ST2, ST3
Color of water: Black;
Smell of water: Stink;

Date	Place	Depth	Water temperature	pH	DO	EC	Turbidity	ORP	COD	D-COD	ChLa	SS	T-N	NH3-N	NO3-N	T-P	PO4-P
dim/y	-	cm	°C	-	mg/l	mS/m	FAU	mV	mgO2/L	mgO2/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
22-Jan-2014	St.1 (10m) Time (hh:mm) (08:50)	30	26	6.93	0.33	698	43	-13.1	88		244	13	10.0	6.0	0.0	2.0	0.74
		100	26.1	7.02	0.24	737	41	-15.5	49	35	210	9					
Humidity: 35%	St.2 (50mA) Time (hh:mm) (09:08)	30	26.2	7.07	0	719	41	-16.8	62		199	7	11.0	6.0	0.0	2.0	0.58
		100	25.6	7.03	0	719	45	-16.8	45	38	191	3					
Benchmark Depth (±0.1m)	St.3 (100m) Time (hh:mm) (09:25)	30	26.2	7.07	0.35	714	40	-18.1	66		237	10					
		100	25.5	7.06	0.55	719	45	-17.9	57		185	8					
	St.4 (200m) Time (hh:mm) (09:36)	30	26.1	7.06	0	697	44	-17.4	60		116	2					
		100	25	7.08	0	694	47	-18.9	48		127	5					
Air temperature (28°C)	St.5 (50mB) Time (hh:mm) (09:50)	30	25.3	7.07	0	646	63	-18.6	54	42	119	15	11.0	10.0	0.0	3.0	1.05
		100	24.6	7.08	0	649	62	-19.0	57		75	3					

6. Result of Mud:

	Mud Temperature		Mud color		ORP	
	°C		-		mV	
	st2	st5	st2	st5	st2	st5
22-Jan-14	25.5	23.5	black	black	-13	-2.4



ST2



ST5

7. Pictures of Pond and Sampling



民間提案型普及・実証事業

実証実験計画（案）

～JS 設置仕様書～

ダラット市 XUAN HUONG 湖 水域浄化

機 器 仕 様 書

平成 26 年 2 月

エビスマリン株式会社

1. 流動と超音波による水域浄化装置

1.1 水流発生装置

- (1) 型式・台数：型式 MJS-150 台数：2台
- (2) 動水量：95,000m³/日/1台
- (3) 設置場所：前記配置計画図4の通り
- (4) 材質：水流発生部/SUS304製ノズル・整流筒/FRP
- (5) 整流筒全長：2,500mm
- (6) 整流筒内径：650mm
- (7) 架台材質：鋼製+溶融亜鉛メッキ

1.2 超音波照射装置 (No.1号機のみ装備)

- (1) 型式と台数：AK-1F 4台 (超音波振動子4台)
- (2) 周波数：200KHz
- (3) 電源・電圧：AC100V 50/60Hz

1.3 オゾン発生装置

- (1) 型式と台数：石英管式高濃度オゾン発生装置 (DQ-30350) ×2台
- (2) 発生量：9g/h
- (3) 原料ガス：PSA装置による酸素
- (4) 電源電圧：AC100V 50/60Hz
- (5) 使用条件：気温-5℃～40℃ 湿度90%以下

1.4 PSA酸素発生装置

- (1) 型式と台数：MRV-30×2台
- (2) 発生量：3ℓ/h
- (3) 酸素濃度：酸素濃度90%以上
- (4) 電源電圧：AC100V 50/60Hz
- (5) 使用条件：気温-5℃～40℃ 湿度90%以下

1.5 駆動水ポンプ設備

- (1) 設置台数：電動式渦巻ポンプ 2台
- (2) 吐出水量：3.15m³/min/1台
- (3) 全揚程：15.0m
- (4) 口径：125A/100A (吸込口径/吐出口径)
- (5) モータ出力：11kW AC400 V3相 50Hz
- (6) 付属品等：ポンプ設備には表1に示す付属機器を含むものとする

表1 ポンプ設備付属機器内訳表

項目	規格・寸法	数量	備考
落水防止チャンバー	300A	2台	PVC製
駆動水ホース	150A	2組	PVC製補強入り
駆動水配管 (チーズ・異径)	100/150A	2組	PVC製
仕切弁	100A	2台	丸型内ネジ式
サクシヨン配管	125A	2台	PVC製U字型
サクシヨンカバー	400A	4台	SUS製

1.6 エアーポンプ装置

- (1) 仕様と台数：曝気用電磁式エアーポンプ 2台
- (2) 発生空気量：曝気用 80ℓ/min
- (3) 吐出空気圧：曝気用 0.5MPa
- (4) 電源電圧：AC100V 50/60Hz
- (5) 使用条件：気温-5℃～40℃ 湿度90%以下

1.7 機器浮体

- (1) 設置台数：1台
- (2) 浮体寸法：5,200mm（横幅）×3,690mm（奥行）
- (3) フロート：外面ウレタンライニング、内部発泡スチロール品
- (4) 外枠材質：鋼製溶融亜鉛メッキ仕上げ・手摺りロープ付き

1.8 機器浮体（水流発生装置設置兼用型）

- (1) 設置台数：1台
- (2) 浮体寸法：5,200mm（横幅）×3,690mm（奥行）
- (3) フロート：外面ウレタンライニング、内部発泡スチロール品
- (4) 外枠材質：鋼製溶融亜鉛メッキ仕上げ・手摺りロープ付き
- (5) 手動巻上機：1ton 用手動式ウインチ設備（SUS 製）
- (6) デリック：鋼製溶融亜鉛メッキ仕上げ

