



Job Number : EV200816-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-B	EV200816-9	EV200816-10
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	BENTHOS***				
	CRUSTACEA				
1	<i>Dreissena sp.</i>	Ind/m ²	-	-	-
2	<i>Gammarus sp.</i>	Ind/m ²	-	-	-
	ENOPLA				
1	<i>Tetraselmis sp.</i>	Ind/m ²	-	16	-
	POLYCHAETA				
1	<i>Aricidea sp.</i>	Ind/m ²	-	60	16
2	<i>Capitella sp.</i>	Ind/m ²	16	32	-
3	<i>Clymenella sp.</i>	Ind/m ²	-	32	-
4	<i>Cossura sp.</i>	Ind/m ²	-	-	-
5	<i>Oranienia sp.</i>	Ind/m ²	-	16	-
6	<i>Eteone sp.</i>	Ind/m ²	-	16	-
7	<i>Eunice sp.</i>	Ind/m ²	-	-	16
8	<i>Euprosina sp.</i>	Ind/m ²	-	16	-
9	<i>Glycera sp.</i>	Ind/m ²	-	-	-
10	<i>Hannothoe sp.</i>	Ind/m ²	-	-	-
11	<i>Lumbrineris sp.</i>	Ind/m ²	-	32	-
12	<i>Maldane sp.</i>	Ind/m ²	-	-	-
13	<i>Marphysa sp.</i>	Ind/m ²	-	48	-
14	<i>Myzids sp.</i>	Ind/m ²	-	-	-
15	<i>Nephtys sp.</i>	Ind/m ²	16	-	-
16	<i>Nereis sp.</i>	Ind/m ²	48	64	32
17	<i>Notomastus sp.</i>	Ind/m ²	64	64	-
18	<i>Ophelina sp.</i>	Ind/m ²	-	-	16
19	<i>Orbinia sp.</i>	Ind/m ²	32	-	16
20	<i>Owenia sp.</i>	Ind/m ²	16	-	-
21	<i>Rhodine sp.</i>	Ind/m ²	-	64	-
22	<i>Tarbellides sp.</i>	Ind/m ²	16	-	-



Job Number : EV200816-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-8	EV200816-9	EV200816-10
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	SIPUNCULA				
1	Golfingia sp.	Ind/m ²	32	32	-
	Total Taxa (s)		8	13	5
	Abundance	Ind/m ²	240	512	96
	Diversity Index		2.79	3.49	2.25
	Equitability Index		0.93	0.94	0.97
	Dominance Index		0.16	0.10	0.22

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200816-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-11	EV200816-12	EV200816-13
Customer Sample ID :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	BENTHOS***				
	CRUSTACEA				
1	<i>Dromia</i> sp.	Ind/m ²	-	32	-
2	<i>Gnathia</i> sp.	Ind/m ²	-	-	16
	ENOPLA				
1	<i>Tetraslemma</i> sp.	Ind/m ²	-	16	-
	POLYCHAETA				
1	<i>Aricidea</i> sp.	Ind/m ²	16	48	-
2	<i>Capitella</i> sp.	Ind/m ²	-	16	-
3	<i>Clymenella</i> sp.	Ind/m ²	-	32	-
4	<i>Cossura</i> sp.	Ind/m ²	16	-	-
5	<i>Oronereis</i> sp.	Ind/m ²	-	-	16
6	<i>Eteone</i> sp.	Ind/m ²	-	16	-
7	<i>Eunice</i> sp.	Ind/m ²	-	-	16
8	<i>Euphrasine</i> sp.	Ind/m ²	-	-	-
9	<i>Glycera</i> sp.	Ind/m ²	-	48	-
10	<i>Hannothoe</i> sp.	Ind/m ²	16	-	-
11	<i>Lumbrineris</i> sp.	Ind/m ²	-	16	-
12	<i>Maldane</i> sp.	Ind/m ²	-	-	-
13	<i>Marphysa</i> sp.	Ind/m ²	-	-	-
14	<i>Mystides</i> sp.	Ind/m ²	16	16	16
15	<i>Nephtys</i> sp.	Ind/m ²	16	32	16
16	<i>Nereis</i> sp.	Ind/m ²	16	16	-
17	<i>Nomasthus</i> sp.	Ind/m ²	-	48	48
18	<i>Ophelina</i> sp.	Ind/m ²	-	16	-
19	<i>Orbinia</i> sp.	Ind/m ²	-	-	-
20	<i>Owenia</i> sp.	Ind/m ²	16	-	-
21	<i>Rhodine</i> sp.	Ind/m ²	-	-	16
22	<i>Terebellides</i> sp.	Ind/m ²	16	16	32



Job Number : EV200816-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-11	EV200816-12	EV200816-13
Customer Sample I.D :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	SIPUNCULA				
1	Golfingia sp.	ind/m ²	-	16	-
	Total Taxa (s)		8	15	8
	Abundance	ind/m ²	128	364	176
	Diversity Index		3.00	3.74	2.85
	Equitability Index		1.00	0.96	0.95
	Dominance Index		0.13	0.08	0.16

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200816-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-14
Customer Sample I.D :			MWB-18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	BENTHOS***		
	CRUSTACEA		
1	<i>Dromia</i> sp.	Ind/m ²	-
2	<i>Gnathia</i> sp.	Ind/m ²	-
	ENOPLA		
1	<i>Tetraselmia</i> sp.	Ind/m ²	-
	POLYCHAETA		
1	<i>Aricidea</i> sp.	Ind/m ²	-
2	<i>Capitella</i> sp.	Ind/m ²	-
3	<i>Clymenella</i> sp.	Ind/m ²	32
4	<i>Cossura</i> sp.	Ind/m ²	-
5	<i>Dibolirois</i> sp.	Ind/m ²	-
6	<i>Eteone</i> sp.	Ind/m ²	16
7	<i>Eunice</i> sp.	Ind/m ²	-
8	<i>Euphrosine</i> sp.	Ind/m ²	-
9	<i>Glycera</i> sp.	Ind/m ²	-
10	<i>Harmothoe</i> sp.	Ind/m ²	16
11	<i>Lumbricaria</i> sp.	Ind/m ²	16
12	<i>Maldane</i> sp.	Ind/m ²	32
13	<i>Marphysa</i> sp.	Ind/m ²	16
14	<i>Mystides</i> sp.	Ind/m ²	10
15	<i>Nephtys</i> sp.	Ind/m ²	16
16	<i>Nereis</i> sp.	Ind/m ²	32
17	<i>Notomastus</i> sp.	Ind/m ²	16
18	<i>Ophelina</i> sp.	Ind/m ²	-
19	<i>Orbinia</i> sp.	Ind/m ²	-
20	<i>Owenia</i> sp.	Ind/m ²	-
21	<i>Rhodine</i> sp.	Ind/m ²	-
22	<i>Terebellides</i> sp.	Ind/m ²	-



Job Number : EV200816-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-14
Customer Sample I.D :			MWB-18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	SIPUNCULA		
1	Golfingia sp.	Ind/m ²	48
	Total Taxa (s)		11
	Abundance	Ind/m ²	256
	Diversity Index		3.33
	Equitability Index		0.96
	Dominance Index		0.11

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV200816-B
Customer : PT, EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
1	BENTHOS***	SNI 03-3401-1994	Ind/m ²	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1/7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200816-C
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 7

Date received : 26-Mar-2020
Date reported : 06-May-2020

Approved Signature for:


for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV200816-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200816-8	MWB 13	Sediment	23-Mar-20	15:20	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 53.925"	E : 131° 15' 58.731"
2	EV200816-9	MWB 14	Sediment	23-Mar-20	14:40	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 38.8"	E : 131° 14' 08.8"
3	EV200816-10	MWB 15	Sediment	23-Mar-20	16:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 01' 34.948"	E : 131° 12' 31.603"
4	EV200816-11	MWB 16	Sediment	23-Mar-20	16:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 02' 28.8"	E : 131° 19' 59.7"
5	EV200816-12	MWB 17	Sediment	23-Mar-20	14:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 03' 36.9"	E : 131° 14' 37.9"
6	EV200816-13	MWB 18	Sediment	23-Mar-20	11:30	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5"	E : 131° 14' 38.3"
7	EV200816-14	MWB-18 Dup	Sediment	23-Mar-20	12:00	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 04' 30.5"	E : 131° 14' 38.3"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV200816-C
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200816-8	EV200816-9	EV200816-10
Customer Sample I.D :			MWB 13	MWB 14	MWB 15
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	0.3	0.4	16.2
2	Sand: 0.5-1 mm	%	0.7	1.0	25.7
3	Sand: 0.2-0.5 mm	%	1.0	9.2	36.1
4	Sand: 0.1-0.2 mm	%	6.2	37.9	10.8
5	Sand: 50 µm-0.1 mm	%	11.6	0.5	1.0
6	Silt: 20 - 50 µm	%	23.3	9.3	1.3
7	Silt: 2 - 20 µm	%	38.3	13.2	2.4
8	Clay: 0.2 - 2 µm	%	12.1	10.9	3.2
9	Clay: < 0.2 µm	%	6.5	8.6	3.3

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV200816-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-11	EV200816-12	EV200816-13
Customer Sample I.D :			MWB 16	MWB 17	MWB 18
Date Sampled :			23-Mar-20	23-Mar-20	23-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	0.2	0.2	0.2
2	Sand: 0.5-1 mm	%	0.3	0.3	0.3
3	Sand: 0.2-0.5 mm	%	1.1	0.4	0.9
4	Sand: 0.1-0.2 mm	%	4.8	3.3	5.7
5	Sand: 50 µm-0.1 mm	%	9.0	10.2	11.5
6	Silt: 20 - 50 µm	%	24.7	27.7	24.1
7	Silt: 2 - 20 µm	%	43.8	38.7	42.3
8	Clay: 0.2 - 2 µm	%	9.2	12.2	8.6
9	Clay: < 0.2 µm	%	6.9	7.0	6.4

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200816-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200816-14
Customer Sample I.D :			MWB-18 Dup
Date Sampled :			23-Mar-20
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	Grainsize (9 Fractions) **		
1	Sand: 1-2 mm	%	0.2
2	Sand: 0.5-1 mm	%	0.3
3	Sand: 0.2-0.5 mm	%	0.6
4	Sand: 0.1-0.2 mm	%	4.6
5	Sand: 50 µm-0.1 mm	%	10.6
6	Silt: 20 - 50 µm	%	28.0
7	Silt: 2 - 20 µm	%	28.6
8	Clay: 0.2 - 2 µm	%	17.5
9	Clay: < 0.2 µm	%	9.3

Note: Refer to QA/QC - Accuracy page for list of analytical methods used.



QUALITY CONTROL - PRECISION

Job Number : EV200816-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200816-14	EV200816-14 Duplicate	
	Grainsize (9 Fractions) **				
1	Sand: 1-2 mm	%	0.2	0.2	0.0%
2	Sand: 0.5-1 mm	%	0.3	0.3	0.0%
3	Sand: 0.2-0.5 mm	%	0.8	0.7	6.8%
4	Sand: 0.1-0.2 mm	%	4.8	4.8	0.0%
5	Sand: 50 µm-0.1 mm	%	10.5	10.9	3.6%
6	Silt: 20 - 50 µm	%	28.0	25.4	6.2%
7	Silt: 2 - 20 µm	%	28.6	27.8	2.6%
8	Clay: 0.2 - 2 µm	%	17.5	20.2	14.3%
9	Clay: < 0.2 µm	%	9.3	8.6	7.6%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200816-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r&IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Grainsize (9 Fractions) **						
1	Sand: 1-2 mm	INHOUSE METHOD	%	0.1	-	-	-
2	Sand: 0.5-1 mm	INHOUSE METHOD	%	0.1	-	-	-
3	Sand: 0.2-0.5 mm	INHOUSE METHOD	%	0.1	-	-	-
4	Sand: 0.1-0.2 mm	INHOUSE METHOD	%	0.1	-	-	-
5	Sand: 50 µm-0.1 mm	INHOUSE METHOD	%	0.1	-	-	-
6	Silt: 20 - 50 µm	INHOUSE METHOD	%	0.1	-	-	-
7	Silt: 2 - 20 µm	INHOUSE METHOD	%	0.1	-	-	-
8	Clay: 0.2 - 2 µm	INHOUSE METHOD	%	0.1	-	-	-
9	Clay: < 0.2 µm	INHOUSE METHOD	%	0.1	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200847
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 10

Date received : 31-Mar-2020
Date reported : 30-Apr-2020

Approved Signature for:



Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987_r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200847-1	SWH-1	River Water	25-Mar-20	11:10	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 04.8"	E : 131° 16' 32.8"
2	EV200847-2	SWH-2	River Water	25-Mar-20	10:40	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 30.9"	E : 131° 11' 58.4"
3	EV200847-3	SWH-4	River Water	25-Mar-20	10:00	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 50.4"	E : 131° 15' 24.3"
4	EV200847-4	SWH-5	River Water	25-Mar-20	9:25	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 55' 13.1"	E : 131° 17' 06.7"
5	EV200847-5	SWH-6	River Water	25-Mar-20	8:50	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 54' 23.5"	E : 131° 17' 48.9"
6	EV200847-6	SWH-1	Sediment	25-Mar-20	11:00	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 04.8"	E : 131° 16' 32.8"
7	EV200847-7	SWH-2	Sediment	25-Mar-20	10:40	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 30.9"	E : 131° 11' 58.4"
8	EV200847-8	SWH-4	Sediment	25-Mar-20	10:00	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 56' 50.4"	E : 131° 15' 24.3"
9	EV200847-9	SWH-5	Sediment	25-Mar-20	9:25	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 55' 13.1"	E : 131° 17' 06.7"
10	EV200847-10	SWH-6	Sediment	25-Mar-20	8:50	31-Mar-20	Baskoro, Husni, Fauz	S : 07° 54' 23.5"	E : 131° 17' 48.9"

Notes:

- NA = Not Analysed
- ND= Not Detected
- IS = Insufficient Sample
- ** = Non Accredited Test
- *** = Subcontracted Test
- 1) = Field Measurement
- 2) = Field Measurement by Customer
- 3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
- 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
- 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
- SNR= Sample Not Received



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200847-1	EV200847-2	EV200847-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			25-Mar-20	25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water	River Water
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Color	Plt/Co	6	<5	5
2	pH ¹⁾	S.U.	8.05	8.27	7.44
3	Temperature ¹⁾	°C	28.7	27.9	29.9
4	Total Dissolved Solids, TDS	mg/L	478	390	8410
5	Total Suspended Solids, TSS	mg/L	6	6	7
6	Turbidity	NTU	4.9	5.5	5.5
Anions					
1	Chloride, Cl ⁻	mg/L	81.6	33.3	3790
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.19	0.12	0.26
4	Sulphate, SO ₄ ²⁻	mg/L	17	12	527
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.654	0.498	0.549
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001	<0.001
4	Total Phosphorus as P ³	mg/L	0.036	0.034	0.036
Dissolved Metals					
1	Arsenic, As	mg/L	0.0019	0.0009	0.0015
2	Boron, B	mg/L	0.07	0.07	0.63
3	Cadmium, Cd	mg/L	0.0005	0.0013	0.0013
4	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
5	Cobalt, Co	mg/L	<0.001	<0.001	<0.001
6	Copper, Cu	mg/L	0.009	0.003	0.003
7	Iron, Fe	mg/L	0.014	0.012	0.011
8	Lead, Pb	mg/L	<0.001	<0.001	<0.001
9	Manganese, Mn	mg/L	0.039	0.019	0.246
10	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
11	Selenium, Se	mg/L	<0.0005	<0.0005	<0.0005
12	Zinc, Zn	mg/L	<0.005	<0.006	<0.005



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&/US-EV/IV/2020

Laboratory Sample I.D :			EV200847-1	EV200847-2	EV200847-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			25-Mar-20	25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water	River Water
No.	Test Description	Units	Results	Results	Results
Microbiology					
1	Total Coliforms ¹¹⁺	CFU/100ml	14000	8000	7400
2	Faecal Coliforms ¹²⁺	CFU/100ml	6200	4200	800
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	4	2	7
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁷	mg/L	4.20	5.10	5.00
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Phenols	mg/L	<0.001	<0.001	<0.001
PLANKTON***					
1. PHYTOPLANKTON					
BACILLARIOPHYCEAE					
1	<i>Bacillaria</i> sp.	Cell/m ³	12,000	5,000	4,000
2	<i>Cymbella</i> sp.	Cell/m ³	-	-	1,000
3	<i>Fragilaria</i> sp.	Cell/m ³	2,000	4,000	4,000
4	<i>Frustula</i> sp.	Cell/m ³	-	-	2,000
5	<i>Navicula</i> sp.	Cell/m ³	1,000	2,000	1,000
6	<i>Nitzschia</i> sp.	Cell/m ³	6,000	7,000	13,000
7	<i>Pleurosigma</i> sp.	Cell/m ³	1,000	-	-
8	<i>Synechra</i> sp.	Cell/m ³	21,000	-	3,000
CHLOROPHYCEAE					
1	<i>Ankistrodesmus</i> sp.	Cell/m ³	2,000	-	3,000
COSCONODISCOPHYCEAE					
1	<i>Coscinodiscus</i> sp.	Cell/m ³	3,000	2,000	7,000
2	<i>Melosira</i> sp.	Cell/m ³	4,000	3,000	-
3	<i>Rhizosolenia</i> sp.	Cell/m ³	2,000	-	2,000



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200847-1	EV200847-2	EV200847-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			25-Mar-20	25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water	River Water
No.	Test Description	Units	Results	Results	Results
CYANOPHYCEAE					
1	<i>Anabaena</i> sp.	Cell/m ³	-	5,000	-
2	<i>Aphanizomenon</i> sp.	Cell/m ³	4,000	-	-
3	<i>Microcystis</i> sp.	Cell/m ³	1,000	-	-
4	<i>Oscillatoria</i> sp.	Cell/m ³	1,000	9,000	2,000
5	<i>Phormidium</i> sp.	Cell/m ³	6,000	-	-
6	<i>Spirulina</i> sp.	Cell/m ³	2,000	6,000	-
DINOPHYCEAE					
1	<i>Ceratium</i> sp.	Cell/m ³	4,000	2,000	8,000
2	<i>Peridinium</i> sp.	Cell/m ³	2,000	2,000	3,000
EUGLENOPHYCEAE					
1	<i>Euglena</i> sp.	Cell/m ³	1,000	5,000	4,000
2	<i>Phacus</i> sp.	Cell/m ³	-	1,000	1,000
3	<i>Trachelomonas</i> sp.	Cell/m ³	-	-	1,000
Total Taxa (s)			18	13	16
Abundance		Cell/m ³	75,000	53,000	59,000
Diversity Index			2.42	2.41	2.48
Equitability Index			0.84	0.94	0.89
Dominance Index			0.13	0.10	0.11
2. ZOOPLANKTON					
COPEPODA					
1	<i>Acanthocyclops</i> sp.	Ind/m ³	1,000	4,000	1,000
2	<i>Cyclops</i> sp.	Ind/m ³	3,000	5,000	2,000
EUROTATORIA					
1	<i>Asplanchna</i> sp.	Ind/m ³	1,000	1,000	-
2	<i>Notholca</i> sp.	Ind/m ³	1,000	-	-
3	<i>Trichocerca</i> sp.	Ind/m ³	-	-	1,000
OLIGOHYMENOPHOREA					
1	<i>Varicella</i> sp.	Ind/m ³	-	-	1,000



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200847-1	EV200847-2	EV200847-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			25-Mar-20	25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water	River Water
No.	Test Description	Units	Results	Results	Results
	TUBULINEA				
1	Arcella sp.	Ind/m ³	4,000	2,000	1,000
	Total Taxa (c)		5	4	5
	Abundance	Ind/m ³	10,000	12,000	6,000
	Diversity Index		1.42	1.24	1.56
	Equitability Index		0.88	0.89	0.87
	Dominance Index		0.28	0.32	0.22