2. 電気配線

2.1 二次側電源線

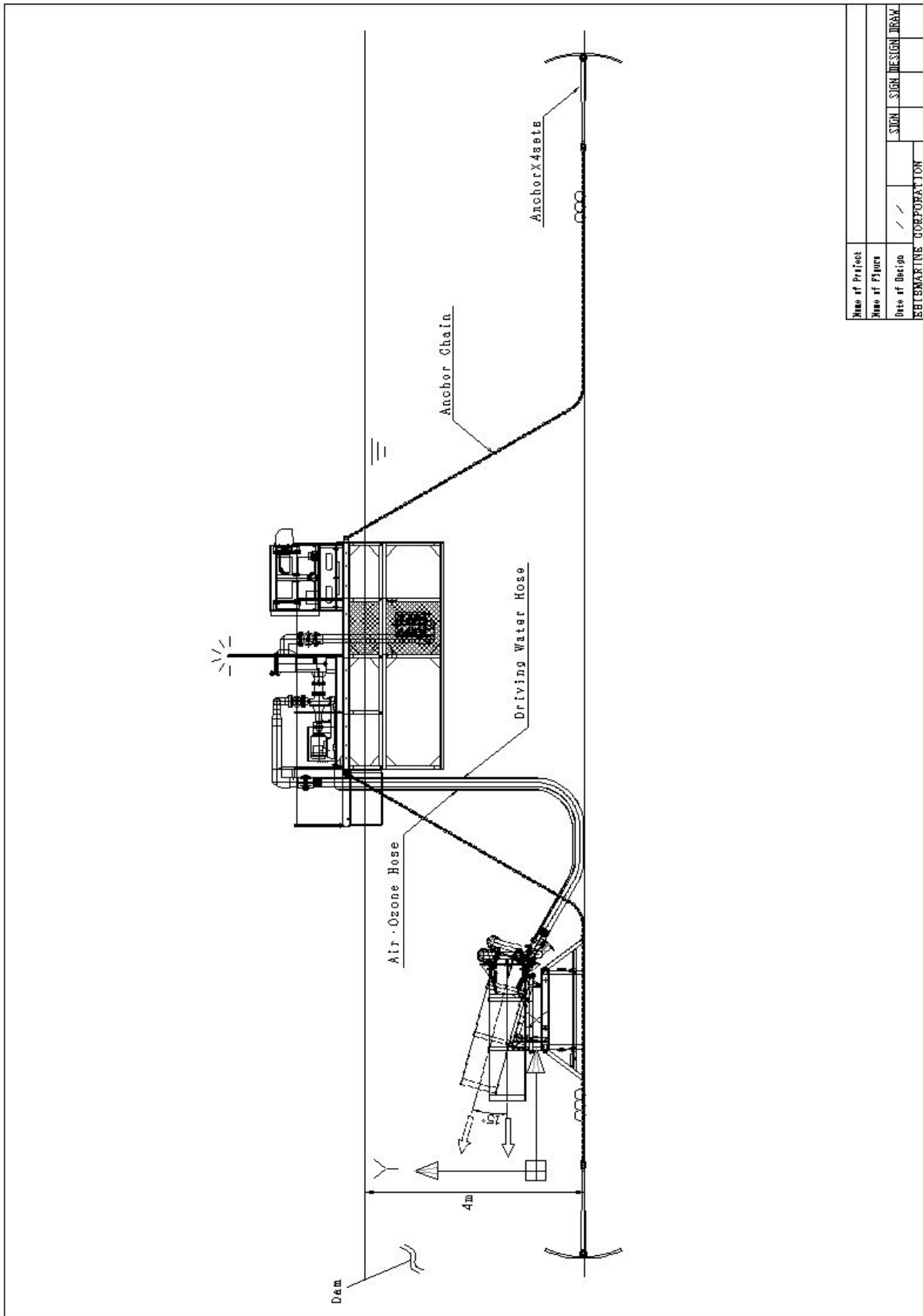
- (1) 電線種類：2種 EP ゴム絶縁クロロプレンキャブタイヤケーブル
2PNCT - 8mm² - 4C × 100m × 2本
- (2) 敷設範囲：陸上配電盤から浮体部制御盤までの二次配線と端子接続
- (3) 電線全長：200m（ケーブル保護管 FEP-30 を一部に施工）

3. 操作制御設備

盤内配線の仕様は表2の通りとする。

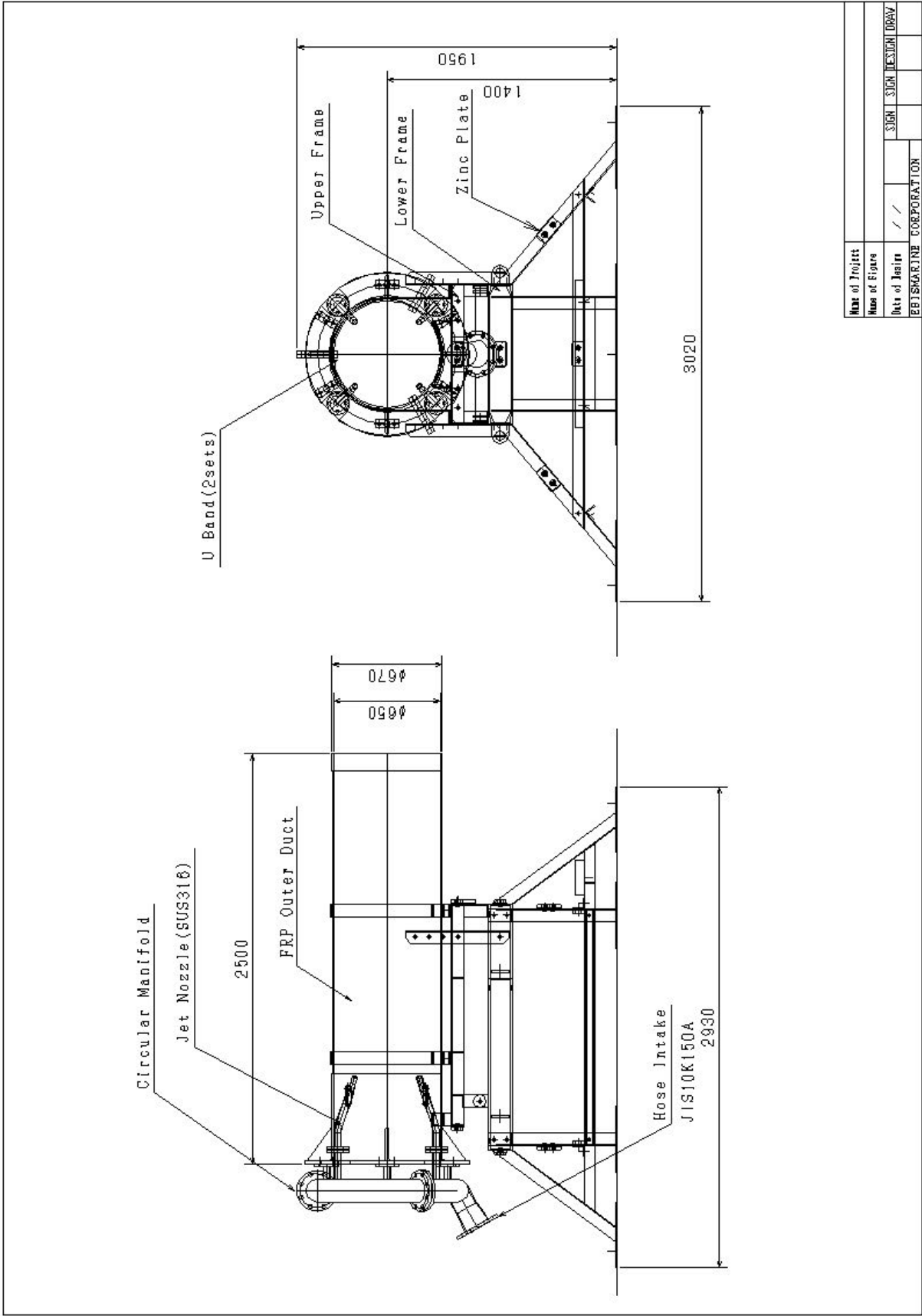
表2 盤内配線の仕様

		項目	仕様
配線仕様	主回路相色別		R相（赤），S相（白），T相（青）
	主回路端末表示		キャップ
	制御回路端末表		線番方式、白チューブ焼付
	配線		ダクト配線
	使用端子		丸形圧着
電源	主回路		KIV
	制御回路		KIV
	電線色	主回路	黄、黒
		制御回路	AC 黄、DC 赤
		PT、CT	黄
アース		緑	