Note: Refer to QM/QC – Accuracy page for list of analytical methods used



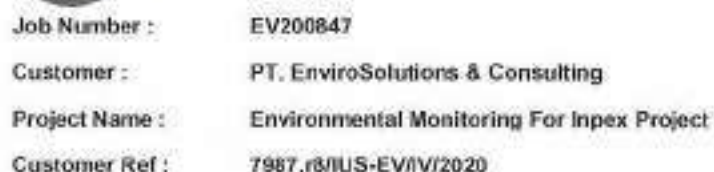
Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200847-4	EV200847-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water
No.	Test Description	Units	Results	Results
Physical Tests				
1	Color	Pt/Co	7	<5
2	pH ¹⁾	S.U.	8.05	8.15
3	Temperature ¹⁾	°C	27.0	29.2
4	Total Dissolved Solids, TDS	mg/L	368	540
5	Total Suspended Solids, TSS	mg/L	3	<1
6	Turbidity	NTU	2.2	<0.5
Anions				
1	Chloride, Cl ⁻	mg/L	30.9	126
2	Cyanide (Total), CN	mg/L	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.11	0.17
4	Sulphate, SO ₄ ²⁻	mg/L	12	22
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.144	0.082
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001
4	Total Phosphorus as P	mg/L	0.037	0.038
Dissolved Metals				
1	Arsenic, As	mg/L	0.0014	0.0006
2	Boron, B	mg/L	0.08	0.06
3	Cadmium, Cd	mg/L	0.0028	0.0002
4	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002
5	Cobalt, Co	mg/L	<0.001	<0.001
6	Copper, Cu	mg/L	0.004	<0.001
7	Iron, Fe	mg/L	0.037	<0.005
8	Lead, Pb	mg/L	<0.001	<0.001
9	Manganese, Mn	mg/L	0.082	<0.001
10	Mercury, Hg	mg/L	<0.00005	<0.00005
11	Selenium, Se	mg/L	<0.0005	<0.0005
12	Zinc, Zn	mg/L	<0.005	<0.005



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D. :			EV200847-4	EV200847-5
Customer Sample I.D. :			SWH-5	SWH-6
Date Sampled :			25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water
No.	Test Description	Units	Results	Results
Microbiology				
1	Total Coliforms ¹⁾⁺	CFU/100ml	9200	3600
2	Faecal Coliforms ¹⁾⁺	CFU/100ml	5600	375
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	2	2
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁾	mg/L	4.22	4.28
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Phenols	mg/L	<0.001	<0.001
PLANKTON***				
1. PHYTOPLANKTON				
BACILLARIOPHYCEAE				
1	<i>Achnanthes</i> sp.	Cell/m ³	-	1,000
2	<i>Bacillaria</i> sp.	Cell/m ³	4,000	2,000
3	<i>Fragilaria</i> sp.	Cell/m ³	2,000	-
4	<i>Navicula</i> sp.	Cell/m ³	2,000	3,000
5	<i>Nitzschia</i> sp.	Cell/m ³	8,000	9,000
6	<i>Pleurosigma</i> sp.	Cell/m ³	1,000	-
7	<i>Synedra</i> sp.	Cell/m ³	1,000	2,000
CHLOROPHYCEAE				
1	<i>Ankistrodesmus</i> sp.	Cell/m ³	-	2,000
2	<i>Tetradion</i> sp.	Cell/m ³	-	1,000
COSCIODISCOPHYCEAE				
1	<i>Coscinodiscus</i> sp.	Cell/m ³	8,000	3,000
2	<i>Melosira</i> sp.	Cell/m ³	2,000	3,000
3	<i>Rhizosolenia</i> sp.	Cell/m ³	5,000	2,000





Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200847-4	EV200847-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			25-Mar-20	25-Mar-20
Sample Matrix :			River Water	River Water
No.	Test Description	Units	Results	Results
GLOBOTHALAMEA				
1	<i>Globigerina</i> sp.	Ind/m ³	-	1,000
2	<i>Globorotalia</i> sp.	Ind/m ³	-	3,000
OLIGOHYMENOPHOREA				
1	<i>Paramecium</i> sp.	Ind/m ³	1,000	-
OLIGOTRICHEA				
1	<i>Tintinnopsis</i> sp.	Ind/m ³	1,000	2,000
TUBULINEA				
1	<i>Arcella</i> sp.	Ind/m ³	10,000	12,000
2	<i>Diffugia</i> sp.	Ind/m ³	2,000	1,000
Total Taxa (s)			7	10
Abundance		Ind/m ³	22,000	39,000
Diversity Index			1.55	1.91
Equitability Index			0.80	0.83
Dominance Index			0.28	0.19

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r3/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200847-6	EV200847-7	EV200847-8
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			25-Mar-20	25-Mar-20	25-Mar-20
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
Total Metals					
1	Antimony, Sb	mg/dry kg	0.3	0.9	1.2
2	Arsenic, As	mg/dry kg	4.1	37.9	13.4
3	Cadmium, Cd	mg/dry kg	0.41	0.44	0.32
4	Chromium, Cr	mg/dry kg	21.5	40.6	12.2
5	Copper, Cu	mg/dry kg	29.9	66.3	47.4
6	Lead, Pb	mg/dry kg	12.9	27.6	20.4
7	Mercury, Hg	mg/dry kg	0.037	0.023	0.017
8	Nickel, Ni	mg/dry kg	39.9	51.2	54.0
9	Silver, Ag	mg/dry kg	0.09	0.03	0.02
10	Zinc, Zn	mg/dry kg	53	54	66
BENTHOS***					
GASTROPODA					
1	<i>Neitodryas sp.</i>	Ind/m ²	-	-	32
INSECTA					
1	<i>Chironomus sp.</i>	Ind/m ²	-	16	-
2	<i>Pholopeltis sp.</i>	Ind/m ²	-	16	-
OLIGOCHAETA					
1	<i>Alophorus sp.</i>	Ind/m ²	-	-	129
2	<i>Cambariccola sp.</i>	Ind/m ²	16	-	-
3	<i>Dero sp.</i>	Ind/m ²	-	-	48
4	<i>Nannareis sp.</i>	Ind/m ²	-	-	335
Total Taxa (s)			1	2	4
Abundance		Ind/m ²	16	32	544
Diversity Index			0.00	1.00	1.47
Equitability Index			0.00	1.00	0.74
Dominance Index			1.00	0.50	0.45

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV200847-9	EV200847-10
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			25-Mar-20	25-Mar-20
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
Total Metals				
1	Antimony, Sb	mg/dry kg	0.4	0.2
2	Arsenic, As	mg/dry kg	13.7	2.7
3	Cadmium, Cd	mg/dry kg	0.21	0.18
4	Chromium, Cr	mg/dry kg	21.8	35.6
5	Copper, Cu	mg/dry kg	69.4	5.9
6	Lead, Pb	mg/dry kg	33.4	3.5
7	Mercury, Hg	mg/dry kg	0.038	0.021
8	Nickel, Ni	mg/dry kg	53.2	7.0
9	Silver, Ag	mg/dry kg	0.73	0.07
10	Zinc, Zn	mg/dry kg	71	22
BENTHOS***				
GASTROPODA				
1	<i>Clithra</i> sp.	Ind/m ²	-	64
2	<i>Melanoides</i> sp.	Ind/m ²	32	-
3	<i>Neritodryas</i> sp.	Ind/m ²	-	128
OLIGOCHAETA				
1	<i>Aulophores</i> sp.	Ind/m ²	-	128
2	<i>Nannanereis</i> sp.	Ind/m ²	-	96
Total Taxa (s)			1	4
Abundance		Ind/m ²	32	416
Diversity Index			0.00	1.95
Equitability Index			0.00	0.98
Dominance Index			1.00	0.27

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200847-5	EV200847-5 Duplicate	
	Physical Tests				
1	Color	PCU	<5	<5	-
2	pH ¹¹	S.U.	8.15	-	-
3	Temperature ¹¹	°C	29.2	-	-
4	Total Dissolved Solids, TDS	mg/L	540	532	1.5%
5	Total Suspended Solids, TSS	mg/L	<1	<1	-
6	Turbidity	NTU	<0.5	<0.5	-
	Anions				
1	Chloride, Cl ⁻	mg/L	126	126	0.0%
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
3	Fluoride, F ⁻	mg/L	0.17	0.17	0.0%
4	Sulphate, SO ₄ ²⁻	mg/L	22	22	0.0%
5	Sulphide as H ₂ S	mg/L	<0.002	-	-
	Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.082	0.080	2.1%
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001	-
4	Total Phosphorus - as P	mg/L	0.038	0.035	5.7%
	Dissolved Metals				
1	Arsenic, As	mg/L	0.0008	0.0006	0.0%
2	Boron, B	mg/L	0.06	0.06	0.0%
3	Cadmium, Cd	mg/L	0.0002	0.0002	0.0%
4	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
5	Cobalt, Co	mg/L	<0.001	<0.001	-
6	Copper, Cu	mg/L	<0.001	<0.001	-
7	Iron, Fe	mg/L	<0.005	<0.005	-
8	Lead, Pb	mg/L	<0.001	<0.001	-
9	Manganese, Mn	mg/L	<0.001	<0.001	-
10	Mercury, Hg	mg/L	<0.00005	<0.00005	-
11	Selenium, Se	mg/L	<0.0005	<0.0005	-
12	Zinc, Zn	mg/L	<0.005	<0.005	-



QUALITY CONTROL - PRECISION

Job Number : EV200847
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200847-5	EV200847-5 Duplicate	
	Microbiology				
1	Total Coliforms ^{1/10}	CFU/100ml	3600	4200	15.4%
2	Faecal Coliforms ^{1/10}	CFU/100ml	375	450	16.2%
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	2	2	0.0%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	-
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	-
4	Dissolved Oxygen, DO ¹¹	mg/L	4.20	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Phenols	mg/L	<0.001	<0.001	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r6/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Color	APHA 2120 C	Pt/Co	5	10	11	108%
2	pH ⁽¹⁾	APHA 4500-H+ B	S.U.	-	-	-	-
3	Total Dissolved Solids, TDS	APHA 2540 C	mg/L	1	318	308	97%
4	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	32	31	97%
5	Turbidity	APHA 2130 B	NTU	0.5	14.8	14.2	96%
	Anions						
1	Chloride, Cl ⁻	APHA 4110 B	mg/L	0.5	2.01	2.1	104%
2	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.892	0.822	92%
3	Fluoride, F ⁻	APHA 4110 B	mg/L	0.02	1.78	1.77	99%
4	Sulphate, SO ₄ ²⁻	APHA 4110 B	mg/L	2	10.2	10	94%
5	Sulphide as H ₂ S	APHA 4500-S2 G	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH3 D	mg/L	0.02	17.2	17.7	103%
2	Nitrate, NO ₃ -N	APHA 4110 B	mg/L	0.005	4.26	4.34	102%
3	Nitrite, NO ₂ -N	APHA 4110 B	mg/L	0.001	1.68	1.58	93%
4	Total Phosphorus as P	APHA 4500P E	mg/L	0.005	8.32	7.92	95%



QUALITY CONTROL - ACCURACY

Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.105	96%
2	Boron, B	APHA 3125 B	mg/L	0.01	1.39	1.38	99%
3	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.389	0.386	99%
4	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.0132	0.013	99%
5	Cobalt, Co	APHA 3125 B	mg/L	0.001	0.262	0.286	109%
6	Copper, Cu	APHA 3125 B	mg/L	0.001	0.478	0.494	104%
7	Iron, Fe	APHA 3125 B	mg/L	0.005	1.14	1.23	108%
8	Lead, Pb	APHA 3125 B	mg/L	0.001	0.788	0.815	104%
9	Manganese, Mn	APHA 3125 B	mg/L	0.001	1.42	1.53	107%
10	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0131	98%
11	Selenium, Se	APHA 3125 B	mg/L	0.0005	0.259	0.255	99%
12	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.609	0.588	96%
	Microbiology						
1	Total Coliforms ¹¹⁺	APHA 9222B	CFU/100ml	1	-	-	-
2	Faecal Coliforms ¹²⁺	APHA 9222D	CFU/100ml	1	-	-	-
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	141	96%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	90	99%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	0.1	0.1	98%
4	Oil & Grease	APHA 5520 B	mg/L	1	40	40	100%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.21	97%
6	Total Phenols	USEPA 9065	mg/L	0.001	4.95	4.94	100%



QUALITY CONTROL - ACCURACY

Job Number : EV200847
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Total Metals						
1	Antimony, Sb	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	-	-	-
2	Arsenic, As	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	221	211	95%
3	Cadmium, Cd	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	126	128	102%
4	Chromium, Cr	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	74.7	77.6	104%
5	Copper, Cu	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	83.3	81.3	98%
6	Lead, Pb	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	76.9	81.4	106%
7	Mercury, Hg	USEPA 3050B/USEPA245.7	mg/dry kg	0.001	13.8	12.4	90%
8	Nickel, Ni	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	178	173	97%
9	Silver, Ag	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	58.6	65.2	109%
10	Zinc, Zn	USEPA 3050B/APHA 3125B	mg/dry kg	1	338	326	96%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV200817
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Environmental Monitoring For Inpex Project

Number of samples : 4

Date received : 26-Mar-2020
Date reported : 15-Apr-2020

Approved Signature for:


for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV200817
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV200817-1	GWQ 1	Ground Water	24-Mar-20	10:38	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 54.9"	E : 131° 13' 50.8"
2	EV200817-2	GWQ 2	Ground Water	24-Mar-20	11:17	26-Mar-20	Baskoro, Husni, Fauz	S : 08° 00' 12.3"	E : 131° 13' 52.8"
3	EV200817-3	GWQ 3	Ground Water	24-Mar-20	10:02	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 59' 56.0"	E : 131° 14' 16.9"
4	EV200817-4	GWQ 4	Ground Water	24-Mar-20	08:34	26-Mar-20	Baskoro, Husni, Fauz	S : 07° 57' 20.4"	E : 131° 15' 21.8"

Notes:

NA = Not Analysed

ND= Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR= Sample Not Received



Job Number : EV200817
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200817-1	EV200817-2
Customer Sample I.D :			GWQ 1	GWQ 2
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Ground Water	Ground Water
No.	Test Description	Units	Results	Results
Physical Tests				
1	Color	PltCo	<5	<5
2	pH ¹¹	S.U.	6.80	6.72
3	Temperature ¹¹	°C	27.7	29.0
4	Total Dissolved Solids, TDS	mg/L	686	1410
5	Total Suspended Solids, TSS	mg/L	<1	3
6	Turbidity	NTU	0.7	1.1
Anions				
1	Chloride, Cl ⁻	mg/L	98.4	459
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.07	0.15
4	Sulphate, SO ₄ ²⁻	mg/L	39	85
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	1.02	0.184
3	Nitrite, NO ₂ -N	mg/L	0.053	<0.001
4	Total Nitrogen as N	mg/L	2.46	1.59
5	Total Phosphorus as PO ₄	mg/L	0.153	0.396
Dissolved Metals				
1	Arsenic, As	mg/L	0.0021	0.0016
2	Barium, Ba	mg/L	0.26	0.18
3	Boron, B	mg/L	0.06	0.16
4	Cadmium, Cd	mg/L	0.0031	0.0002
5	Chromium Hexavalent, Cr ^{VI}	mg/L	<0.002	<0.002
6	Cobalt, Co	mg/L	<0.001	<0.001
7	Copper, Cu	mg/L	0.003	0.002
8	Iron, Fe	mg/L	0.019	0.022
9	Lead, Pb	mg/L	<0.001	<0.001
10	Manganese, Mn	mg/L	0.025	0.006
11	Mercury, Hg	mg/L	<0.00005	<0.00005
12	Selenium, Se	mg/L	<0.0005	<0.0005
13	Zinc, Zn	mg/L	0.012	0.008



Job Number : EV200817
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV200817-1	EV200817-2
Customer Sample I.D :			GWO 1	GWO 2
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Ground Water	Ground Water
No.	Test Description	Units	Results	Results
Microbiology				
1	Total Coliforms ¹¹⁺	CFU/100ml	7250	10400
2	Faecal Coliforms ¹¹⁺⁺	CFU/100ml	650	2200
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	2	13
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ¹¹	mg/L	3.99	3.80
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	<0.5	4.9
8	Total Phenols	mg/L	<0.001	<0.001

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV200817
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

Laboratory Sample I.D :			EV200817-3	EV200817-4
Customer Sample I.D :			GWQ 3	GWQ 4
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Ground Water	Ground Water
No.	Test Description	Units	Results	Results
Physical Tests				
1	Color	Pt/Co	<5	<5
2	pH ¹¹	S.U.	6.87	7.05
3	Temperature ¹	°C	28.0	27.4
4	Total Dissolved Solids, TDS	mg/L	736	366
5	Total Suspended Solids, TSS	mg/L	4	<1
6	Turbidity	NTU	5.0	0.9
Anions				
1	Chloride, Cl ⁻	mg/L	176	34.2
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.08	0.13
4	Sulphate, SO ₄ ²⁻	mg/L	31	13
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.897	0.313
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001
4	Total Nitrogen as N	mg/L	2.96	1.81
5	Total Phosphorus as PO ₄	mg/L	0.185	0.183
Dissolved Metals				
1	Arsenic, As	mg/L	0.0007	<0.0005
2	Barium, Ba	mg/L	0.03	0.06
3	Boron, B	mg/L	0.08	0.04
4	Cadmium, Cd	mg/L	0.0004	0.0005
5	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002
6	Cobalt, Co	mg/L	<0.001	<0.001
7	Copper, Cu	mg/L	0.002	0.007
8	Iron, Fe	mg/L	0.012	0.018
9	Lead, Pb	mg/L	<0.001	<0.001
10	Manganese, Mn	mg/L	0.007	0.004
11	Mercury, Hg	mg/L	<0.00005	<0.00005
12	Selenium, Se	mg/L	<0.0005	0.0016
13	Zinc, Zn	mg/L	<0.005	0.008



Job Number : EV200817
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : T987.r8/US-EV/IV/2020

Laboratory Sample ID :			EV200817-3	EV200817-4
Customer Sample ID :			GWQ 3	GWQ 4
Date Sampled :			24-Mar-20	24-Mar-20
Sample Matrix :			Ground Water	Ground Water
No.	Test Description	Units	Results	Results
Microbiology				
1	Total Coliforms ¹⁰⁰	CFU/100ml	12100	3950
2	Faecal Coliforms ¹⁰⁰	CFU/100ml	1300	ND
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	5	8
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁹	mg/L	4.00	4.30
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	2.0	2.2
8	Total Phenols	mg/L	<0.001	<0.001

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV200817
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IJS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200817-4	EV200817-4 Duplicate	
	Physical Tests				
1	Color	Pl/Co	<5	<5	-
2	pH ⁽¹⁾	S.U.	7.05	-	-
3	Temperature ⁽¹⁾	°C	27.4	-	-
4	Total Dissolved Solids, TDS	mg/L	368	360	1.6%
5	Total Suspended Solids, TSS	mg/L	<1	<1	-
6	Turbidity	NTU	0.9	0.8	11.1%
	Anions				
1	Chloride, Cl ⁻	mg/L	34.2	34.5	0.8%
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
3	Fluoride, F ⁻	mg/L	0.13	0.13	0.0%
4	Sulphate, SO ₄ ²⁻	mg/L	13	14	1.1%
5	Sulphide as H ₂ S	mg/L	<0.002	-	-
	Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.313	0.315	0.7%
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001	-
4	Total Nitrogen as N	mg/L	1.30	1.28	1.6%
5	Total Phosphorus as PO ₄	mg/L	0.183	0.180	1.6%
	Dissolved Metals				
1	Arsenic, As	mg/L	<0.0005	<0.0005	0.0%
2	Barium, Ba	mg/L	0.05	0.05	0.0%
3	Boron, B	mg/L	0.04	0.04	0.0%
4	Cadmium, Cd	mg/L	0.0005	0.0005	0.0%
5	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
6	Cobalt, Co	mg/L	<0.001	<0.001	-
7	Copper, Cu	mg/L	0.007	0.007	0.0%
8	Iron, Fe	mg/L	0.018	0.017	4.0%
9	Lead, Pb	mg/L	<0.001	<0.001	-
10	Manganese, Mn	mg/L	0.004	0.004	0.0%
11	Mercury, Hg	mg/L	<0.00005	<0.00005	-
12	Selenium, Se	mg/L	0.0016	0.0014	9.5%
13	Zinc, Zn	mg/L	0.008	0.008	0.0%



QUALITY CONTROL - PRECISION

Job Number : EV200817
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200817-4	EV200817-4 Duplicate	
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	6	6	0.0%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	-
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	-
4	Dissolved Oxygen, DO ¹	mg/L	4.30	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Organic Carbon, TOC	mg/L	2.2	2.0	9.5%
8	Total Phenols	mg/L	<0.001	<0.001	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - PRECISION

Job Number : EV200817
Customer : PT. EnviroSolutions & Consulting
Project Name : Environmental Monitoring For Inpex Project
Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV200817-1	EV200817-1 Duplicate	
	Microbiology				
1	Total Coliforms ¹⁰⁰	CFU/100ml	7250	7450	1.4%
2	Faecal Coliforms ¹⁰⁰	CFU/100ml	650	750	14.2%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are $\leq 10 \times \text{DL}$)



QUALITY CONTROL - ACCURACY

Job Number : EV200817
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Color	APHA 2120 C	Pt/Co	5	10	10	100%
2	pH ¹¹	APHA 4500-H ⁺ B	S.U.	-	-	-	-
3	Total Dissolved Solids, TDS	APHA 2540 C	mg/L	1	318	310	97%
4	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	32	29	91%
5	Turbidity	APHA 2130 B	NTU	0.5	14.8	15.3	104%
	Anions						
1	Chloride, Cl ⁻	APHA 4110 B	mg/L	0.5	2.01	1.9	92%
2	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.155	0.152	98%
3	Fluoride, F ⁻	APHA 4110 B	mg/L	0.02	1.78	1.89	106%
4	Sulphate, SO ₄ ²⁻	APHA 4110 B	mg/L	2	10.2	9	93%
5	Sulphide as H ₂ S	APHA 4500-S2 G	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH3 D	mg/L	0.02	17.2	17.6	103%
2	Nitrate, NO ₃ -N	APHA 4110 B	mg/L	0.005	4.26	4.55	107%
3	Nitrite, NO ₂ -N	APHA 4110 B	mg/L	0.001	1.69	1.58	94%
4	Total Nitrogen as N	APHA 4500-Norg B & 4500-NO3 E	mg/L	0.02	-	-	-
5	Total Phosphorus as PO ₄	APHA 4500P E	mg/L	0.005	25.48	24.8	98%
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.0990	90%
2	Barium, Ba	APHA 3125 B	mg/L	0.01	1.61	1.67	92%
3	Boron, B	APHA 3125 B	mg/L	0.01	1.39	1.34	97%
4	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.389	0.358	92%
5	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.0132	0.013	101%
6	Cobalt, Co	APHA 3125 B	mg/L	0.001	0.262	0.288	110%
7	Copper, Cu	APHA 3125 B	mg/L	0.001	0.476	0.503	106%



QUALITY CONTROL - ACCURACY

Job Number : EV200817
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Environmental Monitoring For Inpex Project
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
8	Iron, Fe	APHA 3125 B	mg/L	0.005	1.14	1.19	105%
9	Lead, Pb	APHA 3125 B	mg/L	0.001	0.786	0.808	103%
10	Manganese, Mn	APHA 3125 B	mg/L	0.001	1.42	1.49	105%
11	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0139	105%
12	Selenium, Se	APHA 3125 B	mg/L	0.0005	0.259	0.253	98%
13	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.609	0.575	94%
	Microbiology						
1	Total Coliforms ¹³⁴	APHA 9222B	CFU/100ml	1	-	-	-
2	Faecal Coliforms ¹³⁴	APHA 9222D	CFU/100ml	1	-	-	-
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	144	98%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	90	99%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	0.1	0.1	98%
4	Oil & Grease	APHA 5520 B	mg/L	1	40	40	100%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.22	98%
6	Total Organic Carbon, TOC	APHA 5310 C	mg/L	0.5	58.5	57.1	98%
7	Total Phenols	USEPA 9065	mg/L	0.001	4.95	4.79	97%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193026-D
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Bulk Density Analysis

Number of samples : 4

Date received : 28-Nov-2019
Date reported : 06-May-2020

Approved Signature for:



Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV193026-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV193026-1	MWB 16	Sediment	25-Nov-19	10:49	28-Nov-19	Fahru Roji, Hilman, Husni	S : 131° 19' 59.7" E : 08° 02' 28.8"
2	EV193026-2	MBW 18	Sediment	25-Nov-19	12:17	28-Nov-19	Fahru Roji, Hilman, Husni	S : 131° 14' 38.3" E : 08° 04' 30.5"
3	EV193026-3	MWB 17	Sediment	25-Nov-19	12:32	28-Nov-19	Fahru Roji, Hilman, Husni	S : 131° 14' 37.9" E : 08° 03' 35.9"
4	EV193026-4	MWB 14	Sediment	25-Nov-19	13:19	28-Nov-19	Fahru Roji, Hilman, Husni	S : 131° 14' 08.6" E : 08° 02' 35.8"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

† = Field Measurement

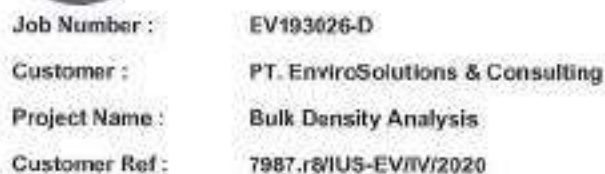
2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR= Sample Not Received



Note: Refer to QATDC – Accuracy page for list of analytical methods used



Job Number : EV193026-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r3/IUS-EV/IV/2020

Laboratory Sample I.D :			EV193026-3	EV193026-4
Customer Sample I.D :			MWB 17	MWB 14
Date Sampled :			25-Nov-19	25-Nov-19
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Physical Tests			
1	Bulk Density Marine Sediment	gram/ml	1.46	1.47

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV193026-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7587.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193026-4	EV193026-4 Duplicate	
	Physical Tests				
1	Bulk Density Marine Sediment	gram/ml	1.47	1.48	0.5%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL.)



QUALITY CONTROL - ACCURACY

Job Number : EV193026-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Bulk Density Marine Sediment	Inhouse - Gravimetric	gram/ml	0.01	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V17-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193027-D
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Bulk Density Analysis

Number of samples : 4

Date received : 28-Nov-2019
Date reported : 06-May-2020

Approved Signature for:


for **Reginald C. de Wit**

Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV193027-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV193027-1	MWB 15	Sediment	26-Nov-19	9:45	28-Nov-19	Fahru Roji, Himan, Husni	S : 08° 01' 34.948"	E : 131° 12' 31.603"
2	EV193027-2	MWB 11	Sediment	26-Nov-19	10:04	28-Nov-19	Fahru Roji, Himan, Husni	S : 08° 01' 02.130"	E : 131° 14' 32.307"
3	EV193027-3	MWB 10	Sediment	28-Nov-19	10:34	28-Nov-19	Fahru Roji, Himan, Husni	S : 08° 00' 45.922"	E : 131° 14' 55.210"
4	EV193027-4	MWB 13	Sediment	26-Nov-19	11:07	28-Nov-19	Fahru Roji, Himan, Husni	S : 08° 01' 53.925"	E : 131° 15' 58.731"

Notes:

NA = Not Analysed

ND= Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR= Sample Not Received



Job Number : EV193027-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV193027-1	EV193027-2
Customer Sample I.D :			MWB 15	MWB 11
Date Sampled :			26-Nov-19	26-Nov-19
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Physical Tests			
1	Bulk Density Manno Sediment	gram/ml	1.56	1.62

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV193027-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV193027-3	EV193027-4
Customer Sample I.D :			MWB 10	MWB 13
Date Sampled :			26-Nov-19	26-Nov-19
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Physical Tests			
1	Bulk Density Marine Sediment	grams/ml	1.72	1.60

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV193027-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Bulk Density Marine Sediment	Inhouse - Gravimetric	gram/ml	0.01	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193064-D
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Bulk Density Analysis

Number of samples : 5

Date received : 29-Nov-2019
Date reported : 06-May-2020

Approved Signature for:



Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV193064-D
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Bulk Density Analysis
 Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV193064-1	MWB 9	Sediment	27-Nov-19	10:05	29-Nov-19	Fahru Roji, Hilman, Husni	S : 08° 00' 25.708"	E : 131° 15' 15.267"
2	EV193064-2	MWB 8	Sediment	27-Nov-19	10:30	29-Nov-19	Fahru Roji, Hilman, Husni	S : 08° 00' 43.034"	E : 131° 15' 42.835"
3	EV193064-3	MWB 7	Sediment	27-Nov-19	10:53	29-Nov-19	Fahru Roji, Hilman, Husni	S : 08° 00' 09.523"	E : 131° 15' 34.002"
4	EV193064-4	MWB 6	Sediment	27-Nov-19	12:10	29-Nov-19	Fahru Roji, Hilman, Husni	S : 07° 59' 46.585"	E : 131° 16' 02.110"
5	EV193064-5	MWB 5	Sediment	27-Nov-19	13:20	29-Nov-19	Fahru Roji, Hilman, Husni	S : 07° 59' 07.586"	E : 131° 16' 26.095"

Notes:

- NA = Not Analysed
- ND = Not Detected
- IS = Insufficient Sample
- ** = Non Accredited Test
- *** = Subcontracted Test
- 1) = Field Measurement
- 2) = Field Measurement by Customer
- 3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
- 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
- 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
- SNR = Sample Not Received



Job Number : EV193064-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV193064-1	EV193064-2	EV193064-3
Customer Sample I.D :			MWB 9	MWB 8	MWB 7
Date Sampled :			27-Nov-19	27-Nov-19	27-Nov-19
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Physical Tests				
1	Bulk Density Marine Sediment	gram/ml	1.42	1.40	1.29

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV193064-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV193064-4	EV193064-5
Customer Sample I.D :			MWB 6	MWB 5
Date Sampled :			27-Nov-19	27-Nov-19
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Physical Tests			
1	Bulk Density Marine Sediment	grams/ml	1.33	1.36

Note: Refer to QA/QC -- Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV193064-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7967.r8/IUS-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193064-5	EV193064-5 Duplicate	
	Physical Tests				
1	Bulk Density Marine Sediment	gram/ml	1.36	1.36	0.0%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV193064-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/KUS-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Bulk Density Marine Sediment	Inhouse - Gravimetric	gram/ml	0.01	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-7

ENVIRONMENTAL TEST REPORT

Mr. Yahya Husin
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193084-D
Customer Ref : 7987.r8/IUS-EV/IV/2020
Project Name : Bulk Density Analysis

Number of samples : 5

Date received : 02-Dec-2019
Date reported : 06-May-2020

Approved Signature for:



for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV193084-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV193084-1	MWB 4	Sediment	28-Nov-19	14:30	02-Dec-19	Fahru Roji, Hilman, Husni	S : 07° 59' 27.504" E : 131° 16' 59.817"
2	EV193084-2	MBW 4 Dup	Sediment	28-Nov-19	14:46	02-Dec-19	Fahru Roji, Hilman, Husni	S : 07° 59' 27.504" E : 131° 16' 59.817"
3	EV193084-3	MWB 3	Sediment	28-Nov-19	14:58	02-Dec-19	Fahru Roji, Hilman, Husni	S : 07° 58' 24.397" E : 131° 17' 20.978"
4	EV193084-4	MWB 2	Sediment	28-Nov-19	15:15	02-Dec-19	Fahru Roji, Hilman, Husni	S : 07° 57' 46.496" E : 131° 17' 07.326"
5	EV193084-5	MWB 1	Sediment	28-Nov-19	14:50	02-Dec-19	Fahru Roji, Hilman, Husni	S : 07° 56' 21.107" E : 131° 17' 02.818"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV193084-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/IUS-EV/IV/2020

Laboratory Sample I.D :			EV193084-1	EV193084-2	EV193084-3
Customer Sample I.D :			MWB 4	MBW 4 Dup	MWB 3
Date Sampled :			28-Nov-19	28-Nov-19	28-Nov-19
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Physical Tests				
1	Bulk Density Marine Sediment	gram/ml	1.62	1.50	1.25

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV193084-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r&IUS-EV/IV/2020

Laboratory Sample I.D :			EV193084-4	EV193084-5
Customer Sample I.D :			MWB 2	MWB 1
Date Sampled :			28-Nov-19	29-Nov-19
Sample Matrix :			Sediment	Sediment
No.	Test Description	Units	Results	Results
	Physical Tests			
1	Bulk Density Marine Sediment	gram/ml	1.17	1.22

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



QUALITY CONTROL - PRECISION

Job Number : EV193084-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193084-5	EV193084-5 Duplicate	
	Physical Tests				
1	Bulk Density Marine Sediment	gram/ml	1.22	1.24	1.3%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL).



QUALITY CONTROL - ACCURACY

Job Number : EV193084-D
Customer : PT. EnviroSolutions & Consulting
Project Name : Bulk Density Analysis
Customer Ref : 7987.r8/US-EV/IV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Bulk Density Marine Sediment	Inhouse - Gravimetric	gram/ml	0.01	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-6

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV192964
Customer Ref : 7987.r5/IUS-EV/I/2020
Project Name : Surface Water& Sediment Analysis

Number of samples : 9

Date received : 21-Nov-2019
Date reported : 13-Dec-2019

Approved Signature for:



for Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV192964-1	SWH-1	Surface Water	18-Nov-19	09:56	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 59' 04.8"	E : 131° 10' 32.8"
2	EV192964-2	SWH-2	Surface Water	18-Nov-19	15:20	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 59' 51.3"	E : 131° 11' 07.6"
3	EV192964-3	SWH-4	Surface Water	18-Nov-19	16:02	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 56' 04.6"	E : 131° 15' 40.8"
4	EV192964-4	SWH-5	Surface Water	18-Nov-19	17:01	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 55' 13.1"	E : 131° 17' 06.7"
5	EV192964-5	SWH-6	Surface Water	18-Nov-19	17:41	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 54' 23.5"	E : 131° 17' 48.9"
6	EV192964-6	SWH-1	Sediment	18-Nov-19	09:56	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 59' 04.8"	E : 131° 10' 32.8"
7	EV192964-7	SWH-2	Sediment	18-Nov-19	15:20	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 59' 51.3"	E : 131° 11' 07.6"
8	EV192964-8	SWH-4	Sediment	18-Nov-19	16:02	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 56' 04.8"	E : 131° 15' 40.8"
9	EV192964-9	SWH-5	Sediment	18-Nov-19	17:01	21-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 55' 13.1"	E : 131° 17' 06.7"

Notes:

- NA = Not Analysed
 ND = Not Detected
 IS = Insufficient Sample
 ** = Not Accredited Test
 *** = Subcontracted Test
 1) = Field Measurement
 2) = Field Measurement by Customer
 3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
 SNR = Sample Not Received



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5IUS-EV/I/2020

Laboratory Sample I.D. :			EV192964-1	EV192964-2	EV192964-3
Customer Sample I.D. :			SWH-1	SWH-2	SWH-4
Date Sampled :			18-Nov-19	18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water	Surface Water
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Color	Pt/Co	29	20	8
2	pH ⁽¹⁾	S.U.	7.57	8.59	7.79
3	Temperature ⁽¹⁾	°C	29.8	30.1	31.0
4	Total Dissolved Solids, TDS	mg/L	32800	398	11500
5	Total Suspended Solids, TSS	mg/L	67	9	26
6	Turbidity ⁽¹⁾	NTU	6.1	4.8	1.3
Anions					
1	Chloride, Cl ⁻	mg/L	17800	64.8	5300
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.43	0.11	0.27
4	Sulphate, SO ₄ ²⁻	mg/L	1600	13	551
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.015	<0.005	0.538
3	Nitrite, NO ₂ -N	mg/L	0.008	<0.001	0.006
4	Total Phosphorus as P	mg/L	0.062	0.064	0.031
Dissolved Metals					
1	Arsenic, As	mg/L	0.0045	0.0054	0.0021
2	Boron, B	mg/L	3.21	0.14	1.20
3	Cadmium, Cd	mg/L	0.0049	0.0006	0.0056
4	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
5	Cobalt, Co	mg/L	<0.001	<0.001	<0.001
6	Copper, Cu	mg/L	0.005	0.002	<0.001
7	Iron, Fe	mg/L	0.019	<0.005	0.017
8	Lead, Pb	mg/L	<0.001	<0.001	<0.001
9	Manganese, Mn	mg/L	0.078	0.004	0.321
10	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
11	Selenium, Se	mg/L	<0.0005	<0.0005	<0.0005
12	Zinc, Zn	mg/L	0.009	<0.005	<0.005



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/2020

Laboratory Sample I.D :			EV192964-1	EV192964-2	EV192964-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			18-Nov-19	18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water	Surface Water
No.	Test Description	Units	Results	Results	Results
Microbiology					
1	Total Coliforms TM	CFU/100ml	1800	4100	1400
2	Faecal Coliforms TM	CFU/100ml	200	2750	80
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	47	41	24
2	Biochemical Oxygen Demand, BOD ₅	mg/L	9	7	4
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ^{II}	mg/L	3.40	5.00	4.20
5	Oil & Grease	mg/L	<1	<1	1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Phenols	mg/L	<0.001	<0.001	<0.001
PLANKTON***					
1. PHYTOPLANKTON					
BACILLARIOPHYCEAE					
1	<i>Ampipora</i> sp.	Cell/m ³	-	-	2500
2	<i>Bacillaria</i> sp.	Cell/m ³	-	40000	12500
3	<i>Cymbella</i> sp.	Cell/m ³	-	10000	15000
4	<i>Fragilaria</i> sp.	Cell/m ³	8750	6250	11250
5	<i>Frustula</i> sp.	Cell/m ³	-	2500	6250
6	<i>Gomphonema</i> sp.	Cell/m ³	-	-	3750
7	<i>Navicula</i> sp.	Cell/m ³	10000	20000	20000
8	<i>Nitzschia</i> sp.	Cell/m ³	5000	97500	92500
9	<i>Pinnularia</i> sp.	Cell/m ³	-	1250	-
10	<i>Pleurosigma</i> sp.	Cell/m ³	2500	-	8750
11	<i>Surirella</i> sp.	Cell/m ³	-	-	1250
CHLOROPHYCEAE					
1	<i>Ankistrodesmus</i> sp.	Cell/m ³	-	-	-
2	<i>Tetraedron</i> sp.	Cell/m ³	-	-	-