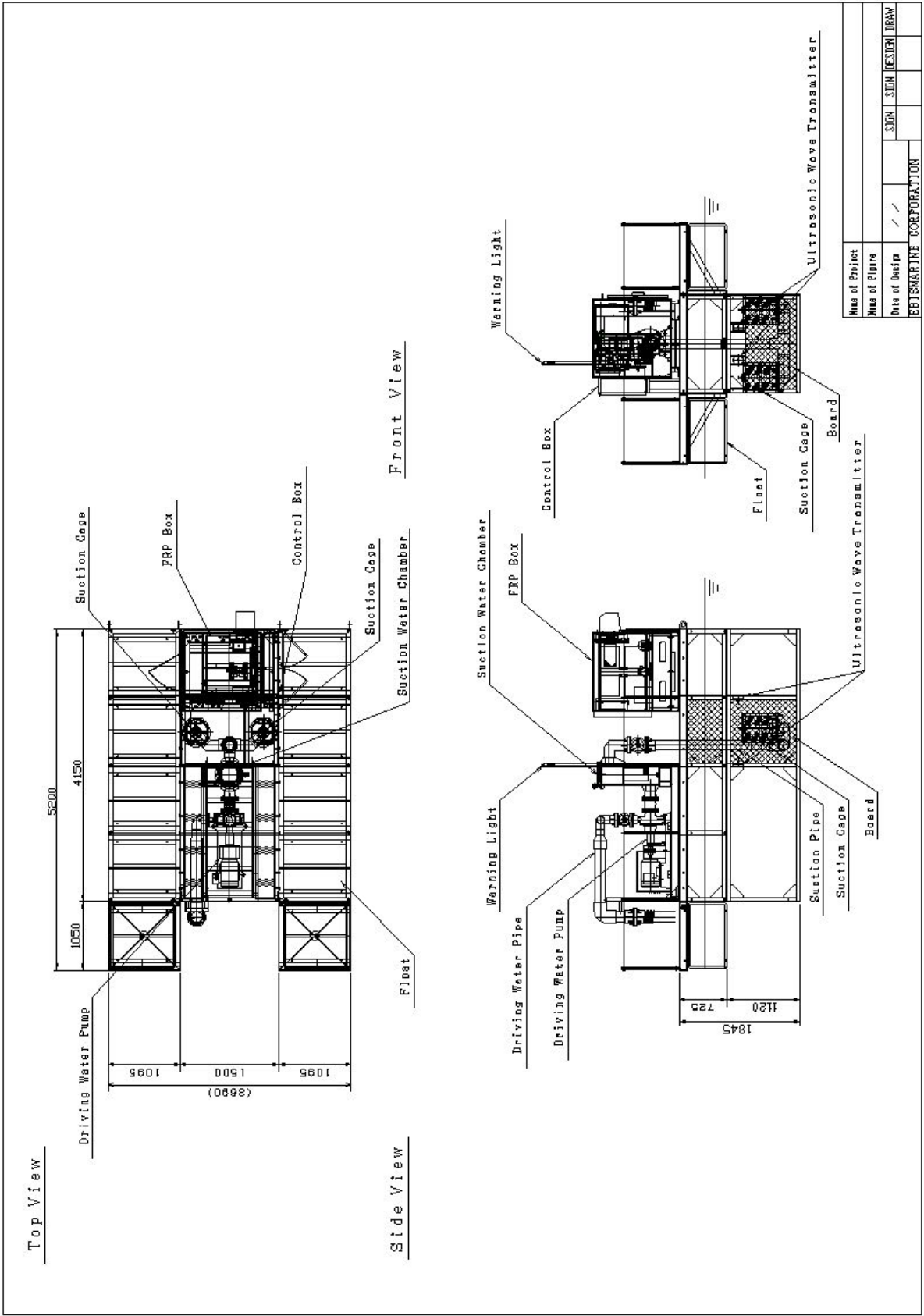


Phase of Project				
Phase of Plans				
Date of Design	/	/		
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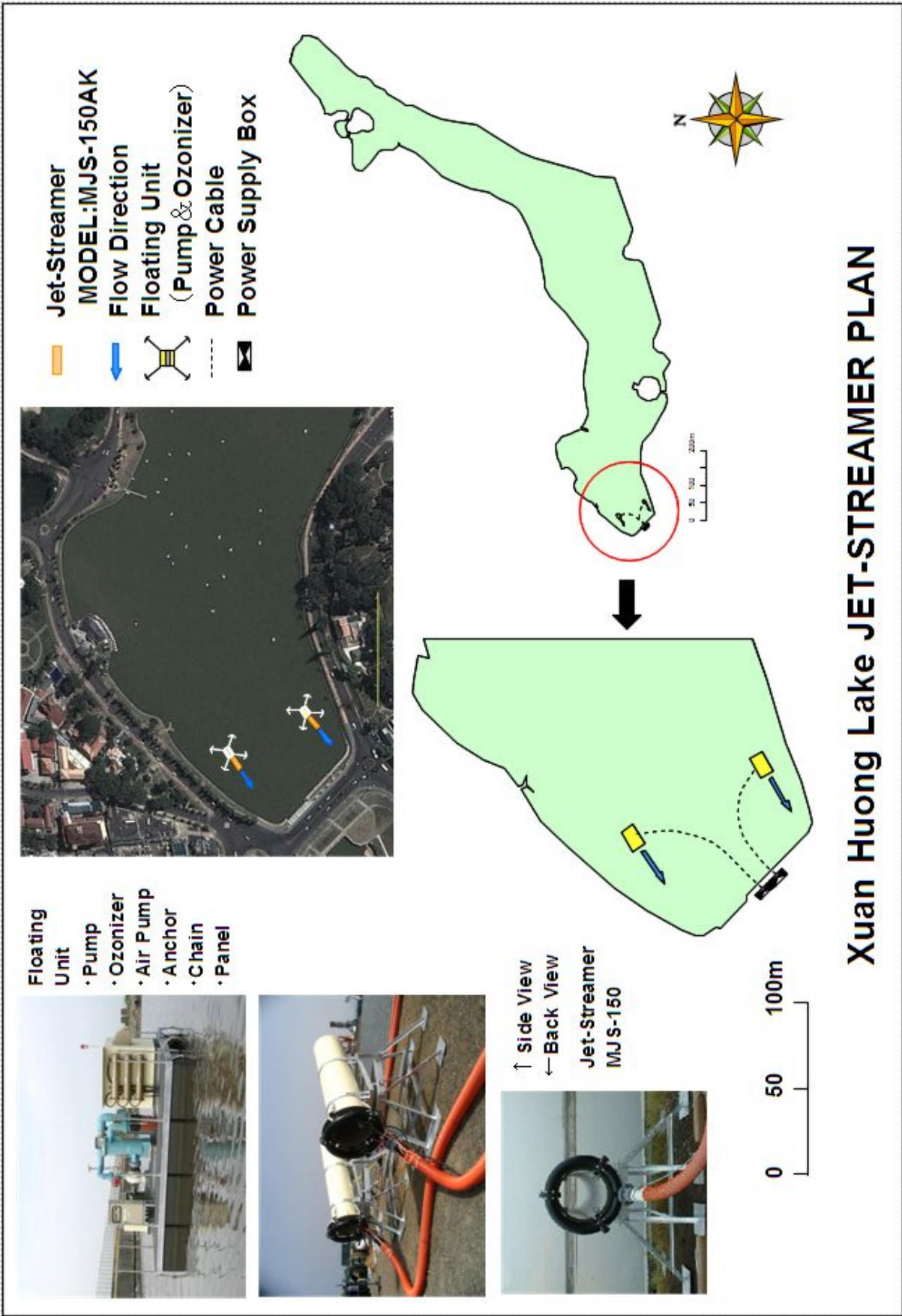
〈添付図 1 水域浄化装置構成図〉