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV192964-1	EV192964-2	EV192964-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			18-Nov-19	18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water	Surface Water
No.	Test Description	Units	Results	Results	Results
COSCONODISCOPHYCEAE					
1	<i>Coscinodiscus sp.</i>	Cell/m ³	30000	5000	15000
2	<i>Melosira sp.</i>	Cell/m ³	16250	-	117500
3	<i>Rhizosolenia sp.</i>	Cell/m ³	5000	3750	7500
4	<i>Triceratium sp.</i>	Cell/m ³	10000	-	-
CYANOPHYCEAE					
1	<i>Merismopedia sp.</i>	Cell/m ³	-	5000	-
2	<i>Spirulina sp.</i>	Cell/m ³	-	1250	-
3	<i>Trichospermum sp.</i>	Cell/m ³	1250	5000	-
DINOPHYCEAE					
1	<i>Ceratium sp.</i>	Cell/m ³	6250	-	-
2	<i>Pardinium sp.</i>	Cell/m ³	1250	-	-
EUGLENOPHYCEAE					
1	<i>Euglena sp.</i>	Cell/m ³	-	1250	2500
MEDIOPHYCEAE					
1	<i>Bacteriastrium sp.</i>	Cell/m ³	2500	3750	3750
2	<i>Biddulphia sp.</i>	Cell/m ³	12500	2500	-
3	<i>Chaetoceros sp.</i>	Cell/m ³	356250	-	-
MEDIOPHYCEAE					
1	<i>Chaetoceros sp.</i>	Cell/m ³	-	-	-
NOCTILUCOPHYCEAE					
1	<i>Noctiluca sp.</i>	Cell/m ³	-	-	-
TREBOUXIOPHYCEAE					
1	<i>Chlorella sp.</i>	Cell/m ³	-	3750	-



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV192964-1	EV192964-2	EV192964-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			18-Nov-19	18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water	Surface Water
No.	Test Description	Units	Results	Results	Results
ZYGNEMATOPHYCEAE					
1	<i>Spizogira</i> sp.	Cell/m ³	-	15000	-
2	<i>Mougeotia</i> sp.	Cell/m ³	-	-	-
Total Taxa (s)			14	17	15
Abundance		Cell/m ³	467500	1103750	320000
Diversity Index			1.08	0.61	1.80
Equitability Index			0.41	0.22	0.70
Dominance Index			0.58	0.79	0.23
2. ZOOPLANKTON					
BRANCHIOPODA					
1	<i>Moina</i> sp.	Ind/m ³	20000	-	3750
COPEPODA					
1	<i>Acartia</i> sp.	Ind/m ³	40000	17500	5000
2	<i>Oithona</i> sp.	Ind/m ³	51250	7500	10000
3	<i>Temora</i> sp.	Ind/m ³	56250	15000	23750
EUROTATORIA					
1	<i>Asplanchna</i> sp.	Ind/m ³	-	-	-
2	<i>Brachionus</i> sp.	Ind/m ³	1250	2500	-
3	<i>Lecane</i> sp.	Ind/m ³	1250	-	-
4	<i>Monocystis</i> sp.	Ind/m ³	1250	-	-
5	<i>Notholca</i> sp.	Ind/m ³	-	-	-
6	<i>Poliarthra</i> sp.	Ind/m ³	-	1250	-
GLOBOTHALAMEA					
1	<i>Globigedina</i> sp.		1250	-	2500
2	<i>Globotholax</i> sp.		1250	1250	-
OLIGOTRICHEA					
1	<i>Codanellopsis</i> sp.	Ind/m ³	-	1250	-
2	<i>Tintinnopsis</i> sp.	Ind/m ³	-	-	1250



Job Number : EV192954
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water& Sediment Analysis
 Customer Ref : 7987.r5IUS-EV/I/2020

Laboratory Sample I.D :			EV192954-1	EV192954-2	EV192954-3
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			18-Nov-19	18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water	Surface Water
No.	Test Description	Units	Results	Results	Results
	OLIGOHYMENOPHOREA				
1	Vorticella sp.	Ind/m ³	-	-	-
	TUBULINEA				
1	Arcella sp.	Ind/m ³	2500	-	-
2	Centropyxis sp.	Ind/m ³	-	2500	1250
Total Taxa (s)			10	8	7
Abundance		Ind/m ³	176250	46750	47500
Diversity Index			1.54	1.60	1.46
Equitability Index			0.67	0.77	0.75
Dominance Index			0.25	0.25	0.32

Note: Refer to QA/QC -- Accuracy page for list of analytical methods used



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water& Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/II/2020

Laboratory Sample I.D :			EV192964-4	EV192964-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water
No.	Test Description	Units	Results	Results
Physical Tests				
1	Color	Pt/Co	6	6
2	pH ¹⁾	S.U.	8.40	7.54
3	Temperature ¹⁾	°C	27.3	29.2
4	Total Dissolved Solids, TDS	mg/L	268	7180
5	Total Suspended Solids, TSS	mg/L	7	7
6	Turbidity ¹⁾	NTU	1.3	1.7
Anions				
1	Chloride, Cl ⁻	mg/L	10.6	3110
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.03	0.22
4	Sulphate, SO ₄ ²⁻	mg/L	5	410
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002
Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.105	0.483
3	Nitrite, NO ₂ -N	mg/L	<0.001	0.002
4	Total Phosphorus as P	mg/L	0.464	0.476
Dissolved Metals				
1	Arsenic, As	mg/L	0.0015	0.0013
2	Boron, B	mg/L	0.03	0.73
3	Cadmium, Cd	mg/L	0.0036	0.0128
4	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002
5	Cobalt, Co	mg/L	<0.001	<0.001
6	Copper, Cu	mg/L	<0.001	<0.001
7	Iron, Fe	mg/L	<0.005	<0.005
8	Lead, Pb	mg/L	<0.001	<0.001
9	Manganese, Mn	mg/L	<0.001	0.011
10	Mercury, Hg	mg/L	<0.00005	<0.00005
11	Selenium, Se	mg/L	<0.0005	<0.0005
12	Zinc, Zn	mg/L	<0.005	<0.005



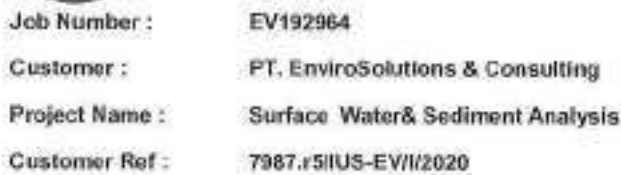
Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/US-EV/2020

Laboratory Sample I.D :			EV192964-4	EV192964-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water
No.	Test Description	Units	Results	Results
Microbiology				
1	Total Coliforms ¹⁾⁺	CFU/100ml	30800	2250
2	Faecal Coliforms ¹⁾⁺	CFU/100ml	17900	280
Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	17	17
2	Biochemical Oxygen Demand, BOD ₅	mg/L	3	3
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁾	mg/L	4.30	3.90
5	Oil & Grease	mg/L	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01
7	Total Phenols	mg/L	<0.001	<0.001
PLANKTON***				
1. PHYTOPLANKTON				
BACILLARIOPHYCEAE				
1	<i>Amphiprora</i> sp.	Cell/m ³	-	2500
2	<i>Bacillaria</i> sp.	Cell/m ³	2251250	90000
3	<i>Cymbella</i> sp.	Cell/m ³	7500	2500
4	<i>Fragilaria</i> sp.	Cell/m ³	7500	7500
5	<i>Frustulia</i> sp.	Cell/m ³	8750	-
6	<i>Gomphonema</i> sp.	Cell/m ³	-	-
7	<i>Navicula</i> sp.	Cell/m ³	20000	12500
8	<i>Nitzschia</i> sp.	Cell/m ³	25000	23750
9	<i>Pinnularia</i> sp.	Cell/m ³	-	-
10	<i>Pleurosigma</i> sp.	Cell/m ³	5000	1250
11	<i>Synedra</i> sp.	Cell/m ³	-	-
CHLOROPHYCEAE				
1	<i>Ankistrodesmus</i> sp.	Cell/m ³	2500	2500
2	<i>Tetradion</i> sp.	Cell/m ³	1250	1250



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r51US-EV/2020

Laboratory Sample I.D :			EV192964-4	EV192964-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water
No.	Test Description	Units	Results	Results
COSCONODISCOPHYCEAE				
1	<i>Coscinodiscus</i> sp.	Cell/m ³	10000	3750
2	<i>Melosira</i> sp.	Cell/m ³	23750	-
3	<i>Rhizosolenia</i> sp.	Cell/m ³	-	3750
4	<i>Triceratium</i> sp.	Cell/m ³	-	-
CYANOPHYCEAE				
1	<i>Merismopedia</i> sp.	Cell/m ³	17500	-
2	<i>Spirulina</i> sp.	Cell/m ³	-	2500
3	<i>Trichodesmium</i> sp.	Cell/m ³	-	-
DINOPHYCEAE				
1	<i>Ceratium</i> sp.	Cell/m ³	-	1250
2	<i>Peridinium</i> sp.	Cell/m ³	-	-
EUGLENOPHYCEAE				
1	<i>Euglena</i> sp.	Cell/m ³	-	-
MEDIOPHYCEAE				
1	<i>Bacteriastrium</i> sp.	Cell/m ³	-	-
2	<i>Biddulphia</i> sp.	Cell/m ³	-	-
3	<i>Chaetoceros</i> sp.	Cell/m ³	-	-
MEDIOPHYCEAE				
1	<i>Chaetoceros</i> sp.	Cell/m ³	-	5000
NOCTILUCOPHYCEAE				
1	<i>Noctiluca</i> sp.	Cell/m ³	1250	-
TREBOUXIOPHYCEAE				
1	<i>Chlorella</i> sp.	Cell/m ³	-	-



Customer Ref : 7987.r5/IUS-EV/II/2020

Laboratory Sample I.D :			EV192964-4	EV192964-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water
No.	Test Description	Units	Results	Results
	ZYGNEMATOPHYCEAE			
1	<i>Spirogyra</i> sp.	Cell/m ³	-	-
2	<i>Mougeotia</i> sp.	Cell/m ³	58750	10000
	Total Taxa (s)		14	15
	Abundance	Cell/m ³	2440000	170000
	Diversity Index		0.44	1.74
	Equitability Index		0.17	0.64
	Dominance Index		0.85	0.31
	2. ZOOPLANKTON			
	BRANCHIOPODA			
1	<i>Moina</i> sp.	Ind/m ³	-	1250
	COPEPODA			
1	<i>Acartia</i> sp.	Ind/m ³	2500	-
2	<i>Oithona</i> sp.	Ind/m ³	3750	1250
3	<i>Tropocyclops</i> sp.	Ind/m ³	-	1250
	EUROTATORIA			
1	<i>Asplanchna</i> sp.	Ind/m ³	5000	2500
2	<i>Brachionus</i> sp.	Ind/m ³	-	-
3	<i>Lecane</i> sp.	Ind/m ³	1250	-
4	<i>Monostyla</i> sp.	Ind/m ³	-	-
5	<i>Nannochloris</i> sp.	Ind/m ³	2500	2500
6	<i>Polyarthra</i> sp.	Ind/m ³	-	-
	GLOBOTHALAMEA			
1	<i>Glabidocera</i> sp.		1250	-
2	<i>Glabidocera</i> sp.		1250	-
	OLIGOTRICHEA			
1	<i>Codonellopsis</i> sp.	Ind/m ³	-	-
2	<i>Tintinnopsis</i> sp.	Ind/m ³	-	-



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/II/2020

Laboratory Sample I.D :			EV192964-4	EV192964-5
Customer Sample I.D :			SWH-5	SWH-6
Date Sampled :			18-Nov-19	18-Nov-19
Sample Matrix :			Surface Water	Surface Water
No.	Test Description	Units	Results	Results
OLIGOHYMENOPHOREA				
1	<i>Vorticella</i> sp.	ind/m ³	2500	-
TUBULINEA				
1	<i>Arcella</i> sp.	ind/m ³	-	1250
2	<i>Centropyxis</i> sp.	ind/m ³	-	-
Total Taxa (s)			8	6
Abundance		ind/m ³	20000	10000
Diversity Index			1.96	1.73
Equitability Index			0.94	0.87
Dominance Index			0.16	0.19

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV192964-6	EV192964-7	EV192964-8
Customer Sample I.D :			SWH-1	SWH-2	SWH-4
Date Sampled :			18-Nov-19	18-Nov-19	18-Nov-19
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
Total Metals					
1	Antimony, Sb	mg/dry kg	0.5	0.6	0.2
2	Arsenic, As	mg/dry kg	7.2	11.0	2.4
3	Cadmium, Cd	mg/dry kg	0.68	0.70	0.20
4	Chromium, Cr	mg/dry kg	38.5	37.5	6.4
5	Copper, Cu	mg/dry kg	31.2	56.0	9.3
6	Lead, Pb	mg/dry kg	14.6	16.7	1.1
7	Mercury, Hg	mg/dry kg	0.015	0.035	<0.001
8	Nickel, Ni	mg/dry kg	35.5	45.0	8.2
9	Silver, Ag	mg/dry kg	0.03	0.08	<0.02
10	Zinc, Zn	mg/dry kg	41	74	17
BENTHOS**					
GASTROPODA					
1	Melanoides sp.	Ind/m ²	-	72	-
2	Neritodryas sp.	Ind/m ²	-	-	168
3	Clithon sp.	Ind/m ²	-	-	24
4	Stelionelasma sp.	Ind/m ²	-	-	-
INSECTA					
1	Chironomus sp.	Ind/m ²	96	-	-
POLYCHAETA					
1	Morphyra sp.	Ind/m ²	-	-	48
2	Namaterella sp.	Ind/m ²	-	-	96
Total Taxa (s)			1	1	4
Abundance		Ind/m ²	96	72	336
Diversity Index			0.00	0.00	1.69
Equitability Index			0.00	0.00	0.84
Dominance Index			1.00	1.00	0.36

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water& Sediment Analysis
 Customer Ref : 7987.r5IUS-EV/I/2020

Laboratory Sample I.D :			EV192964-9
Customer Sample I.D :			SWH-5
Date Sampled :			18-Nov-19
Sample Matrix :			Sediment
No.	Test Description	Units	Results
Total Metals			
1	Antimony, Sb	mg/dry kg	0.3
2	Arsenic, As	mg/dry kg	10.8
3	Cadmium, Cd	mg/dry kg	0.24
4	Chromium, Cr	mg/dry kg	16.9
5	Copper, Cu	mg/dry kg	56.1
6	Lead, Pb	mg/dry kg	24.3
7	Mercury, Hg	mg/dry kg	0.020
8	Nickel, Ni	mg/dry kg	41.8
9	Silver, Ag	mg/dry kg	0.02
10	Zinc, Zn	mg/dry kg	64
BENTHOS***			
GASTROPODA			
1	Melanoides sp.	Ind/m ²	-
2	Nonodryas sp.	Ind/m ²	-
3	Cithon sp.	Ind/m ²	-
4	Stolomelania sp.	Ind/m ²	192
INSECTA			
1	Chironomus sp.	Ind/m ²	-
POLYCHAETA			
1	Morphyra sp.	Ind/m ²	-
2	Nemertea sp.	Ind/m ²	-
Total Taxa (s)			1
Abundance		Ind/m ²	192
Diversity Index			0.00
Equitability Index			0.00
Dominance Index			1.00

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV192964-5	EV192964-5 Duplicate	
	Physical Tests				
1	Color	Pl/Co	6	6	0.0%
2	pH ¹⁾	S.U.	7.54	-	-
3	Temperature ¹⁾	°C	29.2	-	-
4	Total Dissolved Solids, TDS	mg/L	7180	7210	0.4%
5	Total Suspended Solids, TSS	mg/L	7	8	13.3%
6	Turbidity ¹⁾	NTU	1.7	-	-
	Anions				
1	Chloride, Cl ⁻	mg/L	3110	3130	0.5%
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
3	Fluoride, F ⁻	mg/L	0.22	0.23	1.3%
4	Sulphate, SO ₄ ²⁻	mg/L	410	407	0.7%
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002	-
	Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.483	0.483	0.0%
3	Nitrite, NO ₂ -N	mg/L	0.002	0.002	0.0%
4	Total Phosphorus as P	mg/L	0.476	0.480	0.9%
	Dissolved Metals				
1	Arsenic, As	mg/L	0.0013	0.0011	10.1%
2	Boron, B	mg/L	0.73	0.74	1.2%
3	Cadmium, Cd	mg/L	0.0128	0.0131	3.0%
4	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
5	Cobalt, Co	mg/L	<0.001	<0.001	-
6	Copper, Cu	mg/L	<0.001	<0.001	-
7	Iron, Fe	mg/L	<0.005	<0.005	-
8	Lead, Pb	mg/L	<0.001	<0.001	-
9	Manganese, Mn	mg/L	0.011	0.012	5.4%
10	Mercury, Hg	mg/L	<0.00005	<0.00005	-
11	Selenium, Se	mg/L	<0.0005	<0.0005	-
12	Zinc, Zn	mg/L	<0.005	<0.005	-



QUALITY CONTROL - PRECISION

Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/US-EV/I/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV192964-5	EV192964-5 Duplicate	
	Microbiology				
1	Total Coliforms ^{11**}	CFU/100ml	2250	2200	2.2%
2	Faecal Coliforms ^{11**}	CFU/100ml	280	350	22.2%
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	17	19	11.1%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	3	3	0.0%
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	-
4	Dissolved Oxygen, DO ¹¹	mg/L	3.90	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Phenols	mg/L	<0.001	<0.001	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL).