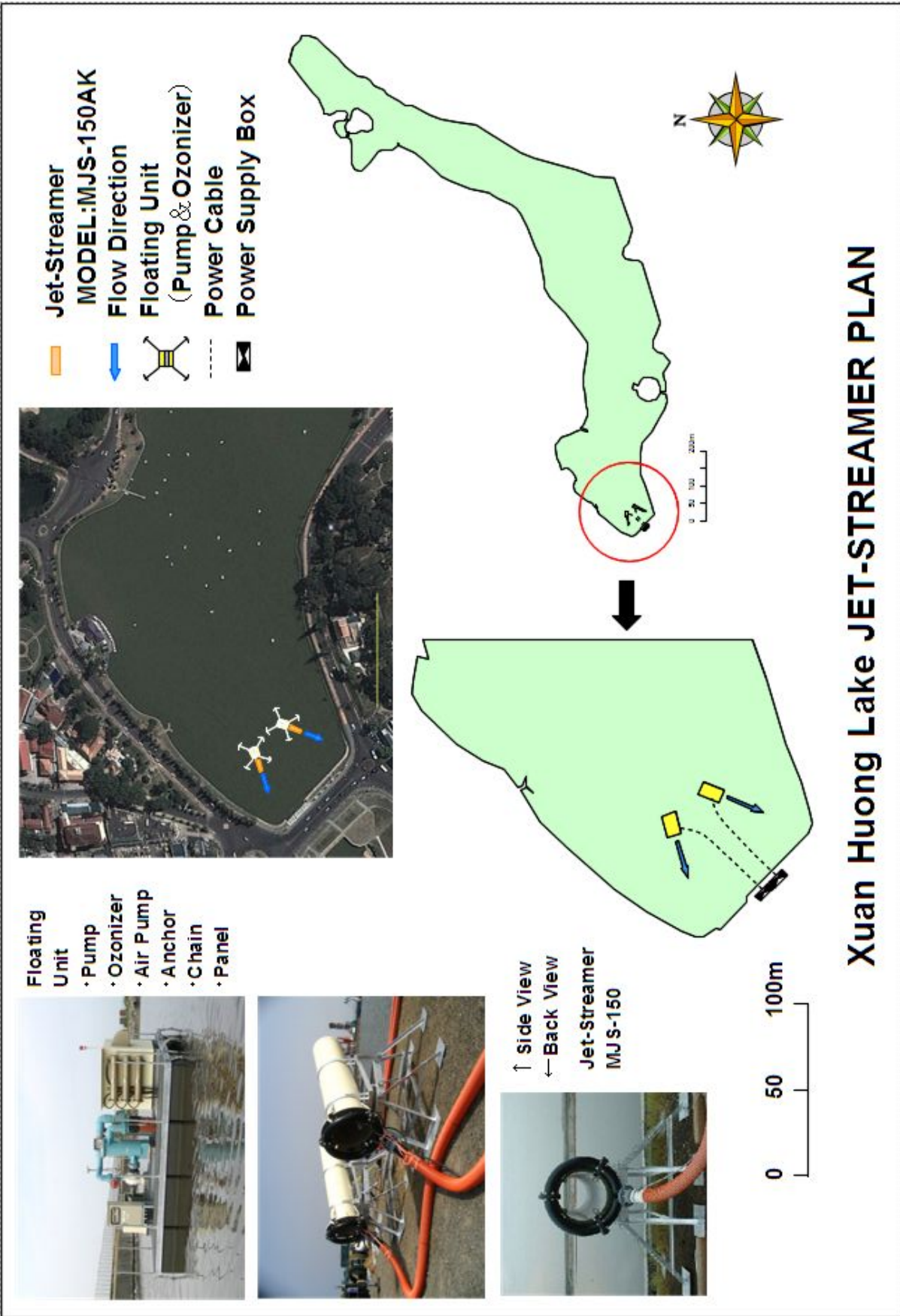
〈添付図 2 水域浄化装置外形図〉



(添付図 3 水域浄化装置機器浮体外形図)



〈添付図 4-1 水域浄化装置計画配置図〉



〈添付図 4-2 水域浄化装置計画配置図〉

ダナン市 Tho Quang Bay 水域浄化

機 器 仕 様 書

平成 26 年 2 月

エビスマリン株式会社

1. 流動とオゾンによる水域浄化装置

1.1 水流発生装置

- (1) 型式・台数：型式 MJS-150 台数：2台
- (2) 動水量：95,000m³/日/1台
- (3) 設置場所：前記配置計画図4の通り
- (4) 材質：水流発生部/SUS304製ノズル・整流筒/FRP
- (5) 整流筒全長：2,500mm
- (6) 整流筒内径：650mm
- (7) 架台材質：鋼製+溶融亜鉛メッキ

1.2 オゾン発生装置

- (1) 型式と台数：石英管式高濃度オゾン発生装置 (DQ-30350) ×2台
- (2) 発生量：9g/h
- (3) 原料ガス：PSA装置による酸素
- (4) 電源電圧：AC100V 50/60Hz
- (5) 使用条件：気温-5℃～40℃ 湿度90%以下

1.3 PSA酸素発生装置

- (1) 型式と台数：MRV-30×2台
- (2) 発生量：3ℓ/h
- (3) 酸素濃度：酸素濃度90%以上
- (4) 電源電圧：AC100V 50/60Hz
- (5) 使用条件：気温-5℃～40℃ 湿度90%以下

1.4 駆動水ポンプ設備

- (1) 設置台数：電動式渦巻ポンプ 2台
- (2) 吐出水量：3.15m³/min/1台
- (3) 全揚程：15.0m
- (4) 口径：125A/100A (吸込口径/吐出口径)
- (5) モータ出力：11kW AC400 V3相 50Hz
- (6) 付属品等：ポンプ設備には表1に示す付属機器を含むものとする

表1 ポンプ設備付属機器内訳表

項目	規格・寸法	数量	備考
落水防止チャンバー	300A	2台	PVC製
駆動水ホース	150A	2組	PVC製補強入り
駆動水配管(チーズ・異径)	100/150A	2組	PVC製
仕切弁	100A	2台	丸型内ネジ式
サクシヨン配管	125A	2台	PVC製U字型
サクシヨンカバー	400A	4台	SUS製

1.5 エアーポンプ装置

- (1) 仕様と台数：曝気用電磁式エアーポンプ 2台
- (2) 発生空気量：曝気用 80ℓ/min
- (3) 吐出空気圧：曝気用 0.5MPa
- (4) 電源電圧：AC100V 50/60Hz
- (5) 使用条件：気温-5℃～40℃ 湿度90%以下