QUALITY CONTROL - PRECISION

Job Number : EV192964
Customer : PT. EnviroSolutions & Consulting
Project Name : Surface Water& Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV192964-8	EV192964-9 Duplicate	
	Total Metals				
1	Antimony, Sb	mg/dry kg	0.3	0.3	0.0%
2	Arsenic, As	mg/dry kg	10.8	10.2	5.7%
3	Cadmium, Cd	mg/dry kg	0.24	0.23	4.3%
4	Chromium, Cr	mg/dry kg	16.9	15.3	9.9%
5	Copper, Cu	mg/dry kg	56.1	53.4	4.9%
6	Lead, Pb	mg/dry kg	24.3	23.3	4.2%
7	Mercury, Hg	mg/dry kg	0.020	0.018	10.5%
8	Nickel, Ni	mg/dry kg	41.8	38.8	7.4%
9	Silver, Ag	mg/dry kg	0.02	0.02	0.0%
10	Zinc, Zn	mg/dry kg	64	65	1.6%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Color	APHA 2120 C	Pl/Co	5	10	11	106%
2	pH ^{II}	APHA 4500-H+ B	S.U.	-	-	-	-
3	Total Dissolved Solids, TDS	APHA 2540 C	mg/L	1	279	270	97%
4	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	25.4	24	95%
	Anions						
1	Chloride, Cl ⁻	APHA 4110 B	mg/L	0.5	11.3	12.3	109%
2	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.472	0.436	92%
3	Fluoride, F ⁻	APHA 4500F C	mg/L	0.02	2.94	2.90	99%
4	Sulphate, SO ₄ ²⁻	APHA 4110 B	mg/L	2	6.95	7	103%
5	Sulphide as H ₂ S	APHA 4110 B	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH3 D	mg/L	0.02	16.4	16.1	98%
2	Nitrate, NO ₃ -N	APHA 4110 B	mg/L	0.005	14.9	14.3	96%
3	Nitrite, NO ₂ -N	APHA 4110 B	mg/L	0.001	2.90	3.03	104%
4	Total Phosphorus as P	APHA 4500P E	mg/L	0.005	8.32	8.26	99%



QUALITY CONTROL - ACCURACY

Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.109	98%
2	Boron, B	APHA 3125 B	mg/L	0.01	1.39	1.53	110%
3	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.389	0.379	97%
4	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.561	0.572	102%
5	Cobalt, Co	APHA 3125 B	mg/L	0.001	0.262	0.269	103%
6	Copper, Cu	APHA 3125 B	mg/L	0.001	0.476	0.482	101%
7	Iron, Fe	APHA 3125 B	mg/L	0.005	1.14	1.16	102%
8	Lead, Pb	APHA 3125 B	mg/L	0.001	0.786	0.801	102%
9	Manganese, Mn	APHA 3125 B	mg/L	0.001	1.42	1.46	103%
10	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0126	95%
11	Selenium, Se	APHA 3125 B	mg/L	0.0005	0.259	0.253	98%
12	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.609	0.631	104%
	Microbiology						
1	Total Coliforms	APHA 9222B	CFU/100ml	1	-	-	-
2	Faecal Coliforms	APHA 9222D	CFU/100ml	1	-	-	-
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	142	97%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	88	97%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	1.00	0.99	99%
4	Oil & Grease	APHA 5520 B	mg/L	1	106	104	98%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.20	90%
6	Total Phenols	USEPA 9065	mg/L	0.001	4.95	5.24	106%



QUALITY CONTROL - ACCURACY

Job Number : EV192964
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Surface Water & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/II/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Total Metals						
1	Antimony, Sb	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	-	-	-
2	Arsenic, As	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	221	207	94%
3	Cadmium, Cd	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	126	128	101%
4	Chromium, Cr	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	74.7	77.6	104%
5	Copper, Cu	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	83.3	78.2	94%
6	Lead, Pb	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	79.9	77.9	97%
7	Mercury, Hg	USEPA 3050B/USEPA245.7	mg/dry kg	0.001	13.8	13.3	97%
8	Nickel, Ni	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	178	165	93%
9	Silver, Ag	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	59.6	60.3	101%
10	Zinc, Zn	USEPA 3050B/APHA 3125B	mg/dry kg	1	338	303	90%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-6

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV192990
Customer Ref : 7987.r5/IUS-EV/I/2020
Project Name : Ground Water Analysis

Number of samples : 4

Date received : 23-Nov-2019
Date reported : 18-Dec-2019

Approved Signature for:


for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV192990
Customer : PT. EnviroSolutions & Consulting
Project Name : Ground Water Analysis
Customer Ref : 7987.r5/US-EV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV192990-1	GWQ-1	Ground Water	20-Nov-19	08:20	23-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 59' 54.9" E : 131° 13' 50.8"
2	EV192990-2	GWQ-2	Ground Water	20-Nov-19	08:51	23-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 00' 12.3" E : 131° 13' 52.8"
3	EV192990-3	GWQ-3	Ground Water	20-Nov-19	09:58	23-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 59' 58.0" E : 131° 14' 16.9"
4	EV192990-4	GWQ-4	Ground Water	20-Nov-19	10:22	23-Nov-19	Fahru Roji, Husni, Hilman	S : 07° 57' 20.4" E : 131° 15' 21.8"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV192990
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ground Water Analysis
 Customer Ref : 7987.r5IUS-EV/I/2020

Laboratory Sample I.D :			EV192990-1	EV192990-2	EV192990-3
Customer Sample I.D :			GWQ-1	GWQ-2	GWQ-3
Date Sampled :			20-Nov-19	20-Nov-19	20-Nov-19
Sample Matrix :			Ground Water	Ground Water	Ground Water
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Color	Pt/Co	<5	35	<5
2	pH ¹⁾	S.U.	7.51	7.48	7.47
3	Temperature ¹⁾	°C	26.9	26.6	27.6
4	Total Dissolved Solids, TDS	mg/L	656	3010	652
5	Total Suspended Solids, TSS	mg/L	5	81	3
6	Turbidity ¹⁾	NTU	1.3	23.6	2.3
Anions					
1	Chloride, Cl ⁻	mg/L	124	1120	163
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	<0.005
3	Fluoride, F ⁻	mg/L	0.14	0.25	0.07
4	Sulphate, SO ₄ ²⁻	mg/L	30	187	31
5	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.107	0.098	0.456
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001	<0.001
4	Total Nitrogen as N	mg/L	0.23	0.81	0.61
5	Total Phosphorus as P	mg/L	0.039	0.341	0.060
Dissolved Metals					
1	Arsenic, As	mg/L	0.0022	0.0013	0.0006
2	Barium, Ba	mg/L	0.11	0.18	<0.01
3	Boron, B	mg/L	0.08	0.22	0.07
4	Cadmium, Cd	mg/L	0.0048	0.0441	0.0005
5	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
6	Cobalt, Co	mg/L	<0.001	<0.001	<0.001
7	Copper, Cu	mg/L	<0.001	<0.001	<0.001
8	Iron, Fe	mg/L	0.127	0.077	<0.005
9	Lead, Pb	mg/L	<0.001	<0.001	<0.001
10	Manganese, Mn	mg/L	0.188	0.056	<0.001
11	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
12	Selenium, Se	mg/L	<0.0005	<0.0005	0.0013
13	Zinc, Zn	mg/L	<0.005	0.009	<0.005



Job Number : EV192990
Customer : PT. EnviroSolutions & Consulting
Project Name : Ground Water Analysis
Customer Ref : 7987.r5/US-EV/1/2020

Laboratory Sample I.D :			EV192990-1	EV192990-2	EV192990-3
Customer Sample I.D :			GWQ-1	GWQ-2	GWQ-3
Date Sampled :			20-Nov-19	20-Nov-19	20-Nov-19
Sample Matrix :			Ground Water	Ground Water	Ground Water
No.	Test Description	Units	Results	Results	Results
Microbiology					
1	Total Coliforms ¹¹⁺²	CFU/100ml	4250	18000	33000
2	Faecal Coliforms ¹¹⁺²	CFU/100ml	350	10600	2850
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	40	62	35
2	Biochemical Oxygen Demand, BOD ₅	mg/L	6	14	7
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ¹⁰	mg/L	3.40	3.20	4.00
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	15.9	24.9	13.9
8	Total Phenols	mg/L	<0.001	<0.001	<0.001

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV192990
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ground Water Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV192990-4
Customer Sample I.D :			GWQ-4
Date Sampled :			20-Nov-19
Sample Matrix :			Ground Water
No.	Test Description	Units	Results
Physical Tests			
1	Color	Pt/Co	<5
2	pH ⁽¹⁾	S.U.	7.54
3	Temperature ⁽¹⁾	°C	26.9
4	Total Dissolved Solids, TDS	mg/L	376
5	Total Suspended Solids, TSS	mg/L	5
6	Turbidity ⁽¹⁾	NTU	0.7
Anions			
1	Chloride, Cl ⁻	mg/L	28.0
2	Cyanide (Total), CN ⁻	mg/L	<0.005
3	Fluoride, F ⁻	mg/L	0.10
4	Sulphate, SO ₄ ²⁻	mg/L	13
5	Sulphide as H ₂ S	mg/L	<0.002
Nutrients			
1	Total Ammonia, NH ₃ -N	mg/L	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.166
3	Nitrite, NO ₂ -N	mg/L	<0.001
4	Total Nitrogen as N	mg/L	0.31
5	Total Phosphorus as P	mg/L	0.076
Dissolved Metals			
1	Arsenic, As	mg/L	0.0005
2	Barium, Ba	mg/L	0.04
3	Boron, B	mg/L	0.04
4	Cadmium, Cd	mg/L	0.0032
5	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002
6	Cobalt, Co	mg/L	<0.001
7	Copper, Cu	mg/L	<0.001
8	Iron, Fe	mg/L	<0.005
9	Lead, Pb	mg/L	<0.001
10	Manganese, Mn	mg/L	0.006
11	Mercury, Hg	mg/L	<0.00005
12	Selenium, Se	mg/L	0.0017
13	Zinc, Zn	mg/L	<0.005



Job Number : EV192990
Customer : PT. EnviroSolutions & Consulting
Project Name : Ground Water Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV192990-4
Customer Sample I.D :			GWQ-4
Date Sampled :			20-Nov-19
Sample Matrix :			Ground Water
No.	Test Description	Units	Results
Microbiology			
1	Total Coliforms ^{1/++}	CFU/100ml	600
2	Faecal Coliforms ^{1/++}	CFU/100ml	ND
Miscellaneous			
1	Chemical Oxygen Demand, COD	mg/L	34
2	Biochemical Oxygen Demand, BOD ₅	mg/L	6
3	Chlorine (Free), Cl ₂	mg/L	<0.01
4	Dissolved Oxygen, DO ^o	mg/L	3.70
5	Oil & Grease	mg/L	<1
6	Surfactants, MBAS	mg/L	<0.01
7	Total Organic Carbon, TOC	mg/L	13.7
8	Total Phenols	mg/L	<0.001

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV192990
Customer : PT. EnviroSolutions & Consulting
Project Name : Ground Water Analysis
Customer Ref : 7987.r5/US-EV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV192990-1	EV192990-1 Duplicate	
	Microbiology				
1	Total Coliforms ^{11ex}	CFU/100ml	4250	NA	-
2	Faecal Coliforms ^{11ex}	CFU/100ml	350	450	25.0%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL).



QUALITY CONTROL - PRECISION

Job Number : EV192990
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ground Water Analysis
 Customer Ref : 7987.r5/US-EV/1/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV192990-4	EV192990-4 Duplicate	
	Physical Tests				
1	Color	Pt/Co	<5	<5	-
2	pH ⁽¹⁾	S.U.	7.54	-	-
3	Temperature ⁽¹⁾	°C	28.9	-	-
4	Total Dissolved Solids, TDS	mg/L	376	380	1.1%
5	Total Suspended Solids, TSS	mg/L	5	5	0.0%
6	Turbidity ⁽¹⁾	NTU	0.7	-	-
	Anions				
1	Chloride, Cl ⁻	mg/L	28.0	28.2	0.5%
2	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
3	Fluoride, F ⁻	mg/L	0.10	0.10	0.0%
4	Sulphate, SO ₄ ²⁻	mg/L	13	13	0.0%
5	Sulphide as H ₂ S	mg/L	<0.002	-	-
	Nutrients				
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.166	0.167	0.3%
3	Nitrite, NO ₂ -N	mg/L	<0.001	<0.001	-
4	Total Nitrogen as N	mg/L	0.31	0.31	1.3%
5	Total Phosphorus as P	mg/L	0.076	0.073	4.0%
	Dissolved Metals				
1	Arsenic, As	mg/L	0.0006	0.0008	0.0%
2	Barium, Ba	mg/L	0.04	0.04	0.0%
3	Boron, B	mg/L	0.04	0.04	0.0%
4	Cadmium, Cd	mg/L	0.0032	0.0030	6.1%
5	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
6	Cobalt, Co	mg/L	<0.001	<0.001	-
7	Copper, Cu	mg/L	<0.001	<0.001	-
8	Iron, Fe	mg/L	<0.005	<0.005	-
9	Lead, Pb	mg/L	<0.001	<0.001	-
10	Manganese, Mn	mg/L	0.006	0.006	0.0%
11	Mercury, Hg	mg/L	<0.00005	<0.00005	-
12	Selenium, Se	mg/L	0.0017	0.0016	6.4%
13	Zinc, Zn	mg/L	<0.005	<0.005	-



QUALITY CONTROL - PRECISION

Job Number : EV192990
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ground Water Analysis
 Customer Ref : 7987.r5/US-EV192990

No	Description	Units	Laboratory Replicate		% RPD
			EV192990-4	EV192990-4 Duplicate	
	Microbiology				
1	Total Coliforms ¹⁰⁺²	CFU/100ml	600	-	-
2	Faecal Coliforms ¹⁰⁺²	CFU/100ml	ND	-	-
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	34	38	5.7%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	6	7	15.4%
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	-
4	Dissolved Oxygen, DO ¹¹	mg/L	3.70	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Organic Carbon, TOC	mg/L	13.7	13.2	3.7%
8	Total Phenols	mg/L	<0.001	<0.001	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL).



QUALITY CONTROL - ACCURACY

Job Number : EV192990
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ground Water Analysis
 Customer Ref : 7987.r5/US-EV/II/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	Color	APHA 2120 C	Pt/Co	5	10	11	106%
2	Temperature ¹³	APHA 2550 B	°C	-	-	-	-
3	Total Dissolved Solids, TDS	APHA 2540 C	mg/L	1	279	270	97%
4	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	25.4	26	102%
	Anions						
1	Chloride, Cl ⁻	APHA 4110 B	mg/L	0.5	11.3	11.1	99%
2	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.472	0.436	92%
3	Fluoride, F ⁻	APHA 4500F C	mg/L	0.02	1	0.94	94%
4	Sulphate, SO ₄ ²⁻	APHA 4110 B	mg/L	2	6.95	7	108%
5	Sulphide as H ₂ S	APHA 4110 B	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH3 D	mg/L	0.02	17.2	16.4	96%
2	Nitrate, NO ₃ -N	APHA 4110 B	mg/L	0.005	14.9	15.3	102%
3	Nitrite, NO ₂ -N	APHA 4110 B	mg/L	0.001	2.9	2.76	95%
4	Total Phosphorus as P	APHA 4500P E	mg/L	0.005	8.32	8.32	100%
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.105	96%
2	Barium, Ba	APHA 3125 B	mg/L	0.01	1.61	1.67	92%
3	Boron, B	APHA 3125 B	mg/L	0.01	1.39	1.27	92%
4	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.389	0.373	96%
5	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.561	0.561	100%
6	Cobalt, Co	APHA 3125 B	mg/L	0.001	0.262	0.285	109%
7	Copper, Cu	APHA 3125 B	mg/L	0.001	0.476	0.498	106%
8	Iron, Fe	APHA 3125 B	mg/L	0.005	1.14	1.16	102%
9	Lead, Pb	APHA 3125 B	mg/L	0.001	0.786	0.780	99%



QUALITY CONTROL - ACCURACY

Job Number : EV192990
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Ground Water Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
10	Manganese, Mn	APHA 3125 B	mg/L	0.001	1.42	1.46	103%
11	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0123	93%
12	Selenium, Se	APHA 3125 B	mg/L	0.0005	0.259	0.242	93%
13	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.609	0.622	102%
Microbiology							
1	Total Coliforms TM	APHA 9222B	CFU/100ml	1	-	-	-
2	Faecal Coliforms TM	APHA 9222D	CFU/100ml	1	-	-	-
Miscellaneous							
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	142	97%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	90.5	88	97%
3	Oil & Grease	APHA 5520 B	mg/L	1	106	104	98%
4	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.23	105%
5	Total Organic Carbon, TOC	APHA 5310 C	mg/L	0.5	58.1	57.6	99%
6	Total Phenols	USEPA 8065	mg/L	0.001	4.95	4.46	90%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-6

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193026
Customer Ref : 7987.r5/IUS-EV/I/2020
Project Name : Seawater & Sediment Analysis

Number of samples : 8

Date received : 28-Nov-2019

Date reported : 26-Dec-2019

Approved Signature for:



for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/US-EV/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV193026-1	MWB 16	Seawater	25-Nov-19	10:49	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 19' 59.7" S : 08° 02' 28.8"
2	EV193026-2	MBW 18	Seawater	25-Nov-19	12:17	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 38.3" S : 08° 04' 30.5"
3	EV193026-3	MWB 17	Seawater	25-Nov-19	12:32	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 37.9" S : 08° 03' 36.9"
4	EV193026-4	MWB 14	Seawater	25-Nov-19	13:19	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 08.8" S : 08° 02' 38.8"
5	EV193026-5	MWB 16	Sediment	25-Nov-19	10:49	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 19' 59.7" S : 08° 04' 30.5"
6	EV193026-6	MWB 18	Sediment	25-Nov-19	12:17	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 38.3" S : 08° 02' 28.8"
7	EV193026-7	MWB 17	Sediment	25-Nov-19	12:32	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 37.9" S : 08° 03' 36.9"
8	EV193026-8	MWB 14	Sediment	25-Nov-19	13:19	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 08.8" S : 08° 02' 38.8"

Notes:

- NA = Not Analysed
- ND= Not Detected
- IS = Insufficient Sample
- ** = Non Accredited Test
- *** = Subcontracted Test
- 1) = Field Measurement
- 2) = Field Measurement by Customer
- 3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
- 4) = Total PAHs defined as 16 PAH compounds (list available upon request)
- 5) = Total PCBs defined as 20 PCB congeners (list available upon request)
- SNR= Sample Not Received



Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-1	EV193026-2	EV193026-3
Customer Sample I.D :			MWB 16	MBW 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Physical Tests					
1	Brightness ¹⁾	m	17	15	13
2	Floating Matter ¹⁾	-	None	None	None
3	Oil Film ¹⁾	-	None	None	None
4	pH ²⁾	S.U.	8.14	8.21	8.16
5	Salinity ¹⁾	‰	29.9	33.2	33.8
6	Temperature ¹⁾	°C	30.9	30.9	30.5
7	Total Suspended Solids, TSS	mg/l	3	3	2
8	Turbidity ¹⁾	NTU	<0.5	<0.5	<0.5
Anions					
1	Cyanide (Total), CN	mg/L	<0.005	<0.005	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002	<0.002	<0.002
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.025	0.012	0.010
3	Total Phosphorus as PO ₄	mg/L	0.089	0.073	0.076
Dissolved Metals					
1	Arsenic, As	mg/L	0.0024	0.0024	0.0019
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	<0.002
4	Copper, Cu	mg/L	<0.001	<0.001	<0.001
5	Lead, Pb	mg/L	<0.001	<0.001	<0.001
6	Mercury, Hg	mg/L	<0.00005	<0.00005	<0.00005
7	Nickel, Ni	mg/L	<0.001	<0.001	<0.001
8	Zinc, Zn	mg/L	<0.005	<0.005	<0.005
Microbiology					
1	Total Coliforms ^{1/4)}	CFU/100ml	ND	ND	ND
2	Faecal Coliforms	CFU/100ml	ND	ND	ND



Job Number : EV103026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV103026-1	EV103026-2	EV103026-3
Customer Sample I.D :			MWB 16	MBW 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
Miscellaneous					
1	Chemical Oxygen Demand, COD	mg/L	7	7	7
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	<0.01
4	Dissolved Oxygen, DO ^{3l}	mg/L	4.40	4.10	4.00
5	Oil & Grease	mg/L	<1	<1	<1
6	Surfactants, MBAS	mg/L	<0.01	<0.01	<0.01
7	Total Organic Carbon, TOC	mg/L	3.8	2.6	2.5
8	Total Phenols	mg/L	<0.001	<0.001	<0.001
Organics Tests					
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴⁾	µg/L	<0.1	<0.1	<0.1
BTEX					
1	Benzene	µg/L	<1	<1	<1
2	Toluene	µg/L	<1	<1	<1
3	Ethyl Benzene	µg/L	<1	<1	<1
4	Xylenes Total	µg/L	<3	<3	<3

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV193026
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026.4
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Seawater
No.	Test Description	Units	Results
Physical Tests			
1	Brightness ¹⁾	m	12
2	Floating Matter ¹⁾	-	Present
3	Oil Film ¹⁾	-	None
4	pH ²⁾	S.U.	8.18
5	Salinity ³⁾	‰	33.6
6	Temperature ¹⁾	°C	30.4
7	Total Suspended Solids, TSS	mg/L	3
8	Turbidity ¹⁾	NTU	<0.5
Anions			
1	Cyanide (Total), CN ⁻	mg/L	<0.005
2	Sulphide as H ₂ S	mg/L	<0.002
Nutrients			
1	Total Ammonia, NH ₃ -N	mg/L	<0.02
2	Nitrate, NO ₃ -N	mg/L	0.014
3	Total Phosphorus as PO ₄	mg/L	0.068
Dissolved Metals			
1	Arsenic, As	mg/L	0.0018
2	Cadmium, Cd	mg/L	<0.0001
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002
4	Copper, Cu	mg/L	<0.001
5	Lead, Pb	mg/L	<0.001
6	Mercury, Hg	mg/L	<0.00005
7	Nickel, Ni	mg/L	<0.001
8	Zinc, Zn	mg/L	<0.005
Microbiology			
1	Total Coliforms ¹⁾	CFU/100ml	ND
2	Faecal Coliforms	CFU/100ml	ND



Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-4
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Seawater
No.	Test Description	Units	Results
Miscellaneous			
1	Chemical Oxygen Demand, COD	mg/L	5
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2
3	Chlorine (Free), Cl ₂	mg/L	<0.01
4	Dissolved Oxygen, DO ¹⁹	mg/L	4.00
5	Oil & Grease	mg/L	<1
6	Surfactants, MBAS	mg/L	<0.01
7	Total Organic Carbon, TOC	mg/L	1.9
8	Total Phenols	mg/L	<0.001
Organics Tests			
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴⁰	µg/L	<0.1
BTEX			
1	Benzene	µg/L	<1
2	Toluene	µg/L	<1
3	Ethyl Benzene	µg/L	<1
4	Xylenes Total	µg/L	<3

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



Job Number : EV193026
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-5	EV193026-6	EV193026-7
Customer Sample I.D :			MWB 16	MWB 16	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	<0.1
2	Arsenic, As	mg/dry kg	2.2	1.5	1.4
3	Cadmium, Cd	mg/dry kg	0.06	0.03	<0.02
4	Chromium, Cr	mg/dry kg	16.6	16.3	16.3
5	Copper, Cu	mg/dry kg	8.9	7.0	6.8
6	Lead, Pb	mg/dry kg	3.5	3.1	2.6
7	Mercury, Hg	mg/dry kg	0.019	0.016	0.016
8	Nickel, Ni	mg/dry kg	13.2	10.9	10.5
9	Silver, Ag	mg/dry kg	<0.02	<0.02	<0.02
10	Zinc, Zn	mg/dry kg	23	18	19

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



Job Number : EV193026
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-8
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	Total Metals		
1	Antimony, Sb	mg/dry kg	<0.1
2	Arsenic, As	mg/dry kg	1.5
3	Cadmium, Cd	mg/dry kg	0.05
4	Chromium, Cr	mg/dry kg	16.6
5	Copper, Cu	mg/dry kg	7.1
6	Lead, Pb	mg/dry kg	2.7
7	Mercury, Hg	mg/dry kg	0.012
8	Nickel, Ni	mg/dry kg	10.5
9	Silver, Ag	mg/dry kg	<0.02
10	Zinc, Zn	mg/dry kg	19

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - PRECISION

Job Number : EV193026
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193026-3	EV193026-3 Duplicate	
	Microbiology				
1	Total Coliforms TM	CFU/100ml	ND	ND	-
	BTEX				
1	Benzene	µg/L	<1	<1	-
2	Toluene	µg/L	<1	<1	-
3	Ethyl Benzene	µg/L	<1	<1	-
4	Xylenes Total	µg/L	<3	<3	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - PRECISION

Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/US-EV/I/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193026-4	EV193026-4 Duplicate	
Physical Tests					
1	Brightness ¹¹	m	12	-	-
2	Floating Matter ¹¹	-	Present	-	-
3	Oil Film ¹¹	-	None	-	-
4	pH ¹¹	S.U.	8.18	-	-
5	Salinity ¹¹	‰	33.6	-	-
6	Temperature ¹¹	°C	30.4	-	-
7	Total Suspended Solids, TSS	mg/L	3	3	0.0%
8	Turbidity ¹¹	NTU	<0.5	-	-
Anions					
1	Cyanide (Total), CN ⁻	mg/L	<0.005	<0.005	-
2	Sulphide as H ₂ S	mg/L	<0.002	-	-
Nutrients					
1	Total Ammonia, NH ₃ -N	mg/L	<0.02	<0.02	-
2	Nitrate, NO ₃ -N	mg/L	0.014	0.014	0.0%
3	Total Phosphorus as PO ₄	mg/L	0.068	0.070	3.1%
Dissolved Metals					
1	Arsenic, As	mg/L	0.0018	0.0018	0.0%
2	Cadmium, Cd	mg/L	<0.0001	<0.0001	-
3	Chromium Hexavalent, Cr ⁶⁺	mg/L	<0.002	<0.002	-
4	Copper, Cu	mg/L	<0.001	<0.001	-
5	Lead, Pb	mg/L	<0.001	<0.001	-
6	Mercury, Hg	mg/L	<0.00005	<0.00005	-
7	Nickel, Ni	mg/L	<0.001	<0.001	-
8	Zinc, Zn	mg/L	<0.005	<0.005	-
Microbiology					
1	Total Coliforms ¹²⁻¹⁴	CFU/100ml	ND	-	-
2	Faecal Coliforms	CFU/100ml	ND	-	-



QUALITY CONTROL - PRECISION

Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/US-EV/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193026-4	EV193026-4 Duplicate	
	Miscellaneous				
1	Chemical Oxygen Demand, COD	mg/L	5	5	0.0%
2	Biochemical Oxygen Demand, BOD ₅	mg/L	<2	<2	-
3	Chlorine (Free), Cl ₂	mg/L	<0.01	<0.01	-
4	Dissolved Oxygen, DO ⁰	mg/L	4.00	-	-
5	Oil & Grease	mg/L	<1	-	-
6	Surfactants, MBAS	mg/L	<0.01	<0.01	-
7	Total Organic Carbon, TOC	mg/L	1.9	1.8	5.4%
8	Total Phenols	mg/L	<0.001	<0.001	-
	Organics Tests				
1	Polycyclic Aromatic Hydrocarbons, PAHs Total ⁴⁾	µg/L	<0.1	-	-
	BTEX				
1	Benzene	µg/L	<1	<1	-
2	Toluene	µg/L	<1	<1	-
3	Ethyl Benzene	µg/L	<1	<1	-
4	Xylenes Total	µg/L	<3	<3	-

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - PRECISION

Job Number : EV193026
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV19/2020

No	Description	Units	Laboratory Replicate		% RPD
			EV193026-8	EV193026-8 Duplicate	
	Total Metals				
1	Antimony, Sb	mg/dry kg	<0.1	<0.1	-
2	Arsenic, As	mg/dry kg	1.5	1.6	6.5%
3	Cadmium, Cd	mg/dry kg	0.05	0.05	0.0%
4	Chromium, Cr	mg/dry kg	16.6	16.7	0.6%
5	Copper, Cu	mg/dry kg	7.1	7.0	1.4%
6	Lead, Pb	mg/dry kg	2.7	2.7	0.0%
7	Mercury, Hg	mg/dry kg	0.012	0.013	8.0%
8	Nickel, Ni	mg/dry kg	10.5	10.5	0.0%
9	Silver, Ag	mg/dry kg	<0.02	<0.02	-
10	Zinc, Zn	mg/dry kg	19	18	5.4%

The laboratory analyzes duplicate aliquots of one or more samples within each batch.

Results are used to estimate analytical precision for that matrix at that concentration.

RPDs of up to 15% are considered acceptable for many test methods (except for results which are < 10x DL)



QUALITY CONTROL - ACCURACY

Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/US-EV/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Physical Tests						
1	pH ¹¹	APHA 4500-H+ B	S.U.	-	-	-	-
2	Total Suspended Solids, TSS	APHA 2540 D	mg/L	1	32	31	97%
3	Turbidity ¹¹	APHA 2130 B	NTU	0.5	-	-	-
	Anions						
1	Cyanide (Total), CN ⁻	APHA 4500CN C,E	mg/L	0.005	0.472	0.444	94%
2	Sulphide as H ₂ S	APHA 4500-S2 G	mg/L	0.002	-	-	-
	Nutrients						
1	Total Ammonia, NH ₃ -N	APHA 4500NH3 D	mg/L	0.02	17.2	16.4	96%
2	Nitrate, NO ₃ -N	APHA 4500NO3-E	mg/L	0.005	16.1	17.7	110%
3	Total Phosphorus as PO ₄	APHA 4500P E	mg/L	0.005	25.46	25.0	98%
	Dissolved Metals						
1	Arsenic, As	APHA 3125 B	mg/L	0.0005	0.11	0.106	97%
2	Cadmium, Cd	APHA 3125 B	mg/L	0.0001	0.389	0.388	100%
3	Chromium Hexavalent, Cr ⁶⁺	APHA 3500-Cr B	mg/L	0.002	0.561	0.561	100%
4	Copper, Cu	APHA 3125 B	mg/L	0.001	0.476	0.477	100%
5	Lead, Pb	APHA 3125 B	mg/L	0.001	0.786	0.813	103%
6	Mercury, Hg	USEPA 245.7	mg/L	0.00005	0.0133	0.0123	93%
7	Nickel, Ni	APHA 3125 B	mg/L	0.001	1.13	1.11	98%
8	Zinc, Zn	APHA 3125 B	mg/L	0.005	0.609	0.609	100%



QUALITY CONTROL - ACCURACY

Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Microbiology						
1	Total Coliforms	APHA 9222B	CFU/100ml	1	-	-	-
2	Faecal Coliforms	APHA 9222D	CFU/100ml	1	-	-	-
	Miscellaneous						
1	Chemical Oxygen Demand, COD	APHA 5220 C	mg/L	2	147	140	95%
2	Biochemical Oxygen Demand, BOD ₅	APHA 5210 B	mg/L	2	91.1	88	97%
3	Chlorine (Free), Cl ₂	APHA 4500-Cl I	mg/L	0.01	1.00	0.99	99%
4	Oil & Grease	APHA 5520 B	mg/L	1	144	126	88%
5	Surfactants, MBAS	APHA 5540 C	mg/L	0.01	0.222	0.23	106%
6	Total Organic Carbon, TOC	APHA 5310 C	mg/L	0.5	58.1	57.1	98%
7	Total Phenols	USEPA 9065	mg/L	0.001	4.95	5.30	107%
	Organics Tests						
1	Polycyclic Aromatic Hydrocarbons, PAHs	USEPA 8270C	µg/L	0.1	8.0	7.3	91%
	BTEX						
1	Benzene	USEPA 8260B	µg/L	1	14.1	13.5	96%
2	Toluene	USEPA 8260B	µg/L	1	7.0	6.6	94%
3	Ethyl Benzene	USEPA 8260B	µg/L	1	7.6	7.4	97%
4	Xylenes Total	USEPA 8260B	µg/L	1	38.2	37.2	98%



QUALITY CONTROL - ACCURACY

Job Number : EV193026
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7967.r5/IUS-EVI/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Total Metals						
1	Antimony, Sb	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	133	125	94%
2	Arsenic, As	USEPA 3050B/APHA 3125B	mg/dry kg	0.1	77.2	70.0	91%
3	Cadmium, Cd	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	182	179	99%
4	Chromium, Cr	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	272	252	93%
5	Copper, Cu	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	301	272	91%
6	Lead, Pb	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	241	224	93%
7	Mercury, Hg	USEPA 3050B/USEPA245.7	mg/dry kg	0.001	12.7	12.3	97%
8	Nickel, Ni	USEPA 3050B/APHA 3125B	mg/dry kg	0.2	125	115	92%
9	Silver, Ag	USEPA 3050B/APHA 3125B	mg/dry kg	0.02	66.3	63.1	95%
10	Zinc, Zn	USEPA 3050B/APHA 3125B	mg/dry kg	1	127	119	94%

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-6

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193026-A
Customer Ref : 7987.r5/IUS-EV/II/2020
Project Name : Seawater & Sediment Analysis

Number of samples : 4

Date received : 28-Nov-2019
Date reported : 26-Dec-2019

Approved Signature for:


for Reginald C. de Wit

Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV193026-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/II/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV193026-1	MWB 16	Seawater	25-Nov-19	10:49	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 10' 59.7"	S : 08° 02' 28.8"
2	EV193026-2	MWB 18	Seawater	25-Nov-19	12:17	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 38.3"	S : 08° 04' 30.5"
3	EV193026-3	MWB 17	Seawater	25-Nov-19	12:32	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 37.9"	S : 08° 03' 36.9"
4	EV193026-4	MWB 14	Seawater	25-Nov-19	13:19	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 08.8"	S : 08° 02' 38.8"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV193026-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5IU5-EV/II/2020

Laboratory Sample I.D :			EV193026-1	EV193026-2	EV193026-3
Customer Sample I.D :			MWB 16	MBW 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
PLANKTON***					
1. PHYTOPLANKTON					
BACILLARIOPHYCEAE					
1	<i>Bacillaria sp.</i>	Cell/m ³	5,664	2,124	708
2	<i>Licmophora sp.</i>	Cell/m ³	177	-	177
3	<i>Navicula sp.</i>	Cell/m ³	708	1,770	2,655
4	<i>Nitzschia sp.</i>	Cell/m ³	9,735	7,611	23,541
5	<i>Pleurosigma sp.</i>	Cell/m ³	1,416	-	177
6	<i>Thalassionema sp.</i>	Cell/m ³	531	-	708
7	<i>Thalassiothrix sp.</i>	Cell/m ³	1,239	-	-
COSCONODISCOPHYCEAE					
1	<i>Asterionampra sp.</i>	Cell/m ³	-	-	177
2	<i>Coscinodiscus sp.</i>	Cell/m ³	2,655	1,593	708
3	<i>Guinardia sp.</i>	Cell/m ³	-	177	4,425
4	<i>Rhizosolenia sp.</i>	Cell/m ³	241,428	527,637	78,411
CYANOPHYCEAE					
1	<i>Trichodesmium sp.</i>	Cell/m ³	54,870	385,064	197,532
DINOPHYCEAE					
1	<i>Ceratium sp.</i>	Cell/m ³	4,248	21,594	3,186
2	<i>Dinophysis sp.</i>	Cell/m ³	-	708	354
3	<i>Peridinium sp.</i>	Cell/m ³	708	708	531
4	<i>Pyrocystis sp.</i>	Cell/m ³	-	-	177
5	<i>Pyrophacus sp.</i>	Cell/m ³	-	885	354

R



Job Number : EV193026-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/II/2020

Laboratory Sample I.D :			EV193026-1	EV193026-2	EV193026-3
Customer Sample I.D :			MWB 16	MBW 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
MEDIOPHYCEAE					
1	<i>Bacteriastrium</i> sp.	Cell/m ³	2,655	13,275	9,558
2	<i>Biddulphia</i> sp.	Cell/m ³	531	531	531
3	<i>Coastauline</i> sp.	Cell/m ³	-	-	1,062
4	<i>Chaetoceros</i> sp.	Cell/m ³	41,772	63,543	233,296
5	<i>Ditylum</i> sp.	Cell/m ³	-	-	177
6	<i>Eucampia</i> sp.	Cell/m ³	-	-	708
7	<i>Hemiaulus</i> sp.	Cell/m ³	6,372	15,753	7,434
8	<i>Leptocyndrus</i> sp.	Cell/m ³	8,496	5,487	10,797
Total Taxa (s)			17	16	24
Abundance		Cell/m ³	383,205	1,058,460	577,374
Diversity Index			1.32	1.20	1.50
Equitability Index			0.47	0.43	0.47
Dominance Index			0.43	0.39	0.30
2. ZOOPLANKTON					
ACANTHARIA					
1	<i>Acanthometron</i> sp.	Ind/m ³	-	354	-
APPENDICULARIA					
1	<i>Oikopleura</i> sp.	Ind/m ³	354	1,239	-
COPEPODA					
1	<i>Acartia</i> sp.	Ind/m ³	354	1,416	2,478
2	<i>Calanopia</i> sp.	Ind/m ³	-	-	-
3	<i>Calanus</i> sp.	Ind/m ³	177	354	354
4	<i>Corycaeus</i> sp.	Ind/m ³	177	-	177
5	<i>Microsetella</i> sp.	Ind/m ³	177	1,416	177
6	<i>Oithona</i> sp.	Ind/m ³	-	1,770	1,770
7	<i>Oncaea</i> sp.	Ind/m ³	-	708	-
8	<i>Tenera</i> sp.	Ind/m ³	531	3,009	3,009
EUROTATORIA					
1	<i>Notholca</i> sp.	Ind/m ³	-	-	-



Job Number : EV193026-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r51US-EV/II/2020

Laboratory Sample I.D :			EV193026-1	EV193026-2	EV193026-3
Customer Sample I.D :			MWB 16	MWB 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Seawater	Seawater	Seawater
No.	Test Description	Units	Results	Results	Results
GLOBOTHALAMEA					
1	<i>Globorotalia sp.</i>	Ind/m ³	177	1,239	-
OLIGOTRICHEA					
1	<i>Eutimurus sp.</i>	Ind/m ³	177	177	-
2	<i>Parafavosites sp.</i>	Ind/m ³	-	177	-
SAGITTOIDEA					
1	<i>Sagitta sp.</i>	Ind/m ³	-	177	177
Total Taxa (s)			8	12	7
Abundance		Ind/m ³	2,124	12,036	8,142
Diversity Index			1.98	2.16	1.45
Equitability Index			0.06	0.87	0.74
Dominance Index			0.15	0.14	0.28

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV193026-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/U2020

Laboratory Sample I.D :			EV193026.4
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Seawater
No.	Test Description	Units	Results
	PLANKTON***		
	1. PHYTOPLANKTON		
	BACILLARIOPHYCEAE		
1	<i>Bacillaria sp.</i>	Cell/m ³	708
2	<i>Licmophora sp.</i>	Cell/m ³	-
3	<i>Navicula sp.</i>	Cell/m ³	1,239
4	<i>Nitzschia sp.</i>	Cell/m ³	8,142
5	<i>Pleurosigma sp.</i>	Cell/m ³	354
6	<i>Thalassionema sp.</i>	Cell/m ³	-
7	<i>Thalassiothrix sp.</i>	Cell/m ³	1,770
	COSCINODISCOPHYCEAE		
1	<i>Asterolampra sp.</i>	Cell/m ³	-
2	<i>Coscinodiscus sp.</i>	Cell/m ³	2,832
3	<i>Guanardia sp.</i>	Cell/m ³	3,717
4	<i>Rhizosolenia sp.</i>	Cell/m ³	91,863
	CYANOPHYCEAE		
1	<i>Trichodesmium sp.</i>	Cell/m ³	192,045
	DINOPHYCEAE		
1	<i>Ceratium sp.</i>	Cell/m ³	9,027
2	<i>Dinophysis sp.</i>	Cell/m ³	3,540
3	<i>Peridinium sp.</i>	Cell/m ³	1,593
4	<i>Pyrocystis sp.</i>	Cell/m ³	-
5	<i>Pyrophacus sp.</i>	Cell/m ³	708



Job Number : EV193026-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-4
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Seawater
No.	Test Description	Units	Results
MEDIOPHYCEAE			
1	<i>Bacteriastrium</i> sp.	Cell/m ³	179,301
2	<i>Biddulphia</i> sp.	Cell/m ³	177
3	<i>Ceratodina</i> sp.	Cell/m ³	1,947
4	<i>Chaetoceros</i> sp.	Cell/m ³	271,341
5	<i>Ditylum</i> sp.	Cell/m ³	-
6	<i>Eucampia</i> sp.	Cell/m ³	-
7	<i>Hemidulus</i> sp.	Cell/m ³	7,080
8	<i>Leptocylindrus</i> sp.	Cell/m ³	7,434
Total Taxa (s)			19
Abundance		Cell/m ³	784,818
Diversity Index			1.62
Equitability Index			0.55
Dominance Index			0.25
2. ZOOPLANKTON			
ACANTHARIA			
1	<i>Acanthometron</i> sp.	Ind/m ³	-
APPENDICULARIA			
1	<i>Oikopleura</i> sp.	Ind/m ³	1,416
COPEPODA			
1	<i>Acartia</i> sp.	Ind/m ³	1,593
2	<i>Calanoida</i> sp.	Ind/m ³	177
3	<i>Calanus</i> sp.	Ind/m ³	708
4	<i>Corycaeus</i> sp.	Ind/m ³	-
5	<i>Microsetella</i> sp.	Ind/m ³	-
6	<i>Oithona</i> sp.	Ind/m ³	885
7	<i>Oncaea</i> sp.	Ind/m ³	177
8	<i>Temora</i> sp.	Ind/m ³	1,416
EUROTATORIA			
1	<i>Notholca</i> sp.	Ind/m ³	177



Job Number : EV193026-A
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/II/2020

Laboratory Sample I.D :			EV193026-4
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Seawater
No.	Test Description	Units	Results
GLOBOTHALAMEA			
1	<i>Globorotalia</i> sp.	Ind/m ³	354
OLIGOTRICHEA			
1	<i>Eutimurus</i> sp.	Ind/m ³	177
2	<i>Parafavosites</i> sp.	Ind/m ³	177
SAGITTOIDEA			
1	<i>Sagitta</i> sp.	Ind/m ³	177
Total Taxa (s)			12
Abundance		Ind/m ³	7,434
Diversity Index			2.12
Equitability Index			0.85
Dominance Index			0.15

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV193026-A
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	PLANKTON***						
1	Phytoplankton	APHA 10200 F-2012	Cell/m ³	-	-	-	-
2	Zooplankton	APHA 10200 F-2012	Ind/m ³	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-8

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193026-B
Customer Ref : 7987.r5/IUS-EV/I/2020
Project Name : Seawater & Sediment Analysis

Number of samples : 4

Date received : 28-Nov-2019
Date reported : 26-Dec-2019

Approved Signature for:


for

Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV193026-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV193026-5	MWB 16	Sediment	25-Nov-19	10:49	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 19' 59.7"	S : 08° 04' 30.5"
2	EV193026-6	MWB 18	Sediment	25-Nov-19	12:17	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 38.3"	S : 08° 02' 28.8"
3	EV193026-7	MWB 17	Sediment	25-Nov-19	12:32	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 37.9"	S : 08° 03' 36.9"
4	EV193026-8	MWB 14	Sediment	25-Nov-19	13:19	28-Nov-19	Fahru Roji, Husni, Hilman	E : 131° 14' 08.6"	S : 08° 02' 36.8"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV193026-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-5	EV193026-6	EV193026-7
Customer Sample I.D :			MWB 16	MWB 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	BENTHOS***				
	BIVALVIA				
1	<i>Corbula sp.</i>	Ind/m ²	-	14	-
	CRUSTACEA				
1	<i>Gecarcoides sp.</i>	Ind/m ²	-	14	-
	ECHINODERMATA				
1	<i>Amphiodia sp.</i>	Ind/m ²	-	-	14
	GASTROPODA				
1	<i>Mitra sp.</i>	Ind/m ²	-	14	-
	POLYCHAETA				
1	<i>Eteone sp.</i>	Ind/m ²	28	-	-
2	<i>Mystides sp.</i>	Ind/m ²	14	-	-
	SIPUNCULA				
1	<i>Aspidosiphon sp.</i>	Ind/m ²	-	-	14
	Total Taxa (s)		2	3	2
	Abundance	Ind/m ²	42	42	28
	Diversity Index		0.92	1.58	1.00
	Equitability Index		0.92	1.00	1.00
	Dominance Index		0.58	0.33	0.50

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



Job Number : EV193026-B
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Seawater & Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-B
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	BENTHOS***		
	BIVALVIA		
1	<i>Corbula sp.</i>	Ind/m ²	-
	CRUSTACEA		
1	<i>Gecarcinus sp.</i>	Ind/m ²	-
	ECHINODERMATA		
1	<i>Amphiodia sp.</i>	Ind/m ²	-
	GASTROPODA		
1	<i>Mitra sp.</i>	Ind/m ²	-
	POLYCHAETA		
1	<i>Eteone sp.</i>	Ind/m ²	-
2	<i>Mystides sp.</i>	Ind/m ²	-
	SIPUNCULA		
1	<i>Aspidosiphon sp.</i>	Ind/m ²	14
	Total Taxa (s)		1
	Abundance	Ind/m ²	14
	Diversity Index		0.00
	Equitability Index		0.00
	Dominance Index		1.00

Note: Refer to QA/QC – Accuracy page for list of analytical methods used



QUALITY CONTROL - ACCURACY

Job Number : EV193026-B
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
1	BENTHOS***	SNI 03-3401-1994	Ind/m ²	-	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards.

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods).

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193026-C
Customer Ref : 7987.r5/IUS-EV/I/2020
Project Name : Sediment Analysis

Number of samples : 4

Date received : 28-Nov-2019
Date reported : 05-Feb-2020

Approved Signature for:


for Reginald C. de Wit
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY





SAMPLE INFORMATION

Job Number : EV193026-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/I/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates
1	EV193026-5	MWB 16	Sediment	25-Nov-19	10:49	26-Nov-19	Fahru Roji, Hilam & Husni	S : 131° 19' 59.7" E : 08° 02' 28.8"
2	EV193026-6	MBW 16	Sediment	25-Nov-19	12:17	26-Nov-19	Fahru Roji, Hilam & Husni	S : 131° 14' 38.3" E : 08° 04' 30.5"
3	EV193026-7	MWB 17	Sediment	25-Nov-19	12:32	26-Nov-19	Fahru Roji, Hilam & Husni	S : 131° 14' 37.9" E : 08° 03' 36.9"
4	EV193026-8	MWB 14	Sediment	25-Nov-19	13:19	26-Nov-19	Fahru Roji, Hilam & Husni	S : 131° 14' 06.8" E : 08° 02' 38.6"

Notes:

NA = Not Analysed

ND = Not Detected

IS = Insufficient Sample

** = Non Accredited Test

*** = Subcontracted Test

1) = Field Measurement

2) = Field Measurement by Customer

3) = Total Pesticides defined as 30 OCP compounds (list available upon request)

4) = Total PAHs defined as 16 PAH compounds (list available upon request)

5) = Total PCBs defined as 20 PCB congeners (list available upon request)

SNR = Sample Not Received



Job Number : EV193026-C
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-5	EV193026-6	EV193026-7
Customer Sample I.D :			MWB 16	MBW 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-19
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
	Miscellaneous				
	Particle Size Distribution**				
	Size (µm)				
1	0.357	%	0.13	0.09	0.08
2	0.405	%	0.29	0.2	0.18
3	0.460	%	0.47	0.34	0.3
4	0.523	%	0.65	0.47	0.43
5	0.594	%	0.77	0.56	0.51
6	0.675	%	0.84	0.62	0.56
7	0.767	%	0.87	0.63	0.58
8	0.872	%	0.87	0.62	0.56
9	0.991	%	0.86	0.62	0.56
10	1.13	%	0.89	0.62	0.56
11	1.28	%	0.96	0.68	0.61
12	1.45	%	1.06	0.75	0.67
13	1.65	%	1.21	0.87	0.77
14	1.88	%	1.37	1.01	0.9
15	2.13	%	1.55	1.16	1.04
16	2.42	%	1.71	1.33	1.2
17	2.75	%	1.87	1.5	1.37
18	3.12	%	2.01	1.67	1.54
19	3.56	%	2.12	1.85	1.72
20	4.03	%	2.22	2.03	1.9
21	4.58	%	2.3	2.2	2.1
22	5.21	%	2.37	2.37	2.28
23	5.92	%	2.42	2.53	2.46
24	6.72	%	2.45	2.86	2.62
25	7.64	%	2.46	2.77	2.75
26	8.68	%	2.47	2.84	2.85
27	9.86	%	2.45	2.9	2.92
28	11.2	%	2.46	2.94	3
29	12.7	%	2.52	3	3.07
30	14.5	%	2.64	3.1	3.19
31	16.4	%	2.84	3.25	3.35
32	18.7	%	3.12	3.44	3.57
33	21.2	%	3.45	3.69	3.83
34	24.1	%	3.81	3.93	4.1



Job Number : EV193026-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Sediment Analysis
Customer Ref : T987.r5/IUS-EV/I/2020

Laboratory Sample I.D :			EV193026-5	EV193026-6	EV193026-7
Customer Sample I.D :			MWB 16	MBW 18	MWB 17
Date Sampled :			25-Nov-19	25-Nov-19	25-Nov-18
Sample Matrix :			Sediment	Sediment	Sediment
No.	Test Description	Units	Results	Results	Results
35	27.4	%	4.13	4.16	4.34
36	31.1	%	4.38	4.29	4.5
37	35.3	%	4.45	4.35	4.54
38	40.1	%	4.39	4.28	4.46
39	45.6	%	4.17	4.07	4.25
40	51.8	%	3.81	3.78	3.91
41	58.9	%	3.35	3.4	3.5
42	66.9	%	2.84	2.98	3.02
43	76.0	%	2.31	2.54	2.53
44	86.4	%	1.82	2.1	2.06
45	98.1	%	1.37	1.67	1.58
46	111	%	0.98	1.26	1.18
47	127	%	0.68	0.9	0.82
48	144	%	0.43	0.59	0.54
49	163	%	0.28	0.33	0.33
50	186	%	0.14	0.08	0.18
51	211	%	0.03	0.00	0.08
52	240	%	0.00	0.00	0.03
53	272	%	0.00	0.00	0.02

Note: Refer to QA/QC – Accuracy page for list of analytical methods used.



Job Number : EV193026-C
 Customer : PT. EnviroSolutions & Consulting
 Project Name : Sediment Analysis
 Customer Ref : 7987.r5/IUS-EV19/2020

Laboratory Sample I.D :			EV193026-8
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Sediment
No.	Test Description	Units	Results
	Miscellaneous		
	Particle Size Distribution**		
	Size (µm)		
1	0.357	%	0
2	0.405	%	0.1
3	0.460	%	0.2
4	0.523	%	0.3
5	0.594	%	0.36
6	0.675	%	0.42
7	0.767	%	0.43
8	0.872	%	0.42
9	0.991	%	0.43
10	1.13	%	0.43
11	1.28	%	0.46
12	1.45	%	0.52
13	1.65	%	0.62
14	1.88	%	0.73
15	2.13	%	0.89
16	2.42	%	1.05
17	2.75	%	1.24
18	3.12	%	1.44
19	3.55	%	1.67
20	4.03	%	1.89
21	4.58	%	2.13
22	5.21	%	2.37
23	5.92	%	2.58
24	6.72	%	2.77
25	7.64	%	2.92
26	8.68	%	3.03
27	9.86	%	3.08
28	11.2	%	3.12
29	12.7	%	3.15
30	14.5	%	3.17
31	16.4	%	3.23
32	18.7	%	3.33
33	21.2	%	3.46
34	24.1	%	3.59



Job Number : EV193026-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/II/2020

Laboratory Sample I.D :			EV193026-8
Customer Sample I.D :			MWB 14
Date Sampled :			25-Nov-19
Sample Matrix :			Sediment
No.	Test Description	Units	Results
35	27.4	%	3.72
36	31.1	%	3.8
37	35.3	%	3.83
38	40.1	%	3.79
39	45.6	%	3.69
40	51.8	%	3.53
41	58.9	%	3.35
42	66.8	%	3.12
43	76.0	%	2.9
44	86.4	%	2.66
45	98.1	%	2.37
46	111	%	2.08
47	127	%	1.75
48	144	%	1.41
49	163	%	1.06
50	186	%	0.75
51	211	%	0.48
52	240	%	0.19
53	272	%	0.02

Note: Refer to QA/QC - Accuracy page for list of analytical methods used



PARTICLE SIZE DISTRIBUTION ANALYSIS ANALYSIS REPORT

Measurement Details

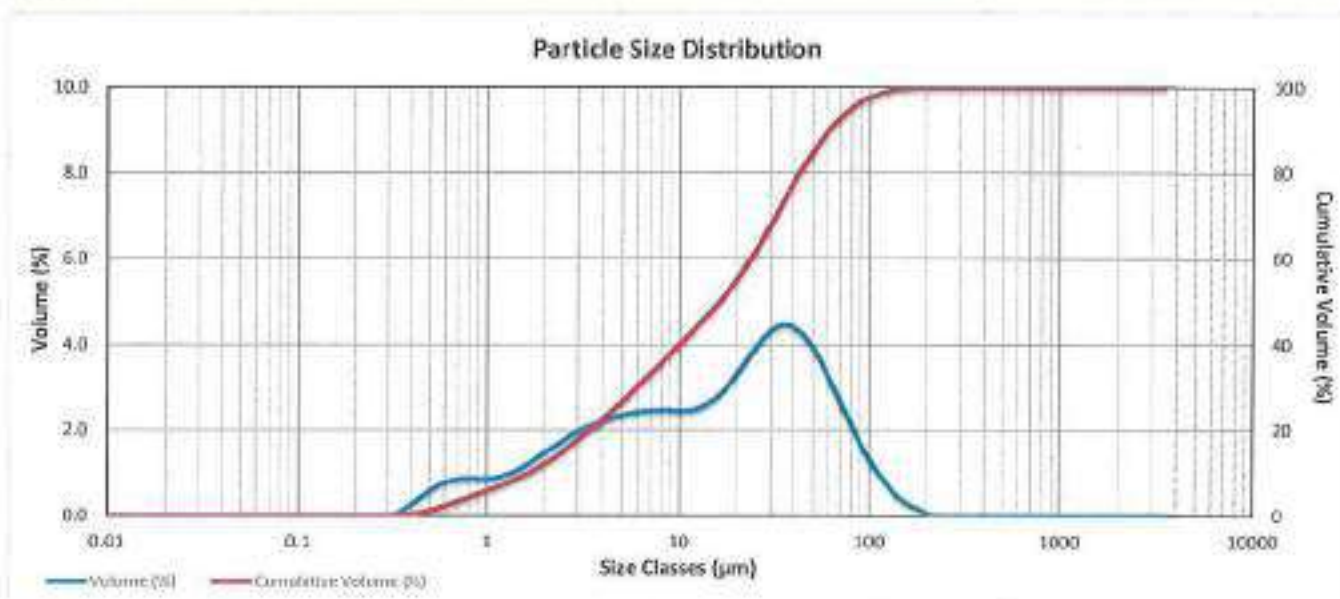
Client PT. EnviroSolutions & Consulting
Sample ID MWB 16

Job Number EV193026-5

Analysis

Particle Name Solid
Dispersant Liquid

Result



Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)
0.010	0.00	0.00	0.125	0.00	0.00	1.65	1.21	9.87	21.2	3.45	56.67	272	0.00	100.00
0.011	0.00	0.00	0.145	0.00	0.00	1.88	1.37	11.24	24.1	3.61	60.46	310	0.00	100.00
0.013	0.00	0.00	0.165	0.00	0.00	2.13	1.55	12.79	27.4	4.13	64.61	352	0.00	100.00
0.015	0.00	0.00	0.185	0.00	0.00	2.42	1.71	14.50	31.1	4.36	68.97	400	0.00	100.00
0.017	0.00	0.00	0.214	0.00	0.00	2.75	1.87	16.37	35.3	4.45	73.42	454	0.00	100.00
0.019	0.00	0.00	0.243	0.00	0.00	3.12	2.01	18.38	40.1	4.39	77.81	516	0.00	100.00
0.022	0.00	0.00	0.276	0.00	0.00	3.55	2.13	20.50	45.6	4.17	81.98	586	0.00	100.00
0.024	0.00	0.00	0.314	0.00	0.00	4.03	2.22	22.72	51.8	3.81	85.79	666	0.00	100.00
0.028	0.00	0.00	0.357	0.13	0.13	4.58	2.30	25.02	58.9	3.35	89.14	756	0.00	100.00
0.032	0.00	0.00	0.405	0.29	0.42	5.21	2.37	27.39	66.9	2.84	91.98	859	0.00	100.00
0.036	0.00	0.00	0.460	0.47	0.89	5.92	2.42	29.81	76.0	2.31	94.29	975	0.00	100.00
0.041	0.00	0.00	0.523	0.65	1.54	6.72	2.45	32.26	85.4	1.82	96.11	1109	0.00	100.00
0.046	0.00	0.00	0.594	0.77	2.31	7.64	2.46	34.72	95.1	1.37	97.48	1260	0.00	100.00
0.050	0.00	0.00	0.675	0.84	3.15	8.68	2.47	37.19	111	0.98	98.46	1432	0.00	100.00
0.060	0.00	0.00	0.767	0.87	4.02	9.80	2.45	39.64	127	0.68	99.14	1627	0.00	100.00
0.068	0.00	0.00	0.872	0.87	4.89	11.2	2.46	42.10	144	0.43	99.57	1842	0.00	100.00
0.077	0.00	0.00	0.991	0.86	5.75	12.7	2.52	44.62	163	0.26	99.83	2100	0.00	100.00
0.088	0.00	0.00	1.13	0.89	6.64	14.5	2.64	47.26	186	0.14	99.97	2389	0.00	100.00
0.100	0.00	0.00	1.28	0.96	7.60	16.4	2.84	50.10	211	0.03	100.00	2711	0.00	100.00
0.113	0.00	0.00	1.45	1.06	8.66	18.7	3.12	53.22	240	0.00	100.00	3081	0.00	100.00
												3500	0.00	100.00

Remarks:

Percentils:

Dx (5) 0.88 µm
Dx (10) 1.67 µm
Dx (16) 2.68 µm
Dx (20) 3.44 µm
Dx (25) 4.58 µm
Dx (40) 10.0 µm
Dx (50) 16.4 µm
Dx (60) 23.7 µm
Dx (75) 37.0 µm
Dx (80) 42.9 µm
Dx (84) 48.8 µm
Dx (90) 61.2 µm
Dx (95) 79.9 µm
Mode 33.6 µm



PARTICLE SIZE DISTRIBUTION ANALYSIS

ANALYSIS REPORT

Measurement Details

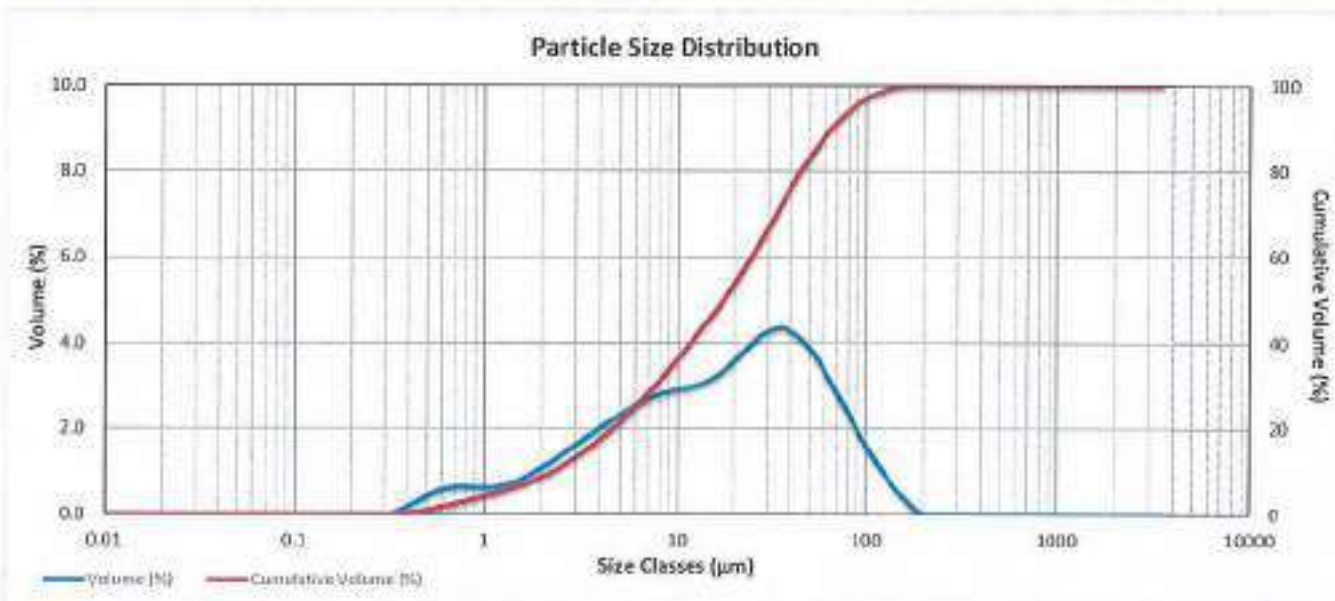
Client PT. EnviroSolutions & Consulting
Sample ID MWB 18