1.6 機器浮体

- (1) 設置台数：1台
- (2) 浮体寸法：5,200mm（横幅）×3,690mm（奥行）
- (3) フロート：外面ウレタンライニング、内部発泡スチロール品
- (4) 外枠材質：鋼製溶融亜鉛メッキ仕上げ・手摺りロープ付き

1.7 機器浮体（水流発生装置設置用）

- (1) 設置台数：1台
- (2) 浮体寸法：5,200mm（横幅）×3,690mm（奥行）
- (3) フロート：外面ウレタンライニング、内部発泡スチロール品
- (4) 外枠材質：鋼製溶融亜鉛メッキ仕上げ・手摺りロープ付き
- (5) 手動巻上機：1ton 用手動式ウインチ設備（SUS製）
- (6) デリック：鋼製溶融亜鉛メッキ仕上げ

2. 電気配線

2.1 二次側電源線

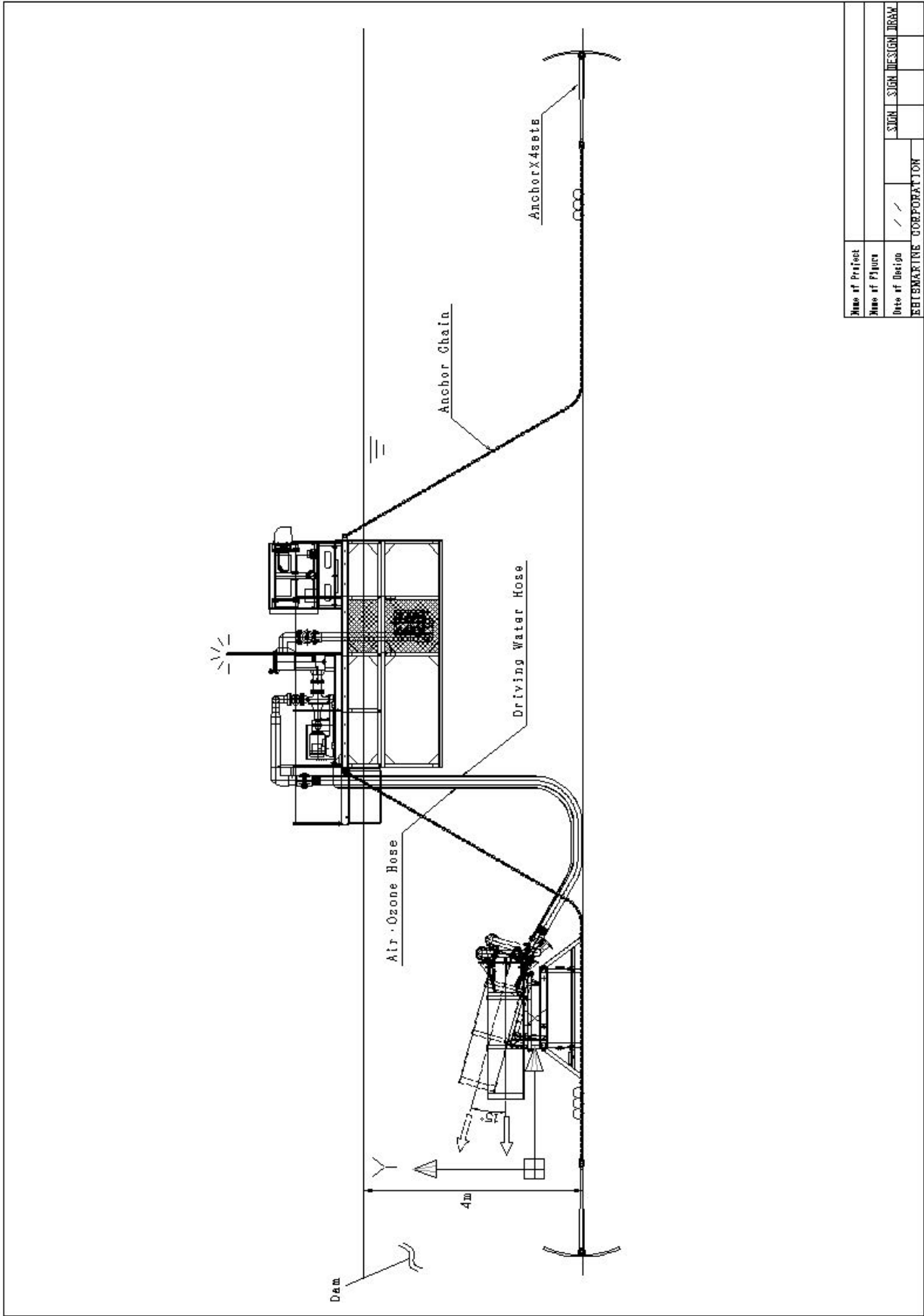
- (1) 電線種類：2種 EP ゴム絶縁クロロプレンキャブタイヤケーブル
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- (2) 敷設範囲：陸上配電盤から浮体部制御盤までの二次配線と端子接続
- (3) 電線全長：200m（ケーブル保護管 FEP-30 を一部に施工）