Job Number EV193026-06

Analysis

Particle Name Solid
Dispersant Liquid

Result



Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)	Size (µm)	Volume (%)	Cum. Vol (%)
0.010	0.00	0.00	0.125	0.00	0.00	1.65	0.87	7.07	21.2	3.69	55.31	272	0.00	100.00
0.011	0.00	0.00	0.146	0.00	0.00	1.88	1.01	8.08	24.1	3.83	59.24	310	0.00	100.00
0.013	0.00	0.00	0.166	0.00	0.00	2.13	1.14	9.24	27.4	4.16	63.40	352	0.00	100.00
0.015	0.00	0.00	0.188	0.00	0.00	2.42	1.33	10.57	31.1	4.29	67.69	400	0.00	100.00
0.017	0.00	0.00	0.214	0.00	0.00	2.75	1.50	12.07	35.3	4.35	72.04	454	0.00	100.00
0.019	0.00	0.00	0.243	0.00	0.00	3.12	1.67	13.74	40.1	4.26	76.30	516	0.00	100.00
0.022	0.00	0.00	0.276	0.00	0.00	3.55	1.85	15.59	45.6	4.07	80.37	586	0.00	100.00
0.024	0.00	0.00	0.314	0.00	0.00	4.03	2.03	17.62	51.8	3.78	84.15	666	0.00	100.00
0.026	0.00	0.00	0.357	0.00	0.00	4.58	2.20	19.82	58.9	3.40	87.55	756	0.00	100.00
0.032	0.00	0.00	0.405	0.20	0.29	5.21	2.37	22.19	66.9	2.98	90.53	859	0.00	100.00
0.036	0.00	0.00	0.460	0.34	0.63	5.92	2.53	24.72	76.0	2.54	93.07	976	0.00	100.00
0.041	0.00	0.00	0.523	0.47	1.10	6.72	2.66	27.38	86.4	2.10	95.17	1109	0.00	100.00
0.046	0.00	0.00	0.594	0.56	1.66	7.64	2.77	30.15	98.1	1.67	96.84	1260	0.00	100.00
0.053	0.00	0.00	0.675	0.62	2.28	8.68	2.84	32.98	111	1.26	98.10	1432	0.00	100.00
0.060	0.00	0.00	0.767	0.63	2.91	9.86	2.90	35.88	127	0.90	99.00	1627	0.00	100.00
0.068	0.00	0.00	0.872	0.62	3.53	11.2	2.94	38.83	144	0.50	99.50	1849	0.00	100.00
0.077	0.00	0.00	0.981	0.62	4.15	12.7	3.00	41.83	163	0.33	99.82	2100	0.00	100.00
0.088	0.00	0.00	1.13	0.62	4.77	14.5	3.10	44.93	186	0.08	100.00	2385	0.00	100.00
0.100	0.00	0.00	1.28	0.68	5.45	16.4	3.25	48.18	211	0.00	100.00	2711	0.00	100.00
0.113	0.00	0.00	1.45	0.75	6.20	18.7	3.44	51.62	240	0.00	100.00	3081	0.00	100.00
												3500	0.00	100.00

Remarks:

Percentils:

Dx (5) 1.17 µm
Dx (10) 2.25 µm
Dx (16) 3.64 µm
Dx (20) 4.63 µm
Dx (25) 6.06 µm
Dx (40) 11.8 µm
Dx (50) 17.6 µm
Dx (60) 24.7 µm
Dx (75) 38.6 µm
Dx (80) 45.1 µm
Dx (84) 51.6 µm
Dx (90) 65.4 µm
Dx (95) 85.5 µm
Mode 32.6 µm



PARTICLE SIZE DISTRIBUTION ANALYSIS ANALYSIS REPORT

Measurement Details

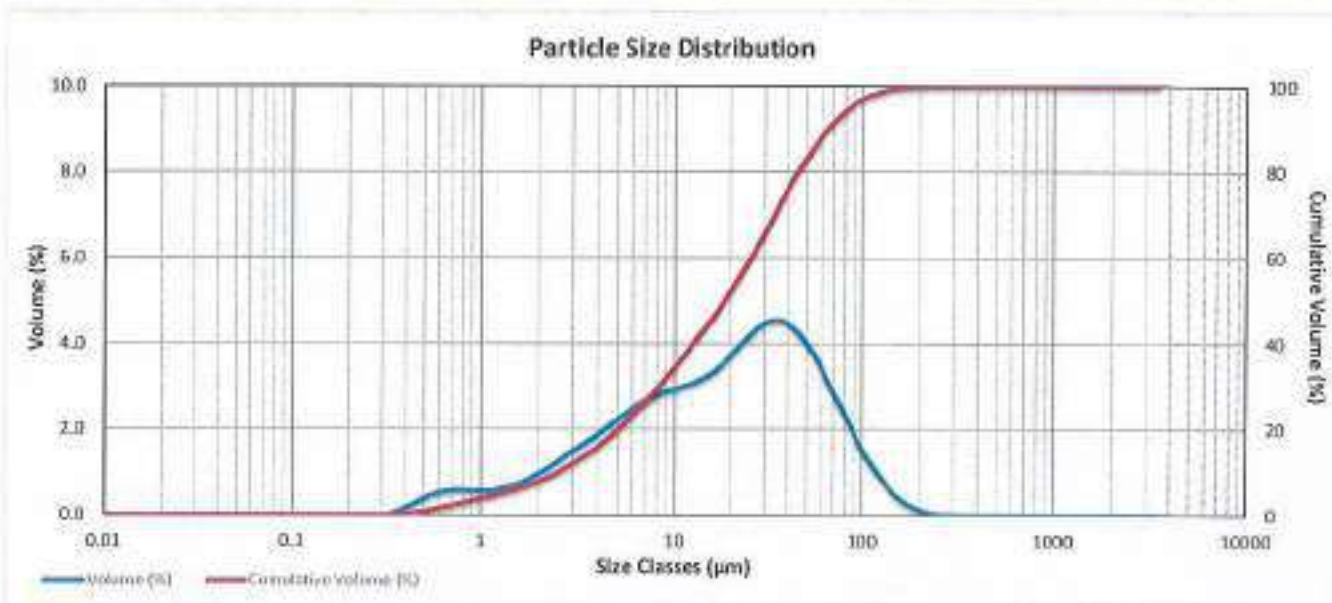
Client PT. EnviroSolutions & Consulting
Sample ID MWB-17

Job Number EV193026-07

Analysis

Particle Name Solid
Dispersant Liquid

Result



Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)
0.010	0.00	0.00	0.125	0.00	0.00	1.65	0.77	6.37	21.2	3.03	54.03	272	0.00	100.00
0.011	0.00	0.00	0.140	0.00	0.00	1.88	0.90	7.27	24.1	4.10	58.13	310	0.00	100.00
0.013	0.00	0.00	0.160	0.00	0.00	2.13	1.04	8.31	27.4	4.34	62.47	352	0.00	100.00
0.015	0.00	0.00	0.180	0.00	0.00	2.42	1.20	9.51	31.1	4.50	66.97	400	0.00	100.00
0.017	0.00	0.00	0.214	0.00	0.00	2.75	1.37	10.88	35.3	4.54	71.51	454	0.00	100.00
0.018	0.00	0.00	0.243	0.00	0.00	3.12	1.54	12.42	40.1	4.46	75.97	516	0.00	100.00
0.022	0.00	0.00	0.278	0.00	0.00	3.55	1.72	14.14	45.6	4.25	80.22	586	0.00	100.00
0.024	0.00	0.00	0.314	0.00	0.00	4.03	1.90	16.04	51.8	3.91	84.13	666	0.00	100.00
0.028	0.00	0.00	0.357	0.00	0.00	4.58	2.10	18.14	58.9	3.50	87.63	756	0.00	100.00
0.032	0.00	0.00	0.405	0.10	0.06	5.21	2.28	20.42	66.9	3.02	90.65	859	0.00	100.00
0.036	0.00	0.00	0.460	0.30	0.56	5.92	2.46	22.88	76.0	2.53	93.18	976	0.00	100.00
0.041	0.00	0.00	0.523	0.43	0.99	6.72	2.62	25.50	86.4	2.05	95.23	1109	0.00	100.00
0.046	0.00	0.00	0.594	0.51	1.50	7.64	2.75	28.25	98.1	1.50	96.73	1269	0.00	100.00
0.053	0.00	0.00	0.675	0.66	2.06	8.68	2.85	31.10	111	1.10	97.83	1432	0.00	100.00
0.060	0.00	0.00	0.767	0.58	2.64	9.86	2.92	34.02	127	0.82	98.65	1627	0.00	100.00
0.068	0.00	0.00	0.872	0.58	3.20	11.2	3.00	37.02	144	0.54	99.35	1849	0.00	100.00
0.077	0.00	0.00	0.991	0.58	3.76	12.7	3.07	40.09	163	0.33	99.68	2100	0.00	100.00
0.088	0.00	0.00	1.13	0.58	4.32	14.5	3.19	43.28	186	0.18	99.86	2386	0.00	100.00
0.100	0.00	0.00	1.28	0.61	4.93	16.4	3.35	46.63	211	0.09	99.95	2711	0.00	100.00
0.113	0.00	0.00	1.45	0.67	5.60	18.7	3.57	50.20	240	0.03	99.98	3081	0.00	100.00
												3500	0.00	100.00

Remarks:

Percentils:

Dx (5) 1.30 µm
Dx (10) 2.53 µm
Dx (16) 4.02 µm
Dx (20) 5.09 µm
Dx (25) 6.56 µm
Dx (40) 12.7 µm
Dx (50) 18.5 µm
Dx (60) 25.5 µm
Dx (75) 39.0 µm
Dx (80) 45.3 µm
Dx (84) 51.6 µm
Dx (90) 65.1 µm
Dx (95) 65.1 µm
Mode 32.6 µm



PARTICLE SIZE DISTRIBUTION ANALYSIS ANALYSIS REPORT

Measurement Details

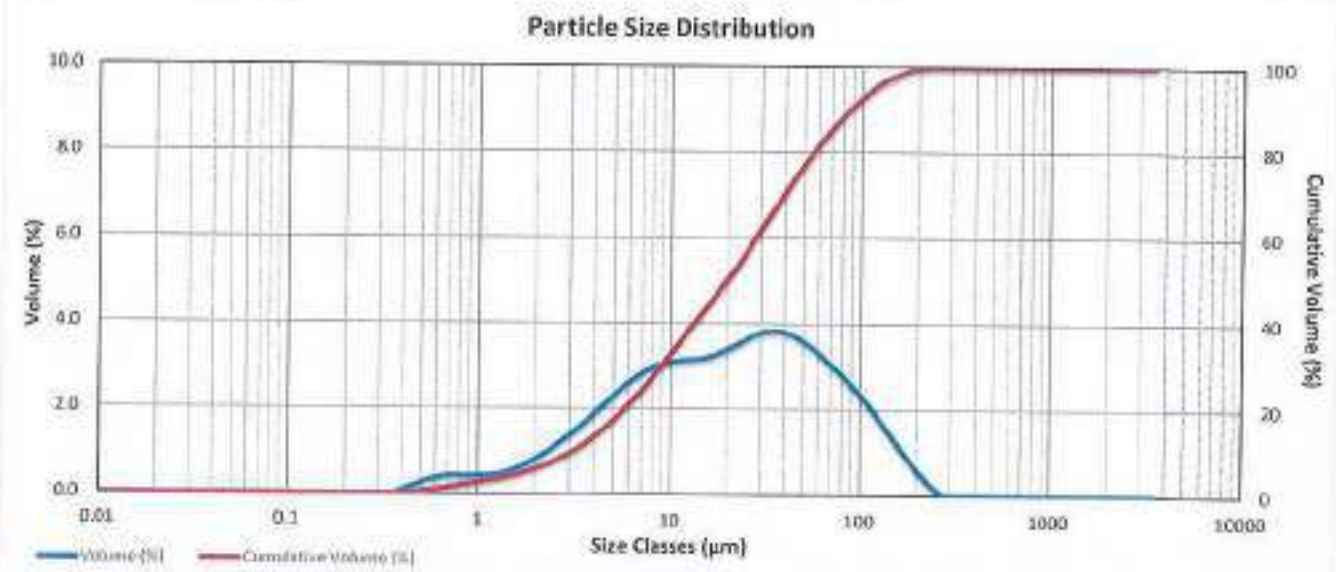
Client PT. EnwiroSolutions & Consulting
Sample ID MWB 14

Job Number EV193026-08

Analysis

Particle Name Solid
Dispersant Liquid

Result



Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)	Size (µm)	Volume (%)	Cum. Vol. (%)
0.010	0.00	0.00	0.128	0.00	0.00	1.05	0.62	4.69	21.2	3.46	51.94	272	0.02	100.00
0.011	0.00	0.00	0.146	0.00	0.00	1.68	0.73	5.42	24.1	3.59	55.53	310	0.00	100.00
0.013	0.00	0.00	0.168	0.00	0.00	2.13	0.89	6.31	27.4	3.72	59.25	352	0.00	100.00
0.015	0.00	0.00	0.188	0.00	0.00	2.42	1.05	7.36	31.1	3.80	63.05	400	0.00	100.00
0.017	0.00	0.00	0.214	0.00	0.00	2.75	1.24	8.60	35.3	3.83	66.88	454	0.00	100.00
0.019	0.00	0.00	0.243	0.00	0.00	3.12	1.44	10.04	40.1	3.79	70.67	516	0.00	100.00
0.022	0.00	0.00	0.276	0.00	0.00	3.55	1.67	11.71	45.6	3.60	74.36	586	0.00	100.00
0.024	0.00	0.00	0.314	0.00	0.00	4.03	1.89	13.60	51.8	3.53	77.89	665	0.00	100.00
0.028	0.00	0.00	0.357	0.00	0.00	4.58	2.13	15.73	58.9	3.30	81.24	756	0.00	100.00
0.032	0.00	0.00	0.405	0.10	0.10	5.21	2.37	18.10	66.9	3.12	84.36	859	0.00	100.00
0.036	0.00	0.00	0.460	0.20	0.30	5.92	2.58	20.68	76.0	2.90	87.26	976	0.00	100.00
0.041	0.00	0.00	0.523	0.30	0.60	6.72	2.77	23.45	85.4	2.65	89.91	1109	0.00	100.00
0.046	0.00	0.00	0.594	0.36	0.96	7.64	2.92	26.37	96.1	2.37	92.28	1260	0.00	100.00
0.053	0.00	0.00	0.675	0.42	1.38	8.68	3.03	29.40	111	2.06	94.36	1432	0.00	100.00
0.060	0.00	0.00	0.767	0.43	1.81	9.86	3.08	32.48	127	1.75	96.11	1627	0.00	100.00
0.068	0.00	0.00	0.872	0.42	2.23	11.2	3.12	35.60	144	1.41	97.52	1849	0.00	100.00
0.077	0.00	0.00	0.991	0.43	2.66	12.7	3.15	38.75	163	1.09	98.59	2106	0.00	100.00
0.088	0.00	0.00	1.13	0.43	3.09	14.5	3.17	41.92	186	0.75	99.33	2386	0.00	100.00
0.100	0.00	0.00	1.28	0.46	3.55	16.4	3.23	45.15	211	0.46	99.79	2711	0.00	100.00
0.113	0.00	0.00	1.45	0.52	4.07	18.7	3.33	48.48	240	0.19	99.98	3081	0.00	100.00
												3500	0.00	100.00

Remarks:

Percentils:

Dx (5) 1.74 µm
Dx (10) 3.11 µm
Dx (16) 4.65 µm
Dx (20) 5.72 µm
Dx (25) 7.19 µm
Dx (40) 13.4 µm
Dx (50) 19.7 µm
Dx (60) 28.1 µm
Dx (75) 46.7 µm
Dx (80) 56.2 µm
Dx (84) 65.9 µm
Dx (90) 86.8 µm
Dx (95) 117 µm
Mode 32.8 µm



QUALITY CONTROL - ACCURACY

Job Number : EV193026-C
Customer : PT. EnviroSolutions & Consulting
Project Name : Sediment Analysis
Customer Ref : 7987.r5/US-EV/IV2020

No	Description	Method	Units	Limit of Reporting	Reference Material		% Recovery
					Expected Value	Result	
	Miscellaneous						
1	Particle Size Distribution**	Laser Diffraction (LPSA)	%	0.01	-	-	-

Reference Materials are QC samples of known concentration prepared independently of the calibration standards

Results are used to verify that analytical precision is in control and that the level of bias due to calibration is acceptable. Generally speaking, % Recovery should fall between 85% to 115% (except Gas Chromatography methods)

Limit of Reporting means the lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision based on the analytical methodology used.

V1.7-6

ENVIRONMENTAL TEST REPORT

Ms. Yanti Setiakurniasih
PT. EnviroSolutions & Consulting
Intiland Tower Lt. 18
JL. Jend. Sudirman Kav 32 RT 003 RW 002
Jakarta,
INDONESIA

Job Number : EV193027
Customer Ref : 7987.r5/IUS-EV/I/2020
Project Name : Seawater & Sediment Analysis

Number of samples : 9

Date received : 28-Nov-2019
Date reported : 26-Dec-2019

Approved Signature for:



for **Reginald C. de Wit**
Manager Environmental Services

All work is performed in accordance with Intertek Standard Terms and Conditions of work <http://www.intertek.com/terms/>

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as received.

This report was prepared solely for the use of the client named in this report. PT Intertek Utama Services accepts no responsibility for any loss, damage or liability suffered by any third party as a result of any reliance upon or use of this report.

DO NOT PHOTOCOPY



SAMPLE INFORMATION

Job Number : EV193027
Customer : PT. EnviroSolutions & Consulting
Project Name : Seawater & Sediment Analysis
Customer Ref : 7987.r5/IUS-EV/II/2020

No.	Laboratory Sample I.D.	Customer Sample I.D.	Sample Matrix	Date Sampled	Time Sampled	Date Received	Sampled By	Coordinates	
1	EV193027-1	MWB 15	Seawater	26-Nov-19	09:45	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 01' 34.948"	E : 131° 12' 31.603"
2	EV193027-2	MWB 11	Seawater	26-Nov-19	10:04	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 01' 02.130"	E : 131° 14' 32.307"
3	EV193027-3	MWB 10	Seawater	26-Nov-19	10:34	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 00' 45.922"	E : 131° 14' 55.210"
4	EV193027-4	MWB 13	Seawater	26-Nov-19	11:07	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 01' 53.925"	E : 131° 15' 58.731"
5	EV193027-5	MWB 12	Seawater	26-Nov-19	11:40	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 00' 45.420"	E : 131° 16' 26.638"
6	EV193027-6	MWB 15	Sediment	26-Nov-19	09:45	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 01' 34.948"	E : 131° 12' 31.603"
7	EV193027-7	MWB 11	Sediment	26-Nov-19	10:04	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 01' 02.130"	E : 131° 14' 32.307"
8	EV193027-8	MWB 10	Sediment	26-Nov-19	10:34	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 00' 45.922"	E : 131° 14' 55.210"
9	EV193027-9	MWB 13	Sediment	26-Nov-19	11:07	28-Nov-19	Fahru Roji, Husni, Hilman	S : 08° 01' 53.925"	E : 131° 15' 58.731"

Notes:

- NA = Not Analysed
ND = Not Detected
IS = Insufficient Sample
** = Non Accredited Test
*** = Subcontracted Test
1) = Field Measurement
2) = Field Measurement by Customer
3) = Total Pesticides defined as 30 OCP compounds (list available upon request)
4) = Total PAHs defined as 16 PAH compounds (list available upon request)
5) = Total PCBs defined as 20 PCB congeners (list available upon request)
SNR = Sample Not Received