3. 操作制御設備

盤内配線の仕様は表2の通りとする。

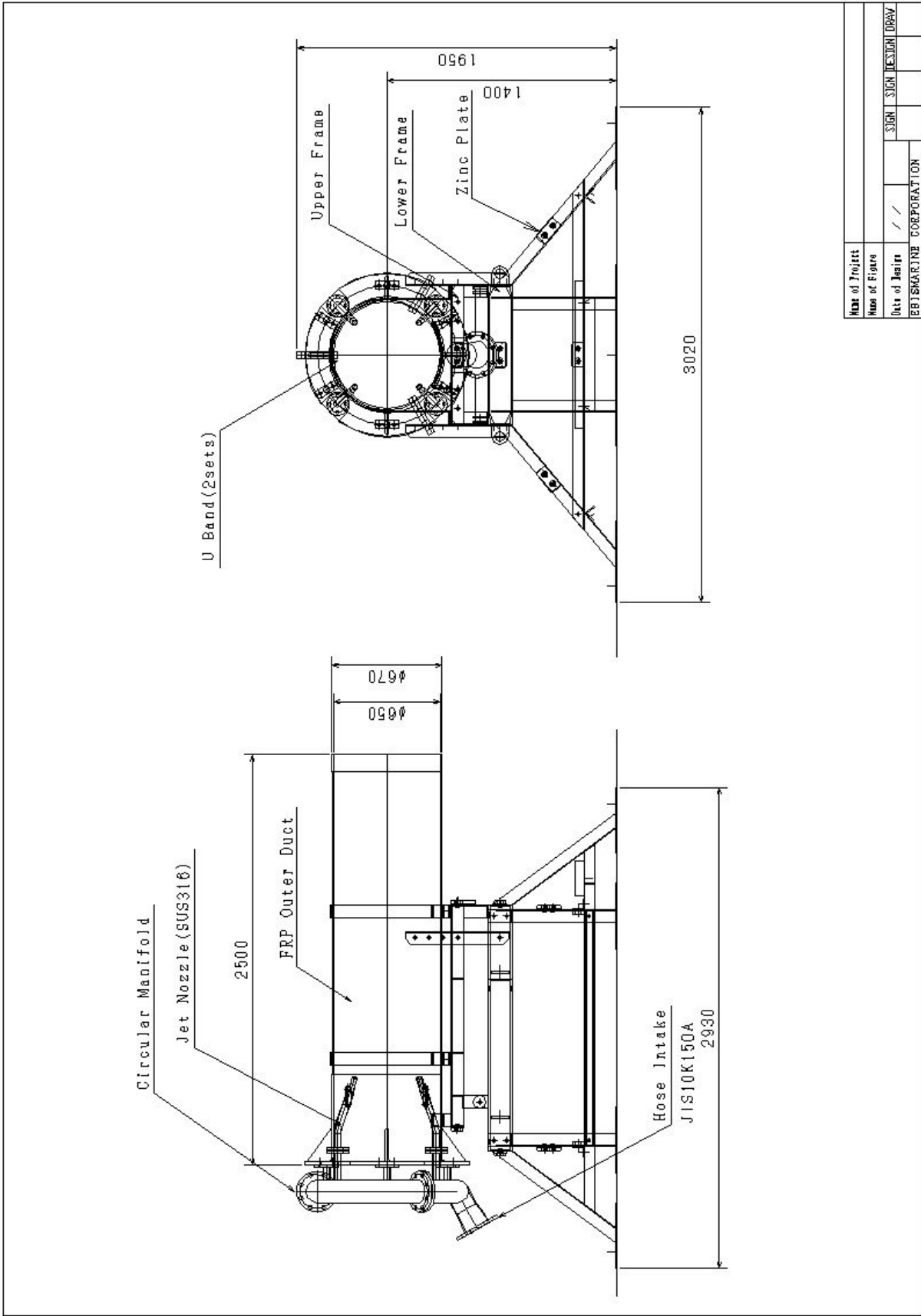
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アース		緑	

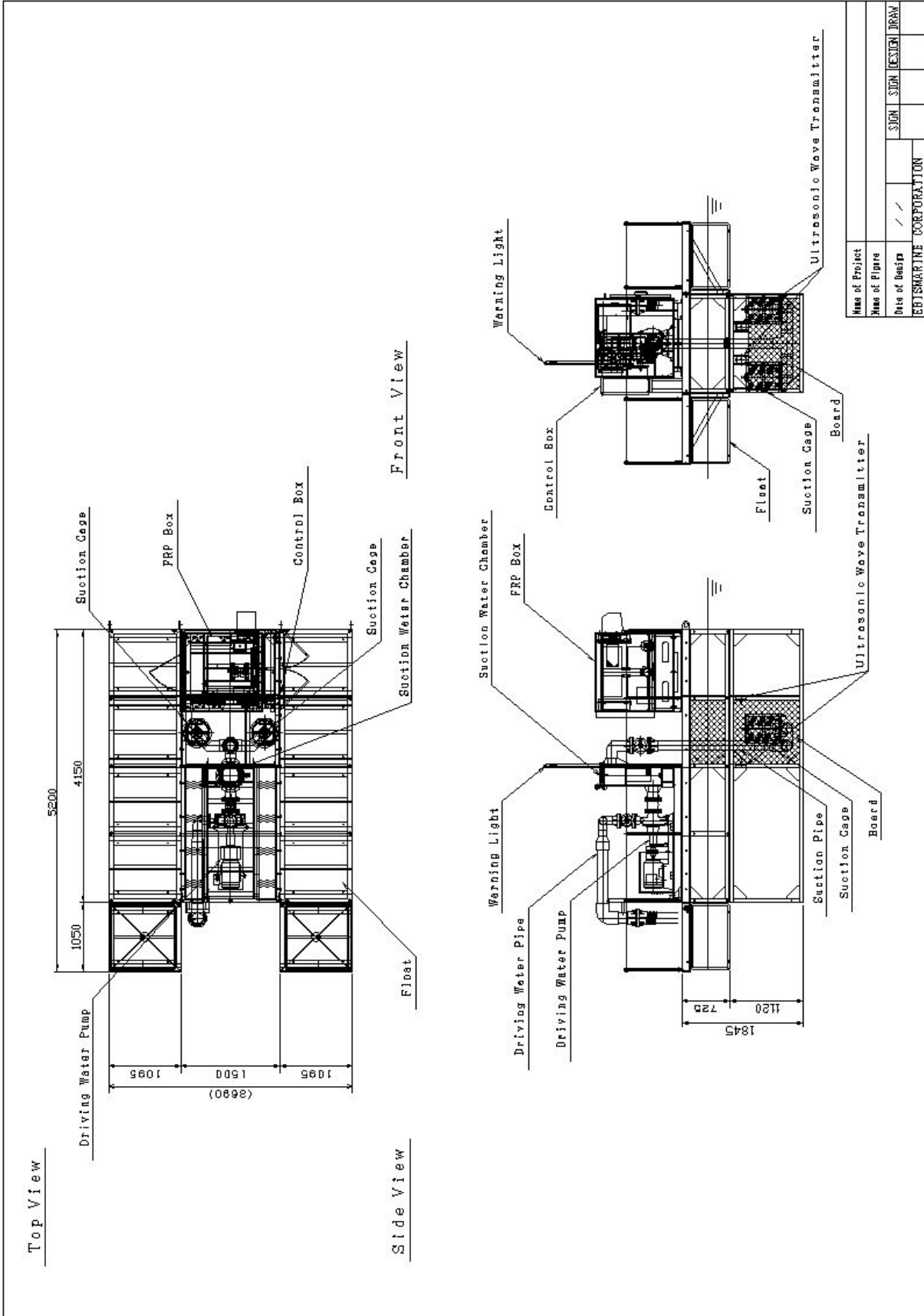


Name of Project			
Name of Plant			
Date of Design	/ /	STAGE	DESIGN DRAW
SEIENMARINE CORPORATION			

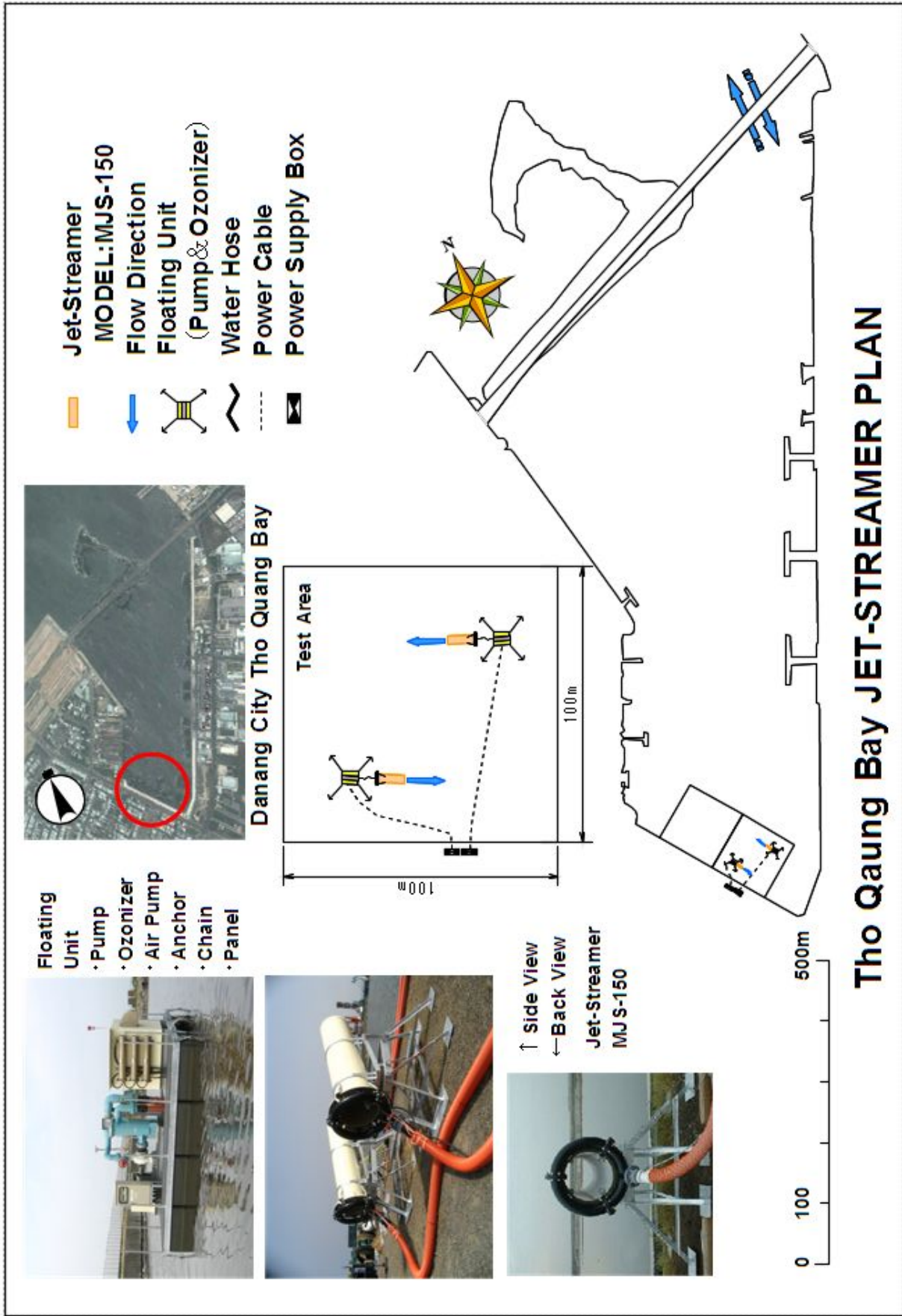
〈添付図 1 水域浄化装置構成図〉



〈添付図 2 水域浄化装置外形図〉



(添付図 3 水域浄化装置機器浮体外形図)



〈添付図 4 水域浄化装置計画配置図〉